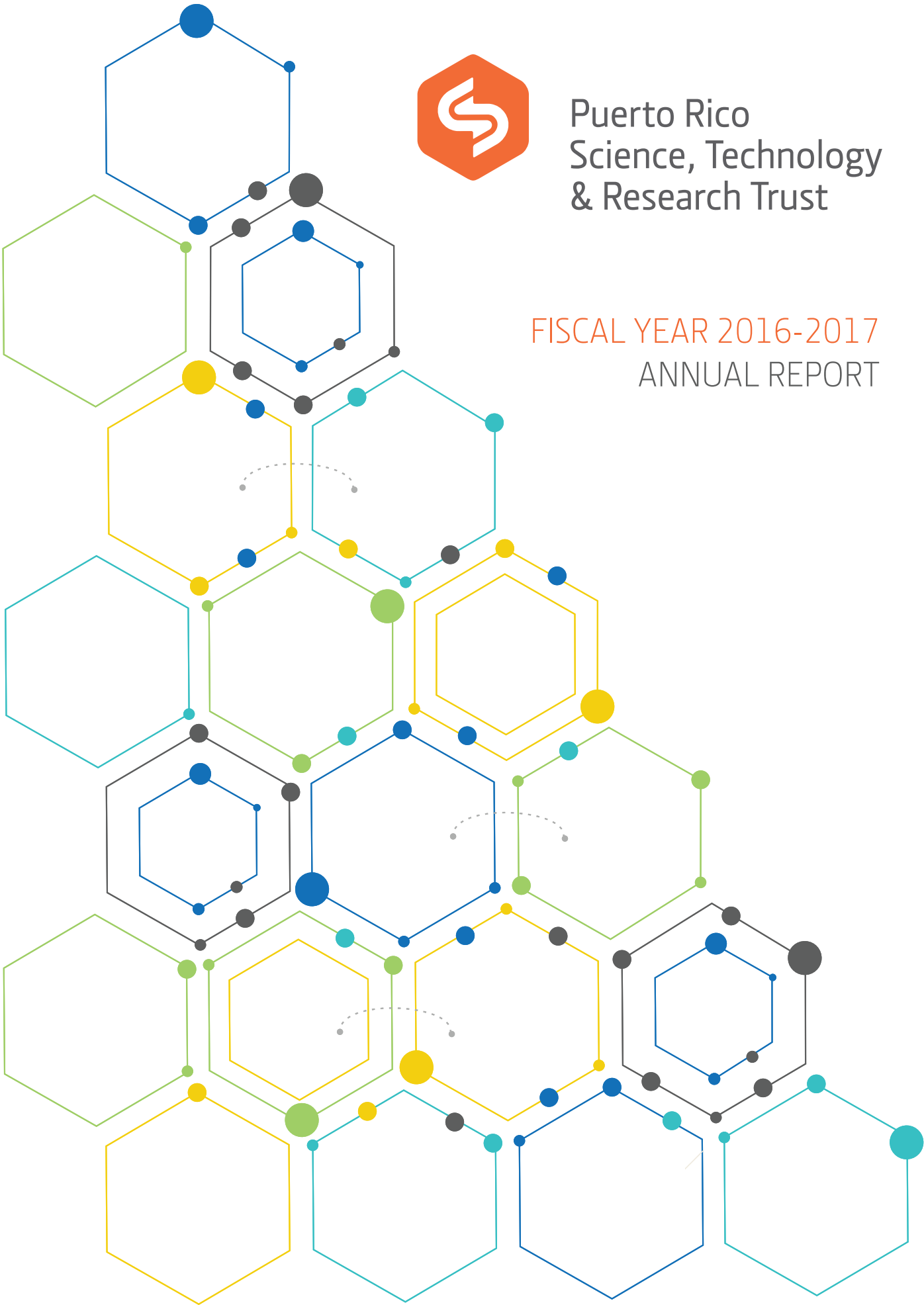




Puerto Rico  
Science, Technology  
& Research Trust

FISCAL YEAR 2016-2017  
ANNUAL REPORT





# Puerto Rico is a global innovation hub

We invest, facilitate  
and build capacity to  
continually advance  
Puerto Rico's economy  
and its citizens'  
well-being through  
innovation-driven  
enterprises, science  
and technology and its  
industrial base.





Puerto Rico  
Science, Technology  
& Research Trust

ANNUAL REPORT  
FISCAL YEAR 2016-2017



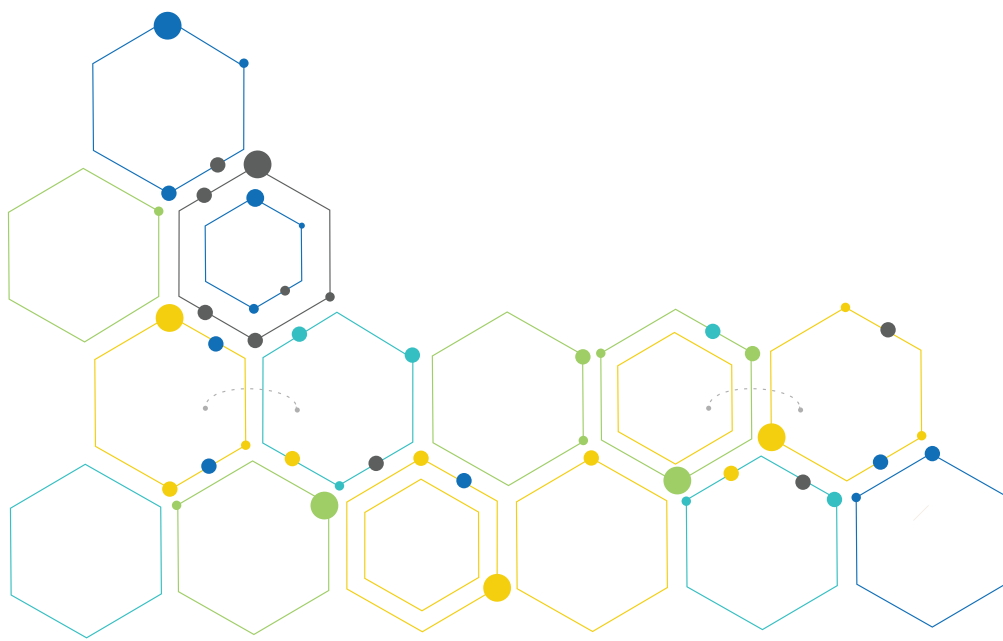
Puerto Rico  
Science, Technology  
& Research Trust



# ANNUAL REPORT FISCAL YEAR 2016-2017

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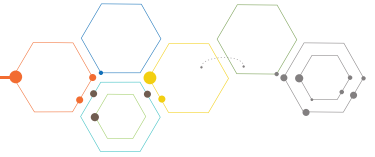
# LETTER TO OUR STAKEHOLDERS



"We need to redesign our energy and water management infrastructures, renovate our housing strategies, renew our food value chain, and rethink our healthcare system."

**Lucy Crespo**

CEO Puerto Rico Science, Technology And Research Trust.



Today we are very proud to share with you how the Puerto Rico Science Technology and Research Trust (PRSTRT) is advancing our strategic plan to position Puerto Rico as a recognized global innovation hub that develops, attracts, and retains scientists, technology entrepreneurs, and enterprises to unlock world class creativity and competitiveness. The narrative that you will enjoy in the next pages reflects the enormous passion and commitment that our Boards, our team, and our partners have to enable this vision for Puerto Rico. You will also be able to appreciate how the entrepreneurial, as well as the scientific and technology ecosystems are working together as one community to advance our common agenda.

The results in this report demonstrated the pride, focus, energy, skills, dedication and passion that the PRSTRT's leadership team and employees demonstrated every day.

The Puerto Rico Consortium for Clinical Research (PRCCI) now a 501(C)3, celebrated its first year of operation with 22 research sites across the Island, covering about 25 therapeutic areas with more than 65 investigators. Over 250 studies opportunities were received, and 15 contracts were signed and clinical trials are in process or completed. These studies opportunities included 7 from the 10 largest CRO in the business, and also 7 from 10 largest pharmaceutical companies. Strategic Alliances are in place with Yale Center for Clinical Research (YCCI), Phamaseek, Clinical Research Group, and with PAREXEL the 4th largest CRO in the world. One of the most significant contributions of PRCCI for this year was the training of over 400 Clinical Trial professionals by YCCI and Transcelerate members (such as Merck, Pfizer and Abbie). PRCCI hosted the first patient symposium with more than 20 patient groups represented. PRCCI was invited to explore potential collaboration and or expansion in three (3) LATAM Countries (Mexico, Colombia and Costa Rica).

For Parallel18 generation 3 and 4 we selected sixty six (66) companies from the nine hundred and sixty four (964) applications received from over fifty (50) countries. For the first two years of the program one hundred and thirty one (131) companies participated from one thousand eight hundred and seventy two (1872) applications from over seventy (70) countries. The founders of thirty three (33) of the companies are from Puerto Rico and ninety eight (98) were from outside of Puerto Rico. Parallel 18 main focus is to foster and drive economic development. We are very proud to report that for the first three generations the total income generated by the participating companies while in Parallel18 and after just reached over seventeen millions (\$17M) and out of that amount over eight millions (\$8M) were generated in Puerto Rico. Over two hundred and thirty seven (237) full and part time jobs were created among the first three generations. The other Parallel18 initiative to promote economic development is the P18 Venture Fund. For companies that after the program: (1) maintain their operations in Puerto Rico, (2) commit to certain full time employment level, (3) received external investment, P18 Venture Fund provide matching fund to retain alumni in Puerto Rico. So far nine (9) companies received the matching funding for a total of six hundred seventy five thousand dollars (\$675,000). The external funding to match that investment is three million four hundred and sixty thousand dollars (\$3,460,000). The Give Back Program for the first generations impacted over five thousands 5000 students with over two hundred and eighty one (281) presentations and over eight hundred forty five hours (845).

In less than a year Colmena 66 – Tu Conexión Empresarial has become an essential tool in our entrepreneurs' toolbox. Colmena 66 is a network that provides easy access to all the resources available for entrepreneurs, and small businesses to growth. We also identified ecosystem support gaps and work with the different partners to fulfill or overcome

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# LETTER TO OUR STAKEHOLDERS







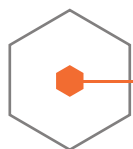
these gaps. Over two hundred (200) organizations are partners in Colmena 66; we fulfilled over eleven thousand (11K) information requests, and for the year managed over three hundred (300) events in the shared calendar. The regional Colmena 66 meet-ups events were one of the most important deployment activities completed this year. In its first year of operation, Colmena 66 key performance indicators are among the top third in the United States Sourcelink affiliates. Colmena 66 is a transformational initiative that is creating knowledge and capabilities for our entrepreneurship ecosystem, is transforming lives of our entrepreneurs, and creating commercial opportunities to advance Puerto Rico economic development.

Two years ago, my first official event at the Trust was to present the first PRSTRT Research Grant Program awards. I presented those awards to a distinguished group of researchers which projects have the potential of creating knowledge, transforming lives, and or to create commercialization opportunities to advance Puerto Rico economic development. On July 2017 we shared with all our communities the impact report of the first two year of the PRSTRT Research Grant Program awards. Around six million dollars (\$6M) were distributed among fifty one (51) grantees. For those two years we received and processed over 462 applications in our grant lifecycle platform Wizehive. Twenty four direct jobs (24) were created as results of the grants, and we impacted one hundred and twenty seven (127) students. Our awardees delivered around 93 worldwide abstracts and presentations. Seven (7) patents were submitted, six (6) companies were created out of our universities, and over five (\$5M) million dollars were received from externals grants based on our funded research. One of the most significant accomplishment is that twenty four (24) SBIR and STTR proposals that were submitted under the Trust SBIR/STTR program resulted in nine (9) approved proposals. This amount is higher than all the SBIR and STTR approved for PR in the last decade. One of the most significant accomplishments with the Research programs is that we established a global network of over three hundred (300) proposal reviewers with diverse matter expertise.

The Puerto Rico Vector Control Unit was established this year thru a cooperative agreement with the Centers for Disease Control (CDC). PRVCU is responsible of implementing an integrated vector management program including vector surveillance, vector control, and community mobilization and activation. The vector surveillance laboratory was set up in the Puerto Rico Environmental Laboratory, a shared space with the Puerto Rico Environmental Quality Board. To enable a more efficient program and better data based decision making process the ArcGIS ESRI suite was deployed in the Microsoft Azure Cloud. Our technology platform was completed by implementing the PSI Pathway Suite of Products for Quality and Documentation Management and Salesforce CRM and Desk for stakeholders and call center management. Key PRVCU positions were recruited and trained. Meetings were held with the leadership, and technical council and with ample participation of the community council. Basic programs for community mobilization, risk management and communication, education and training, partnership and advocacy were defined, and are in the process of being implemented. As we write this report we are joining forces with key educational influencers and organizations to develop and deploy key integrated vector management outreach and educational program, such as: Para La Naturaleza, Ada Monzón and her Ecoexploratorio; María Falcón's Geoambiente TV production, Escuela Virtual and Casa Grande.

In the next pages of this annual report you will find the status of each one of the programs that are part of the PRSTRT strategic plan as well as which are the key actions for the next year.

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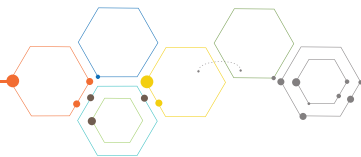


## Comments about Hurricane Maria

As we were completing this annual report Puerto Rico suffered the devastating impact of Hurricane Maria, one-of-a-kind hurricane impacting the lives of every person in Puerto Rico. I did not want to close my letter to the stakeholders without including some of the immediate efforts and activities that the Puerto Rico Science, Technology and Research Trust engaged to spearhead the recovery of Puerto Rico after the relief efforts. After having returned to operations by October 2, 2017, thanks to our electric generator, we focused our energy on the following key initiatives:

- **Levanta tu Negocio Puerto Rico** – In a joint effort of the entrepreneurial ecosystem members, we enabled our ESRI platform to deploy a program among the small businesses in Puerto Rico to assess the impact of hurricane Maria on them, and their needs. We channel the collected information (needs) among several partners that were distributing cash grants, electrical generators, and other support articles.
- **Shop and Hire** – The deployment and customization of the module within the Colmena 66 suite allow small businesses to present and sale their products and services in a website. We started with more than 150 local suppliers and professional services providers. This is a great way to start generating economic development activities to our small business and entrepreneurs.
- **Co-working Space at the trust**- In a first-come-first-serve model, the Trust offered free of charge at the Innovation Center about 120 spaces in rooms serving as co-working space for many professionals in Puerto Rico that need electricity, internet and a place to work.
- **Aplicale la ley seca al mosquito** was the Puerto Rico Vector Control Unit (PRVCU) media campaign launched after Maria. Informing our communities on how to: (1) protect themselves, and their families from the Aedes Aegypti bites, (2) manage water accumulation, and (3) reduce breeding sites. Our PRVCU teams visit inspected, distributed repellent, and applied mosquitoes' larvacides to many homes in about 38 municipalities in Puerto Rico.
- With the Caribbean Division of the American Association for the Advancement of Science (AAAS), the Puerto Rico Science, Technology and Research Trust (PRSTRT) and Ciencia Puerto Rico formed a partnership to offer an assistance program to support researchers, professors, science teachers and students following the emergency of Hurricanes Irma and Maria.
- **PRSTRT distributed Water Filter to the communities of Utuado**, and sponsored a water sanitation 'hands-on' workshop, focused on water treatment and testing techniques that can be easily and immediately implemented by communities affected by the hurricane. The workshop trained participants in the creation and use of water disinfection devices that can be made with locally available materials, as well as appropriate water quality testing techniques. Some of these methods include solar water disinfection, bio-sand filters, alcohol stoves for boiling water and E-coli testing. The training also addressed sanitation solutions and other hygiene practices essential during this emergency.
- **In alliance with BEI Networks**, we delivered modern hotspots access points to University of Puerto Rico campuses, capable of deploying a new Wi-Fi infrastructure that uses Mesh Networking Technology to maximize usage by campuses and local communities.
- **We signed a Memorandum of Understanding (MOU)** with the Puerto Rico Rises Connecticut, a group of volunteers recognized by the Puerto Rico Federal Affairs Administration, with offices in New Haven, CT. This team at Yale was the first medical group to send medicines and supplies directly to the island, bringing 15,000 pounds of medications and supplies directly to the Pediatric University Hospital within one week after Hurricane Maria.
- We put in place a MOU with PR Rises Connecticut Chapter, run by Puerto Rican doctors from Yale University to support them with identifying hospitals and clinics in need of medicines and medical supplies. Such effort help over 50 organizations to receive much needed supplies.





- We partnered with Connect Relief and the Department of Health on an ongoing project that is gathering data from all medical brigades and communities’ health necessities, to better assess the impact of Maria on the Puerto Rico health system, better coordinate much needed help still needed, data that will be use in the future planning of the health infrastructure and its response to future catastrophe’s.

There is a common phrase that highlighted that in every crisis there is an opportunity. The Trustees, management and employees from the Trust demonstrated with every action taken after hurricane Maria that there is always an opportunity to help, to listen, to care, to support, and to inspire others to move forward. After hurricane Maria we internalized that we have to rebuild Puerto Rico with resilience and sustainability in mind. We need to redesign our energy and water management infrastructures, renovate our housing strategies, renew our food value chain, and rethink our healthcare system. To achieve these goals we have to be more creative, innovative, thoughtful and committed, and also strive to achieve the vision for Puerto Rico to be recognized as a global innovation hub that develops, attracts, and retains scientists, technology entrepreneurs, and enterprises to unlock world class creativity and competitiveness.

**Lucy Crespo**  
CEO Puerto Rico Science, Technology And Research Trust.



# ABOUT THE TRUST



## Mission

We invest, facilitate and build capacity to continually advance Puerto Rico's economy and its citizens' well-being through innovation-driven enterprises, science and technology and its industrial base.

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## Vision

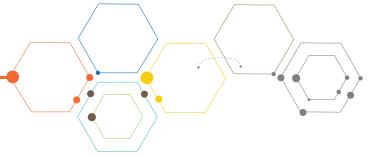
By 2022, Puerto Rico is a globally recognized innovation hub that develops, attracts, and retains scientists, technology entrepreneurs, and enterprises to unlock world class creativity and competitiveness.



# OUR TRUSTEES



Growing through Innovation  
and Commercialization



Our Council of Trustees is composed of distinguished professionals who support and oversee our work and provide guidance to ensure that the Trust is managed to accomplish its mission and vision.



### Esteban Santos

Mr. Santos is the Senior Vice President of Manufacturing Operations at Amgen Inc., where he is responsible for Amgen's global commercial manufacturing operations. As a Puerto Rican who ranks among the top 16 executives at Amgen's worldwide, Santos offers extensive experience and access to networks that are instrumental for the Trust. He has also been part of several initiatives geared toward improving biotechnology education on the island. Santos holds an Electrical Engineering BSEE from the UPR-Mayagüez and an MS in Management from the Rensselaer Polytechnic Institute in New York.



### Daniel Colón Ramos

Dr. Colón Ramos is an Associate Professor of Cellular Neuroscience at Yale University and co-founder of Ciencia Puerto Rico. His lab at Yale studies the development and function of the nervous system, and his work has been recognized by a number of awards, including the Sloan Fellowship for "outstanding promise", an award given to recognize the best researchers of the United States and Canada. Ciencia Puerto Rico is a non-profit organization that promotes scientific research and education in the Puerto Rican archipelago.



### Gualberto Medina

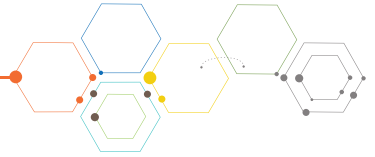
Mr. Medina, a licensed attorney, CPA, and real estate broker, was New Jersey's former Secretary of Commerce. He also served as the co-founder, president, or general counsel for many technology and biotechnology startups. Because of his successful career in government and business sectors, Mr. Medina was named one of Hispanic Business Magazine's 100 Most Influential Hispanics. He has ample experience serving as a Trustee for the Trust.



# OUR TRUSTEES (Continued)







### Salvador Moncada

From 1975 to 1995, Professor Moncada worked at the Wellcome Research Laboratories, first as Head of Prostaglandin Research and then as Director of Research. He described the structure of prostacyclin, which acts as an effective vasodilator and also prevents blood platelets from clumping. In 1980 came the discovery by Robert Furchgott of 'endothelium-derived relaxing factor' (EDRF) which causes smooth muscle in the vessel walls to relax. Moncada and his team showed that EDRF was, in fact, Nitric oxide, which has since become appreciated as a neurotransmitter, a modulator of inflammation and a sensor of cellular distress as well as a regulator of vessel tone. Nitric oxide is both the target and effector of a range of compounds now being used for the treatment of cardiovascular and rheumatic diseases. Professor Moncada was appointed Director of the Wolfson Institute for Biomedical Research at University College in 1995. He has won numerous awards from the international scientific community including a Dart/NYU Biotechnology Achievement Award, the Prince of Asturias Scientific and Technological Research Award and the Dr AH Heineken Prize for Medicine from the Royal Netherlands Academy of Arts and Science.



### Alfredo Casta

Founder and Chairman of Cascades Technologies, Inc. (CTi), Alfredo Casta led the organization to become one of Inc. 5000 magazine's fastest growing companies for eight years. Mr. Casta combined his technical expertise, solid management skills and an unrelenting mission focus to accomplish results in the service of the American public. Under the tenants of Think – Build – Measure, CTi delivers IT Governance services, Technical Solutions, Data Management, Agile Development, and IT Organization Analysis including Cyber Security expertise to key cabinet agencies such as NIH, CDC, Labor, GSA, US Army, DHS, Justice, and Financial Regulatory Agencies.



### Manuel Laboy

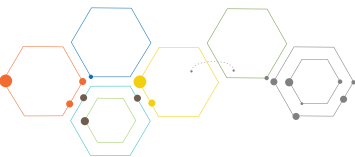
Department of Economic Development and Commerce of Puerto Rico (DDEC) and Puerto Rico Industrial Development Company (PRIDCO).



# RESEARCH GRANTS P R O G R A M



The Research Grants Program provides a structured, systematic, and competitive mechanism to fund fundamental research and commercialization activities that builds the knowledge economy, fuels innovation and empowers Puerto Rican scientists and entrepreneurs.



Mission and Vision

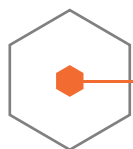
Research Grants Program mission is to provide proof-of-concept funding and incentives to advance locally developed R&D projects to become more competitive for federal and private funding and/or commercialization. The Program aims to increase the innovation capacity of Puerto Rico by providing research support at all the different stages of the Innovation Pipeline across all of the Trust’s strategic pillars—Infrastructure, Commercialization & Entrepreneurship, R&D and Human Capital (Figures 1A, B).

A.



B.

RESEARCH GRANTS PROGRAM	Academia, Non-profit			
	SRGP	RSFP	For profit	
			RFP	SBIR/STTR Matching Funds
Basic Research	✓	✓	✓	✓
Applied Research	✓	✓	✓	✓
Product Development	✓	✓	✓	✓



## Achievements

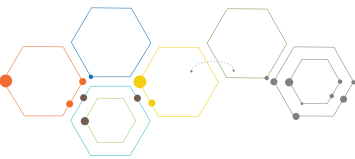
In less than 3 years since its inception, the Research Grants Program initiatives have achieved several significant milestones, including the empowerment of the community of scientists and entrepreneurs conducting research and development activities. In addition to providing funds for research and facilitating training activities, the Research Grants Program has been instrumental in bringing together coherent and engaged communities of researchers, entrepreneurs, investors and industrialists, creating a more robust interdisciplinary community in science and technology.

The **Science and Technology Request for Proposals (RFP) Program** has awarded a total of 26 grants of \$150,000 in two competitive cycles held in 2015 and 2016. This funding has been instrumental in the acceleration of R&D projects and the general science and technology ecosystem. Thusfar, these grants have created 23 direct jobs and have impacted 63 undergraduate and graduate student who work directly on these projects. In addition, the contribution and impact of these projects have been highlighted in 12 publications in refereed and in 54 presentations in local and international scientific forums. From the commercialization standpoint, it is important to highlight that 5 companies have been founded by academics, 6 patents submitted, and one of the supported startups has already launched a product to market.

The **Small Research Grant Program (SRGP) program** has awarded a total of 18 grants of \$70,000 each, aimed at helping local researchers increase their probabilities of success in securing federal funding for their research and development activities. The SRGP enhances the competitiveness of Puerto Rico's researchers by providing critical bridge funding to help them accomplish the following: (1) obtain reproducible and robust preliminary results, (2) address any recommendations from previous grant reviewers to improve the R&D project to strengthen its position to obtain the grant and (3) secure reagents, laboratory materials, collaborations or additional technical training necessary for the proposed goals. Thusfar, the SRGP grants have impacted 64 undergraduate and graduate students, been highlighted in 7 peer-reviewed publications (see appendix 4, for a complete list of publications) and 34 abstracts and presentations at local and national scientific meetings, and importantly has helped scientists attract more than \$1,000,000 in external funding.

The **Researchers Startup Funds Program (RSFP)** was created to provide matching funds for institutional recruitment packages to enhance the ability of Puerto Rican universities to attract and recruit outstanding scientists that are well established in their field of research and are interested in working in Puerto Rico. Two high-caliber faculty in the areas of neurobiology and cancer were recruited 2015 to the Ponce Research Institute, which is part of Ponce Health Sciences University (PHSU). The two faculty members have resulted in the creation of 3 direct jobs, 4 scientific publications, impact on 9 students who work on these projects, and have contributed to attracting \$1.8M in additional external funding to Puerto Rico.

The **SBIR/STTR Matching Fund Program for Phase I** provides matching grants from the Trust of up to \$100,000 to incentivize local technology-oriented small business firms and researchers to compete for federal SBIR/STTR Phase I awards. The benefits of this program for technology ventures include: (1) Provides attractive financial incentives to apply for Federal SBIR/STTR Phase I grants; (2) Enhances the competitiveness of proposal submitted for approval by Federal agencies because of matching funds; (3) Closes the funding gap between Phase I and Phase II contract awards; and (4) Provides additional capital to accelerate R&D and/or commercialization efforts.



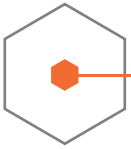
There is now an unprecedented number of five active SBIR/STTR projects in Puerto Rico, bringing the total number of SBIR/STTR grants in Puerto Rico increased to 31, representing an increase of 25% and over \$1 million in additional federal funding since the inception of the SBIR/STTR Matching Fund Program.

### Impact Metrics

Since its inception, the Research Grants Program has awarded more than 50 research grants through its competitive and non-competitive initiatives for a total investment of \$ 6.6 million (Figure 3). The Research Grants Program’s overall support is well balanced between basic science and commercialization projects.





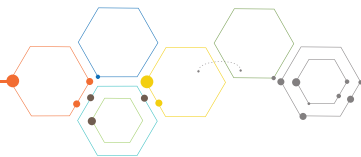


## Future Plans

Local researchers and academic leadership consider the initiatives of the Research Grants Program to be critical for the progress of science on the Island. Although it is too early to assess the impact on the Puerto Rico's research ecosystem over the long-term, the grantees in the short-term have already obtained very positive results and in many cases are transforming their projects thanks to the support received from the Trust. Since the granting of these funds, most of the projects have accelerated considerably and have benefitted from greater exposure and interactions with other programs and collaborators of the Trust. The priority for the future remains continued expansion and investment in targeted, highly focussed areas with the understanding that the outputs of a robust scientific community engaged in competitive research and development are critical to the creation of meaningful jobs and economic growth in Puerto Rico.







## Scientific Investigators Tax Incentives Act (Law 101) – Taxable Year 2016

Public Law 101 was approved in 2008 and is known as the Ley de Incentivo Contributivo a Investigadores Científicos (or the Scientific Investigators Incentives Act). Law 101 is a unique tax incentive to foster research and development (R&D) activity conducted at local universities in Puerto Rico, allowing qualified researchers to seek tax exemptions for salaries earned from eligible R&D research grants. Through these incentives, the main objective of this law is to attract and retain distinguished researchers to spur local research activity as one of the means to improve the Island’s position in the knowledge economy.

The following is a summary of the impact of Law 101 for taxable year 2016:

47

Number of applications processed and approved:

University of Puerto Rico (UPR)

- Cayey: 1
- UPR Rio Piedras: 13
- UPR MSC: 28
- Ponce Health Science University: 4
- Universidad Central del Caribe: 1

33

Number of Researchers Benefited by the Program:

University of Puerto Rico (UPR)

- Cayey: 1
- UPR Rio Piedras: 10
- UPR MSC: 17
- Ponce Health Science University: 4
- Universidad Central del Caribe: 1

Total amount of Tax Exemptions Granted:

\$1.100 million

### Cost-to-Benefit Ratio of Law 101:

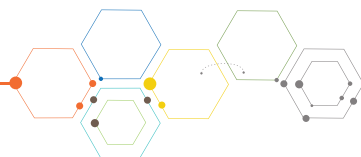
an estimated **41:1** benefit ratio, which means that for every **\$1 dollar** of program cost to Puerto Rico (at an implied tax rate of 29%) it represents an approximate **\$41 dollars** in benefit for research funding revenue brought to the Island.



# Unidad de Control de Vectores de Puerto Rico



The Puerto Rico Vector Control Unit (PRVCU) was established as of September 2016 as part of a cooperative agreement between the Centers for Disease Control and Prevention (CDC) and the Puerto Rico Science, Technology and Research Trust (PRSTRT). The PRVCU aims to leverage Puerto Rico's capacity to control the *Aedes aegypti* mosquito, the vector for the diseases zika, chikungunya, and dengue in Puerto Rico. The Unit focuses on strengthening the capacity for vector control in Puerto Rico as well as implementing vector surveillance, creating innovative information systems, carrying out vector control operations, and boosting community engagement through citizen mobilization and education programs.



## Mission and Vision

**Mission:** The PRVCU's mission is to protect the people of Puerto Rico from the *Aedes aegypti* mosquito, while educating and empowering everyone to reduce mosquito populations across Puerto Rico dramatically and sustainably.

**Vision:** Striving together for a Puerto Rico free from mosquito-borne disease.

## Achievements

During FY2016-17, PRVCU efforts were focused in four main areas:

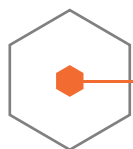
1. Recruiting key personnel.
2. Building up relationships with key stakeholders.
3. The outfitting of laboratory facilities and development of technical protocols, and
4. Development and implementation of community mobilization and education programs.

## Recruitment of personnel

Since its inception as of September 2016, the PRVCU has recruited top personnel in each of their fields. A total of 19 persons were recruited for the PRVCU as of June 2017. Some of our key personnel staff includes CDC's Entomologist Dr. Angela Harris, who has expertise in vector control efforts in the Caribbean and has been deployed to the PRVCU to lead the technical aspects of the program. Dr. Marianyoly Ortiz and Mr. Gilberto Márquez, former contractors of the Trust, were appointed as Associate Director and Finance Director of the Unit, respectively, to lead executive and administrative efforts within the program and serve as liaisons between the Trust and the PRVCU. Supporting technical activities are GIS specialist Mr. César Piovanetti, who has developed all the necessary platforms for data collection and management. The Community Mobilization component was initially led by contractor Mr. Grey Frandsen, an international expert in community planning and crisis management, who developed the framework for community mobilization and risk communication strategies which are currently been implemented. He also recruited and trained the community mobilization and education specialists who have been carrying out the program. Laboratory and field technicians with experience working in biology, entomology or related areas were also recruited and trained at the Florida Medical Entomology Laboratories for mosquito identification and trap management

## Building Relationships

One important accomplishment of the PRVCU was the establishment of a Leadership Advisory Board and a Technical Committee, both which include representation from the federal government, local government, and different organizations and companies. The first Advisory Board meeting took place as of May 2nd, 2017 and a meeting with the Technical Committee was held as of May 23rd, 2017. The PRVCU team presented the program's mission and vision as well as the status of the different PRVCU initiatives.



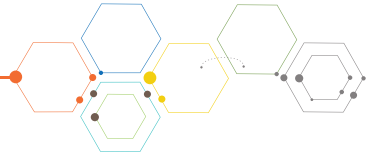
## Leadership Advisory Board

- **Dr. Rafael Rodríguez Mercado**, Secretary, Puerto Rico Department of Health
- **Carlos Flores Otero**, Secretary, Puerto Rico Department of Agriculture
- **Abner Gómez Cortés**, Executive Director, Puerto Rico Emergency Management Agency (PREMA)
- **Hon. Rolando Ortiz Velázquez**, President, Puerto Rico Mayors Association
- **Hon. Carlos Molina**, President, Puerto Rico Mayors Federation
- **Dr. Steve Waterman**, Branch Chief, CDC Dengue Branch
- **Dr. Francisco Montalvo**, Coordinator, Puerto Rico Private Sector Coalition
- **Dr. José Cordero**, Executive Director, Brain Trust for Tropical Diseases Research Program
- **Dr. Carlos Sariol Curbelo**, UPR Medical Sciences Campus
- **Lic. José R. Izquierdo II**, Executive Director, Puerto Rico Tourism Company

## Technical Committee

- **Lcda. Tania Vazquez**, President, Environmental Quality Board
- **Ing. Elí Díaz Atienza**, Executive President, Puerto Rico Aqueduct and Sewer Authority
- **Dr. Rosa Franqui Rivera**, Professor, UPR-Mayaguez Campus
- **Dr. Gladys Escalona de Motta**, Vice-president of Research, University of Puerto Rico
- **Dr. Víctor Ramos**, President, College of Physicians and Surgeons of Puerto Rico
- **Ing. Rodolfo Mangual**, President, College of Engineers and Land Surveyors of Puerto Rico
- **Dennis Sanchez**, President, Puerto Rico Pest Control Association
- **Ing. Geanette M. Siberón**, Environmental Committee, Puerto Rico Manufacturing Association
- **Wayne Gale**, President, American Mosquito Control Association (AMCA)
- **Lieutenant-Colonel José Ramirez**, Director of Military Support, Puerto Rico National Guard
- **Dr. Roberto Barrera**, Entomology and Ecology Activity Chief, CDC-Dengue Branch





A Community Stakeholders Symposium was offered on May 31st, 2017 with the participation of more than 60 attendees, including representative of approximately 50 municipalities. During the activity the PRVCU created the Community Council and invited the attendees to join as members. The Council now includes different stakeholders that knowledgeable of the communities in the Island and provided feedback on how to interact and engage with these.

PRVCU leadership has also conducted meetings with key stakeholders such as the PR Department of Health (PRDH, Secretary and Associate Secretary of Environmental Health), National Guard, Department of Labor, PR Aqueduct and Sewer Authority (PRASA), Environmental Quality Board (EQB), PR Government and others to introduce the Unit and discuss possible collaborations. The results from these meetings include:

- Signing of a MOU with PRDH to share arbovirus case data and collaborate in vector control activities;
- Share of technology platform with EQB to collaborate in the pick-up of tires,
- Signing of a MOU with PRASA to share data and collaborate in the reduction of breeding sites that are associated with PRASA, such as water meters as well as to include PRVCU educational material in the water bills.

## Laboratory Facilities and Technical Activities

### Laboratory Outfitting

The PRVCU laboratory, which is located at the Trust's Laboratory for Environmental Research, was outfitted to meet PRVCU needs. It is equipped with a mosquito identification area, an insectary to rear mosquitoes and a mosquito eggs storage room. A workshop station was built for management of mosquito traps and field equipment in the outside premises of the laboratory. In addition, an area for insecticide resistance testing will be completed by December 2017. Areas to grow into a Biosafety level III laboratory to detect arboviral presence in mosquito pools were also delimited and outfitted accordingly. These areas will be equipped and functional at the end of next fiscal year depending of the needs of the PRVCU.



### Technology Platforms

Agreements with ESRI and Microsoft were reached to obtain access to state of the art ArcGIS software and Cloud space. Using ArcGIS software, a fully working prototype of an electronic platform has been developed which goes through the entire process of data capture and reporting. The platform includes a Workforce management application that handles the deployment of mosquito traps, trap maintenance, and mosquito identification process in the laboratory. In addition, a mobile and web application containing surveys for the different field and lab operations was developed and incorporated in this system. The data collected from both teams is stored in a centralized database that can be linked to identify which information belong to each location.





The platform developed is also fed with data from more than 10 relevant data sources, ranging from planning and land use, to hydrologic features and infrastructure as well as demographic data from the 2010-2015 US Census Bureau. This information allows the PRVCU to consider several factors when selecting target areas and analyzing the results.

### Mosquito Surveillance

Over 300 mosquito ovitraps were deployed in more than five municipalities to determine the presence of the mosquito *A. aegypti* and to collect eggs to rear mosquitoes in the laboratory. In addition, a pilot test was ran to develop protocols and train laboratory personnel in the use of Autocidal Gravid Ovitrap (AGOs) for mosquito surveillance.

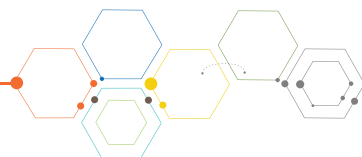


### Community Mobilization and Education

The PRVCU Community Mobilization Team has been active within the local community identifying community leaders, educating about the mosquito *Aedes aegypti* and encouraging people to take an active role in the reduction of mosquito breeding sites. Several meetings were organized with community leaders, churches, politicians, schools, police and others to introduce the PRVCU and inform them about the educational and surveillance activities to be conducted in their communities.







## “Páralos en Seco” Campaign

A creative concept was developed by the public relations agency Burston-Marsteller to increase people’s knowledge regarding measures which they can implement to control vectors in the domestic environment. The agency presented different alternatives for the campaign and focus groups were conducted to determine the most appropriate campaign model, which will be fully launched by early next year.

## Branding, Website and Social Media

An official PRVCU brand and logo were created by our graphic designer as well as a website which provides information about the PRVCU and educational material about the mosquito *Aedes aegypti*. The official website link is [www.prvectorcontrol.org](http://www.prvectorcontrol.org). Social media channels are on Facebook, Instagram and Twitter as PRVectorControl. The social media strategy was developed based on a review of multiple sites and it is composed of 3 campaigns: awareness, content, and take action.

## Timokids

The company TimoKids created an educational app for children to learn about the *Aedes aegypti* life cycle, learn to identify the different types of breeding sites and how to eliminate/reduce them, and how to protect themselves from bites. In addition, a book will be produced and launched during FY2017-18, including a pilot project to introduce the book in schools will be conducted in January 2018.

### Impact Metrics

Over **20**  
new jobs  
created.

**3**  
partnerships  
developed  
with TimoKids,  
Para la  
Naturaleza and  
EcoExploratorio.

**MOU**  
signed with  
Puerto Rico  
Department of  
Health.

**60**  
attendees  
and **50**  
municipalities  
impacted  
during our first  
Community  
Symposium.

**300**  
mosquito  
ovitraps  
deployed in local  
communities.

Over **15**  
meetings  
with state  
and municipal  
government,  
community  
leaders and the  
private sector.

### Future Plans

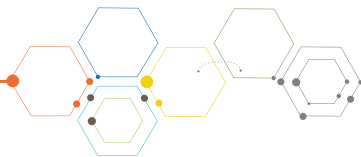
The PRVCU is currently establishing an adult mosquito surveillance network in Puerto Rico that includes San Juan, Ponce and Bayamón as well as other key locations around the Island. The data generated will guide mosquito control efforts throughout the Island to help determine the most appropriate strategies. PRVCU’s laboratory capacity is being expanded to include an area for insecticide resistance which will be completed by December 2017 to gather information and support local agencies in the selection of the most efficient pesticides for use in Puerto Rico. In addition, a partnership has been created with Para la Naturaleza to implement a citizen science program about the mosquito *Aedes aegypti* as part of their 2018 calendar of activities. Likewise, an exhibition in Oceánica, Plaza Las Americas is being developed for people of all ages “The science behind the mosquito” in an effort to stimulate general public to take action in vector control activities. A mobile educational unit is being designed to support educational activities around the Island and a curriculum for schools will be developed in partnership with the Department of Education to implement science lessons about the mosquito in at least three grades.



# Puerto Rico Consortium for Clinical Investigation



Established in April 2016, PRCCI is a not-for-profit cooperative of top academic and private research sites. We enhance clinical research speed and quality by driving performance and efficiencies across our sites, leveraging strategic partnerships, and establishing world-class capabilities. Our world-class research sites are our key assets, and they are investing in this not-for-profit initiative for sustainable and tangible benefits for their businesses and the greater Puerto Rican economy. PRCCI is unique. As a not-for-profit, we have the interest of the wider Puerto Rican population and our research sites at heart. By understanding the sponsor's needs, requirements and preferences along with a hands-on relationship with research sites, we will make for a successful initiative. PRCCI was developed by the Puerto Rico Science, Technology and Research Trust (PRSTRT), whose overall strategy is to transform Puerto Rico into a knowledge driven economy.



## Mission and Vision

To promote and enhance clinical research and development for the benefit of patients, the Puerto Rican economy and global scientific innovation.

**Vision:**

To improve the impact, quality, and speed of clinical research in Puerto Rico through:

- Building a collaborative network of investigators
- Establishing best practices for the conduct of clinical trials
- Educating sponsors and researchers

## Achievements

During FY2016-17 PRCCI established world-class partnerships with Yale University (on clinical research quality, training, and joint funding proposals) and PAREXEL one of the world’s leading contract research organizations (on bringing clinical trials to Puerto Rico and performance management). PRCCI showcased clinical research capabilities in 4 mainland-US and 5 island-based scientific conferences and coordinated multiple best practices workshops attended by approximately 300 physicians and nurses. PRCCI has also sponsored patient-centric educational activities, working with patient advocacy groups for breast cancer and psoriasis. PRCCI received unsolicited interest by three Latin America countries in collaborating and is actively pursuing these opportunities.





## Impact Metrics

The Puerto Rico Consortium for Clinical Investigation (PRCCI) successfully completed its first year of operations on June 30th, 2017. During this year the consortium:

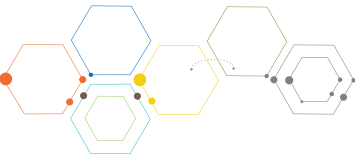
- Grew to **22** members/clinical research sites in Puerto Rico
- Has more than **60** onboarded physicians/investigators at three Universities, hospitals, family practices and specialized research centers across the island, covering more than twenty therapeutic areas
- Brought more than **220** clinical trial opportunities to the island
- Executed **13** clinical trial agreements on oncology, infectious diseases, pulmonology, cardiovascular, and dermatology

Combined, these trials could bring to Puerto Rico up to **\$4M** USD in revenues. PRCCI has also created 6 PR-based highly-skilled positions in addition to any jobs created within our members due to increased research activity.

## Future Plans

PRCCI continues to establish itself as a pillar of clinical research in Puerto Rico and proving its value to the islands economy and society, our sponsors, and the patient population. The plan includes strengthening and growing the Consortium membership by providing outstanding service to our existing members and adding new members. The societal benefits for researchers and patients alike will remain being realized by our training and education plan which include several events with partners such as patient advocacy groups, Yale University, and Transcelerate. We are also planning to embark on initiatives aiming to allow future growth and strengthening of clinical research in Puerto Rico. These initiatives include patient education and engagement, data integration among PRCCI members, and collaboration on best practices with latinamerican countries.

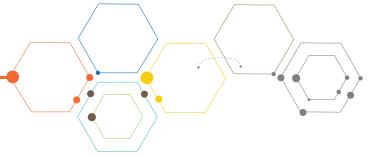






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## Description of the Program

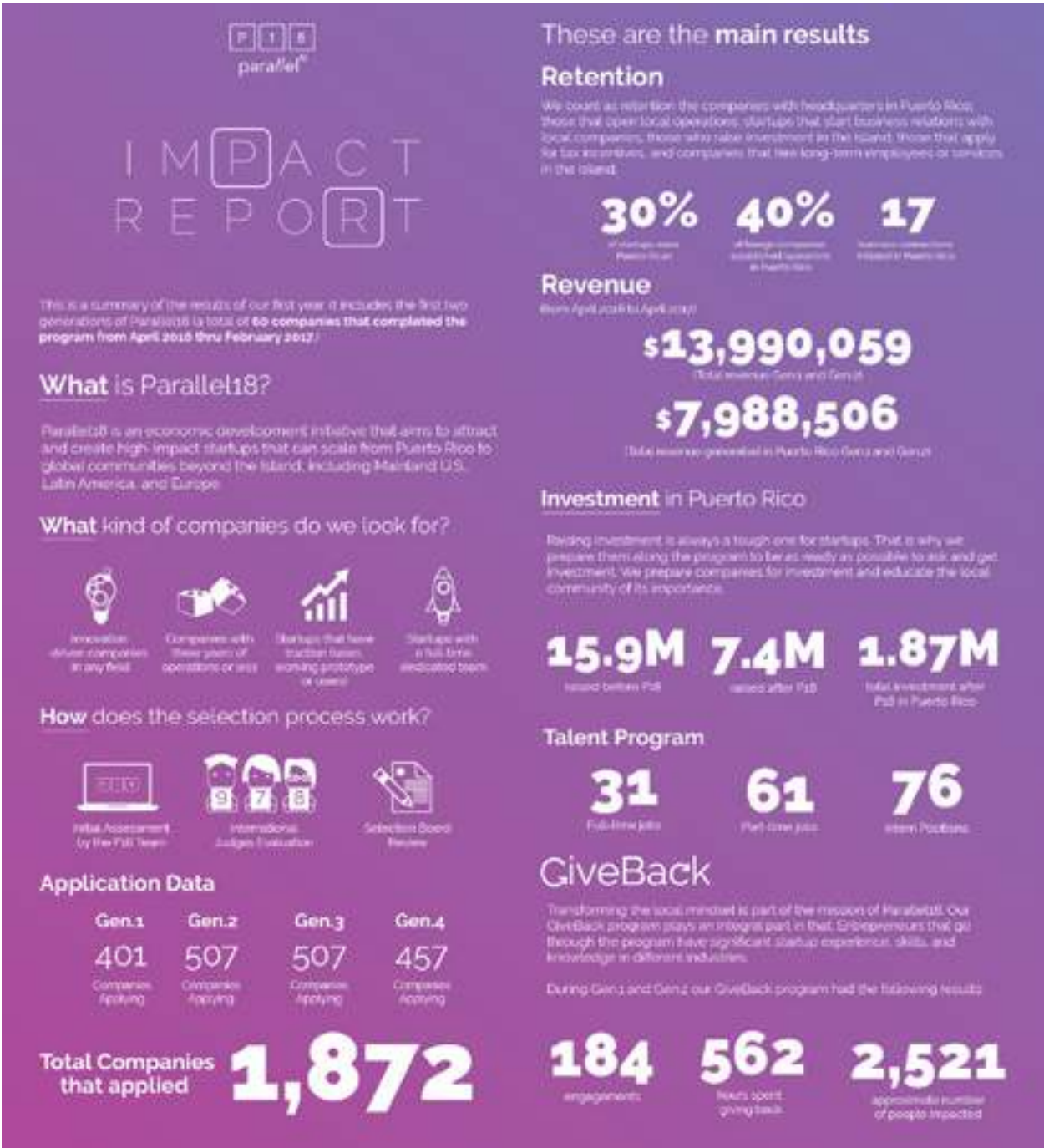
Parallel18 is an acceleration program for globally-focused startups that come from different parts of the world to scale their businesses from Puerto Rico. The program, which has a duration of five (5) months, offers world-class entrepreneurship mentorship, weekly workshops that provide business training on exporting and scaling internationally, a free coworking space in San Juan, and direct access to clients and talent, among other valuable perks. Participating companies receive a forty thousand dollar (\$40,000) grant – funded by the Puerto Rico Science, Technology and Research Trust, the Puerto Rico Industrial Development Company (PRIDCO), and the Department of Economic Development and Commerce of Puerto Rico (DDEC) -- to grow their businesses from Puerto Rico.

## Mission and Vision

Parallel18 welcomes innovators from around the globe to help them scale from Puerto Rico to global communities beyond the Island. Supporting successful startups is our motivation. This is why we build initiatives within the program that lead to growth and help foster and promote entrepreneurship in Puerto Rico. The goal of the program is to accelerate the local innovation ecosystem and to position Puerto Rico as a unique gateway for startups to scale globally.

## Impact Metrics

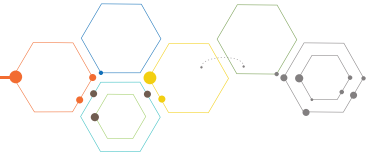
During last year for generations 3 and 4 of the program, nine hundred sixty four (964) applications from over fifty (50) countries were received, from which sixty six (66) companies were selected. During the first two (2) years and four (4) generations of entrepreneurs, one thousand eight hundred seventy one (1,871) companies from over seventy (70) countries have applied for the acceleration program, which represents a very competitive acceptance rate of only seven percent (7%). Among these, thirty three (33) have Puerto Rican founders and ninety eight (98) are foreign. This program structure pursues the mission of positioning Puerto Rico as an international hub for innovation and entrepreneurship. Specifically, the economic development of Puerto Rico is the driver and main goal of Parallel18, so we are proud to inform that for our initial three (3) generations of the program, the total revenues generated by our companies during and after their participation in the program are \$7.4 million, with revenues generated just from Puerto Rico totaling \$8.7 million. At the same time, two hundred and thirty seven (237) job positions were created by the companies in our initial three (3) generations, including full time, part time, and internships. Also, the program has continued executing an even more aggressive initiative to foster local economic development, P18 Ventures. This initiative comprises or investment fund that selects a maximum of three (3) startups from each generation focused on startups that have outstanding performance and accelerated growth during Parallel18; have established operations in Puerto Rico; and commit to generating local full time employment.



Funds are invested on a matching basis (“matching fund”) with respect to funding from private investors secured by the companies to a maximum of seventy five thousand dollars (\$75,000).

P18 Ventures seeks to retain startups graduated from Parallel18 that commit to develop their company in Puerto Rico, generating economic activity and employment as a consequence. Since its inception, P18 Ventures has invested in nine (9) startups graduated from Parallel18, representing a total of six hundred seventy five thousand dollars (\$675,000).





This amount matches a total of three million four hundred sixty thousand dollars \$3.5 million in the investment rounds for these companies, making the capital injection for P18 Ventures a coinvestment with angel investors based in Puerto Rico, local corporations, and investment funds from the United States, Latin America and Europe.

To foster the interest for innovating in Puerto Rico and to inspire more local entrepreneurs, Parallel18 has continued executing its Give Back Program, where as part of their obligations in the program, participating entrepreneurs offer workshops to students on technology and entrepreneurial development, and provide mentorship support to emerging entrepreneurs at events of the Puerto Rico startup community, as mechanisms of empowerment. During the first year and a half and for the initial three (3) generations, the program facilitated two hundred eighty one engagements (281) by entrepreneurs, with eight hundred forty five (845) contact hours and an impact in five thousand three hundred fifty five (5,355) participants.

## Achievements

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At present, Parallel18 has several success stories from local alumni startups that had achieved business deals with multinational companies and/or have had outstanding performance in international forums such as Burea, Gasolina Movil, Brands Of and Abartys Health, which as an example continues having exponential growth and has already scaled to Latin America and to seventeen (17) states in the United States from Puerto Rico. Additionally, companies not initially based in Puerto Rico such as Timokids (Brazil), Be Better Hotels (Argentina), and Cinemad (Argentina) have now established local operations with international reach, thanks to their positive experience in the program and the investment from P18 Ventures. The accomplishments by Parallel18 have received positive coverage from prestigious international media such as TechCrunch, Fast Company, Forbes, New York Times and NBC News, which validates the impact Parallel18 is having in positioning Puerto Rico as global innovation hub.

Currently, Parallel18 is supporting thirty three (33) startups that comprise the fourth generation of the program, out of which fourteen (14) are from Puerto Rico and the United States, and the remaining from Latin America, Europe, and India, all looking often Puerto Rico as a real platform to grow in both local and international markets.

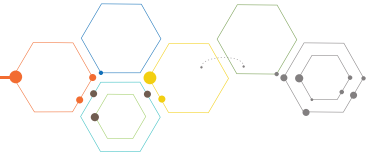
## Future Plans

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Parallel18 will continue building the Puerto Rico innovation ecosystem and connecting the dots for the entrepreneurial life cycle, from innovation programs at local universities to pre18 (a new program to enable Puerto Rican startups to validate their products and reach the market) to Parallel18 to sources of investment funding for startups. The program will pursue expanding its presence in the United States through its business development initiatives to continue providing meaningful commercial opportunities and export connections to our startups. We will also explore additional funding options to diversify sources of funding for the program. Finally, we plan to secure collaborations with global brands and top startup accelerator programs to continue positioning Parallel18 and Puerto Rico as a hub for global collaboration and innovation.

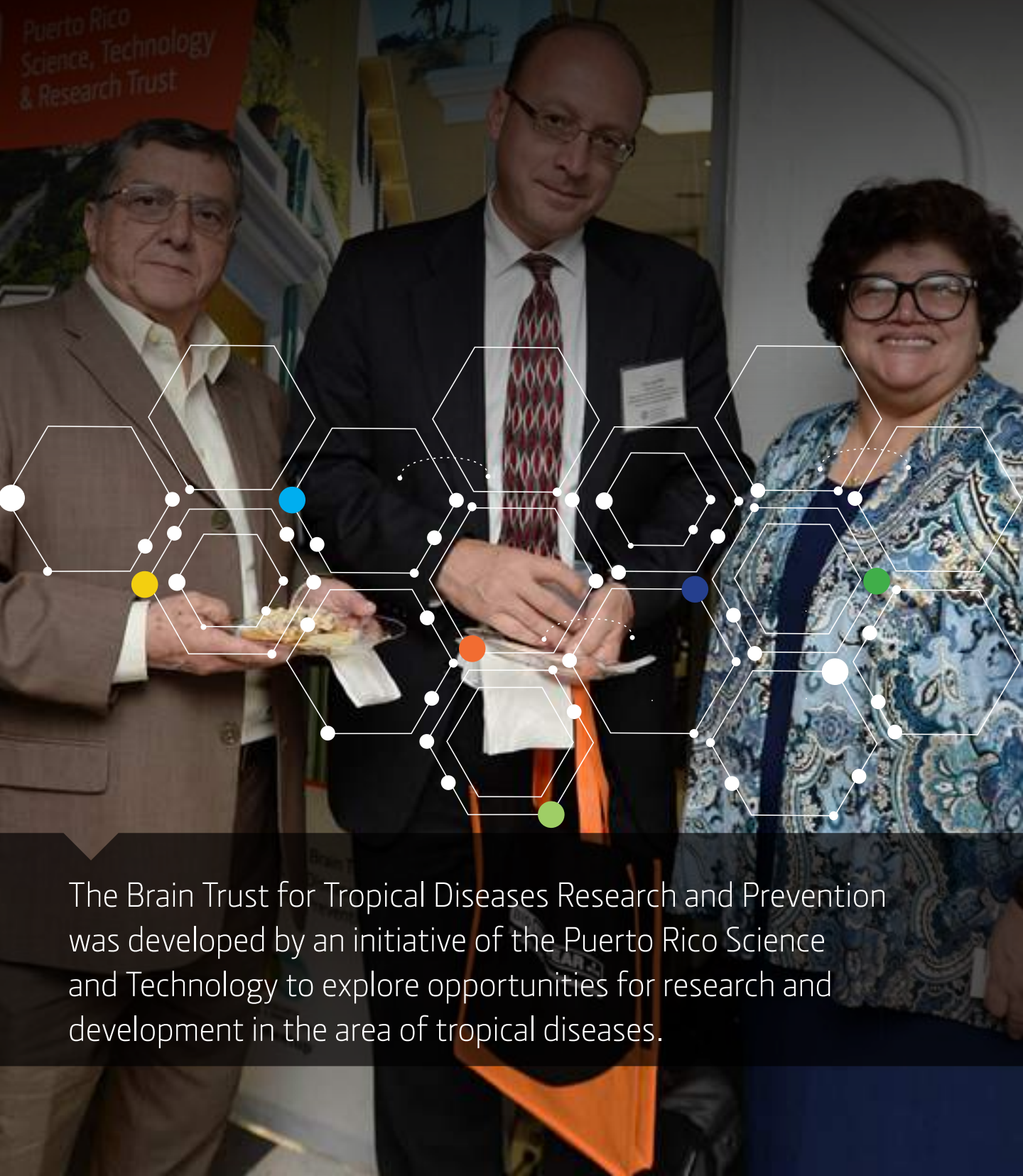




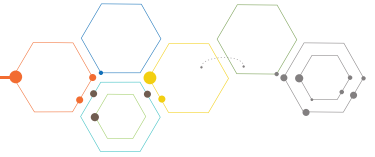




# Puerto Rico Brain Trust for Tropical Diseases Research & Prevention



The Brain Trust for Tropical Diseases Research and Prevention was developed by an initiative of the Puerto Rico Science and Technology to explore opportunities for research and development in the area of tropical diseases.



The Brain Trust for Tropical Diseases Research and Prevention was developed by an initiative of the Puerto Rico Science and Technology to explore opportunities for research and development in the area of tropical diseases. At the time of the Brain Trust creation in 2014, Puerto Rico was the only jurisdiction in the United States with endemic transmission of all four types of dengue fever and chikungunya and in early 2016, the introduction of Zika added urgency for research and development in tropical diseases including control of the vector for these diseases, all transmitted by the same mosquito, *Aedes aegypti*. In its initial plan, the Brain Trust identified three areas of priority: (1) development of rapid tests to identify tropical diseases circulating in Puerto Rico and the world's tropical belt, (2) develop integrated vector control in Puerto Rico with a platform to examine novel approaches for controlling and eventually eliminating vectors, and (3) developing a biorepository of samples required for development of diagnostics, drugs, and vaccines for tropical diseases. The initial expert meeting on diagnostic testing was held at the Trust in February 2016. As a result of that meeting, several initiatives were launched, including a local group that has developed a promising diagnostic test for Zika. This meeting, held on the initial weeks of the first ever Zika epidemic in Puerto Rico led to the second meeting focused on vector control held in May 2016. This meeting led to the development of a plan for integrated vector control and the development of the Puerto Rico Vector Control Unit at the Trust, funded by a CDC. The Zika epidemic made evident the need to expand the Puerto Rico infrastructure of laboratory testing for emerging tropical diseases and a meeting was held in (date) that brought together researchers, and leaders of clinical reference laboratories in Puerto Rico and from the Continental US to develop a plan for expanded laboratory testing and a workgroup was developed with CDC leadership to address this important issue. Finally, efforts are underway to hold a meeting on biorepositories, which has been postponed following the pass of hurricane Maria in Puerto Rico.

### The Roles of the Brain Trust are to:

- **conduct** timely scientific forums for advancement of tropical disease research and prevention in Puerto Rico,
- **connect** experts from multidisciplinary backgrounds to collaboratively advance science, promote preparedness, and improve patient care in the area of tropical diseases research and prevention,
- **strategize** and advise key decision makers in matters of science, technology and research related to tropical disease research and prevention, and
- **contribute** to the technological renaissance of Puerto Rico by promoting Puerto Rico as a hub for tropical disease research and prevention initiatives.

## Mission and Vision

The mission of the Puerto Rico Brain Trust for Tropical Disease Research and Prevention is to promote research and development in area of tropical diseases that will accelerate their prevention and control.

### Vision

The vision of the Brain Trust is a world free of tropical diseases.





## Achievements

## I. Development of a Rapid Point of Care Diagnostic Test for Zika, Dengue, Chikungunya, Influenza and Leptospirosis

The Brain Trust for Tropical Disease Research and Prevention began with the mission of development of an accurate diagnostic tool to distinguish between common febrile illnesses endemic to Puerto Rico to improve patient care. Though much progress has been made in this area, there is still great need for a rapid point of care test for use in outbreaks of febrile illness in areas endemic with dengue, Zika, chikungunya and leptospira. Dr. Ignacio Pino and his team from CDi Laboratories have recently published findings regarding their diagnostic device development to test for Zika virus (ZIKV) and dengue virus (DENV). These are closely related flaviviruses that cause widespread, acute febrile illnesses, notably microcephaly for fetuses of infected pregnant women. Detecting the viral cause of these illnesses is paramount to determine risks to patients, counsel pregnant women, and help fight outbreaks. A combined diagnostic algorithm for ZIKV and DENV requires Reverse transcription polymerase chain reaction (RT-PCR) and IgM antibody detection. Until now, differentiation based on IgM antibodies has been nearly impossible in endemic areas. Pino and his team have developed a ZIKV/DENV protein array and tested it with serum samples collected from ZIKV- and DENV-infected patients and healthy subjects in Puerto Rico. Their analyses reveal a biomarker panel that discriminates between ZIKV and DENV infections with high accuracy. Both sensitivity and specificity of the test for ZIKV from DENV are around 90%. The entire procedure can be fully automated, which has tremendous implications on the facilitation of large scale screens in hospitals and blood banks. **These biomarker panels have the potential to eventually be incorporated into a lateral flow device to facilitate multiplex, point-of-care diagnosis of ZIKV and DENV infections.**

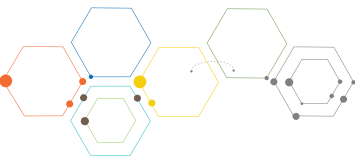
## II. Technical Meeting: The State of Clinical Reference Laboratories in Puerto Rico and Plans for the Improvement of Arboviral Disease Diagnosis

This meeting brought together scientists, test developers, reference laboratories that administer and develop tests in Puerto Rico, representatives of the American Public Health Lab Association and the Caribbean Lab Association, experts in building interdependent lab networks, companies related to this industry and representative from Biomedical Advanced Research and Development Authority (BARDA) who all have an interest in improving arbovirus diagnostics in Puerto Rico.

### Role of Technology in Transformation of Diagnostic Methods

New advances in diagnostics for arboviruses and febrile illnesses are constantly progressing, but there is still a critical need for more precise (sensitive and specific), easy to use, rapid and affordable tests for point of patient care diagnosis. Tests will need to differentiate between co-circulating viruses like Dengue, Zika, Yellow Fever, Chikungunya and Influenza. Technology is helping to improve characterization of genomic material. Rapid facilitation of effective and low cost tests are need to be administered on a widespread basis in areas experiencing endemic disease transmission, like Puerto Rico in





order to effectively treat and control febrile illnesses. Diagnostic testing can be performed using molecular, cellular and immunological techniques. New methods for identifying and measuring biomarkers for diseases and their relationship to clinical conditions have stimulated test development.

**Role of Diagnostic Labs in the Ever Changing Health Industry**

According to the American Public Health Lab Association, lab results are a critical component in approximately 70% of clinical decisions. Clinics and hospitals utilized diagnostic and reference testing to medically manage individuals. Public Health Labs use diagnostic and reference testing to do surveillance, monitoring and outbreak response in a population. Together these labs can form an interconnected network for rapid sharing of information to improve biosecurity, preparedness and decision making to counter public health threats like dengue, chikungunya, Zika, influenza, Leptospirosis and other febrile illnesses.

In addition, there are several routes for test developers to bring a test to market. One route is to develop a laboratory-developed test (LDT) and sell it as an in house performance of the test as a service. These “in-house” developed diagnostics are regulated by CLIA (Clinical Laboratory Improvement Amendments of 1988). This path presents an opportunity for local laboratories and enables early adoption of new technology in endemic areas that are urgently in need of better tests.

Participants discussed the importance of Puerto Rico’s participation in our regional Caribbean Lab Network and the components required to establish a national laboratory policy for Puerto Rico. This is summarized in Table 1.

Reference Lab Needs	Puerto Rico Needs	Next Steps
Mentoring and Training	Stronger association with academic and industry research partners	Analyze descriptive epidemiology data on prevalence and incidence of Arboviral and emerging infectious diseases
Cost-effective validation and standardization		
Protection of scientific contribution	Improved networking with PR DOH, CDC/HHS and other reference laboratories and the PR Science Trust	Collaboration with stakeholders to build immediate management response system for PR, including insurance industry partners
CDC Quality Assurance and quality control guidelines		
Appropriate insurance reimbursement	Increased involvement of CMS and insurance	Establish working group of clinical reference laboratories to put in place immediate management response system
		Access to patient samples and artificial RNA for diagnostic test development





**Puerto Rico’s Clinical Reference Laboratories Participation**

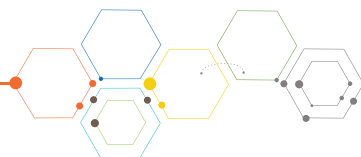
Nine Clinical Reference Laboratories in Puerto Rico participated by presenting about their lab testing capacity, experience in development of diagnostic tests for infectious disease, certification of their personnel and experience, capacity for developing diagnostic tools for Arboviral detection and their needs to build capacity for development of Arboviral diagnostic tests. The three main needs were identified to be: 1) Stronger association with academic and industry research efforts, an increased involvement with CMS and private insurance companies and improved networking with the Puerto Rico Department of Health, the Centers for Disease Control and Prevention, other reference laboratories and the Puerto Rico Science, Technology and Research Trust.

**Needs and Next Steps**

These next steps are intended to address the needs identified during this technical meeting by participating clinical reference labs and meeting participants. Table 2 summarizes needs and how they correspond to each other and to the proposed next steps.

Table 2: Needs and Next Steps

Reference Lab Needs	Puerto Rico Needs	Next Steps
Mentoring and Training	Stronger association with academic and industry research partners	Analyze descriptive epidemiology data on prevalence and incidence of Arboviral and emerging infectious diseases
Cost-effective validation and standardization		
Protection of scientific contribution	Improved networking with PR DOH, CDC/HHS and other reference laboratories and the PR Science Trust	Collaboration with stakeholders to build immediate management response system for PR, including insurance industry partners
CDC Quality Assurance and quality control guidelines		
Appropriate insurance reimbursement	Increased involvement of CMS and insurance	Establish working group of clinical reference laboratories to put in place immediate management response system
		Access to patient samples and artificial RNA for diagnostic test development



During the group discussion of the Arbovirus Disease Diagnostic Symposium consensus was reached that the most important next steps towards the achievement of a responsive and integrated Arboviral diagnostic infrastructure for Puerto Rico are as follows:

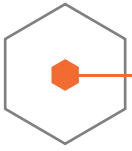
1. Gather and analyze basic descriptive epidemiological data on the prevalence and incidence of Arboviral disease along with increased data on etiology and epidemiology of emerging infectious agents in order to accurately communicate the magnitude of the problem for Puerto Rico and Caribbean Region to the U.S. Federal Government agencies and private foundations.
2. Facilitate clinical reference laboratories collaboration with the New York State Department of Health, Puerto Rico Department of Health, and the Centers for Disease Control and Prevention and the Puerto Rico Science, Technology and Research Trust to build an Immediate Management Response System for Puerto Rico and to insure a complete and consistent use of the testing algorithm by all labs participating in outbreak responses.
3. Create a working group comprised of clinical laboratories that will meet 1-2 times per month at the Puerto Rico Science, Technology and Research Trust with the goal of putting into place the Immediate Management Response Systems for Puerto Rico and the Caribbean for increased preparedness. This working group will be facilitated by the Brain Trust for Tropical Disease Research and Prevention.
4. Explore the access to patient samples and the alternative use of artificial RNA as an option in the initial implementation phases of diagnostic test development.
5. Include representative from the insurance industry in the proposed working group so that test development and test administration can be offered at a sensible price point to patients, but will also help cover the laboratories' expenses associated with test development and administration.

### III. Archipelago: The Puerto Rico Clean Water Initiative

The Brain Trust for Tropical Disease Research and Prevention (Brain Trust), since its inception has been dedicated to the vision of a world free from tropical diseases. Water-borne bacterial diseases like Leptospirosis has been a focus, especially because there are challenges in Puerto Rico to correctly diagnose this disease as it mimics other common mosquito transmitted febrile illnesses like dengue fever, chikungunya and Zika. Post Hurricane Maria, water quality issues in Puerto Rico have remained a concern, especially for people living in isolate remote mountainous communities. The release of large amounts of organic material as untreated sewage together with the large amounts of plant debris deposited as part of the storm and the current high temperatures has complicated the presence of opportunistic pathogens (i.e. *Leptospira*) and their impact on the population. It should be stated that currently many people are using these streams and rivers as a source of drinking water as well as bathing waters; thus, these populations are being exposed to a variety of microorganisms.



The Brain Trust has been partnering with the Puerto Ricans in Action, Puerto Rico Department of Public Health, Puerto Rico's Federally Qualified Community Health Centers, The Centers for Disease Control and Prevention, and H2O World Wide to deliver KOHLER Clarity water filters to homes in Utuado, Puerto Rico. **This pilot project has been the subject of a brief documentary video which can be viewed at <https://youtu.be/CfExjZEgiCo>.**



Though this project is still in its “pilot phase”, two proposals have been developed and submitted for funding to National Science Foundation and to Unidos Por Puerto Rico to expand this project to cover at least 2,000 additional homes and introduce UV LED Technology to enhance disinfection of water. General health and environmental screens are being conducted along with a survey regarding water sources pre and post Hurricane Maria. The location of homes receiving filters is being geo-coded and will be displayed on a map and an informational dashboard. In addition, water samples will be taken at strategic points based upon sources of consumption in the barrios and results on water quality will be overlaid on map.



#### IV. Establishing a Biorepository for Infectious and Emerging Diseases in Puerto Rico

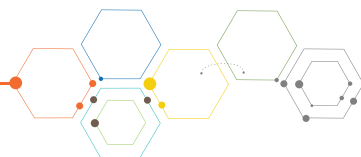
The Puerto Rico Science, Technology and Research Trust (PRSTRT) together with two of its units The Puerto Rico Consortium for Clinical Investigation (PRCCI) and the Brain Trust for Tropical Disease Research and Prevention (Brain Trust) propose to co-host a two-day meeting with sponsorship of interested federal agencies like NIH and other funders to gather technical (local, national and international) experts who hold a shared vision for the establishment of a collaborative, island-wide biobank for emerging tropical diseases. The proposed scientific meeting to discuss the establishment of an emerging tropical diseases biobank will promote biosecurity and preparedness for Puerto Rico, the U.S. and the world by determining the best model for an island wide biobank and the associated ground rules to address ethical, legal and social issues related to bio banking. The proposed meeting will facilitate discussions of how the Puerto Rico Biobank could promote local, national and international collaboration of academic and commercial research partners while simultaneously supporting indigenous capacity building.

##### There are three main aims/objectives for our proposed technical workshop.

1. Establish the need for an island-wide biobank infrastructure to address emerging and endemic tropical disease research in Puerto Rico that includes human biological samples, vector samples, and de-identified meta-data on both vectors and humans.
2. Facilitate collaboration among researchers by promoting the collecting, storing and sharing of samples of stored bio specimens of emerging tropical diseases, the associated meta-data, and related data on vector samples to enable the development of diagnostic tests, vaccines and therapeutics for existing and emerging tropical infectious diseases like Zika, dengue, and chikungunya, yellow fever and Mayaro, tropical parasitic diseases like leprosy and tuberculosis and bacterial diseases like leptospirosis.
3. Bring together local, national and international experts in the field of biorepository research to discuss best biobank model and ground rules for collecting, housing and sharing bio specimens and associated meta-data to meet researchers' needs with consideration for ethical, legal, and social issues.

#### V. Road Map for Aedes Aegypti Control and Elimination

The Aedes aegypti mosquito is the root cause of Dengue Fever, Chikungunya and now Zika transmission, which has brought a new level of urgency to eliminate this mosquito. On May 24, 2016 a workshop of 47 technical experts in mosquito control and public health was hosted by The Puerto Rico Trust for Science, Technology and Research. Experts focused on answering the question, “Can the Ae. aegypti mosquito be controlled or eliminated in Puerto Rico thereby eliminating the disease? If so, how?” Our conclusion was that it is possible to eliminate Ae. aegypti from Puerto Rico with a well-managed vector control program. While elimination is possible, we also concluded that the Ae. aegypti population could first be reduced below the threshold of disease transmission and, from that vantage point, the decision to fully eliminate this mosquito can be taken based on a cost-benefit analysis. Area wide elimination of Ae. aegypti has been done before and, in our opinion, it can be done again.



Our work included an assessment of the mosquito control methodologies available today, the current state of mosquito-borne disease in Puerto Rico and a review of historical elimination programs that have successfully eliminated disease-carrying mosquitoes.

The full report outlines: 1) the interventions that, when properly integrated, have a high probability of controlling or eliminating *Ae. aegypti*; 2) the near-, mid- and long-term introduction of each vector control tool; and 3) the infrastructure and leadership that must be in place to ensure effective execution of the project.

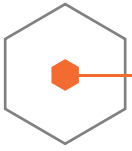
Following this meeting the Puerto Rico Vector Control Unit (PRVCU) was established at the Puerto Rico Science, Technology and Research Trust and is fully supported through a cooperative agreement mechanism from the Centers for Disease Control and Prevention. Since its inception, the PRVCU has made rapid progress in meeting the timelines set in the initial application to the CDC. More than forty new employees have been added in the past year of operations, a lab facility has been opened and is in initial stages of mosquito processing and rearing with plans to initiate chemical resistance testing on local *Aedes aegypti* mosquitos, field workers have collaborated with the CDC on mosquito trap positioning for surveillance, great efforts have been made on community outreach and mobilization and development of community-based educational strategies.

## Impact Metrics

- More than **50** international and local experts participated in our technical workshop held during 2016-2017. Three corporate sponsors financially supported this technical workshop creating a new model for the PR Science Technology and Research Trust to accept corporate sponsorship and support.
- Puerto Rico Reference Lab Working Group to begin to meet to establish a national laboratory policy for Puerto Rico to increase lab capacity and preparedness.
- Proposal to conduct a technical meeting on Establishing a Bio Bank for Infectious Diseases in Puerto Rico was submitted to the National Institutes for Health.
- Proposal submitted to UNICEF was submitted to develop a Community of Practice for Community Health Workers who deliver primary care to remote settings.
- Puerto Ricans in Action donated to the Brain Trust to create the Archipelago Clean Water for Puerto Rico Project.
- Proposal submitted to Unidos Por Puerto Rico to expand the Archipelago Clean Water for Puerto Rico Project.
- Proposal submitted to National Science Foundation titled, LED UV for Emergency Treatment of Drinking Water: Possible Long-Term Microbial Complications







## Testimonials of Impacted Participant

*"This collaboration/paper, <http://m.mcponline.org/content/early/2017/11/15/mcp.RA117.000310.full.pdf> which we bootstrapped, would not have happened without the catalysis by the Brain Trust for Tropical Disease. The collaboration continues and we hope to find funding for it to take it rapidly where it should go. Thanks for your support."*

Ignacio Pino, CEO  
CDi Laboratories

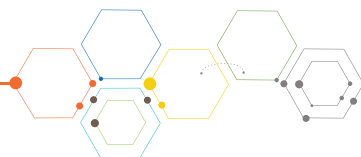
## Future Plans

Future work plan for 2018, has been based on the findings and recommendations that have evolved from a series of technical meetings held by the Brain Trust. These were: 1) first meeting on rapid diagnostic testing of febrile illnesses (2015), 2) second meeting on creating a comprehensive vector control strategy (2016) and 3) third meeting on creating capacity for arbovirus diagnostic development (2017). All final reports and white papers produced from these technical meetings are available at our website. Future proposed work of the Brain Trust can be categorized into three core areas:

- **Core 1:** Research and Development of Rapid Diagnostic Testing for Febrile Illnesses
- **Core 2:** Enhancing Reference Lab Capacity for Arbovirus Diagnostic Development
- **Core 3:** Archipelago: The Puerto Rico Clean Water Initiative
- **Core 4:** Establishing a Biorepository for Infectious Diseases
- **Core 5:** Five year Strategic Plan for Aedes Aegypti Control and Elimination

### Core 1: Research and Development of Rapid Diagnostic Testing for Febrile Illnesses

1. Support local rapid diagnostic test development efforts for febrile illnesses specific for endemic areas like Puerto Rico.
2. Promote public-private partnerships that can enhance the opportunities to move forward with additional testing platforms that will increase testing capacity, reduce turn-around time, by validating existing tests and move to obtain FDA approval.
3. Improve the marketability of a rapid test. There is a need to educate health care providers, health insurance companies, and the public about the importance of early and rapid diagnostic testing.
4. Facilitate efficient communication and collaboration between mutually beneficial private and public (local and federal) partnerships to enhance our ability to prepare for an infectious disease crisis.



## Core 2: Enhancing Reference Lab Capacity for Arbovirus Diagnostic Development

1. Puerto Rico Reference Lab Working Group to meet to establish a national laboratory policy for Puerto Rico to increase lab capacity and preparedness.
2. Facilitate clinical reference laboratories collaboration with the New York State Department of Health, Puerto Rico Department of Health, and the Centers for Disease Control and Prevention and the Puerto Rico Science, Technology and Research Trust to build an Immediate Management Response System for Puerto Rico and to insure a complete and consistent use of the testing algorithm by all labs participating in outbreak responses

## Core 3: Archipelago: The Puerto Rico Clean Water Initiative

1. Complete pilot project water filter distribution in Utuado and house hold surveys.
2. Secure funding to expand the water filter distribution to 2000 additional units in order reach most of municipality of Utuado.
3. Collaborate with UPR Investigators and Oxfam International to collaboratively create a map and database with water quality data from areas of filter distribution and other areas in Puerto Rico where water quality is a concern.
4. Collaborate with UPR and George Mason Investigators on UV LED project for water disinfection in Puerto Rico to conduct basic science research to gain insight into UV radiation and its consequences on outer membrane vesicle formation and dissemination that will build upon the Archipelago Clean Water for Puerto Rico Project.

## Core 4: Establishing a Biorepository for Infectious and Emerging Disease Research

1. Convene a technical workshop to explore the development of a Puerto Rican Biorepository to address the need for biological samples, especially those unique to Puerto Rico's tropical environment. With a specific focus on samples that are required to validate testing in the development pipeline and those samples crucial to projects currently seeking FDA approval.

## Core 5: Continued Support of the Puerto Rico Vector Control Unit's Efforts to Achieve the Five Year Plan Established by the Brain Trust for Tropical Disease Research and Prevention

1. Continual support and follow up with Puerto Rico Vector Control Unit's efforts to implement the proposed five year road map towards the control and elimination of the Aedes aegypti mosquito.

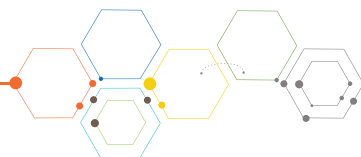




# Puerto Rico Center for Tropical Biodiversity



The Center for Tropical Biodiversity and Bioprospecting (CTBB) was established in 2015 to guide the efforts of conservation and exploration of Puerto Rico's unique geography for benefits that can be scientific, societal or economic. Within the purview of the Center are the development of searchable collections of biological specimens, the conservation of biodiversity resources and the commercialization of biodiversity-derived products.



## Mission and Vision

CTBB's mission is to contribute to the advancement of basic and applied research associated with the preservation and intelligent utilization of regional biodiversity resources. Puerto Rico is home of many natural ecosystems and possesses advanced infrastructure for scientific research, qualities that should make it a regional leader in biodiversity research and commercialization.

**Our main goal.** Over the last century, Puerto Rico has enjoyed a rich tradition of scientific research centered on its unique natural environment. There have been numerous projects aimed at observing and cataloging Puerto Rico's rich biodiversity with the goal of understanding how organisms interact with their surroundings. Lacking through the years has been a local policy to guide and coordinate these efforts, which were often driven by the curiosity of individual researchers in our many universities.

The CTBB was established precisely to provide legal and regulatory guidelines under which our local ecosystems can be explored for scientific or economic benefit and protected to ensure sustainable use of the biodiversity resources. Additionally, CTBB coordinates efforts to develop natural compounds as products for a variety of applications.

## Achievements 2016-2017

As CTBB strives to bridge biological diversity with economic development, we report four major areas of growth during the past year:

1. **A new Scientific Director.** CTBB hired key personnel for the maintenance of its scientific facility. Dr. Jeffrey Marrero was hired from the faculty of the UPR to oversee all the technical aspects of the chemical work performed at the CTBB. He possesses a doctorate in the elucidation of the chemical structure for natural products. In the CTBB facility, Jeffrey also helps to coordinate the maintenance of research equipment, liaise with service providers and prepare reports of chemical analysis.

All facilities performing scientific work must comply with federal and state regulations regarding biological and chemical safety to protect employees as well as the environment. The Scientific Director generated all the documentation to ensure compliance with biosafety and chemical safety, including SOPs for receiving samples and for the operation of certain pieces of instrumentation.

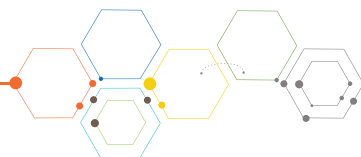
2. **The dawn of new commercial ventures.** Within its mandate, the CTBB chartered to catalyze the commercialization of products containing natural compounds. With Jeffrey Marrero as the new Scientific Director, there have been a number of initiatives that we will enumerate, that provide the seed to what could become commercial ventures.
  - a. **The search for new antibacterials** - Antibiotic resistant strains of bacteria claim the life of 23,000 people every year in the US alone with over 2,000,000 life-threatening infections per year. Historically, the search for new antibiotics, involves exploration in natural environments that are rich in biological diversity. In Puerto Rico, there are several on-going research projects that search for antibacterial compounds. Dr. Ileana Rodríguez in UPR Humacao has identified novel species of microbes from the





salt lagoons of Cabo Rojo, that naturally produce antibiotic compounds. Also, Dr. Matías Cafaro has identified unique species of microbes that show the ability to produce antifungal compounds. Since the exact nature of these compounds is unknown, the CTBB has brokered the involvement of scientists at the University of Michigan's Life Sciences Institute to help with the isolation and identification of these compounds. An agreement is currently being prepared by the Technology Transfer Office (TTO) to oversee this collaboration.

- b. Home-grown commercial ventures** - The CTBB has engaged two local entrepreneurs who are developing products based on natural extracts. While it is not within the mandate of the CTBB to certify the clinical efficacy for these products, we are undertaking the chemical analysis and the identification of potentially active ingredients for the preparations. Ricardo Guerra is the inventor behind PSORMAX, a cosmetic cream that alleviates some of the symptoms of psoriasis. Similarly, Mojena Mfg. has also submitted a sample of his natural-based cough syrup for chemical analysis at CTBB. While these products have not been tested for clinical potency, the CTBB can help inventors better understand the chemical composition and possible modes of action for their product.
  - c. The science of fine coffee** - The central mountainous region of Puerto Rico is home to numerous varieties of the best coffee in the world. The flavor and aroma that makes Puerto Rican coffee great, can be correlated with specific chemical signatures. In addition to caffeine, coffee contains a variety of antioxidants, stimulants and volatile compounds that contribute to the coffee experience. We have undertaken a chemical exploration of Puerto Rican coffee together with our partners at Casa Pueblo, a community-based organization in the mountain town of Adjuntas. The purpose of our study is to identify specific chemical profiles associated with the highest quality of Puerto Rican coffee: the shade-grown Arabica variety. This study complements well with on-going studies at Casa Pueblo about the influence of soil microbes on coffee quality attributes and could yield valuable information that could drive marketing or consumer education campaigns.
  - d. Fungi for agriculture** - Yeasts and fungi are extremely important for agriculture. For over 20 years, Dr. Paul Bayman, a researcher at UPR Rio Piedras, has been exploring the application of fungi for different uses. As part of his research, Dr. Bayman has identified microbial species capable of enhancing the cultivation of orchids an emblematic ornamental plant of the Caribbean. Additional projects include a yeast that can kill the 'broca' a tropical pathogen that infects coffee beans, robbing them of their nutrients. The CTBB is focusing efforts to the development of fungal products for agriculture.
  - e. The opioid epidemic in the US** - Much has been written about the current rise in the use and prescription of opioid medication for the treatment of chronic pain and other conditions. This situation has resulted in a sharp increase in cases of opioid addiction, which can have severe effects for individuals and their communities. Some researchers, including Precision Biologics ([www. precisionbiologics.net](http://www.precisionbiologics.net)), based in Atlanta GA, are developing treatments for opioid addiction based on natural plant extracts. Precision has contacted the CTBB in hopes of building a product pipeline of their own based on tropical natural products.
- 3. Digitization of invertebrate collections.** To enhance the curatorial work at the UPR's entomology museum, we recently acquired an automatic stereoscope (SZX2-ZB1X16) ideal for specimen curation, identification, and examination. To begin training users in the appropriate use of the equipment, we organized a user workshop for Museum Photography and Digitalization at the Trust's facility on June 2017 organized by entomolo-



gist Rosa A. Franqui and museum photography expert Kristin Phelps. Since its purchase, the new equipment has been available to the UPR academic community, including graduate and undergraduate students and faculty. With this equipment, a total of 3,033 specimens have been identified to species level and deposited in a database. Also, during the summertime, a group of students from El Verde Field Station Summer REU Program in Tropical Ecology and Evolution was trained in equipment. We are confident that our enhanced capacity for collection digitization will increase the chances that our specimens can populate even the most popular online repositories, raising the profile of Puerto Rico as a site for serious biodiversity research.

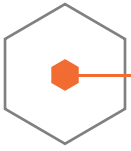
4. **Forging closer ties with Technology Transfer Office.** The Trust's Technology Transfer Office (TTO), led by Dr. David Gulley and Dr. Carlos Báez, oversees all aspects of management of the intellectual property portfolio for Puerto Rico. Clearly, any initiative that involves the transfer of research materials or the licensing of such materials for commercialization, must also produce documentation to protect all parties: the researchers who generate valuable materials and the developers who discover new applications. During this past year, CTBB has forged closer ties with the TTO for the generation of material transfer agreements to govern the transportation of research materials and resources from researchers to the CTBB for the exploration of possible commercial value.

Three material transfer agreements (MTA) have been prepared and are at the stage of final execution. One MTA was signed with Mr. Ricardo Guerra, inventor of PSORMAX, a natural preparation based on tropical plant extracts for the treatment of psoriasis and rosacea. Mr. Guerra has asked CTBB for help in the chemical characterization of his product, with hopes of finding possible active ingredients or modes of action.

The other two MTAs were prepared for the transfer of research materials from UPR Mayagüez and from UPR Humacao to the CTBB to explore the commercial potential of unique microbial species that are studied in those two academic institutions. In Mayagüez, Dr. Matias Cafaro studies bacteria from Guanica's Dry Forest which have shown great potential as producers of antimicrobial compounds. Additionally, in Humacao, Dr. Ileana Rodríguez also studies bacterial species from the salt lagoons of Cabo Rojo, which have also shown preliminary activity against pathogens such as *Staphylococcus aureus* and *Salmonella enterica*. Both sets of samples will be transferred from the UPR campus to the CTBB for chemical evaluation.

Another collaboration agreement is being drafted to oversee the transfer of samples to the University of Michigan for analysis in a joint-initiative involving the search for new compounds.

5. **Increasing our international presence and leadership in biodiversity research.** This past year, CTBB participated in the 9th Congress for Caribbean Biodiversity held every two years in Santo Domingo. During this meeting, CTBB director Dr. Abel Baerga offered a presentation on current efforts to protect intellectual property resulting from biodiversity research. Additionally, Dr. Rosa A. Franqui offered a seminar about the state of Puerto Rico's biological collections. Other panelists included global leaders in the topic of access and benefit sharing (ABS) such as, Sebastian Meurer of the German Institute for International Cooperation. Also, earlier this past year, Dr. Baerga represented the CTBB at the BioSpain conference in Bilbao resulting in the organization of an encounter between Spanish and Puerto Rican companies sponsored by the PRSTRT and Spain's Center for Technology Development and Innovation (CDTI). Several international commercial collaborations were catalyzed as a result of these efforts.



## Key Performance Indicators

35

number of investigators in the area of biodiversity research and bioprospecting in Puerto Rico's universities. This number does not include the scientists that work in government agencies such as Natural Resources Department and Department of Agriculture. Over the last 10 years, these researchers have claimed bringing in over \$40 million in (mostly federal) grant support for their projects.

25

number of biological collections in Puerto Rico. Biological collections have incalculable value both in terms of conservation and in terms of product discovery.

750,000

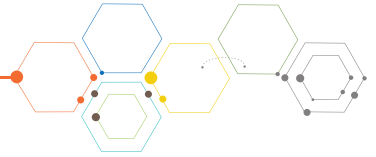
estimated number of biological specimens currently stored in Puerto Rico's biological collections.

## Future Plans

**A home base for CTBB.** To better secure a proper home base for the CTBB, the Trust assigned physical space within the laboratory building located at #1 Laboratory Rd. at the Science City development. The current space has been partially renovated and fitted with all the air management, water lines and power outlets for a minimal laboratory and office facility to serve as the headquarter for the CTBB. If the budgetary conditions allow, it would be ideal to purchase refrigeration equipment for the storage of samples. This would facilitate the transfer of materials and the security of the samples. Additional purchases could include extraction hoods and an incubator to enable a minimum of sample preparation and lab work.

**Coffee goes chemical.** Another area of interest is the area of coffee analysis. As the coffee market grows more sophisticated it opens the possibility of associating chemical profiles with the result of taste tests. This plan is well aligned with on-going initiatives from Puerto Rico's Department of Agriculture to develop different branding tiers for coffees based on their quality attributes.

**Manage on-going collaborations.** Since an increasing portion of our work involves the transfer of materials from researchers to contract facilities, we will pay special attention to monitoring progress with our strategic partners. Samples are being sent to Michigan, to Arkansas and to Universidad Metropolitana for a variety of analyses. The results from these analyses should be monitored and communicated appropriately and the CTBB will serve as the coordinating partner in this effort.



January 2017

Abel Baerga offers conference on a bioprospecting strategy for the Caribbean, during the 9th Conference on Caribbean Biodiversity.



January 2017

Abel Baerga offers conference on a bioprospecting strategy for the Caribbean, during the 9th Conference on Caribbean Biodiversity.



January 2017

Rosa A. Franqui offers lecture on the state of biological collections in Puerto Rico during the 9th Conference on Caribbean Biodiversity.



September 2016

Abel Baerga gives lecture on the capabilities of Puerto Rico as a destination for technological innovation at Biospain Conference in Bilbao, Spain.



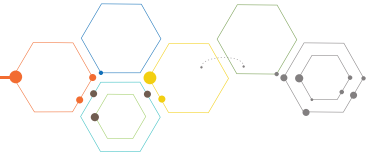
# Science City

by:



Puerto Rico  
Science, Technology  
& Research Trust





## Mission and Vision

Through the Bio-Island initiative, the Puerto Rico Science, Technology and Research Trust has made a commitment to the advancement of a “Knowledge Economy” in Puerto Rico. A new economy of education, research, ideas, innovation and technological creativity.

Our Master Plan outlines the flagship development of this vision – a new Science City. The new development will sit at the geographic and ideological hearth of the Knowledge Corridor – a nearly 2000 acre district within San Juan comprised of the University of Puerto Rico, Rio Piedras campus; San Juan’s Central Medical Campus; the University of Puerto Rico’s Botanical Garden; Universidad Metropolitana; and various publicly-owned potential development sites for life science industries, education and new lifestyle neighborhoods.

The Master Plan will establish a comprehensive Life Sciences cluster in San Juan able to facilitate the development of a new economic vision for Puerto Rico.

## Achievements

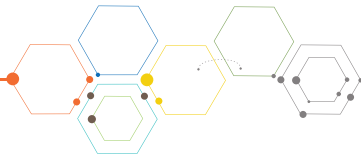
1. We finished the construction of the Facility of Puerto Rico Environmental Research Laboratory (PRERL) and the Puerto Rico Vector Control Laboratory (PRVCUL) with an investment of \$3M. This modern laboratory has the highest technology.
2. We finished the construction of one of the principal roads of Science City – Laboratory Road – with an investment of \$9M. This street runs through Science City from PR-21 to De Diego Avenue. The latter allow access for the future development in Science City.
3. The Highway Authority in joint with the Trust have designed the Science City Boulevard, including the new exit ramp from Las Americas Expressway (PR18) to Science City. The expectation of construction is for the next fiscal Year.

## Future Plans

1. The schematic design for the Forward Center Building have been performed. The location will be adjacent to the Innovation Center – as part of new offices spaces for the future expansion of the Trust. Some meeting with Boston Scientific have been held.
2. The Trust is working with a proposal to PRIDCO to administrate BDTC. Meeting with Secretary Manuel Laboy have been held.





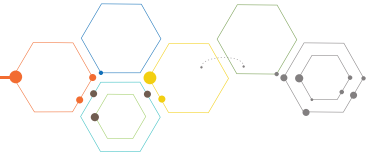






TECHNOLOGY  
TRANSFER OFFICE





The Technology Transfer Office (TTO) collaborates with its university and private sector partners to offer assistance, advice, education, and best practices to promote technology transfer and commercialization of discoveries. In some cases, the partnership is formalized so that the TTO can manage the process and conduct screening and assessment of new disclosures, invest in IP protection, manage patent prosecution, execute marketing strategies, draft and execute licensing and related agreements, and manage the financial, compliance, and enforcement aspects of the technology.

## Mission and Vision

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The TTO's mission is to effectively identify, assess, protect, market, and transfer the most promising research discoveries from Puerto Rico's universities, research institutes, and early-stage companies to the private sector for commercialization and to benefit the public.

## Achievements

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- The TTO provided support and education for researchers interested in industry collaborations and partnering at Biolatam 2016. Three researcher workshops were held (San Juan, Ponce, Mayaguez) to prepare researcher profiles and finalize 87 matches to companies attending the conference.
- Hired a full-time Technology Manager, Carlos Baez, to focus on chemistry and life science discoveries
- Initiated a pilot invention management case with UPR for a portfolio of anti-cancer compounds, engaged a patent firm specializing in the field and filed US and PCT applications.
- Created an on-line training module for the TTO website: "Intellectual Property for Academic Researchers"

## Future Plans

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- Finalize new MOUs with University of Puerto Rico (UPR), Sistema Universitario Ana G. Méndez (SUAGM), and the Ponce Health Science University (PHSU/PMSF) for a shared risk/shared reward model with master agreements allowing the TTO to manage existing IP, new IP developed with Trust grant funding, and new IP from partner researchers and inventors.
- Establish a formal full-time TTO presence in Mayaguez at the UPR campus.
- Continue to seek new sources of revenue to address critical gaps in the ecosystem, especially in the area of life/health sciences.



## Outreach and Support for Researchers/Inventors

TTO staff interact with university researchers and staff as well as companies and investors seeking advice regarding intellectual property, licensing, and formal collaborations.

### One-on-One Meetings:

TTO staff conduct more formal one-on-one meetings with Trust grantees or at the request of our partners.

### Workshops, Presentations, and Webinars: 18

PHSU	Aug 25	Ponce, PHSU
Biolatam Workshops	Oct 18	San Juan, Trust
	Oct 19	Ponce, PHSU
	Oct 20	Mayaguez, UPR Mayaguez
	Nov 15-16	
TTS Latin America Medellin, Colombia		
Biolatam 2016	Nov 29-30	San Juan
NIH-BRAD	Feb 10	Mayaguez, UPR Mayaguez
IP for Natural Products	Feb 17	San Juan, Trust
IP for Tropical Diseases	Feb 17	San Juan, Trust
Tech Transfer and IP	March 8	Rio Piedras, UPR Law School

### Webinars

Proof-of-Concept and Startup Gap Funding	6 (Jan-June)
Licensing University Technology	April 11
University-Industry Collaborations	May 16

## Performance Metrics

18

**New Disclosures**  
(14 from university  
partners, 4 from  
small companies)

4 Research tools  
2 Devices  
2 Diagnostics  
4 Software  
7 Therapeutics/  
Biotech

14

**Patent Portfolio**  
Issued/Filed

3 US Provisional  
10 US Utility/CIP  
1 Foreign

**New standard agreements developed:**

■ Facilities Usage  
■ Technical Testing collaborations

3

**New applications**

1 US Provisional  
1 US Utility  
1 PCT

13

**Agreements**

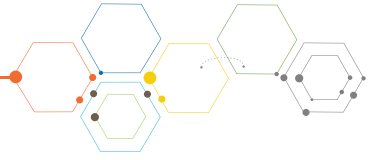
7 Inventor Assignments

3 Options

Standard SUAGM Oct 25  
PHSU/PMSF Oct 17  
Master Option SUAGM Feb 15

2 Invention Management

PHSU/PMSF March 3  
UPR April 7



## SBIR/STTR

### Mission and Vision

The Trust implemented the SBIR/STTR Matching Fund Program to incentivize local technology oriented small business firms and researchers to compete for SBIR/STTR Phase I grant awards. The program benefits SBIR/STTR Phase I recipients providing a matching grant from the Trust of up to \$100,000 to foster technology commercialization efforts and/or enhancing research activities.

The SBIR/STTR Matching Fund Program is one of several initiatives implemented by the Trust with aim of increasing the number of SBIR/STTR Phase I awards in Puerto Rico. The Trust also offers an SBIR/STTR Proposal Preparation Workshop to assist participants in preparing competitive proposals for the SBIR/STTR program. These workshops are offered by former Program Managers or experts of the SBIR/STTR Program at the National Science Foundation (NSF), the National Institutes of Health (NIH) and the US Department of Energy (DOE).

### Achievements

Through the assistance and incentives provided through both, the Workshops and the Matching Fund Program, the Trust made a significant contribution to the high-tech business community, by attaining an unprecedented number of six active SBIR/STTR in Puerto Rico during FY2016-17, as follows:

- IBS Caribe/UPR Mayaguez - SBIR Phase I NSF
- CDI Laboratories Inc./ Ponce Health Sciences University - STTR Phase I NIH
- CDI Laboratories Inc./Rockefeller University - STTR Phase I NIH
- STTR with UPR Mayaguez - STTR Phase I NASA
- Protein Dynamics Solutions - SBIR Phase II NSF
- SIL Technologies – SBIR Phase I NSF

With these awards, the number of SBIR/STTR grants in Puerto Rico increased to a total of **32**, representing an increase of **25%**, and over **\$1.5 million** in additional federal funding to conduct high-impact research and development activity.

### Future Plans

The Trust will continue to offer both programs to keep providing assistance and incentivize local aspiring entrepreneurs and researchers seeking SBIR/STTR awards. The Trust plans to expand its offering by providing a SBIR/STTR Matching Fund Program mechanism for Phase II awardees. In addition, the Trust also will coordinate a Matchmaking Event to bring together scientists and entrepreneurs as a strategy to spearhead the presentation of SBIR/STTR proposals to federal agencies.





Colmena66  
Tu Conexión Empresarial



A regional referral network which links Puerto Rico entrepreneurs and business owners to local and regional resource partners that provide services to help businesses grow and prosper. These resources are represented by nonprofit organizations, academia, government agencies, and others that provide services and support to entrepreneurs.

## Mission and Vision

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**Colmena66** is a regional referral network which links Puerto Rico area entrepreneurs and business owners to local and regional resource partners who provide services to help businesses grow and prosper.

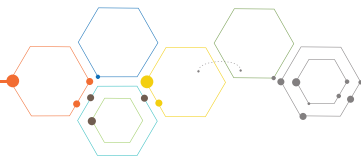
The program's mission is to help businesses grow and succeed and to strengthen Puerto Rico's entrepreneurial ecosystem.

The program's vision is that entrepreneurs in Puerto Rico can easily and effectively find and access the resources they need to start or grow their business, that Puerto Rico be an ideal location for entrepreneurs and that the organizations in the entrepreneurial ecosystem effectively support entrepreneurs and their businesses throughout all stages and industries.

### **How does Colmena66 help business owners and entrepreneurs?**

Colmena66 connects any type of entrepreneurs and business owners with the organizations that can support them, in any industry. As a referral service, Colmena66 provides:

- Easy access to a specialized network of service providers offering a broad range of expertise through The Resource Navigator®, a targeted online search tool
- Quick links to the appropriate resources to assist in starting or growing a business
- Ability to enter the network through any one service provider
- Central calendar to make it easy to find training and events



Colmena66 helps entrepreneurs and business owners start and grow their businesses, giving them easy access to all the resources they need in order to succeed. By identifying the regional entrepreneurial ecosystems and making the organizations visible to their potential clients, the team is able to analyze the gaps in services and support and works with the organizations to address those gaps.

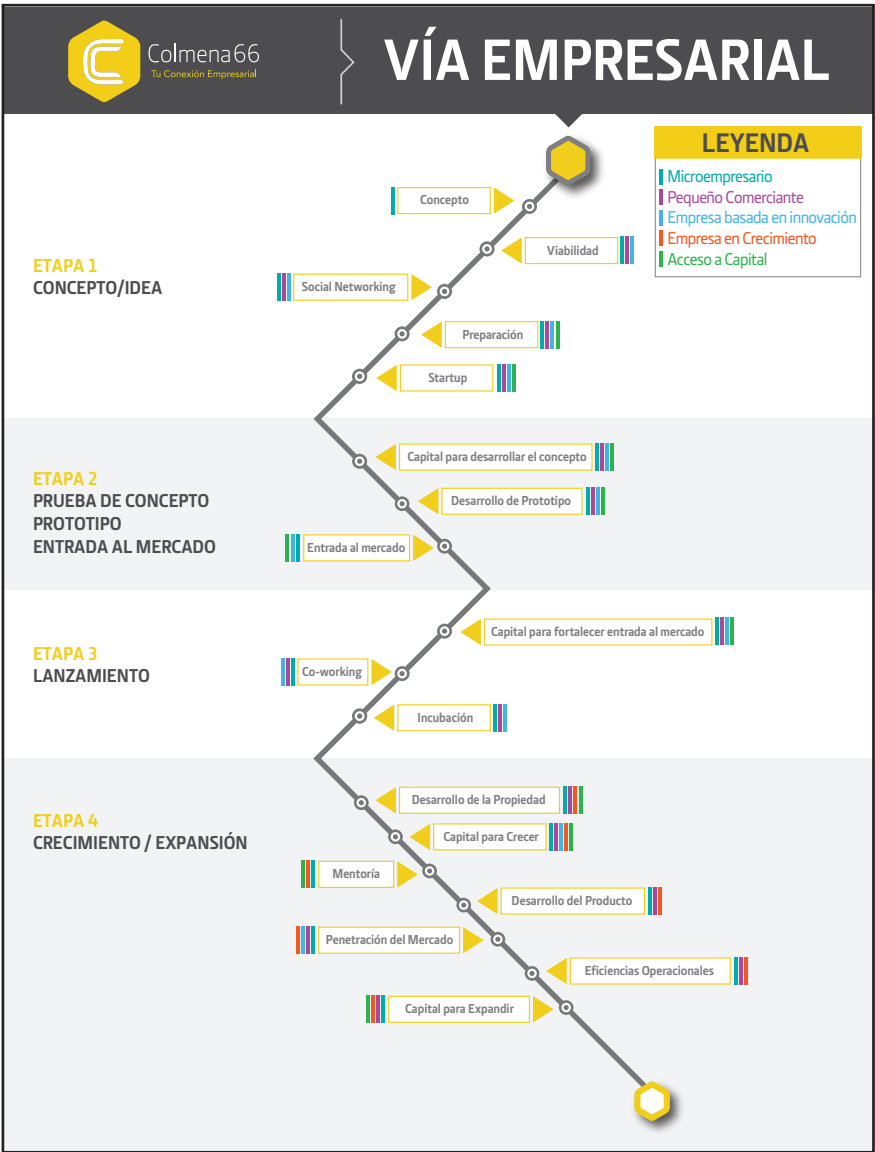
## Accomplishments of January 2017 - present

Colmena66 has gathered support from 200+ Resource Partners in Puerto Rico. Entrepreneurs now have three channels of communication with the Colmena66 team: through a hotline, email, and a live chat, all through the [www.colmena66.com](http://www.colmena66.com) website. In total, Colmena66 has made over 14,600 connections between entrepreneurs and Resource Partners.

As of November 16, the entrepreneur’s top requests for assistance through the hotline or email are: eCommerce, business plan assistance, start up assistance, business management, and marketing and sales. The most requested types of assistance through the website are: business planning, financial resources and assistance, starting a business, marketing and sales, and legal services.

In January, the Colmena66 team added a collective calendar feature in the website, which shows all entrepreneurial events hosted by our Resource Partners. In the first months, the team added the events while the Resource Partners got familiar with the platform and started uploading the events themselves. As of November 16, Colmena66’s collective calendar has made over 350 events visible to entrepreneurs all over the Island.

During the summer, Colmena66 began the process of creating a ‘resource railway’ to provide entrepreneurs a tool that would help them easily identify the





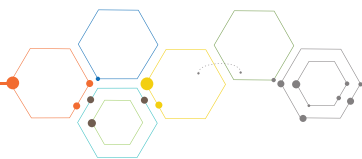
Resource Partner they need according to their business stage and type. To populate this railway map, the team started a regional tour in order to onboard new Resource Partners (please refer to the following video: <https://youtu.be/exxlMSZzc9k>). The team visited the west and southern regions of the Island, convening local government, academia and nonprofit organizations to catalyze and strengthen their regional ecosystems.

**There has been a significant increase in communications efforts, both in traditional media and social media, some of which are listed below:**

- The team started a blog, inviting Resource Partners and influencers to write about topics of interests for entrepreneurs. To see the published blogposts, visit Colmena66’s website here: <https://www.colmena66.com/es/blog>
- In social media, the team showcased success stories of entrepreneurs that have been helped by Colmena66. In addition, the team created a campaign to facilitate public recognition of the Resource Partners. To see these and other campaigns, visit Colmena66’s Facebook page here: <https://www.facebook.com/colmena66>
- The team booked a weekly promotion of Colmena66’s collective calendar on a local radio show focused on discussing topics of interest for entrepreneurs, called Revista Radial Empresarial. Also, team members participate in the program monthly to discuss particular topics relevant to Colmena66’s work. To see Colmena66’s appearances in the program, visit their Facebook page here: <https://www.facebook.com/revistaradialempresarial>

Key Performance Indicators

KPI's	Goal 1st Year	Jan-17	May-17	Aug-17	Nov-17
Number of Resource Partners	100	162	170	200	206
Number of Events in Calendar	250	109	138	302	356
Number of Hotline Calls	1,000	96	138	213	265+
Resource Navigator Inquiries on the Web (online searches for assistance using Resource Navigator)	500	354	623	884	1,150
Online Referrals (number of times Resource Partners appeared in Resource Navigator Search results)	5,000	4,144	7,681	11,257	14,632
Social Media					
Facebook	-	647	957	1,364	2,459
Instagram	-	-	-	338	442
Twitter	-	70	93	134	218



SourceLink's Affiliates Rankings

Categories	Jan 17	May 17	Aug 17	Nov 17
Affiliates Using Biz-Tracker (Clients seeking assistance through hotline and/or email)	12 out of 27	16 out of 29	14 out of 29	14 out of 29
Organizations using the Resource Navigator (Total searches through the Resource Navigator)	6 out of 26	9 out of 27	9 out of 29	9 out of 29
Organizations using the Resource Navigator (Network strength)	7 out of 28	7 out of 28	7 out of 28	7 out of 28
Counseling Hours Provided	13 out of 28	17 out of 30	15 out of 30	15 out of 32

## Colmena66 after Hurricane María

After hurricane María’s impact, the Colmena66 team quickly mobilized to assess the needs of entrepreneurs and business owners, and pivoted its programs to address the new reality faced by the entire Island. The new circumstances led the team to spearhead three new initiatives:

1. Levanta tu Negocio PR: This initiative began with a robust group of Colmena66’s Resource Partners, with the mission to collect data on the damages and needs of the entrepreneurs and business owners via a survey that could be accessed at [www.LevantaTuNegocioPR.com](http://www.LevantaTuNegocioPR.com). As an alternative, entrepreneurs could complete the survey by calling our hotline at 787-525-4111. Finally, with the help of volunteers and collaborating organizations, we conducted 20 different visits across Puerto Rico to take the survey to the people, many of which didn’t have access to internet or telecommunications. The group also created a comprehensive list that included resources to assess their businesses, all the organizations that are providing financing alternatives, grants, power generators, advisory and specific help for the agriculture industry. As of November 16th, over 550 surveys were answered, and its dissemination will continue through online efforts with the support of the Puerto Rico Department of Economic Development and Commerce and other allies. To see the live dashboard with the collected data, visit: <http://arcg.is/10GbLC>. The next stage of Levanta tu Negocio PR is connecting all the entrepreneurs and business owners that completed the survey with the Resource Partners that can help them revisit their business model, provide them with generators, business loans, mentoring, and other needed services.
2. Coworking @ Puerto Rico Science, Technology and Innovation Trust: Due to the lack of electricity and access to internet, the Colmena66 team provided a space for entrepreneurs and business owners to resume their business operations. With the support of the Puerto Rico Science, Technology & Research Trust staff, the Colmena66 team created a framework to effectively operate the coworking space, which was then adopted by the Puerto Rico Department of Economic Development in their CO.LAB initiative, which aims to support existing and open new temporary coworking spaces in other regions of Puerto Rico.
3. Shop a Hire Puerto Rico: On November 20 2017, Colmena66 launched this initiative to help boost the long term recovery of the economy and entrepreneurial communities of Puerto Rico. Our Puerto Rican diaspora approached us looking for additional opportunities to contribute to the long term recovery of Puerto Rico, and thus, we quickly put together this directory of shops and freelancers that is Shop & Hire Puerto Rico.





**LEVANTA TU NEGOCIO PR**

**Cómo participar**

**Online**  
El cuestionario está disponible en [bit.ly/LevantaTuNegocioPR](http://bit.ly/LevantaTuNegocioPR)

**Por Teléfono**  
Si tienes dudas sobre el cuestionario llama al **(787) 525-4111**

**En persona**  
Pendiente a los medios para que sepas cuando visitaremos tu zona.

**¿Necesitas orientación? ¡Llama a nuestro hotline o escríbenos!**

**787-525-4111**   [info@colmena66.com](mailto:info@colmena66.com)

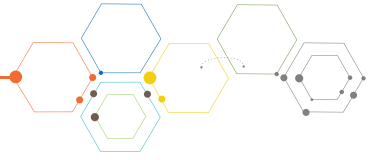
**Shop from a Boricua** - users can find the online stores of our local entrepreneurs and shop this Holiday season and beyond.

**Hire a Boricua** - users can find the talent they need. Today, many of us can work remotely from Puerto Rico so we wanted to make it easy for anyone in the world to find the programmer, graphic designer, translator, accountant, etc. that they're looking for.

Learn more at our Facebook Live launch video here: <https://www.facebook.com/colmena66/>

Colmena66 has partnered with the Puerto Rico Trade and Commerce Company and Parallel18 to power the initiative. In addition, we are collaborating with Brands of Puerto Rico, San Juan Freelance, and others, to broaden the database of online shops and freelancers.

**YOUR CHANCE TO TO HELP PUERTO RICO? HIRE A BORICUA**



Finally, to help brick and mortar shops go online, we are doing a series of in depth e-commerce workshops where entrepreneurs learn step by step how to build their online shop. This effort will continue throughout 2018 with the intention of promoting an eCommerce culture on the Island so that our entrepreneurs, business owners and local talent can export their goods and services.

## Plans for 2018

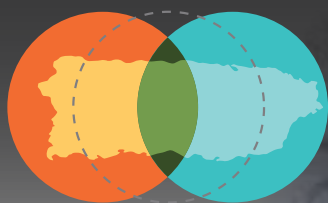
In the upcoming year, Colmena66 will continue the efforts of Shop and Hire Puerto Rico, Levanta tu Negocio and the Vía Empresarial (resource railway). In regards to Shop and Hire Puerto Rico, the team will keep promoting and growing the local eCommerce culture and helping entrepreneurs, business owners and freelancers to ready and market themselves to attain global presence, with the support of the Puerto Rico Trade and Commerce Company.

In regards to Levanta tu Negocio PR, the campaign will officially end on November 30th, but the team will continue referring all surveyed entrepreneurs and business owners to Colmena66's Resource Partner network. Also, the team will begin to analyze the collected data to identify long term needs and opportunities that can be address by our entrepreneurial ecosystem.

In 2018, Colmena66 will continue to build the Vía Empresarial through regional meetings that convene the local Resource Partners. These meetings will continue to create awareness about Colmena66 and its mission and will continue to promote the strengthening of the regional entrepreneurial ecosystems.

## Other efforts for 2018 include

- **Website:** The team will resume efforts to revamp the Colmena66 website. The website will become a one stop shop of valuable informative content for entrepreneurs and business owners of every type and industry.
- **Colmena66 Summit:** This event will host live connections between entrepreneurs and business owners of all types and industries with the Resource Partners that specialize in what they need.
- **Communications:** The team will continue efforts of building brand awareness, broaden newsletter subscription base, social media followers, and traditional media appearances.
- **Customer satisfaction surveys:** The team will send surveys to measure satisfaction from both entrepreneurs and business owners, as well as the Resource Partners, to identify successful practices and opportunities for growth.



## PR RESEARCH & INNOVATION Meetup



### Mission and Vision

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The mission is to establish a point of departure for the ongoing development of the research and innovation ecosystem- both locally and internationally.

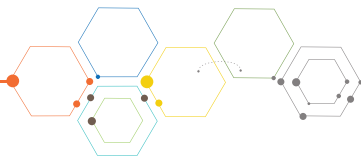
The Research and Innovations Meetups program seeks to capitalize on the spillover effects over time to help drive a new atmosphere for commerce, innovation and social impact.

### Achievements

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The Puerto Rico Research and Innovation Meet-ups platform hosted 7 meet-ups during 2016, all following on previous meet-ups such as the Agro Research & Innovation Meet-up, as well as emerging industries such as Bioinformatics and Creative Industries focused on the development of new materials. Also hosted, were meet-ups to support programs such as the Puerto Rico Vector Control Unit and its efforts to engage with stakeholders that can partner withoutreach efforts.

The dynamics of the meetups have given the Trust vital information as to how it may best to better tackle the challenges, opportunities and solutions for each sector or topic, and to identify efforts aligned with the Trust's mission. We have also added two new exercises; skill matrix, that helps to better understand the attendees' areas of expertise,



and the collaboration pledge that helps us identify which of the participants are willing to become active collaborators, and under what capacity.

Reports for every meet-up held in 2016 are published on the Trust’s website along with the 2015 reports, with the idea of creating a depository that can help and guide any newcomer in each of the specific industries that we have supported, and to not only be able to identify the opportunities and challenges, but also tap into the network of resources readily available.

The Agro Research and Innovation Meet-up was the second of its kind and was held in August 2016, in response to the Agriculture sector that clearly showed interest to conform an Advisory Committee with the aim of increasing the collaboration between academia and agro-industries, among other challenges. The Trust will seek to empower and support all stakeholders interested in conforming the Advisory Board and work towards effectively developing and supporting what can become the first cluster to be seen in the agro space.

### Future Plan

Our goal is to continue the mapping and development of emerging industries and its ecosystems through the meet-ups platform, but also to continue the Trust’s support to the industries that show a clear path to economic development through the development of cluster initiatives that are led by the industries themselves with support from the Trust to guarantee their success as they mature and become successful industries.

Considering the years ahead, the Research and Innovation platform will focus on topics such as: internet of Nano things, machine learning, smart materials, global warming, human and tech interfaces, as well as block chain and cryptocurrency.

### Impact Metrics





# EDUCATION and CAPACITY BUILDING



## Mission and Vision

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Our Education and Capacity Building initiatives aim to provide participants instruction, mentorship, and other development opportunities in strategic sectors of science, technology, and entrepreneurship. We strive to give Puerto Ricans the tools they need to be more competitive in science and technology fields, or to pursue entrepreneurial initiatives. The Trust supports and funds various programs, in partnership with several stakeholders, that promote entrepreneurship, research and investing opportunities, to further economic development in the island. Some of them are: I-Corps, Codetrotters Academy, InPrende, PRABIA Convention, C3Tec, Agrohack, Animus, Microbiologists Association Convention and Biolatam 2016.

### I-Corps

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A collaboration between the Trust, Grupo Guayacán, and Georgia Tech VentureLab, it is a 5-week hands-on program designed for small teams of entrepreneurs to learn how to launch innovative ventures.

### Codetrotters Academy

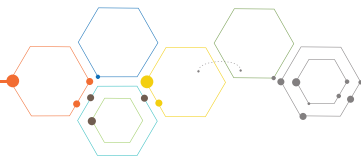
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In alliance with Codetrotters, it's a coding academy that trains the next generation of coders and innovators in the basics of web and mobile development from some of the best in their fields.

### Biolatam 2016

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Held on November 29-30 in San Juan, Puerto Rico, and supported by the Technology Transfer Office (TTO) of the Puerto Rico Science, Technology and Research Trust the pilot program focused upon the following deliverables: workshops for academic investigators and startups designed to educate and promote collaborations and partnering with companies; participant profiles of academic researchers to identify key areas of expertise and present a research quad for discussion with potential partners; industry profiles to include life/bioscience companies with operations in Puerto Rico and companies likely to attend Biolatam 2016; and On-site support and coaching before and during Biolatam 2016 for academic researchers.



## Impact Metrics

The Trust invested **more than \$401,000** in entrepreneurship training initiatives, including the following:

I-Corps	Codetrotters Academy	Biolatam 2016
<ul style="list-style-type: none"><li>■ 68 teams trained</li><li>■ 249 participants</li><li>■ Participating industries: Biomedical, Information Technology/ Communications, Clean Technology</li><li>■ More than 250+ contact hours</li><li>■ \$225K awarded in SBIR Phase 1 Grants</li><li>■ \$ 2.3M total capital raised by graduates</li></ul>	<ul style="list-style-type: none"><li>■ 20 individual scholarships awarded</li><li>■ Many awardees have started new jobs as a direct result of their training in Codetrotters Academy</li></ul>	<ul style="list-style-type: none"><li>■ 131 Companies Qualified and Identified for PartneringOne</li><li>■ 44 registered participants for Academic Investigators and Startups Workshops, supported by TTO</li><li>■ 87 Company matches recommended on Workshops supported by TTO</li></ul>

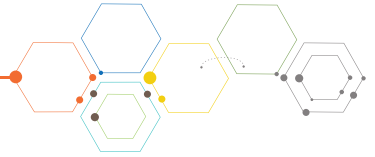
## Future Plan

Expand our offering and support of education and capacity building programs that fill the knowledge and skill gaps that prevent Puerto Ricans from fully participating in the global innovation economy. In the medium and long term, we strive to search for and use new funding avenues to scale these and other education and training opportunities to much larger populations and broader demographics.



# Cultural Heritage Innovation Program





The Cultural Heritage Technology and Innovation initiative seeks to support the cultural heritage community of Puerto Rico by providing specialist knowledge dissemination and know-how. One focal element of the program is the importance of the use of digital imagery and digitization projects for the community. The initiative also provides guidance for the Trust's cultural heritage activities.

Importantly, this initiative has the potential for making a positive effect in the economy of Puerto Rico. Cultural heritage collections support the tourism industry and, without adequate digital presence, they run the risk of missing out on tourism revenue. Simply put, stronger digital presence means more tourists being aware of and visiting collections when they come to Puerto Rico. In turn, this makes for a richer tourist experience which will translate into word of mouth advertisement and more returns. Also, a richer tourist experience means more money spent in Puerto Rico, both within cultural heritage institutions and their neighborhoods' restaurants, hotels and other establishments.

## Mission and Vision

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Cultural heritage is a precious product of humankind, but it is finite. Cultural heritage can be both tangible, like buildings and artefacts, and intangible, like folklore and language. Without care and, in some cases, intervention, cultural heritage which is part of our shared human experience disappears. This matters to all of us because many aspects of cultural heritage are irreplaceable and supports our well-being. It creates a cohesive bond which holds cultures together.

At the Puerto Rico Science, Technology and Research Trust, we recognize the importance of cultural heritage to the well-being of the citizens of Puerto Rico. We also recognize that there is not a single approach to caring for and sharing cultural heritage—it is multidisciplinary with both technology and innovation playing a role in solutions. Being true to our Mission statement, we are facilitating and building capacity within the cultural heritage community in order to support the well-being of Puerto Rico's citizens.

## Achievements

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The Cultural Heritage Technology and Innovation initiative was established in 2016. During its first year, the initiative worked to achieve several goals:

- Empowering a Puerto Rican Cultural Heritage community for support and collaboration.
- Importing and disseminating knowledge and know-how to the Puerto Rican Cultural Heritage community through training seminars and workshops.
- Helping to preserve and share Puerto Rico's cultural heritage through design and execution of digitization activities and other projects. These projects will increase the digital footprint for the collections on the island and raise their international visibility.
- Undertaking responsibility of the Trust's cultural heritage endeavors.





The CHTI initiative hosted two training events during its first year. The first was “Low-Cost Solutions for Multispectral and Scientific Imaging” and was led by Dr. Antonino Cosentino of Cultural Heritage Science Open Source in Italy. The second training event was “Museum Photography and Digitization” led by Kira Zumkley of the Science Museum Group London and Dani Tagen of the Horniman Museum and Gardens London.

The initiative also focused on community building and bring members of the community together. A community-wide symposium was scheduled for September 2017 with talks delivered by community members on a variety of topics. The event was co-sponsored by the J. Paul Getty Trust and included a keynote talk by Chris Edwards of the Getty. Unfortunately, the event had to be postponed due to hurricane Maria but will be rescheduled for 2018.

In addition to the training and community building, the initiative shared information with museum professionals and students interested in pursuing a career in the cultural heritage sector. The initiative also helped support progress in the development of the Tropical Institute for Sustainable Heritage Conservation and Imaging Science, a future center for conservation excellence based in Puerto Rico.

During the course of the initiative’s first year, two reports were generated regarding the Oso Blanco collection of objects, moving the Trust closer to compliance with the renewed 2015 MoU signed by SHPO and the Trust. These reports gave a condition report and recommendations for next steps for the collection and created a cataloguing protocol for the collection.

## Impact Metrics

During the 2016-2017 program year:

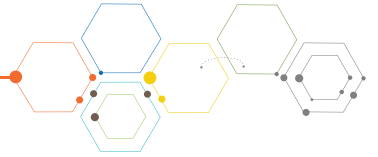
**75** individuals connected with cultural heritage in Puerto Rico have attended our two training workshops.

**25** additional community members registered for the community symposium (postponed due to hurricane).

Approximately:

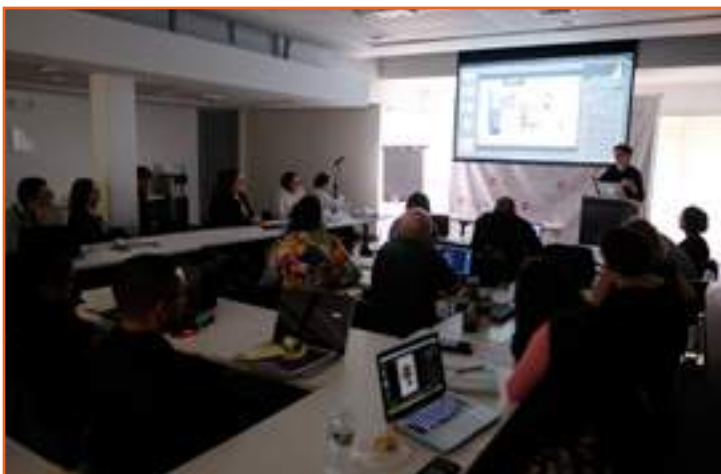
**\$125,000** was the total cost for the program in its first year.

**1** full time staff member.



## Future Plan

Following the successes of the initiative's first year of existence, it is anticipated that its second year will continue to grow the program. During this second year, at least one more training program will be offered to the community as well as at least two community meetings. One of these community meetings will be the rescheduled community symposium co-sponsored by the J. Paul Getty Trust. The initiative will continue to work on building community and assisting with relevant projects as they arise. This includes working on projects which will aid the cultural heritage community in post-hurricane recovery and researching external sources of funding for the program. Finally, the initiative hopes to begin work on a temporary housing structure for the Oso Blanco collection.



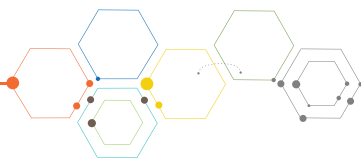
# EVENTS and MEDIA COVERAGE



Since 2014, **\$8 million awarded**  
to science and technology research projects







Parallel18 Ventures | January 11, 2017



Parallel18's Demo Day | January 20, 2017



Forward Mentoring Day | January 27, 2017



STEMpresarial.org | February 7, 2017



FreeMind Group Presentation | February 16, 2017



TTO Intellectual Property Workshop | February 18, 2017





Enterprise Law Announcement | February 20, 2017



Who's Who in Our Startup Ecosystems | February 22, 2017



Techno Savvy Women™ Event | March 31, 2017



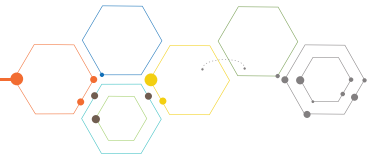
UPR-Cayey & Parallel18 Agreement | March 28, 2017



CIO IT | April 4, 2017



Monsanto's Dr. Goldstein Presentation | April 4, 2017



**Cultural Heritage Program** | April 5, 2017  
Multi Spectral Imaging Lecture



**PRCCI Anniversary** | April 6, 2017



**Small Research Grants** | April 18, 2017



**Agriculture Meet Ups Mayagüez** | April 25, 2017



**Innovation Round Table Meeting** | March 15, 2017



**"Relatos de Mujeres" at STEM** | March 30, 2017





**Agrohack 2017** | May 13, 2017



**Forward Grantees Symposium** | May 30, 2017



**Colmena66 Regional Launching** | June 1, 2017



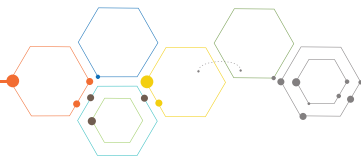
**Convention Microbiology Association** | June 1, 2017



**Cultural Heritage Program  
Museum Photography & Digitization** | June 12, 2017



**Grants Program Impact Report** | July 5, 2017



Brain Trust & CDC | July 21, 2017



Virtual Reality Summer Experience Camp | July 28, 2017



Parallel18 Impact Report | June 29, 2017



P18 & PRHTA Agreement | August 2, 2017



Agreement P18 & ABIPR | August 9, 2017



Inprende Intrapreneurship Conference | August 11, 2017





**SBIR Events Series** | August 15, 2017



**Parallel18 & UPR-Río Piedras Alliance** | August 23, 2017



**Virtual Reality Meet Ups** | August 25, 2017



**InPrende College Tour** | August 31, 2017



**Ready to Work Presentation** | August 31, 2017



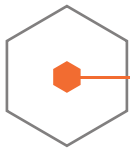
**#LeySecaAlMosquito**  
PRVCU's Campaign | November 13, 2017



Puerto Rico  
Science, Technology  
& Research Trust

*In the News...*





EMPRESAS

## Parallel18 Ventures invierte en tres startups

Burea, Pair y Cinemad ganan la primera edición de este fondo de seguimiento para compañías egresadas de P18

Por Sharon Minelli Pérez



Iván Ríos y Lucy Crespo, del Fideicomiso de Ciencias, junto con Sebastián Vidal (derecha), director ejecutivo de Parallel18, anunciaron la co-inversión. (Suministrada) Tras levantar \$435,000 en capital privado, tres empresas de la primera generación de Parallel18 (P18) recibirán una inversión adicional de \$225,000 del fondo de seguimiento Parallel18 Ventures, con el fin de potenciar su crecimiento y creación de empleos.

Así lo anunció ayer Lucy Crespo, directora ejecutiva del Fideicomiso de Ciencias, Tecnología e Investigación (FCTI), al cual está adscrito la aceleradora y el nuevo fondo de inversión.

Las startups seleccionadas tras un proceso competitivo fueron Burea, de Puerto Rico; Pair, cuyo cofundador es un boricua de la diáspora; y Cinemad, de Argentina. P18 Ventures se diseñó con la idea de coinvertir en algunas de las empresas egresadas de P18 que hayan tenido un desempeño sobresaliente, sido capaces de levantar al menos \$75,000 en capital privado y conserven parte de su operación en Puerto Rico, detalló Sebastián Vidal, director ejecutivo de P18.

PUBLICIDAD

Mientras que P18 da a cada startup que cumpla con el programa \$40,000 en fondo semilla sin exigir acciones a cambio, P18

## Parallel18 Ventures to invest \$225K in 3 startups

newsismybusiness.com/parallel18-ventures-startups/

Contributor

The Puerto Rico's Science, Technology and Research Trust announced Wednesday it will invest \$225,000 in three startups through the recently created follow-up fund Parallel18 Ventures.

The selected ventures were Puerto Rican startup BUREA; Pair, co-founded by a Puerto Rican living in the diaspora; and Cinemad, from Argentina.

The fund carries the name of accelerator Parallel18 (P18) and was awarded to three of the startups that were part of P18's first generation. Each will receive \$75,000 in exchange for stocks or convertible notes, as a match to private capital raised by the companies.

The combined capital raised by the three companies totals \$660,000 from investors in Puerto Rico and the U.S. mainland, including Parallel18 Ventures, the Science Trust said.

As a condition to receive the funds, each startup is required to keep operations in Puerto Rico and hire, at least five full-time employees locally in the next two years.

Parallel18 Ventures is a follow-up fund designed to co-invest in promising startups fresh out of the accelerator. With the program, the PRSTRT matches private capital raised by the entrepreneurs up to \$75,000, in exchange for stocks or convertible notes.

"Parallel18 Ventures provides the [Science Trust] the opportunity to participate from the accelerated growth of certain startups that we're already supporting, with the possibility of obtaining a financial return of investment," said Lucy Crespo, Science Trust CEO.

"This is not the first time that the organization will have shares of companies supported through one of its programs. The difference with Parallel18 Ventures is that it was created to have a consistent strategy to keep investing in startups of the accelerator's future cohorts," she said.

Crespo also mentioned that the Science Trust plans to keep its stocks in the startups for a limited time.



From left: Science Trust CEO and COO, Lucy Crespo and Iván Ríos-Mena, and Parallel18 Executive Director Sebastián Vidal. (Credit: José Madera)

El Nuevo Día | January 12, 2017

newsismybusiness.com | January 12, 2017

EMPRESAS

## Propondrán cambios "fundamentales" en las leyes de incentivos

El DDEC buscará beneficiar al sector de las pymes con la eliminación del requisito mínimo de creación de empleos

sábado, 11 de marzo de 2017 - 8:00 AM

Por Yalixa Rivera Cruz



Lucy Crespo, presidenta del Fideicomiso de Ciencias, Tecnología e Investigación, durante su participación en el CIO & IT Leadership Conference, que se celebró ayer en el Hotel Sheraton Puerto Rico. (Vanessa Serra Díaz)

La falta de talento técnico y de profesionales preparados en ciencias de cómputos e ingeniería de computadoras es actualmente una de las mayores preocupaciones que tiene el ecosistema de tecnología en el País, en aras de cumplir con las proyecciones de crecimiento y exportación que tienen este sector.

La inquietud, que figuró como uno de los temas recurrentes del CIO & IT Leadership Conference, que se celebró ayer en el Hotel Sheraton Puerto Rico, representa realmente una amenaza para el desarrollo de esta industria en la Isla, más aún cuando se habla de una posible nueva ola migratoria en el País que podría representar el éxodo de unos 500,000 puertorriqueños con un impacto en la población que podría alcanzar el 22%, según proyecciones del Instituto de Estadísticas de Puerto Rico.

PUBLICIDAD

El Nuevo Día | March 11, 2017

## Consorcio clínico busca retener médicos en la isla

También tienen como propósito que los puertorriqueños tengan medicamentos de forma accesible.

Por Willyssa Soto  
El miércoles 11 de abril 2017 a las 10:00 AM

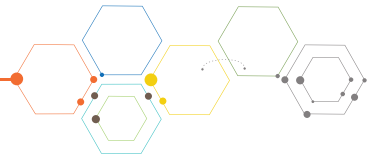


El Consorcio de Investigaciones Clínicas de Puerto Rico (CICPR), por su nombre en inglés, celebró su primer aniversario, así como la oportunidad de dar calor a los médicos boricuas y otros profesionales de la salud para que no se muden de la Isla.

La organización sin fines de lucro creó por el Fideicomiso para Ciencias, Tecnología e Investigación de Puerto Rico (FCTI) las instalaciones una red que incluye 21 centros de investigación clínica alrededor de la Isla.

Metro | April 5, 2017





EMPRESAS

## El Consorcio de Investigación Clínica reporta sus logros

En su primer año superó expectativas en estudios, afiliados y métricas financieras

jueves, 6 de abril de 2017 - 5:00 AM  
Por Sharon Minelli Pérez



Dr. Kosmas Kretsos, director ejecutivo del Consorcio junto al doctor José Rodríguez Orengo, asesor ejecutivo del PRCCI. (Suministrada)

En su primer año de existencia, el Consorcio para Investigaciones Clínicas de Puerto Rico (conocido por sus siglas en inglés PRCCI) "superó expectativas en muchos frentes", aseguró ayer su director ejecutivo, el doctor Kosmas Kretsos.

Tanto así que, a cinco años, el retorno de inversión se calcula entre "200% a 500% en lo que respecta a investigaciones clínicas solamente", destacó Kretsos. A su vez, al incluirse la educación, capacitación y otros impactos socioeconómicos de la iniciativa, el ROI se dispara "hasta 700%", aseguró.

## Consortium for Clinical Investigation marks 1st year

[newsismybusiness.com/consortium-clinical-investigation/](http://newsismybusiness.com/consortium-clinical-investigation/)

Contributor

The Puerto Rico Consortium for Clinical Investigation (PRCCI), an initiative created and promoted by the Puerto Rico Trust for Science, Technology and Research, marks the first year of operations this month, executives announced Wednesday.

As part of the celebration PRCCI has convened partners to present the scope of their achievements obtained this year, including several strategic partnerships designed to optimize clinical research in Puerto Rico, such as the alliance with the Yale University Research Center.



Jose Rodriguez-Orengo, advisor of the PRCCI, and the nonprofit's Finance Director Astrid Navarro discuss the entity's achievements. (photo by: Jose R. Madera)

Among the performance indicators highlighted this year are the 22 clinical research centers on the island — three universities, a chain of hospitals, a cooperative of primary care physicians and several centers in specialized research — nine hired clinical studies, and the creation of 10 new jobs; close to 150 clinical research opportunities evaluated, more than 2,000 hours of continued education offered and more than 1,500 hours in activities to improve the quality of the partners' operations.

"For many years Puerto Rico has been a great spot for various companies to conduct clinical trials, although in an isolated manner. As a result, on April 2016, the nonprofit corporation and subsidiary of the Trust, the PRCCI, was officially launched as a consortium of high-quality research units committed to reducing time and improving the quality of clinical trials in Puerto Rico", said Lucy Crespo, CEO of the Puerto Rico Science, Technology and Research Trust.

"We have created a unique business model to foster and enhance clinical research in Puerto Rico, by building capabilities and capacities not only to our member sites but across the entire island," said Kosmas Kretsos, executive director of the PRCCI.

"Our ultimate goal is for Puerto Rico to be known for its superb clinical research quality and we are on our best way to achieve that," he said.

El Nuevo Día | April 6, 2017

newsismybusiness.com | April 6, 2017

## Puerto Rico's Parallel18 accelerator offering \$40K grants to 40 startups for 4th gen.



THE HINCHLIFFE

Tim Hinchliffe is a veteran journalist whose previous work includes writing about how technology impacts society and artificial intelligence. He previously worked at the Washington Post and the New York Times. He is currently a senior editor at The Atlantic.



Backed by the government of Puerto Rico, accelerator Parallel18 is accepting applications for its fourth generation of startups.

Parallel18 (P18) has launched its fourth open call for startups to go through its accelerator program in Puerto Rico.

P18 will provide \$40K grants to some 40 startups that make it through the application process, and the deadline to apply is Monday, May 8 at midnight.

The accelerator program will run for five months and has all the benefits of a world-class accelerator including strong mentorship and solid networking — all taking place from the capital of San Juan along with its stunning beaches on the Caribbean.

**Read More:** Strong mentorship, networking are key to industry-focused accelerator success

This fourth open call is directed towards innovative startups with a global vision that have a functional prototype and are in the process of scaling their sales or operations.

## Nueve investigadores reciben subvenciones de Fideicomiso para Ciencia

[sincomillas.com/nueve-investigadores-reciben-subsuenciones-de-fideicomiso-para-ciencia/](http://sincomillas.com/nueve-investigadores-reciben-subsuenciones-de-fideicomiso-para-ciencia/)

Por redacción de Sin Comillas

El rol de un medicamento en la progresión del cáncer del seno inflamatorio, las variantes de una terapia individualizada contra el asma y el ritmo del desarrollo de fallos en el Oeste de Puerto Rico. Son temas de estudio actualmente entre la comunidad de investigación y desarrollo del país y son temas de algunos de los proyectos de investigación que acaban de recibir subvención del 'Small Research Grants Program', del Fideicomiso para Ciencia, Tecnología e Investigación de Puerto Rico (FCTIPR).



Foto: Jose R. Madera

El martes se anunciaron los nueve ganadores de este programa, cuyo propósito es ayudar mediante una subvención, a investigadores locales para que aumenten sus probabilidades de obtener fondos externos federales o privados para sus propuestas de Investigación y Desarrollo (I&D). Cada investigador recibe hasta \$70,000 por un año para su investigación.

La principal oficial ejecutiva del FCTIPR, Lucy Crespo, informó que en esta tercera edición, 6 de las propuestas ganadoras fueron proyectos en el área de biotecnología y ciencias naturales, 2 en ciencias ambientales y uno en energía renovable.

Crespo explicó que el programa busca apoyar a los investigadores a fortalecer sus propuestas y aumentar sus posibilidades de lograr éxito y obtener fondos federales para el desarrollo de sus investigaciones. "Con este programa apoyamos el desarrollo económico para maximizar la participación de Puerto Rico en la economía de conocimiento a nivel global. Buscamos que con estos fondos, nuestros científicos puedan competir en igualdad de condición con propuestas de gran escala a nivel federal y del sector privado", reafirmó Crespo.

"Buscamos atraer científicos puertorriqueños, y de todo el mundo, para convertirnos en la sede de la investigación a nivel mundial, y este programa es un paso importante para lograrlo", dijo Crespo. "Por ello, invertimos, facilitamos y desarrollamos las capacidades que adelanten la economía de Puerto Rico y el bienestar de sus ciudadanos mediante empresas basadas en la innovación, la ciencia, tecnología y su base industrial".

The Sociable | April 11, 2017

sincomillas.com | April 18, 2017





EMPRESAS

## Nueve científicos ganan \$630,000 para avanzar proyectos

El Fideicomiso para Ciencia, Tecnología e Investigación anunció ayer los ganadores de su programa de subvenciones

miércoles, 19 de abril de 2017 - 6:00 AM  
Por Sharon Minelli Pérez



La subvención es de \$70,000 para cada investigación, entre las que figuran estudios sobre cáncer de mama, terapia individualizada contra el asma, remediación de agua y resiliencia de las abejas.

Nueve investigadores obtuvieron ayer impulso para sus proyectos, al salir airoso en la ronda del programa de subvenciones del Fideicomiso para Ciencia, Tecnología e Investigación (FCTI), anunció la doctora Gretchen Díaz, directora del programa.

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"Los fondos han permitido acelerar los proyectos de investigación y desarrollo, y han generado propiedad intelectual, empresas, patentes y fondos externos", explicó Díaz sobre el objetivo y

## 9 local researchers receive Science Trust grants

newsismybusiness.com/researchers-receive-science-trust-grants

Michelle Kantrow

Nine local researchers were announced Tuesday as the winners of the 2017 edition of "Small Research Grants Program" sponsored by the Puerto Rico Science, Technology and Research Trust.

Among the issues at the center of Puerto Rico's scientific research and development community are the role of a drug in the progression of inflammatory breast cancer, variants of an individualized therapy for asthma and the pace of geographic development faults in western Puerto Rico.

Those are the subjects of some of the research projects that have just received grants through the Science Trust's program that seeks to provide funding to local researchers to increase their chances of getting federal or private external funding for their proposed R&D efforts. Each researcher receives up to \$70,000 for one year for their research projects.

Science Trust CEO Lucy Crespo said in this third edition, six of the winning proposals were projects in the area of biotechnology and natural sciences, two in environmental sciences, and one in renewable energy.

She explained that the program seeks to support researchers to strengthen their proposals and increase their chances of achieving success and obtain federal funds for the development of their research.

"With this program we support economic development to maximize Puerto Rico's participation in the global knowledge economy," she said. "We want these funds to help our scientists compete on equal status against large-scale proposals on the federal and private sector level," Crespo said during a news conference Tuesday.

This year's winners are:

- Miguel Acevedo, of the University of Puerto Rico, Río Piedras Campus with his project "Space Complexities in the dynamics of vector-borne diseases: theory and applications of malaria on lizards and humans";



Lucy Crespo, CEO of the Trust detailed the results of the Small Research Grants program, which has managed to subsidize nearly 20 researchers since 2014. (Credit: José R. Madors)

1/2

El Nuevo Día | April 19, 2017

newsismybusiness.com | April 19, 2017



El Nuevo Día | April 19, 2017

Per Mente Pienza Ecco  
 © Averago di via della Pace / 1999



"No tenemos suficientes empresas pequeñas y medianas enfocadas en ciencia y tecnología, y son estas las que mueven la economía", afirmó Luis Ochoa, principal oficial ejecutivo del Observatorio para América, tecnología e innovación, y uno de los panelistas. "Tenemos que transformar la cultura y el espíritu de innovación a una de comercialización", agregó.

[newsismybusiness.com/commercializing-innovation-economy/](http://newsismybusiness.com/commercializing-innovation-economy/)

Changing the mentality of researchers and scientists to dare to market their ideas, while inserting as early as possible into the education system of Puerto Rico are vital factors for the economic transformation of the island, according to the participants of the panel "Collaboration between the Industry and the Academy for Innovation" held this past weekend as part of the Annual Conference of the Puerto Rican Society of Microbiology.



From left: Luben Ron García, Lucy Crespo, and Dr. Horacio Serrano.

García, along with the medical director of OMICS Dr. Horacio Serrano, who is also a professor at the University of Puerto Rico, presented his company as an example of collaboration. OMICS currently develops a product to help doctors make a better forecast for Type 2 diabetic patients.

1/2

†The ICD-9 code for alcoholism is 291.00. Alcoholism was defined as a DSM-IV diagnosis of alcohol abuse or dependence.



Representantes de Yola visitaron la isla varias veces el año pasado para impartir capacitación a aproximadamente 125 personas.

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### 112

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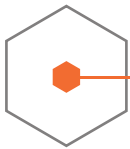
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El Nuevo Día | June 27, 2017

## Repudio a que se “politice” el Fideicomiso para Ciencia y Tecnología

martes, 27 de junio de 2017 - 12:00 AM  
Por Sharon Minelli Pérez



El Fideicomiso para Ciencia, Tecnología e Investigación está ubicado en terrenos de la antigua cárcel conocida como Oso Blanco, en Río Piedras. (Toma pantalla / prsciencetrust.org)

Líderes de la comunidad científica, tecnológica y empresarial repudiaron la aprobación sin vista pública del proyecto de la Cámara 1122 porque —a juicio de los entrevistados— politiza y debilita el **Fideicomiso para Ciencia, Tecnología e Investigación** (FCTI).

“Puerto Rico necesita instituciones independientes que no estén directamente a la merced de los vaivenes políticos en el País. Esta medida politiza al Fideicomiso y amenaza la independencia de la institución”, alertó la destacada científica boricua Mónica Feliú, cofundadora de CienciaPR.

De convertirse en ley, la medida sometida por La Fortaleza eliminará el actual consejo de fiduciarios que supervisa al FCTI, una entidad de carácter privado, según reconoció por la Oficina del Contralor, el Banco Gubernamental de Fomento y la Oficina de Ética

El Nuevo Día | June 27, 2017

## Fideicomiso para Ciencia se expresa tras medida que cambiará su estructura

El Fideicomiso para Ciencia, Tecnología e Investigación de Puerto Rico enfrentará una reestructuración tras la aprobación del PC 1122.

Por Metro Puerto Rico  
Martes 27 de junio 2017 / 10:00 hrs.



El fideicomiso para Ciencia, Tecnología e Investigación de Puerto Rico expresó que espera que los cambios que se avecinan coincidan con el propósito de la legislación, ante las preocupaciones del impacto de la Cámara 1122 que propone cambios significativos en la estructura y la gobernanza de la entidad.

“El equipo de trabajo del fideicomiso está comprometido y enfocado en todos sus proyectos e iniciativas para cumplir con su misión de investigar, facilitar y desarrollar las asociaciones que aceleran continuamente la economía de Puerto Rico y al bienestar de sus ciudadanos, mediante iniciativas basadas en la innovación, la ciencia, la tecnología y la base empresarial”, expresó la organización en una comunicación escrita.

Metro | June 27, 2017

## Industriales piden reconsiderar la intervención en Fideicomiso Ciencia

El presidente de la AIPI, Rodrigo Masses, defiende la eficiencia y los resultados de la gestión de Lucy Crespo

martes, 27 de junio de 2017 - 5:09 PM  
Por Sharon Minelli Pérez



Rodrigo Masses, presidente de la Asociación de Industriales, pidió al gobernador Rosselló que “revisite” la medida que altera la estructura y gobernanza del Fideicomiso para Ciencia, Tecnología e Investigación de Puerto Rico. (Ramón Tonto Zayas)

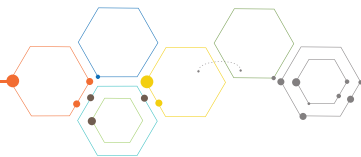
La **Asociación de Industriales de Puerto Rico** (AIPI), por medio de su presidente Rodrigo Masses, urgió hoy al gobernador Ricardo Rosselló a “revisitar” el proyecto de la Cámara 1122, que altera la estructura y gobernanza del **Fideicomiso para Ciencia, Tecnología e Investigación de Puerto Rico** (FCTI).

La medida fue aprobada en Cámara y Senado entre el sábado y el domingo en la noche, sin mediar vistas públicas ni consulta a la comunidad científica y empresarial, que se ha expresado en contra de que esta institución privada sin fines de lucro sea dirigida por síndicos que respondan al Gobierno de turno, debido a que —según el proyecto— tendrían que ser nombrados por el gobernador y confirmados por el Senado.

PUBLICIDAD

El Nuevo Día | June 27, 2017





# “Enfocado” el Fideicomiso en medio de la controversia

martes, 27 de junio de 2017 - 1:22 PM  
Por Sharon Minelli Pérez



Lucy Crespo, principal oficial ejecutiva del Fideicomiso para Ciencia, Tecnología e Investigación (FCTI) de Puerto Rico. (Archivo/GFR)

El Fideicomiso para Ciencia, Tecnología e Investigación (FCTI) de Puerto Rico expresó en declaraciones escritas que, de cara a la aprobación del proyecto de ley 1122 que trastoca su gobernanza y estructura, continúa “enfocado con todos sus proyectos e iniciativas para cumplir con su misión de invertir, facilitar y desarrollar las capacidades que adelanten continuamente la economía de Puerto Rico y el bienestar de sus ciudadanos, mediante iniciativas basadas en la innovación, la ciencia, la tecnología y su base empresarial”.

La institución, encabezada por la ingeniera Lucy Crespo, enumeró las principales iniciativas que ha adelantado de 2014 a 2017, periodo cuando el FCTI consiguió comenzar a ejecutar su plan estratégico tras superar una década de litigios legales y batallas internas.

PUBLICIDAD

“Ante el cambio de visión y gobernanza expuesto en este proyecto de ley, confío y espero que se continúe adelantando la agenda de ciencia,

El Nuevo Día | June 27, 2017

# Aclaran naturaleza del Fideicomiso de Ciencias e Investigación (documento)

Por Sharon Minelli Pérez  
Publicado el 27 de junio de 2017



El Fideicomiso para Ciencia, Tecnología e Investigación de Puerto Rico (FCTI) recibe alrededor de 25 por ciento de su presupuesto operacional de fondos públicos, y el resto proviene de subvenciones federales.

“Surgió una impresión de tener y entender que el Fideicomiso es una institución fuera del Estado, pero en realidad es una agencia de la Rama Ejecutiva, una entidad de corporación pública. A tales efectos, los importantes directivos del gobernador Ricardo Rosselló con mucha claridad, incluyó la principal oficial ejecutiva del FCTI, Lucy Crespo, durante una visita de estudio de la Legislatura del Senado.

Durante el fin de semana se aprobó en la Legislatura un proyecto que eleva el Consejo de Evaluación que dirige el organismo para dar paso a una nueva estructura de reformas del gobernador Ricardo Rosselló.

NOTICEL | June 27, 2017

# La Legislatura se contradice al actuar sobre el Fideicomiso de Ciencias

Una comisión senatorial emitió un informe positivo sobre la gestión del FCTI, a pesar de que la Legislatura aprobó una medida que destituye a sus directivos

Por Sharon Minelli Pérez



La senadora Zoé Laboy preside la Comisión que emitió un informe favorable para el Fideicomiso.

Un informe de la **Comisión de Revitalización Social y Económica del Senado** concluye que el **Fideicomiso para Ciencia, Tecnología e Investigación (FCTI)** “**está cumpliendo con el desarrollo e implantación de la política pública coherente y proactiva en el campo de la investigación y el desarrollo de la ciencia y la tecnología en la isla.**”

El documento, sometido hoy por la senadora Zoé Laboy, quien preside la Comisión, es el resultado de la investigación e inspección ocular encomendada a ese cuerpo por la Resolución del Senado 66.

**Aunque esta investigación no había concluido, tanto la Cámara como el Senado adelantaron el voto a favor del Proyecto de la Cámara 1122, que convierte el cuerpo rector del FCTI en una junta nombrada por el gobernador y confirmada por el Senado, y además destituye a la actual**

El Nuevo Día | June 28, 2017

# Fideicomiso de ciencia y tecnología defiende su gestión

Publicado el 28 de junio de 2017



Comunicado

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San Juan: Este día se celebró la reunión de la Comisión de la Ciencia y Tecnología del Fideicomiso para Ciencia, Tecnología e Investigación ante la Cámara de Senadores, la cual se celebró en el

“El equipo de trabajo del Fideicomiso está comprometido y enfocado en dar un paso adelante en la investigación para cumplir con el mandato de ciencia, tecnología e innovación que el gobierno de Puerto Rico y el Senado de la Isla le han encomendado. Nuestra prioridad es avanzar en la innovación, la ciencia, la tecnología y su base empresarial”, declaró la senadora Zoé Laboy.

El Proyecto de la Cámara 1122 fue aprobado por la Asamblea Legislativa y enviado a la firma del gobernador Ricardo Rosselló.

El Vocero | June 28, 2017





## Puerto Rico: A Case Study in Tax Incentives and Acceleration to Build a Startup Ecosystem

How Puerto Rico uses taxes and investment to spur startup growth

By Paul Hwang | Entrepreneur, investor, and founder



©2017 Entrepreneur

Puerto Rico is known to have an ideal environment for entrepreneurs and startups, but it would take to be known to the future as a startup hub.

Like other US territories and municipalities, such as Miami, Puerto Rico has tried to attract and foster investment in such high-growth and innovative sectors as the island.

Puerto Rico is different, however, because of the sheer power of their incentives. Unlike Florida and other states, which eliminate state taxes but cannot limit the federal tax burden, residents of Puerto Rico do not have to give up their US citizenship but can become eligible to stop most federal tax.

The concept exemption comes from Puerto Rico's status as a territory, and because of this, it could be used for state capital infusion, the federal government has not addressed the exemption and has allowed Puerto Rico to expand it.

## EDITORIAL

# Golpe al avance de la ciencia y la tecnología

Las intenciones y las formas en que el Ejecutivo y el Legislativo se mueven para cambiar la dirección del Fideicomiso para Ciencia, Tecnología e Investigación (PCTI) representan un atentado contra un eje crítico para revitalizar la economía cuando Puerto Rico más lo necesita.

**B**ajo el argumento de reorganizar esta institución privada sin fines de lucro creada por ley, la acción del Ejecutivo, recogida en el Proyecto de la Cámara 1122, se sumerge en el pantano del vivirín partidista y cortoplacista que ha impedido al país avanzar.

Hoy más que nunca, Puerto Rico requiere políticas que provean estabilidad y propicien la planificación y desarrollo de estrategias a mediano y largo plazo.

Por virtud de la Ley 214 de 2004, la Asamblea Legislativa delegó en el PCTI acorrear la política pública conducente a la innovación en la tecnología, la ciencia, la investigación y el desarrollo. La Ley facilitó la alianza -no el control de uno sobre otro- entre esa institución, el gobierno y el sector privado, que incluye organizaciones con y sin fines de lucro e instituciones educativas dentro y fuera de la isla.

La nueva medida propone sacudir desde su cúpula la estructura de la institución para acomodar a ocho personas nombradas por el Gobernador y confirmadas por el Senado. El proyecto, además, reduce los términos de los fiduciarios de seis años a tres. En clara contradicción con los principios de transparencia y participación, el proyecto de ley fue aprobado por la Cámara de Representantes a toda prisa durante el fin de semana pasado, sin celebración previa de vistas públicas. Tales formas, además de indecorables y sospechosas, amenazan con minar los logros y la credibilidad del Fideicomiso.

Fue, precisamente, esa discusión estéril por el control partidista lo que mantuvo a dicha institución inoperante desde su creación casi una década. Sin embargo, tras la llegada de la ingeniera Lucy Crespo como principal ejecutiva de la entidad, en marzo de 2015, la entidad desarrolló valiosos programas reconocidos en y fuera de Puerto Rico. Es el caso de la aceleradora Parallel45, incubadora del crecimiento de casi un centenar de empresas tecnológicas y de la generación de 168 empleos directos.

También cuenta como logro el Consorcio para las Investigaciones Clínicas. Este tiene 50 centros de investigación, ha generado 50 alianzas con farmaceuticas, fundaciones y agencias; y se estima que produce entre 200 y 300 por ciento de retorno de inversión.

Investigación. Esta generación de 168 empleos directos, tanto bajo el mando como bajo el Consorcio para las Investigaciones Clínicas, es una muestra de cómo se puede avanzar en la ciencia y la tecnología cuando Puerto Rico más lo necesita.

El Consorcio del Departamento de Educación Científica y Tecnológica, aunque ya se vio en el Consorcio PCTI, no puede ser considerado como una institución para la ciencia y la tecnología. El Consorcio del Departamento de Educación Científica y Tecnológica, aunque ya se vio en el Consorcio PCTI, no puede ser considerado como una institución para la ciencia y la tecnología. El Consorcio del Departamento de Educación Científica y Tecnológica, aunque ya se vio en el Consorcio PCTI, no puede ser considerado como una institución para la ciencia y la tecnología.

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Inc. | June 27, 2017

El Nuevo Día | June 28, 2017

miércoles, 28 de junio de 2017

## Golpe al avance de la ciencia y la tecnología

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Fue, precisamente, esa discusión estéril por el control partidista lo que mantuvo a dicha institución inoperante desde su creación casi una década. Sin embargo, tras la llegada de la ingeniera Lucy Crespo como principal ejecutiva de la entidad, en marzo de 2015, la entidad desarrolló valiosos programas reconocidos en y fuera de Puerto Rico. Es el caso de la aceleradora Parallel45, incubadora del crecimiento de casi un centenar de empresas tecnológicas y de la generación de 168 empleos directos. También cuenta como logro el Consorcio para las Investigaciones Clínicas. Este tiene 50 centros de investigación, ha generado 50 alianzas con farmaceuticas, fundaciones y agencias; y se estima que produce entre 200 y 300 por ciento de retorno de inversión.

miércoles, 28 de junio de 2017

## Golpe al avance de la ciencia y la tecnología

Las intenciones y las formas en que el Ejecutivo y el Legislativo se mueven para cambiar la dirección del Fideicomiso para Ciencia, Tecnología e Investigación (PCTI) representan un atentado contra un eje crítico para revitalizar la economía cuando Puerto Rico más lo necesita.

Bajo el argumento de reorganizar esta institución privada sin fines de lucro creada por ley, la acción del Ejecutivo, recogida en el Proyecto de la Cámara 1122, se sumerge en el pantano del vivirín partidista y cortoplacista que ha impedido al país avanzar.

Hoy más que nunca, Puerto Rico requiere políticas que provean estabilidad y propicien la planificación y desarrollo de estrategias a mediano y largo plazo.

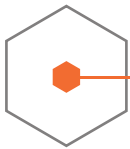
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El Nuevo Día | June 28, 2017

El Nuevo Día | June 28, 2017





### Compañías logran \$14 millones en ventas globales tras pasar por Parallel 18

Por Cindy Chang, **NewsIsMyBusiness** el 29 de JUNIO de 2017

251     

Los \$2.4 millones que el Gobierno, a través del Fideicomiso para Ciencias, Tecnología e Innovación (FITEI), invirtió en 60 compañías emergentes o "startups" comenzaron a dar resultados.

Las primeras dos generaciones de startups que fueron impulsadas por la aceleradora internacional con base en Puerto Rico **Parallel18 (P18)** lograron entre abril de 2016 y abril de 2017 ventas globales de \$13.9 millones, de los cuales \$7.68 millones se generaron en la isla.



Las startups han logrado 11 conversiones comerciales internacionales en la isla y han involucrado a más de 3,000 personas (más de 992 horas de contribución) con la comunidad. Tras de las compañías crecieron dramáticamente tras el lanzamiento por diversos canales, en internet (Bosch).


Caribbean Business | June 29, 2017

### Study: Parallel18 startups top \$13M in sales, create jobs

[newsismybusiness.com/parallel18-startups-creator/](http://newsismybusiness.com/parallel18-startups-creator/)

Contributor

Parallel18, the global business accelerator that has been operating since 2015 as part of the Puerto Rico Science, Technology and Research Trust, released a study confirming that the 60 companies participating of the first two editions of its program generated more than \$13.9 million in sales.



Of the sales reported by the first two generations of P18 that participated between April 2016 and April 2017, more than half were generated in Puerto Rico, and created 168 new employment opportunities on the island, according to the study revealed Thursday.

The report further shows that 30 percent of the companies covered are from Puerto Rico, and another 30 percent established operations on the island after being selected to participate in the accelerator program.

The results revealed are part of P18's first economic impact study, which covers the first two program periods or generations (G1 and G2) and portrays positive results for the local business ecosystem, the nonprofit said.

P18 works in collaboration with the Puerto Rico Industrial Development Company and the Department of Economic Development and Commerce to attract and create high impact startups that range from Puerto Rico to global communities.

The report, developed by P18, was based on interviews and surveys with G1 and G2 participants of the program, which are selected after an open call to the public by a committee that rigorously evaluates emerging businesses in various areas.

Among the program's offerings there are grants of up to \$40,000, mentoring and individual consulting that the companies receive on important topics such as export, business contacts including investors, access to a professional and committed work team that help the companies achieve their business goals, and other additional services offered to the companies once they complete their program in the accelerator.

"It is a formidable task to bring various sectors and attract new talent to the accelerator," Sebastián Vidal, executive director of P18, said. "The numbers and the data in the study

1/2

News Is My Business | June 30, 2017

### Roselló dejará en sus cargos a miembros del Fideicomiso de Ciencias

Por Cindy Chang, **NewsIsMyBusiness** el 11 de JULIO de 2017

73     

El gobernador Ricardo Roselló Nieves afirmó hoy que continuará vital a miembros a los integrantes de la Junta de Síndicos del Fideicomiso para Ciencias, Tecnología e Innovación de Puerto Rico (FITEI, en inglés), el organismo en vigor el Proyecto de la Cámara H22, que otorga la independencia de este organismo.

El PFI de la C-1122, que reduce la cantidad de miembros de la Junta de Síndicos del FITEI, pero aumenta los integrantes del sector privado, fue aprobado por ambas cuerpos legislativos y espera por la firma del gobernador. Al realizar varios cambios en la composición del grupo, ha generado controversia entre quienes consideran que el PFI18 ha hecho un buen trabajo.



El gobernador Ricardo Roselló Nieves afirmó que se mantendrá en el gobierno el Fideicomiso de un año, pero, ante del nuevo proyecto de ley, el FITEI, el organismo que se creó en 2015, que representa hoy del Fideicomiso. (NewsIsMyBusiness)

Caribbean Business | July 11, 2017

### [ANÁLISIS] Independencia y fiscalización: claves para impulsar la innovación

Por Leticia Sureda, **NewsIsMyBusiness** el 13 de JULIO de 2017

101     

La economía del conocimiento, para su desarrollo, necesita de organizaciones independientes que creen un espacio a las empresas emergentes, una inversión de capital permite a la comercialización en las ideas innovadoras, como la ha estado haciendo en los últimos años el Fideicomiso para Ciencias, Tecnología e Innovación, a través de sus expertos consultores.

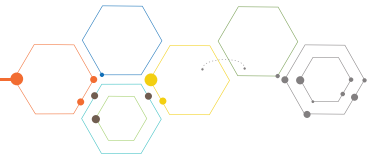
Al analizar la gestión del Fideicomiso, el vicepresidente de la Asociación de Innovadores, **Proyecto Ciencia**, afirmó que los tiempos requieren que en Puerto Rico se desarrollen empresas e ideas de productos e innovaciones como lo hace Parallel 18.

"La economía del futuro es el desarrollo empresarial, así que los jóvenes en vez de buscar un trabajo estable en una empresa y tener un sueldo se van a buscar más oportunidades, educación superior y universitaria, transmutando y las innovaciones de desarrollo y los aceleradores como los que tiene el Fideicomiso", afirmó Sureda, quien es ingeniera industrial y posee una maestría en gestión de negocios.



Caribbean Business | July 13, 2017





**[Editorial] Science Under Assault: Trust is a Four Letter Word — Again**

By Patricia Garmaza-Rivera on July 12, 2017

127 comments

When Karl Marx wrote in his essay "The Eighteenth Brumaire of Louis Napoleon," that history tends to repeat itself the first time as tragedy and the second time as farce, he could have been speaking of the Puerto Rico Science & Technology Trust, the entity created in 2004 to spearhead R&D on the island.

The Science Trust is now under assault once again — this time the wolf is stealthily coming, a House Bill 1132 that intends to gut the trust, replacing it with new trustees in the name of progress. The bill claims that the present trustees have failed to provide the fiscal stability that is demanded in these austere times. Talk about the pot calling out the kettle.

There is a political agenda concerning HB 1132 that is misguided and hurts Puerto Rico's chances to start creating jobs in 2018.

If the Rosselló administration wants to replace the trustees, it should do so on the basis of merit — not in one far leap, not throwing out the baby with the bathwater as the bill intends. The governors need not look that far back to know the harm that is done when talented scientists are forced to turn a private agency.

But, this is not the first time that the trust is under assault. In 2011, during the Luis Fortuño administration, the trust was targeted by then-Economic Development Secretary José Ramón Pérez Pons, who wanted to replace then-Executive Director Thomas Forest Park and remove several scientific trustees on the board.

This newspaper denounced that assault as an attack aimed that rejected the harm that would come to Puerto Rico by replacing trustees with government cronies. One of those trustees, Marlene Galarraga-Sánchez, was a renowned scientist who had spearheaded many research projects that led to patents at Cune University. This knowledge in the applied sciences is sought the world over and has helped to generate hundreds of millions in such places as Singapore.

**Editorial**

Caribbean Business | July 13, 2017

**36 / NEGOCIOS**

**Startups se miden ante inversionistas**

36 empresas de Escuelas Unidas y Puerto Rico fueron presentadas durante el Ocho Día de la PI

Un grupo de startups se presentaron ante inversionistas durante el Ocho Día de la PI. En la imagen, un emprendedor presenta su proyecto a un panel de jueces.

El evento, organizado por la Universidad de Puerto Rico, reunió a más de 300 emprendedores y inversionistas. Los participantes presentaron proyectos en áreas como tecnología, salud, educación y medio ambiente.

Los jueces, compuestos por expertos en negocios y tecnología, evaluaron los proyectos basándose en su potencial de crecimiento, innovación y viabilidad comercial.

Los ganadores de cada categoría recibieron premios en efectivo y mentoría por parte de los jueces. El evento concluyó con una recepción y networking para todos los participantes.

El Nuevo Día | July 15, 2017

**REVISTA NEGOCIOS**

**EL NUEVO DÍA | julio 2017**

**Del View Master a los hologramas**

LA OPINIÓN DE LA PISTA

Larry Chengo

El mundo se está volviendo cada vez más digital y tecnológico. Desde los View Master hasta los hologramas, la tecnología ha avanzado rápidamente. En este artículo, exploramos cómo la tecnología está cambiando la forma en que trabajamos, aprendemos y vivimos.

Los View Master fueron una de las primeras formas de realidad virtual. Eran pequeños dispositivos que permitían a los usuarios ver imágenes tridimensionales a través de lentes. Aunque hoy en día los View Master ya no son tan populares, su concepto sigue siendo relevante en la era de la realidad virtual.

La realidad virtual (RV) ha crecido enormemente en los últimos años. Desde juegos hasta aplicaciones empresariales, la RV ofrece una experiencia inmersiva que puede transformar la forma en que interactuamos con el mundo. Sin embargo, también plantea desafíos éticos y de privacidad que debemos abordar.

Además, la inteligencia artificial (IA) está revolucionando la tecnología. Desde asistentes virtuales como Siri hasta vehículos autónomos, la IA está cambiando la forma en que hacemos las cosas. Pero, ¿cómo aseguramos que la IA sea utilizada de manera responsable y ética?

En conclusión, la tecnología sigue avanzando a un ritmo vertiginoso. Como líderes empresariales, debemos estar preparados para abrazar el cambio y aprovechar las oportunidades que la tecnología nos ofrece. Al mismo tiempo, debemos mantenernos conscientes de los riesgos y trabajar para mitigarlos.

El Nuevo Día | July 16, 2017



## Atenderán en extraordinaria cambios a la ley del Fideicomiso de Ciencias

How Caring Surgery Arrives at 10:15 July 16, 2017

31
continued



Tras las críticas surgidas contra el Proyecto de la Cámara 1122, que altera la composición de la Junta de Síndicos del Páramo de la Ciencia, Tecnología e Investigación (PRST, en inglés), el Gobierno se apresura a presentar enmiendas adicionales a la Ley 314 de 2004, que crea dicho organismo.

Aún se desconoce si las "enmiendas técnicas" a la ley del PRST serán incluidas en el P. de la G. 1122, de modo tal que se envíe a la Legislatura para realizar los cambios, o si serán presentadas en una nueva medida legislativa. Lo que sí se sabe es que los cambios serán considerados en la sesión extraordinaria que convocó el gobernador Ricardo Rosales Méndez a finales de mes e a principios de agosto.

Así lo dijo el secretario de Asuntos Públicos y Política Pública, Ramón Rosario, en una rueda de prensa (junto con los presidentes de Cámara y Senado, Carlos "Johnny" Múñiz y Thomas Rivera Schatts, respectivamente). Los líderes legislativos se reunirán esta mañana con el gobernador para discutir los temas que se elevarán en la extraordinaria.



### Roselló dejará en sus cargos a miembros del Fideicomiso de Ciencias

Afirmo que su intención no es cambiar la junta a una composición partidista y dejar entrever que albergará cambios, por lo que podría atenerse al proyecto que existe así lo firmo.

Caribbean Business | July 18, 2017

## Parallel18 accelerator graduates generate \$14M in sales, \$8M in Puerto Rico alone



**LAST GREAT QUEST**  
Sam is an energetic and passionate writer/blogger, always looking for the next adventure. In August 2016, he devoted all of his possessions to charity, quit his job, and left the U.S. Since then he has been on the road traveling through North, Central and South America searching for new adventures and amazing people.



Since 2008, Puerto Rico has been suffering from a crippling recession. The government has repeatedly dug deeper into borrowing in order to cover spending expenses, and in 2011, the island essentially ran out of money and was no longer able to raise its overwhelming debt of \$122 billion.

When you think of Puerto Rico, it is fair to assume the words "Brazilian Success" probably don't spring to mind. However, one accelerator is working to change that, with promising results.

The global business accelerator ParaCell (PFC), which is based in the island capital, San Juan, has recently announced that its first two graduating classes (April 2016-2017) have generated almost \$14 million in sales, of which more than half was produced in Puerto Rico.

**Read More:** Puerto Rico's Facebook administrator offering \$100,000 grants to all citizens [P.R. Gov. Offers \\$100,000 Grants to All Citizens](#)

The Sociable | July 18, 2017

Meet the 14 Startups from Parallel18 Fueling the Puerto Rico Economy

Ensayos y crítica



July 1996, page 1

30 Shares   

**W**hen people think of innovative ideas and entrepreneurial solutions, often the Silicon Valley and New York typically come to mind. [2008's most innovative](#) best anywhere else. I struggle to reason that origin here these two cities are the only goal of the world with strategies trying to change the world. However, it's important to remember that a burgeoning ecosystem has just as much potential as any tech hub. It just depends on who is supporting the effort. And in Puerto Rico, one strategy community is doing a lot of the heavy lifting.

**Parsons 33**, a government-sponsored aquifer recharge program, had recently announced that two of their groundwater pumped bore generated almost 10 million in sales of which more than half was produced in Florida. This indication is intriguing and has created excitement in Florida. It is not just money. It's also positive business.

Tech.co | July 19, 2017

## In Puerto Rico, Program Attracts Young Entrepreneurs, Sees Results

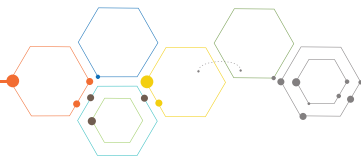


A program that has attracted young entrepreneurs is the *Entrepreneur* magazine's *Young & Wealthy* contest, which is promoting small business and is generating solid investment and sales.

**Parallel 16**, an innovative program launched in 2013, offers 100,000 in funding, using 400 monitoring, consulting, and technical assistance, to assist companies take one step to a safe up and down and better integration of their business with their society. Its exchange, an entrepreneurship fair and trade in Puerto Rico, and collaboration with local universities and research institutes. Parallel 16 takes its name from where the island is located on a globe.

so far, the companies participating in the program have generated \$44 million in sales, more than half of that in the second and new info.

NBC.com | August 1, 2017



### Wanna Be A #Boss By The Beach? This Puerto Rican Accelerator Wants To Make You A Millionaire

By Mirella Mejia August 2, 2017




**Fulfillment & Warehousing**  
Costa Rica  
Parallel18

Desiring of being a #Boss working from the beach? The start-up accelerator **Parallel18** may just be your answer. Founded in 2015 in Puerto Rico, the driving force behind the creation of Parallel18 was the desire to provide guidance and various forms of support to talented startup companies and entrepreneurs looking for an alternative to the traditional, expensive market. Maria Nolasco, co-founder of personal career coach, Costa and Gen2 alumni (second generation of Parallel18) says, "When you really analyze the ecosystem in Puerto Rico, the market is so small and dense that you end up missing things faster than in the United States".

Latina Magazine | August 2, 2017

### As Others Pack, Some Millennials Commit to Puerto Rico

Lucas Espelido



The office of Parallel18, a start-up accelerator in San Juan, PR. The startup is part of a trend of entrepreneurship among young people, some of whom have left their jobs in the mainland to start their own businesses.

By LUCY ALVAREZ  
JULY 14, 2017

**SAN JUAN, P.R.** — Two young graduates from the Massachusetts Institute of Technology did the unthinkable last summer: They quit variable jobs in New York and moved back to beleaguered Puerto Rico, bringing their plan for a start-up with them.

"People were like: 'Are you crazy? Why would you ever do that? Go back way later, you're basically going into a hailhole right now,'" said one of the graduates, Eric Chavez, 35, who helped create **Lucy's**, a fast-growing online food delivery and fast-food company in Puerto Rico.

[Show Full Article](#)

The New York Times | August 5, 2017

### Hyderabad-based Startup CloudBoost is Representing India at MassChallenge and Parallel18

CloudBoost builds a cloud platform that lets software developers build apps in half hour time by taking care of the infrastructure and backend servers, databases, and storage for them.



17 Days for the Entrepreneur

CloudBoost is a Hyderabad-based startup that has been selected to participate in the MassChallenge and Parallel18 accelerator programs. The company is focused on providing a cloud platform that allows developers to build applications quickly and easily. CloudBoost's platform is designed to be a one-stop solution for developers, providing everything they need to get started, from infrastructure to backend services. The company is currently looking for funding and is seeking to expand its operations globally.

BW Disrupt | August 17, 2017

### Gestión red de apoyo para futuros empresarios



El objetivo de este proyecto es crear una red de apoyo para futuros empresarios, brindandoles el conocimiento y las herramientas necesarias para iniciar su propio negocio. El proyecto se enfoca en brindar apoyo a emprendedores de diferentes sectores, brindándoles asesoramiento y recursos necesarios para el éxito de su negocio. El proyecto es una iniciativa de la Universidad de Puerto Rico, con el objetivo de fomentar el emprendimiento y la creación de empleo en la isla.

esnoticiapr | August 25, 2017



### Anuncian ayuda económica para investigadores

La convocatoria número 30 de octubre del 2017 mediante la página web del Politécnico para Ciencia, Tecnología e Investigación

Por Metro Puerto Rico  
@metropr 16 de octubre de 2017



La División del Caribe de la AAAS (American Association for the Advancement of Science), el Politécnico para Ciencia, Tecnología e Investigación de PR (PCTI) y Ciencia Puerto Rico lanzaron un programa para apoyar a investigadores, profesores, maestros y estudiantes de ciencias a través de becas y fondos de ayuda tras la emergencia de los huracanes Irma y María. La iniciativa surge a instancias de la división del Caribe de AAAS, entidad que agrupa globalmente a más de 120,000 miembros y que en el Caribe tiene sobre 500 miembros. Tras los pasados huracanes Irma y María, los miembros iniciaron una campaña de recaudación de fondos para ayudar a investigadores a continuar con sus labores e investigaciones.

Guillermo Rivera, Presidente de AAAS Caribbean, señaló en una conferencia de prensa que "nuestro mundo está cambiando y necesitamos más ideas creativas y soluciones innovadoras. La AAAS invierte en el talento humano que impulsa el progreso. Tras el paso de los huracanes Irma y María, necesitamos ahora más que nunca, de las ideas y el conocimiento científico para abordar y superar desafíos. Apoyamos para el proceso de recuperación a través de este programa de becas para investigadores, para apoyar a otros científicos e investigadores y estudiantes de Puerto Rico a los que elegimos para que puedan continuar con sus estudios y proyectos de investigación y así contribuir al proceso de recuperación de nuestra isla."

Metro | October 19, 2017

### Ayuda para investigadores luego del paso del huracán María

metroweb.com 16 de octubre de 2017



La División del Caribe de la American Association for the Advancement of Science (AAAS), el Politécnico para Ciencia, Tecnología e Investigación de Puerto Rico (PCTI) y Ciencia Puerto Rico lanzaron un programa para apoyar a investigadores, profesores, maestros y estudiantes de ciencias a través de becas y fondos de ayuda tras la emergencia de los huracanes Irma y María.

La iniciativa surge a instancias de la división del Caribe de la AAAS, entidad que agrupa globalmente a más de 120,000 miembros y que en el Caribe tiene sobre 500 integrantes.

Tras los pasados huracanes Irma y María, se inició una campaña de recaudación de fondos para ayudar a investigadores a continuar con sus labores e investigaciones.

El Vocero | October 19, 2017

### Lanzan iniciativa de subvenciones para investigadores tras huracán María

Por CNN en Español 16 de Octubre del 17

16 minutos



La División del Caribe de la AAAS (American Association for the Advancement of Science, en inglés), el Politécnico para Ciencia, Tecnología e Investigación de Puerto Rico (PCTI), en inglés y la organización Ciencia Puerto Rico lanzaron un programa para apoyar a investigadores, profesores, maestros y estudiantes de ciencias a través de fondos de ayuda tras la emergencia de los huracanes Irma y María.

La iniciativa surge a instancias de la división del Caribe de AAAS, entidad que agrupa globalmente a más de 120,000 miembros, y que en el Caribe tiene sobre 500 miembros.

Los interesados pueden solicitar fondos de Continuidad para reanudar investigaciones fuera de Puerto Rico de manera temporal, fondos de Restauración, para reemplazar y reparar equipo de laboratorio o salones de clases afectados, y subvenciones para Tesis, para que estudiantes puedan enfocarse en completar sus grados.

Las solicitudes se someterán utilizando la plataforma y proceso de evaluación que se utiliza para el Programa de Grupos del PCTI, y contará con la participación directa de representantes de estas tres entidades en el proceso de evaluación y Asociación de las solicitudes.

Caribbean Business | October 20, 2017

### Parallel18 abre nuevo programa preparatorio de startups

PR18 fue creado y diseñado tras el paso del Huracán María, como una oportunidad para ayudar a empresarios locales

Por Metro Puerto Rico  
@metropr 16 de octubre de 2017

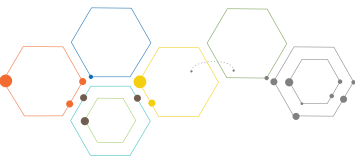


Parallel18 (PR18), la asociación de negocios locales, que nació en 2015 como parte del Politécnico de Ciencia, Tecnología e Investigación de Puerto Rico, en asociación con el PCTI, el Departamento de Desarrollo Económico y Comercio de Puerto Rico y el PCTI, lanzó una campaña de recaudación de fondos para ayudar a empresarios locales a superar los efectos de los huracanes Irma y María. La iniciativa surge a instancias de la división del Caribe de AAAS, entidad que agrupa globalmente a más de 120,000 miembros y que en el Caribe tiene sobre 500 integrantes.

PR18 es un emprendimiento que ayuda a negocios innovadores de Puerto Rico en etapas tempranas, con potencial global, a llegar al mercado. A partir de hoy hasta el 18 de enero de 2018, los interesados pueden solicitar a este programa a través del sitio web de recaudación de fondos.

Metro | November 16, 2017





## Parallel 18 lanza nuevo programa de aceleración empresarial tras huracán María

Por Elán Rodríguez Martínez el 17 de Noviembre de 2017



La aceleradora de startups Parallel 18 (P18) anunció ayer el lanzamiento del nuevo programa "Pre18" que servirá como una pre-aceleradora empresarial intensiva y preparatoria dirigida a apoyar a emprendedores que tengan un concepto de negocio que se encuentre en su fase inicial y se pueda desarrollar con miras a llegar al mercado local e internacional.

Este innovador programa seleccionará hasta 40 empresas puertorriqueñas y, a partir del 15 de noviembre hasta el 15 de enero de 2018, los interesados podrán solicitar ingreso. Una vez seleccionados, mediante comité de evaluación, participarán del programa de charlas, mentorías y seguimiento por 12 semanas, que a su vez incluye una subvención de \$20,000.



Evento de presentación, varios empresarios observan sus teléfonos de este lugar de lanzamiento al programa de aceleración empresarial de Parallel 18. (Elán Rodríguez/CR)

Caribbean Business | November 17, 2017

EMPRESAS

## Aceleradora Parallel18 incubará ideas boricuas

La empresa global lanza el programa pre18 que busca desarrollar negocios de aquí

viernes, 17 de noviembre de 2017 - 12:00 AM

Por Sharon Minelli Pérez



Sebastián Vidal, director ejecutivo de P18, dijo que el programa tiene cabida para hasta 40 emprendimientos puertorriqueños. (Suministrada)

El Nuevo Día | November 17, 2017

ConociMedia

November 17 at 10:14am ·

[CONOCE] ¿Tienes un negocio innovador con potencial de crecimiento en el extranjero? Esta es tu oportunidad #ConociMedia



### Crean programa para emprendedores boricuas con potencial global

Emprendedores boricuas tendrán una oportunidad de llegar al mercado global con la ayuda del programa pre18, iniciativa de la aceleradora de negocios Parallel18 en colaboración con el Departamento de Desarrollo Económico y Comercio de Puerto Rico (DDECO) y la Compañía de Comercio Industrial de Puerto Rico (PRECO).

"Hay muchas cosas buenas potenciales para que empresarios locales con negocios en etapas 1...

See More

ConociMedia | November 17, 2017

## Surge iniciativa para beneficio de los empresarios puertorriqueños

El programa de aceleración empresarial de Parallel 18 (P18)...



El programa de aceleración empresarial de Parallel 18 (P18)...

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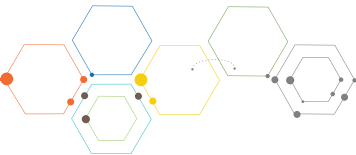
El programa de aceleración empresarial de Parallel 18 (P18)...

Diálogo (UPR) | November 20, 2017



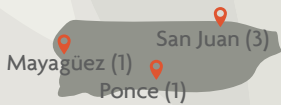
ADDEMDUM



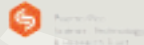


# I-CORPS PUERTO RICO

## COHORTS



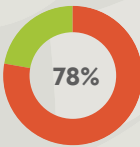
A customer discovery boot camp for innovative entrepreneurs seeking to validate their ideas in order to build and develop scalable business models. The program is offered through a collaboration between Grupo Guayacán (GGI), Georgia Tech (GT) and the Puerto Rico Science, Technology and Research Trust (Science Trust).



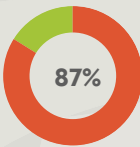
### At-a-glance

5	
249	PARTICIPANTS
68	I-CORPS teams graduated
68	MENTORS
250+	CONTACT hours
5,639	CUSTOMER DISCOVERY interviews
3	TOP INDUSTRIES Biomedical Information Technology/Communications Clean Technology
68%	UNIVERSITY based teams
3	TEAMS ADMITTED to NSF I-Corps
\$150K	NSF I-CORPS grants
\$1M	SCIENCE TRUST grants among 6 teams
\$225K	SBIR grants
\$2.3M	TOTAL CAPITAL RAISED by graduates

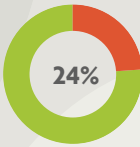
### Impact



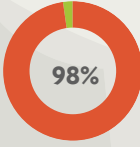
GRADUATION rate



GRADUATES still active

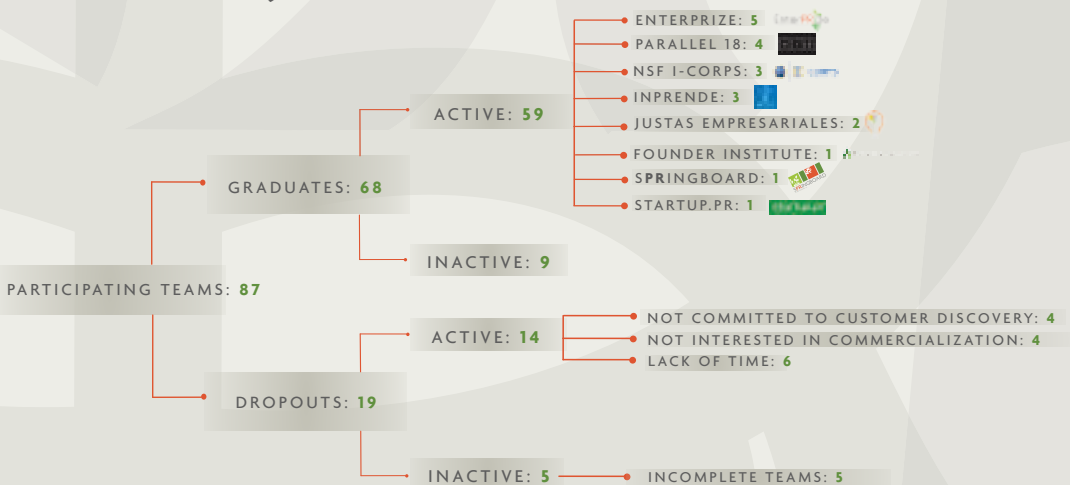


WOMEN participants



WOULD RECOMMEND I-Corps PR

## Where are they now?

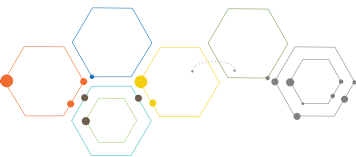




P 1 8

I M P A C T  
R E P O R T

2016



# Index



Camila Carvalho, Tem Açúcar Gen.2

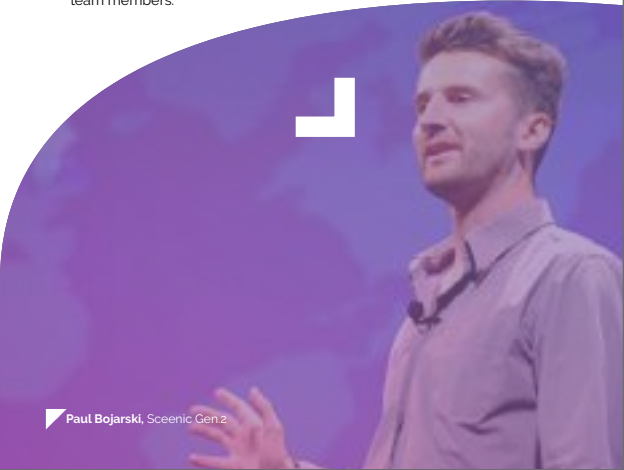
About **Parallel18**  
**Team**, Advisors and  
Selection Committee  
Application **Data**  
**Results**  
Startup **Q&A**

**Giveback**  
**Talent** Programs  
**Repatriation**  
**Thanks**

## About This Report

This impact report summarizes the first two generations of Parallel18 (a total of 60 companies that completed the program.) Gen.1 went through the program from April through August 2016; while Gen.2 went through the program from September 2016 through February 2017.

The data in this report was gathered via exit and follow up surveys with our companies and data recollected by our team members.



Paul Bojarski, Sceneic Gen.2

# What a Ride!

I arrived in Puerto Rico almost two years ago to create an international accelerator that did not even have a name yet. One by one, the team grew -Marie, Jonathan, Lucas, Belisa, Andreica, Wanda, and Cristina. Each new member contributed their expertise and hard work to form what is now Parallel18.

I'm also thankful for everyone who got involved in the design and development of Parallel18. Our main sponsors - the Puerto Rico Science Trust, the Department of Economic Development, the Puerto Rico Industrial Development Company, the local startup community, the universities, and many professionals and business people that have collaborated with us.

You're about to see the results of the first two generations of startups that went through the Parallel18 acceleration program. It's been an exciting journey to see them grow and succeed at the same time our program gains traction and finds a place in the global entrepreneurial ecosystem.

The startups in Gen.1 came from 9 countries and were selected from a pool of over 400, from around 30 countries, that applied to Parallel18 in January 2016. For our second cohort, we received 507 applications from more than 40 countries, and 28 startups joined Gen.2. What those numbers mean is that, while we are looking for high-quality innovative startups with a global mindset, they are looking for us too.

The results you're about to see are proof that Puerto Rico can become a hub for innovation and entrepreneurship, a platform for global startups to reach markets in the U.S. and Latin America. My team and I are committed to work towards that goal and I urge you to do the same, as an entrepreneur, investor, service provider, client, or academia. We all have a role to play, and together, we can put Puerto Rico in the map of innovation and entrepreneurship.

  
**Sebastian Vidal**,  
Executive Director  
parallel<sup>18</sup>







# What is parallel<sup>18</sup>

**Parallel18** is an economic development initiative that aims to attract and create high-impact startups that can scale from Puerto Rico to global communities beyond the Island, including Mainland U.S., Latin America, and Europe.

“We harness the **uniqueness** of **Puerto Rico**”

The mission of the program is to expand the horizons of Puerto Rican and international entrepreneurs in the short term, and generate economic activity in the long term.

Parallel18 is under the Puerto Rico Science, Technology, and Research Trust in collaboration with PRIDCO (Industrial Development Company of Puerto Rico) and the Department of Economic Development and Commerce of Puerto Rico (DDECC).



ways we harness the *uniqueness* of **Puerto Rico**.



A multicultural society and a connected diaspora throughout the world.



A convenient geographic location.



Being a bridge between the U.S. and Latin American startups to help them expand to new markets.



Serving as a nearshore/off-shore outsourcing hub, hence retaining young talent with the jobs they're looking for in the companies they want.



Competitive taxation under US laws.

Leveraging this uniqueness will help us position the Island as an innovation tech hub in the Caribbean.

# Our Mission

- Attract, create, and retain highly-talented entrepreneurs from all over the globe.
- Integrate & collaborate with the local education system and entrepreneurial community.
- Transform the local mindset of entrepreneurs into a global one.
- Create a new set of local companies that grow beyond Puerto Rico.
- Make Puerto Rico a portal for startups that want to scale globally.

Parallel18 is an accelerator with a global mindset. This is because local entrepreneurs double their knowledge and entrepreneurial capabilities when they're in contact with international companies in an incubator or accelerator.

Attracting global startups also helps create advocates for Puerto Rico in Latin America and the U.S., so they link global success with the Island.

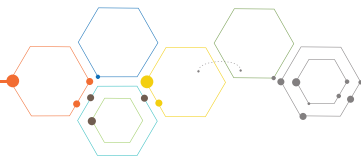
"The boulevard of broken behaviors" by Leatherbee and Easily, Stanford 2014

# How does the program work?

- We choose up to 80 companies per year distributed in two cohorts (generations).
- We give selected startups a USD 40K grant.
- They have to take part in a 20-week result-oriented acceleration curriculum.
- They must engage in our GiveBack program with local universities, students, and entrepreneurs.
- We provide them with business development lineups to promote deals with known local companies.
- The chance to apply to Parallel18 Ventures, a follow on fund for companies that keep operations in Puerto Rico and raise capital.

# What kind of companies do we look for?

- Innovation driven companies in any field
- Companies with three years of operations or less
- Startups that have traction (sales, working prototype or users)
- Startups with a full-time dedicated team



# Selection Process

We make sure we do everything possible to select the best startups. Those that not only have great chances to succeed, but that are also a great fit for Puerto Rico. To make sure we get said startups we have a 3-step evaluation process.



## Initial Assessment by the P18 team

In this review, the team filters startups that have more than 3 years of operations, those that are not willing to come to Puerto Rico, and those that have no traction.



## International Judges Evaluation

A group of more than 100 international judges evaluates and assigns scores to each startup. At least 3 judges evaluate each startup. The scores are used to create a shortlist that includes the top 80 startups.



## Selection Board Review

A selection board composed of local and diaspora members evaluate the 80 startups and finally select the up to 40 startups that will make it to the program.

More than **100**  
international  
judges evaluate  
our applicants

DemoDay Gen.2

Adriana Cabral  
Intern

Jonathan Ortiz  
Lead-Creative Designer

Marie Custodio  
Outreach Manager

Wanda Fraguada  
Marketing Manager

Cristina Tamayo  
Business Dev. Manager

Andreica Maldonado  
Startup Executive

Lucas Arzola  
Director of Operations

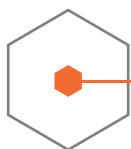
Bolisa Bermudez  
Startup Executive

Sebastian Vidal  
Executive Director

## Team, advisors and selection committee

**The P18 Team** Our team is made of diverse professionals with a mix of expertises that help the program and participant startups thrive. The Parallel18 team knows founder struggles since at least 75% of them were founders at some point. They are hands-on and are ready to support entrepreneurs going through the program. The group also offers community office hours to Puerto Rican startups looking for feedback on their projects.

To book office hours drop a line at [cobi@parallel18.com](mailto:cobi@parallel18.com)



# Board of Advisors

Our Board of Advisors includes entrepreneurs, consultants, former government officials, investors, and others with the expertise and connections to get the program to the next level.

**Javier Soltero** Javier is the Corporate Vice President for the Office Product Group at Microsoft. He has a Bachelor's Degree in Science from the Carnegie Mellon University with a focus on Computational Finance. He is also a well-accomplished entrepreneur. He worked in various companies as a software engineer after college. He had a successful exit with his first company Hyperic, he then co-founded Acompil, an email app that was later acquired by Microsoft in December of 2014.

**Nancy Santiago-Negrón** While with the Obama Administration, she developed partnerships with local communities and businesses in high-poverty areas to create jobs, increase economic activity, improve educational opportunities, and leverage private investment. Through her work on national initiatives like Promise Zones, Performance Partnership Pilots, and 'My Brother's Keeper,' she partnered with local leaders to make investments that reward hard work and expand opportunity. Nancy is a Philadelphia native from Puerto Rican descent.

**Niel Robertson** A serial entrepreneur and investor originally from Boulder, Colorado. Neil's first company was acquired for more than USD200M when he was only 24 years old. He brings his entrepreneurial and investment experience to the table. He has been a mentor in Techstars (one of the most recognized accelerators in the planet) and has played an instrumental role in building the startup ecosystem, one the most important in the world.

**Nicholas Shea** After spending years in California studying in Stanford University, this entrepreneur by nature realized that most of his classmates had to go back to their countries of origin because of the lack of friendly immigration policies. He turned that issue into an opportunity and became the brain behind Start-Up Chile. He left the government in 2011 to start Cumplio, a P2P lending platform for Latin America, where he serves as CEO. Nicholas contributes that mix of entrepreneurship and government policies that countries desperately need.

**David Lopez** David is the founder of Manos Accelerator, a program that provides Latino entrepreneurs with access to early-stage capital, mentorship support, and resources that enables them to build and grow their startups. He brings this solid experience to the program.

**Cyril Meduña** Cyril knows the investment and banking industry. He was the Vice President of the Chase Manhattan Bank and is the President/Managing Director of Advent-Morro Equity Partners. His deep knowledge of the local industry, the understanding of the investment landscape of Puerto Rico, and his business connections throughout Latin America, make him an important asset for the program.

**Lisa Morales-Hellebo** An entrepreneur, seasoned product strategist, and creative director with a career that spans 20+ years helping startups to maximize conversions. In 2014, she founded and launched the New York Fashion Tech Lab with Springboard Enterprises, the Partnership Fund for NYC. Macys, J. Crew, Kate Spade & Company, Estee Lauder, Ralph Lauren Corporation, LVMH, Li & Fung, Alex and Ani, and Ann Inc.; while serving as Executive Director for the first cohort. Her previous fashion tech contextual search startup, Shopsy, participated in Techstars in 2012 after she was selected as one of the Top 10 Women in DC Tech.

# Board of Advisors

**Giovanni Rodriguez** He is founder of the Silicon Valley Story Lab, a strategic consulting firm for new technology ventures and the organizations that support them. He is also a member of the leadership team at Fantag. Giovanni has advised The White House, the Democratic National Committee, The Israeli Foreign Ministry, the AARP, Coca-Cola, SAP, Microsoft, Google, VMware, Stanford University, Morehouse College, Singularity University (which he helped to launch in 2009), Parallel18, and dozens of technology startups, from market entry to exit. He has been instrumental in program's positioning.

**Barry Katz** He was the first person invited to join IDEO as a Fellow. He is an aggressive networker, and can often be seen bringing prospective clients through the Palo Alto and San Francisco studios. He is also a Professor of Industrial and Interaction Design at the California College of the Arts in San Francisco, and Consulting Professor in the Design Group, Department of Mechanical Engineering, at Stanford. He is the author of six books, including (with Tim Brown) Change By Design, and most recently, Make it New: The History of Silicon Valley Design (MIT Press, 2015). Barry brings his expertise in design and innovation to understand the future of Parallel18 from a thoughtful and deep perspective.

## Selection Committee Participants

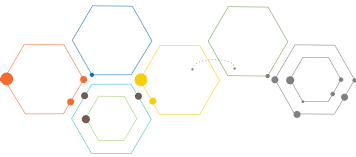
Selecting the startups that make it to the program is no easy task. That is why our selection board includes local and diaspora members of the entrepreneurial community. These are the members of our first three committees:

- Manuel Rosso
- Laura Cantero
- Lizzie Rosso
- Angel Perez
- Ramphis Castro
- Ivan Rios Mena
- Cyril Meduña
- Ken Kay
- Miguel Rios

Mentoring is one of P18's strengths, so far we have

**120** **40%**  
mentors & of them are investors





DemoDay, 2016  
Gen.1

# Application Data

We have seen growth and maturity during our four open calls. And, as people understand more about our program, our requirements, and what we ask, we'll be getting more applications from the startups that are a really good fit for the program and Puerto Rico.

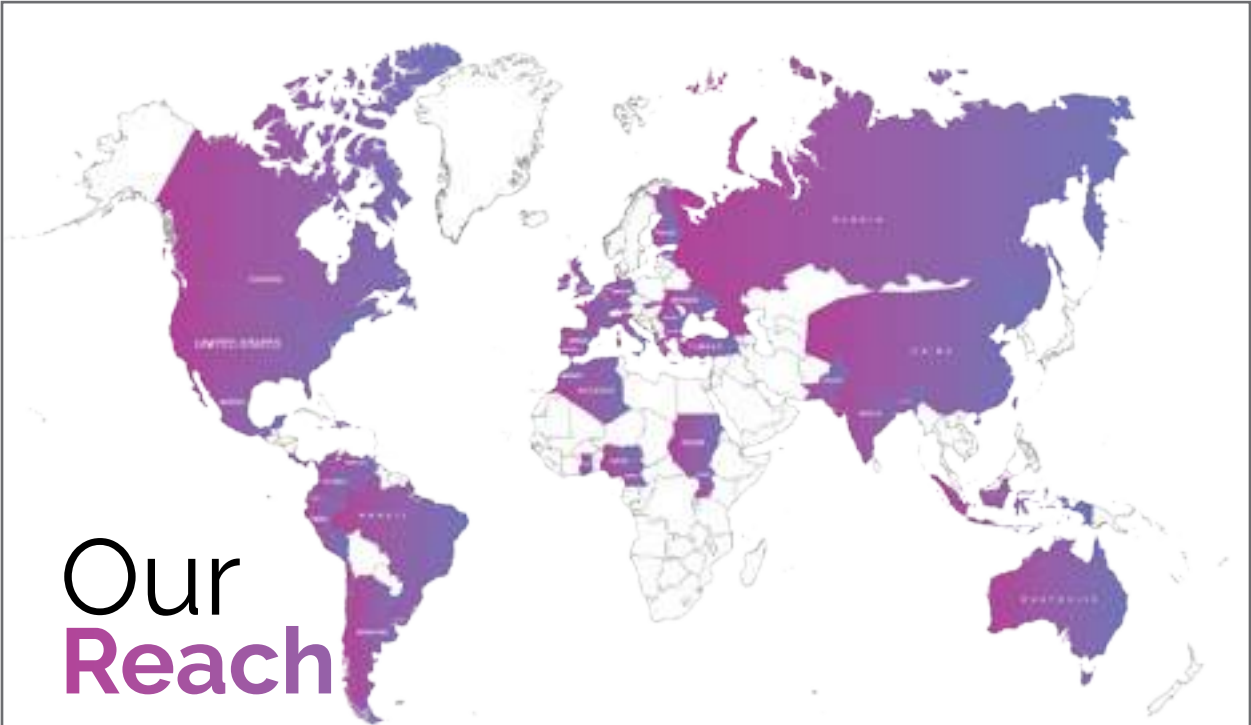
## Top 5 Countries

-   
1. United States
-   
2. Puerto Rico
-   
3. Chile
-   
4. Argentina
-   
5. Mexico

These are the numbers for the application periods from Gen.1 to Gen.4

Gen.1	Gen.2	Gen.3	Gen.4
401	507	507	457
Companies Applying	Companies Applying	Companies Applying	Companies Applying
31	44	48	48
Countries	Countries	Countries	Countries

Total Companies **1,872**



## Our Reach

Startups from more than 40 countries have applied to the program.





# Our Companies



Close to 100 companies have been through our acceleration experience.



And so far, local companies like Abartys Health and Gasolina Móvil, have been the top performers.

# Industries

Sixty companies completed the program in Gen.1 and Gen.2. Of these **59% are B2B** and **41% are B2C**. These are their industries:



# Our Startups Say

"When you really analyze the ecosystem in Puerto Rico, the market is so small and dense that you end up **moving things faster than in the United States**."

Alana Matos,  
founder of Caila  
Gen.2 alumna

"What the program has done is to **expand our horizons and think beyond Puerto Rico**."

Vivian Vargas,  
founder of BUREA  
Gen.1 alumna

"At Cinemad we have participated in several programs but **this one has been the best**. The quality of the mentors is amazing. Also the infrastructure and support staff that is dedicated 100% to growth."

Mariano LoCane,  
founder of Cinemad  
Gen.1 alumnus

"During the first 10 weeks of the program we **have sold more than what we did in all of 2015**."

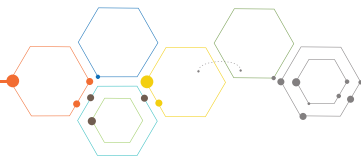
Alan Taveras,  
founder of Brandsof  
Gen.2 alumnus

"**Puerto Rico has evolved** into becoming our value proposition. The access to the US market with **great talent** (at competitive, start-up-friendly salaries) and huge manufacturing incentives means we can beat bigger companies and stay alive for longer."

Ryan Lupberger,  
founder of Cleancult  
Gen.3 Participant

"More than the money, which obviously has been helpful, it is the **mentorship and environment of support and education** which has helped accelerate our startup the fastest. Having access to experts and connections to seek accurate, helpful information about things I needed to know about and things I didn't even know I needed to know about has been invaluable."

Leslie Padró,  
founder of Global Flavors  
Gen.3 Participant



# KPI + Weekly Tracking

The key to our results is measuring our companies' growth week per week. This is why every Monday, startups are paired in groups to go over the week struggles, wins and overall growth.

Growth projections are set once startups begin the program. These projections can go from sales, users, or contacts, all depending in their kind of business.

One of the most interesting things of these meetings is that companies are paired in groups. These groups or "corillos" are made of startups within the same industries. This system encourages them to help each other through their challenges.

KPI meetings also serve to know what the companies need, when they require support, and what our team and Puerto Rico can do to retain them.

This initiative also give startups structure and helps them visualize their growth. Our alumni value these meetings and some have even made them part of their company's structure to keep going over their results after Parallel18.

Having Key Performance Indicators give our companies the focus to work on their goals.



# Results

**F**rom **day one** it was clear that we were going to run our program focused on metrics and results. This is what we've done and achieved in Gen.1 and Gen.2.

## Grants Distributed

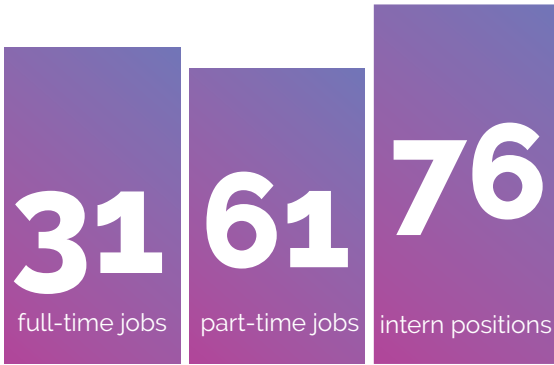
During Gen.1 and Gen.2 the program has distributed a total of:



**\$2,480,000**

# Changing the Mindset

One of the main goals of the program is to cause a change in mindset among Puerto Ricans, to motivate them to stay in the Island or become entrepreneurs. One of the ways Parallel18 has started provoking this change is by **helping create 168 job opportunities in its first year**. This number breaks down as follows:



\*This data was taken from the Gen.1 and Gen.2 exit surveys.

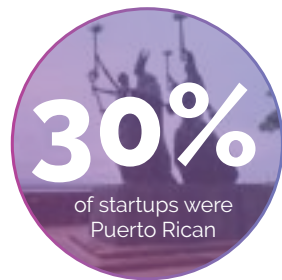


# Retention

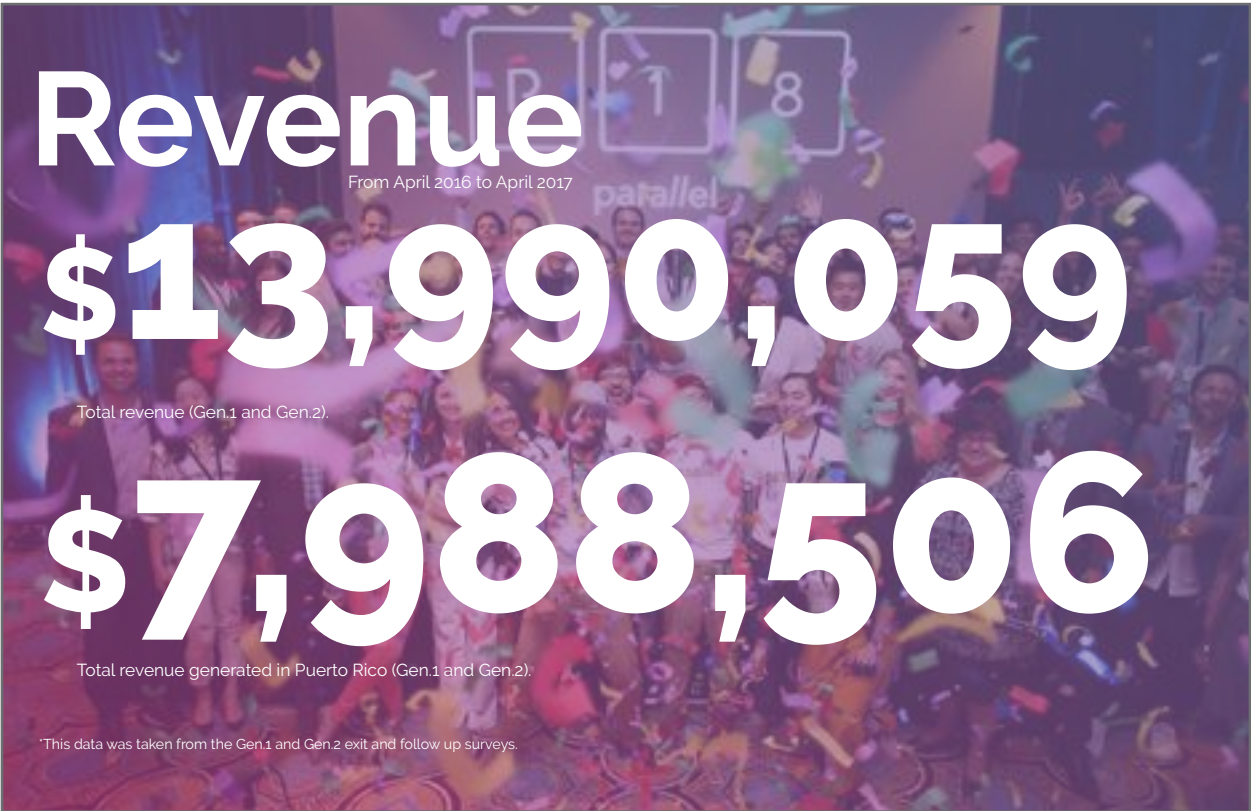
**R**etention is one of our most important goals and this is why we are very specific in how we measure it. First we look at the incorporation numbers. But, we don't stay there because we recognize that being incorporated in the Island is a must to receive the grant.

So we take other metrics into consideration to measure retention.

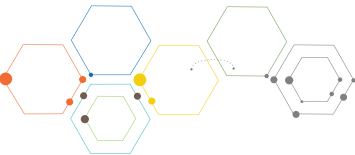
We count as retention the companies with headquarters in Puerto Rico; those that open a local operation; companies that hire employees or contract services in the Island; startups that start business relations with local companies; those who raise investment in the Island, and those that apply for tax incentives such as Act 20, 73 or 120.



This data was taken from Gen.1 and Gen.2 exit and follow up surveys.







# Investment

**R**aising investment is always a tough one for startups. This is why we prepare them along the program to be as ready as possible to ask and get that investment. When companies raise investment, it proves that they're valuable ventures with potential for growth.

Companies of Gen.1 and Gen.2 had raised money before coming to Parallel18 and some of them got investment from or were acquired in part by local companies.

This was the case of Gen.1 companies Cinemad.tv and TalenTank. Cinemad received investment from a Puerto Rico media company; while TalenTank was partially acquired by Brenda Marrero Associates, a local human resources firm. Both relationships were initiated by Parallel18.

On the other hand, local company Burea raised angel investment from a local corporation and several other parties, in addition to the Parallel18 Ventures follow-up fund. Another recipient of the fund, Pair also raised private investment after exiting the program.

Gen.2 companies Brandsof and TimoKids connected with an international investor during our Investor Immersion week who ended up investing in both companies after the second cohort of the program ended.

**\$15,962,500**

Total investment raised by Gen.1 and Gen.2 companies before P18

**\$7,410,000**

Total investment raised by Gen.1 and Gen.2 companies after P18

# Investment in Puerto Rico

Investment in Puerto Rico goes beyond raising capital from local investors. It also includes the money our startups raise that end up being invested in the Island. This is the amount of capital raised in Puerto Rico during our first two cohorts.

**1.87M**

total investment in Puerto Rico

**950K**

foreign investment

**920K**

local investment

# Portfolio Valuation


The Gen.1 and Gen.2 portfolio is valued in

**\$151,045,000**

Bernardo Castro Lopes Vitorino  
Founder eFarmacias  
Gen1 Alumnus








# P18 Ventures

**parallel<sup>18</sup>**  
ventures

This follow-up fund was designed to co-invest in promising startups fresh out of P18. With the fund, the Puerto Rico Science, Technology, and Research Trust (PRST) matches private capital raised by the entrepreneurs up to USD75,000, in exchange for stocks or convertible notes. The PRSTRT plans to keep its stocks in the startups for a limited time, since the goal is to achieve liquidity so the funds can be reinvested into Parallel18.

The follow-up fund Gen.1 recipients were Puerto Rican company BUREA, Argentinian startup Cinemad.tv, and U.S company Pair (the company has a Puerto Rican founder).




**P18 Connect**

P18 Connect is a subprogram created to connect P18 startups with potential corporate partners in Puerto Rico -- with the aim of growing to create connections in the US and LATAM -- by facilitating that first introduction. The idea behind this is to create business collaborations that will promote the startups' growth from Puerto Rico but at the same time increase the corporate partners competitiveness in the market. More importantly, we hope that innovation becomes more than a thing of startups and that big corporations can think differently about ways to scale.

17  
meetings

8  
connections

8  
deals



EVERY DAY I'M HUSTLING

P18 Connect began working full-force in September 2016.

DemoDay Gen.2

# Positioning & international recognition

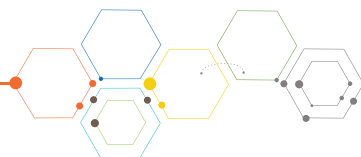
Parallel18 is a relatively young program, but in just a year and a half it has gotten press coverage from recognized tech and entrepreneurial news outlets. In addition, the program has been recognized internationally as an innovative initiative.

In March we presented a panel in SXSW called *Se habla Spanglish* in which advisory board members Nancy Santiago-Negrón and Giovanni Rodríguez, and Selection Board Member Ramphis Castro, talked about the opportunities for Latin American startups in the U.S.

Also, in April our Executive Director was part of a round table in the Smart Island Congress, in which they discussed innovative strategies that are being implemented in different islands to establish favorable conditions for entrepreneurs and investors. Sebastian also participated in the Haiti Tech Summit.

We also had presence in 4YFN World Mobile World Congress in Barcelona in February, The Next Gen Summit in NYC in June, 2016, and the Switch Acceleration Festival in Leon Mexico in December 2016.





## Q&A

### Giovanni Collazo

Founder, Gasolina Móvil  
Interview Conducted  
June 2017, Parallel18

Gen1 alumnus Gasolina Móvil offers a simple solution to pay for gas at the pump.

**Q:** What were your expectations about Parallel18?

**GC:** On my previous companies, I had very little exposure to other companies and investors. Our team basically started organizing the startup community in Puerto Rico for 5 years before the program even existed. We wanted to share and hear from people with more experience than us. We wanted to take advantage of all the new wonderful resources available thanks to P18.

**Q:** What were your first impressions of the working space?

**GC:** The space is great but the location is even greater. You can walk to some of the coolest places in San Juan and you can take an Uber to the nearby business districts.

**Q:** What were your first impressions of the Parallel18 team?

**GC:** Really professional and fun team, always available.

**Q:** Where was your company before Parallel18?

**GC:** Before P18, we had launched, but where looking for customers. We had 30 gas stations in total.

**Q:** How did the program influence your company?

**GC:** The program helped us formalize our internal business metrics and the contacts we made there are now part of our advisory board.

**Q:** Is the program still influencing you?

**GC:** We recently learned that in the local business community the program has a lot of prestige. Being part of the program has open a few doors locally.

**Q:** Where are you now?

**GC:** We are focused on getting to new markets on Central and South America. We just launched a pilot program in Colombia.

**Q:** Do you think your company's situation would be different without Parallel18?

**GC:** To be honest, I'm certain that the company would have kept moving forward and growing but the experiences we had definitely helped us make better decisions.

**Q:** How do you think P18 is helping the Puerto Rican entrepreneurial community?

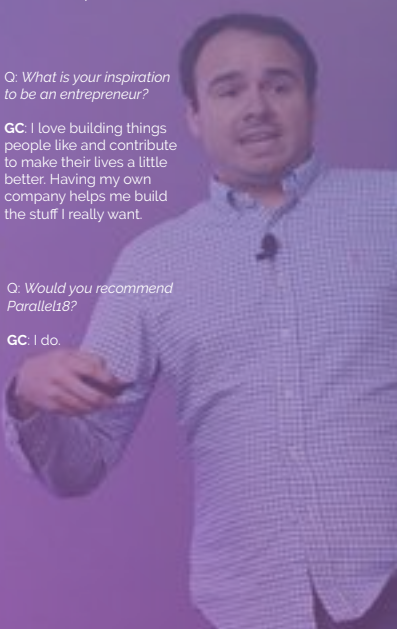
**GC:** I think P18 is providing a place for local entrepreneurs to aspire to.

**Q:** What is your inspiration to be an entrepreneur?

**GC:** I love building things people like and contribute to make their lives a little better. Having my own company helps me build the stuff I really want.

**Q:** Would you recommend Parallel18?

**GC:** I do.



## Q&A

### Lauren Cascio

Founder, Abartys Health  
Interview Conducted  
May 2017, Parallel18

Gen2 alumna Abartys Health allows to stream-line data between patients, insurance companies, and doctors.

**Q:** What were your expectations about Parallel18?

**LC:** We just started operations in Puerto Rico and a friend told me to apply. We just applied the night before application time ended. Really I didn't know what to expect. I had no idea what an accelerator does.

**Q:** What were your first impressions of the Parallel18 team?

**LC:** In the first KPI we realized that we could not describe what we are doing. Seba and Lucas told us to fix this. They sent us to Marketing with Wanda and Marie. They gave us guidelines and told us how to communicate our company. The Monday meetings with our Startup Executive Belisa were really helpful. We could plan on Sundays what to do in the following week.

**Q:** Where are you now?

**LC:** Now we have 15 full time employees. We now have three different products and we are now opening our Series A. Through P18 we heard of SXSW and we won one of the competition awards in a competition called "Release it". That was where we officially released our second product.

**Q:** Where was your company before Parallel18?

**LC:** We had fully developed one of the three products that we have now. We had five full time employees.

**Q:** Could you please name your top three aspects of the program?

**LC:** Connections & Networking, Marketing & Communications, and the office environment which was a very good influence for creativity.

**Q:** How did the program influence your company?

**LC:** We went from one client to three during our time in the program. Moreover we sold a second product. We learned through P18 that we could sell another product to an existing customer. I learned that's called land and expand. Our contracts grew, our client base grew, our conversations grew. We got some local publicity which helped us a lot.

**Q:** What is your inspiration to be an entrepreneur?

**LC:** You need to have a specific mindset. Gains are not short term, they are long term. Sacrifices are short term. The catalyst for entrepreneur is, that they are in a position they do not want to be in. Entrepreneurs have to become people that are confident in their ability to survive. They have to surpass the Marshmallow Test. Take one now or get two later. Also, it is important to surround yourself with people that you admire.

**Q:** Do you think your company's situation would be different without Parallel18?

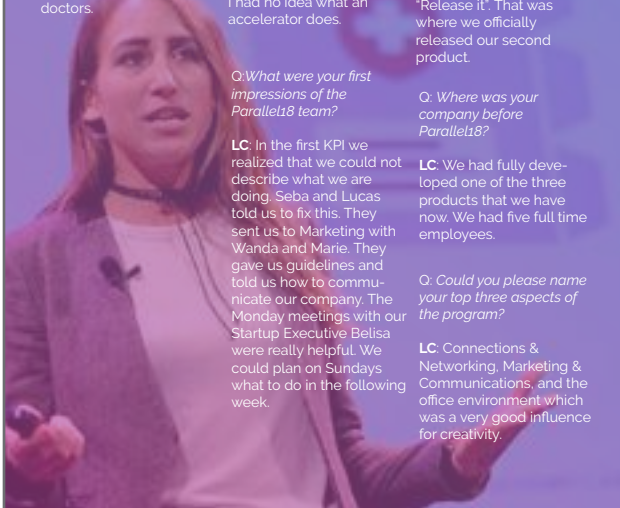
**LC:** Yes. The P18 program was a godsend in a very critical moment for our company. I am not sure where we would be, but maybe without the help of P18 our company would not exist anymore. Parallel18 accelerated our learning and growth process.

**Q:** How do you think P18 is helping the Puerto Rican community?

**LC:** This is the way out, even if people do not realize it. This is a forward thinking environment. Puerto Rico is positioned to be a tech Hub. The talent is here and universities are really good. So who ever says it is impossible to hire from Puerto Rico, is wrong.

**Q:** Is the program still influencing you?

**LC:** Yes, we still have a lot of contact with the staff. We call them all the time. They continue to help us.







# GiveBack

**T**ransforming the local mindset is part of the mission of Parallel18. Our GiveBack program plays an integral part in that. Entrepreneurs that go through the program have significant startup experience, skills, and knowledge of different industries.

Each P18 participant is required to support the local community through several specific GiveBack engagements. These engagements range from being a guest speaker in local universities, participating in a community event, or mentoring a local startup.

During Gen.1 and Gen.2 our Giveback program had the following results:

**184**  
engagements

**562**  
hours spent  
giving back

**2,521**  
approximate  
number of people  
impacted

We continue to improve our GiveBack program to connect our international ventures with local companies to develop them further.

This is what **universities** and **community** organizations have to **say** about our **GiveBack** program:

**T**he collaboration experience with Parallel18 has been very important for the development of Startup Weekends in Puerto Rico. Parallel18 provides us with mentors for the event. The mentors that come to the event are so diverse that they enrich the experience of our participants. For us, as the organizational committee, it has been excellent to see how they go and give the best of themselves during the time they're with us.

**Nerma Albertorio Barnés**  
founder  
Centro para Emprendedores  
Startup Weekend organizer

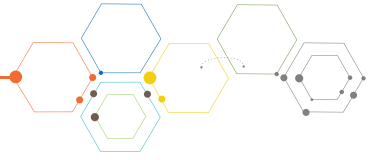
**S**ince day one, the members of P18 and their participants have been available to collaborate and share their experiences in INprende events. For those who are just about to start or giving their first steps as entrepreneurs, it has been amazing to experiment up close the stories of those who have experienced some success and that are still working hard to reach their goals. For INprende, this has been one of the key pieces of our Empowerment initiatives.

**Lisandro Martino**  
Platform Manager  
INprende

**N**ecessary. Timely. Pertinent. Accessible. Collaborative. Supportive. These are some of the words I feel describe Parallel18. I remember meeting Sebastian in the planning process; his experience and his sensitivity, above all, was filling a space in our ecosystem. The conceptualization of P18 was smart and effective; and even more so its contribution to dozens of companies and thousand of innovators and entrepreneurs in Puerto Rico and the world. I remember we were in parallel processes. From the Centro de Innovación Colaborativa-Neeuko in the Universidad Sagrado Corazón we collaborated with P18 in different levels, in particular in the knowledge and experience transfer.

Through the GiveBack program Parallel18 has exposed students and participants to valuable exchanges to broaden the learning experience in everyone in the ecosystem. I trust they know what the times require and their working to create it.

**Javier de Jesús Martínez**  
Director  
Neeuko Collaborative Innovation  
Universidad Sagrado Corazón.



# Talent Program

**R**etaining talent is of deep importance. This is why we work hand in hand with universities to promote and grow our intern and employee recruiting strategies. We go to job fairs around the Island and collect resumes that we then filter by specialty and share with the companies that come to the program.

We were able to amplify our recruiting efforts in part thanks to Juvempleo. Juvempleo is a government sponsored program that helps students in their last year of college get a paid internship at a place where they get experience relevant to their major. Our companies make the most of it because it helps them get those very much needed employees, and students love it because it helps them get the experience they need while getting paid.

## Interns, where are they now?

Our internship program is one of the ways we help retain young talent in the Island. We help them get the experience they need in the kind of companies they want to work for. Internships in Parallel18 provide REAL work experience and help form the next generation of entrepreneurs.

# intern<sup>18</sup>

## Camila Hernandez, intern Gen.1

Camila learned about Parallel18 through a college professor. Although she was skeptic at first, but she did her research and decided to apply for an internship.

That's how she ended up working at Pair, one of our Gen.1 companies. As an architecture major, it made sense that her first job with the company was in design development. After her internship ended, Camila was hired as an employee. Today she manages design development, web design, social media, clients, and the promotion of the app.

Camila's experience in P18 was very positive. In her own words "the program offers a great opportunity for the companies coming to Puerto Rico. It has a great work environment, everyone is always giving input and help."

In fact, her work as an intern in P18 awoke her inner entrepreneur. Her plan is to start her own architecture company to combine the experience she got in P18 and the one she will get in an upcoming internship in Mexico.

## Viviana Matta, intern Gen.2 and Gen.3

They say lightning does not strike twice in the same spot but that is not the case for Viviana, who has been an intern for two companies in Parallel18.

She learned about the program through a friend who was an intern in Gen.1. Her first experience in P18 was working in social media for Gen.2 company PowerSiesta. The founders of PowerSiesta were so pleased with her work that they recommended her to become an intern for Gen.3 startup Bien Cool.

Viviana has learned a lot during her time at P18. "The talks are really helpful and the team is always open to answer questions," she said. As for the future, Viviana will focus on her studies and might someday start her own company in Puerto Rico.

## Natalia Bigay Llenza, intern Gen.2 and Gen.3

Natalia has always been interested in entrepreneurship and met the Parallel18 team at her university. After spending a year in the Parallel18 environment, she asserts that P18 is something that keeps me here in Puerto Rico. I did not expect to learn so much! Furthermore, she states that "Parallel18 gives me hope as a young entrepreneur in this economic crisis. They help Puerto Rico grow and make young entrepreneurs stay". She has a Bachelor's degree in Business Administration with a focus on Marketing and Human Resources.

She started her "career" with Parallel18 as an intern in Gen.2 for the startup UX Cam. Now she works as a contractor for two other startups, Makers Valley and StartupThreads, both part of Gen.3.

What does the future hold for her? First, she wants to acquire more work experience, but in the future she is interested in starting her own company together with her twin sister.

## Rodolfo Romañach Alvarez, intern Gen.1

The story of Rodolfo Romañach Alvarez with Parallel18 started in 2016, when he was an intern for two P18 companies. He did his Bachelor's degree in Accounting and Finance at the University of Mayagüez and afterwards did not have a clear idea what to do.


Then he met P18 Director of Operations, Lucas Arzola, who introduced him to the program. Rodolfo states that "P18 made me stay in Puerto Rico. It gave me the possibility to discover myself and what I want to do in the future". Rodolfo works today as a freelancer doing the books for companies. Thanks to P18 he "grew his network and had the opportunity to pitch in front of a large group of investors".

P18 helped him learn a lot of important life lessons. As a young student, he feels he was overly optimistic and naive. His time with the startups made him more realistic and humble. Now he feels better prepared for his future work life. His next steps are to do his MBA in Summer '18 and then he wants a job he feels passionate about. "Because having passion for your job, is an important thing. I learned that by working with entrepreneurs", Rodolfo said.

**Having passion for your job is an important thing. I learned that by working with entrepreneurs**

Rodolfo Romañach Alvarez  
Intern Gen.1





# fellow<sup>18</sup>

**O**ur fellow program looks to give recent graduates or freelancers the opportunity to find new clients in innovative fields. These are the numbers so far

**13**

number of fellows

**14**

companies used help of fellows



# University Agreements

As a program, we recognize the need of nurturing the entrepreneurial mindset in college students. Developing close relationships with campuses all over the Island is a must. This is why we were so excited to sign our first formal collaboration agreement with the Cayey Campus of the University of Puerto Rico. The agreement includes the exchange of mentor talks, conferences, and other GiveBack engagements on campus.

We are working closely with other institutions to amplify our reach and sign more collaboration agreements.

P

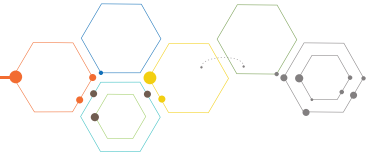
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west

Increasing the pipelines of Puerto Rican startups is very important for P18. This is why we created an outreach program to reach companies from the West side of the Island.

Our office hours for students and entrepreneurs helped us recruit interns, participate in community events dedicated to educate about entrepreneurship, and even motivate several startups to apply for a spot in Gen4.



# Thanks to mentors & partners

**P**arallel18 is the result of the hard work of our team, our mentors, and partners. And we want to thank all of them for the unwavering support our program has received during this year and a half.

We want to thank the Puerto Rico Science, Technology, and Research Trust for giving us the tools to get this project moving. We also want to recognize the Government of Puerto Rico for collaborating with the program and its companies.

We also want to give huge thanks to every local company that has said yes to a P18 Connect meeting, to sponsor our events, and ultimately collaborating with Puerto Rico's economic growth.

Our program would not exist if it weren't for those startups that trust us to lead them to growth. We want to thank all of them for their trust and for working extra hard to help Puerto Rico's economy.

And last, but not least, we want to thank the Puerto Rico entrepreneurial ecosystem for supporting our efforts and promoting entrepreneurship in the Island.

# How to get involved

There are several ways to get **involved** with Parallel18.

If you want to be a mentor contact  
**lucas@parallel18.com**

If you want to connect with our community  
contact **marie@parallel18.com**

If you want to become a P18Connect Partner  
contact **cristina@parallel18.com**

If you're a startup that's looking for growth  
contact **cobi@parallel18.com**

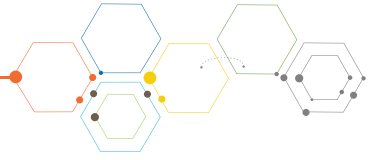


# RESEARCH GRANTS P R O G R A M

## IMPACT REPORT



Fideicomiso para Ciencia,  
Tecnología e Investigación  
de Puerto Rico



## RESEARCH GRANTS PROGRAM **IMPACT REPORT** (2014- to present)

Prepared by:

Greetchen Díaz (Research Grants Program Director)

Marianyoly Ortiz (Grants Program Management Specialist)

Gilberto Márquez (SBIR/STTR Matching Funds Program)

Lauren Rivera (Research Grants Program Intern)

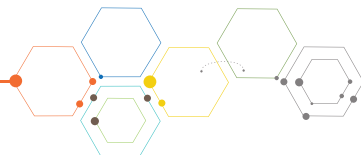
Grace Rendón (Research Grants Program Intern)





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## I- Executive Summary

### Research Grants Program

As part of the Puerto Rico Science, Technology and Research Trust (The Trust), the Research Grants Program provides a structured, systematic, and competitive mechanism to fund research and development (R&D) projects in Puerto Rico. The mission of the Research Grants Program is to provide proof-of-concept funding and incentives to advance locally developed R&D projects to become more competitive for federal and private funding and/or commercialization. The Research Grants Program of The Trust represents a critical source of competitive financial support for fundamental research and commercialization activities that builds the knowledge economy, fuels innovation and empowers Puerto Rican scientists and entrepreneurs.

The Research Grants Program is a foundational initiative that is at the core of the Trust's its mission to invest, facilitate and build capacity to continually advance Puerto Rico's economy and its citizens' well-being through innovation-driven enterprises, science and technology and its industrial base. The Program is fully aligned with the overarching goal of The Trust's Strategic Plan to increase the innovation capacity of Puerto Rico. Several aspects of the Strategic Plan (Internal Processes, Financial Stewardship and Customers/Stakeholders) are directly or indirectly connected to the Research Grants Program (Figure 1). The Research Grants Program is a key part of the Trust's portfolio of programs, as it complements and synergizes with the diverse activities of the Trust's other programs aimed to support the different stages of the Innovation Pipeline (Figure 2A). At the same time, the Program impacts all of the Trust's strategic pillars—Infrastructure, Commercialization & Entrepreneurship, R&D and Human Capital.

The funding initiatives of the Research Grants Program were developed to directly support basic research, applied research and product development (Figure 2B) through both competitive and non-competitive mechanisms. The Program launched its first competitive initiative in 2014, the Science and Technology Request for Proposals (RFP), with the aim of supporting the most innovative and relevant R&D projects on the island from researchers at academic, non-profit and for-profit institutions. In 2015, The Trust launched several additional initiatives under the Research Grants Program. The Small Research Grants Program (SRGP) aims to improve the likelihood of success of researchers in academic institutions and non-profit research entities to secure federal funding for their R&D activities. Also launched in 2015, the Researchers Startup Funds Program (RSFP) focuses on providing significant matching funds to enable institutions to attract outstanding scientists that are well established in their research areas. Finally, the SBIR/STTR Matching Fund Program for Phase I projects was implemented as a non-competitive mechanism to incentivize local technology-oriented small companies to compete for SBIR/STTR Phase I grants (Figure 2B). In total, since its inception, The Research Grants Program has awarded more than 50 research grants through its competitive and non-competitive initiatives for a total investment by The Trust of \$ 6.6 million (Figure 3). The Research Grants Program's overall support is well balanced between basic science and commercialization projects (Figure 4). Presently there are no other peer-reviewed funding mechanisms available to researchers in Puerto Rico that encompasses



opportunities for junior, mid-level and senior researchers representing a broad range of disciplines. The program supports R&D projects in different strategic sectors that include Biotechnology and Natural Sciences, Aerospace, Medical Devices, Information & Communications Technology, Electronics, Clean Technologies/Renewable Energy, Agriculture, and Environmental Sciences. The Research Grants Program’s selection process is based on standard and recognized peer-review procedures utilized by federal agencies such as the National Institutes of Health and the National Science Foundation. By strictly adhering to a comprehensive lpeer review process that assesses the scientific merit of grant applications in a fair, independent, expert-driven, and free from inappropriate influences, The Trust is able to identify and fund the most promising research or development work. The Research Grants Program is continuously optimizing its internal processes, such as grants administration and management, grantee evaluations and progress monitoring, internships, collaborations with other Trust initiative, and its policies, among others (Figure 5 and Appendix).

The Grants Research Program which was shaped according to the Trust’s Strategic Plan, is empowering scientists and researchers to take Puerto Rico’s knowledge economy to a higher level of excellence. Continued expansion and investment in the Grants Research Program is among the Trust’s highest priorities with the understanding that the outputs of a robust scientific community engaged in competitive research and development are critical to the creation of meaningful jobs and economic growth in Puerto Rico.

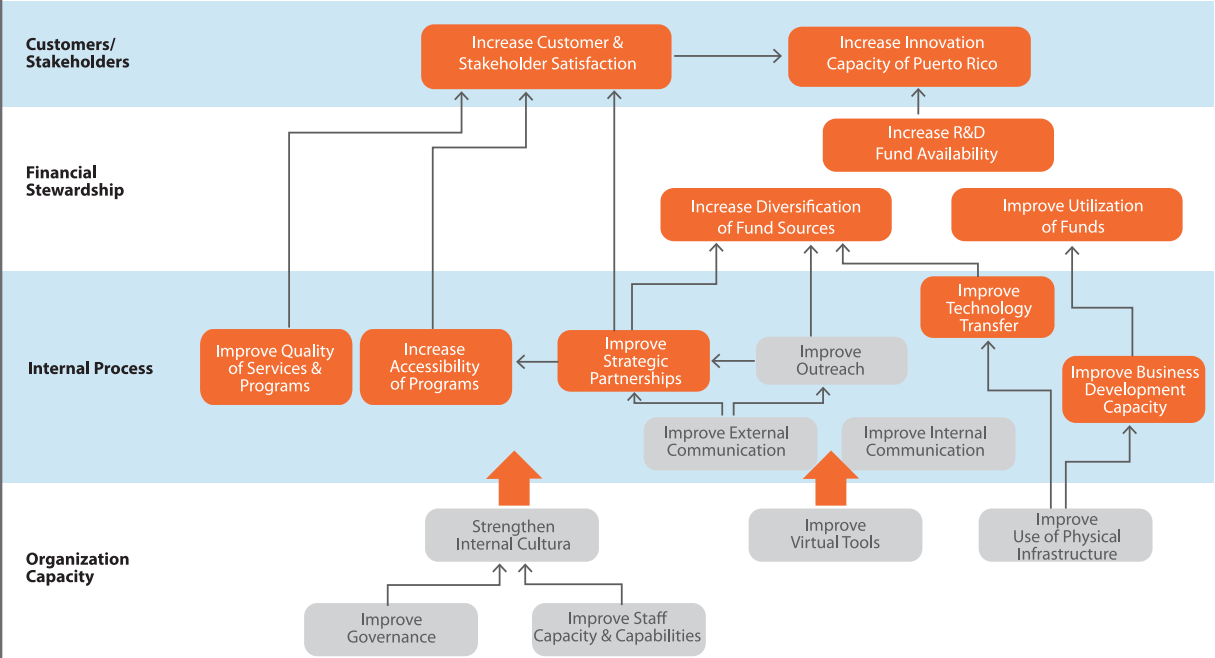
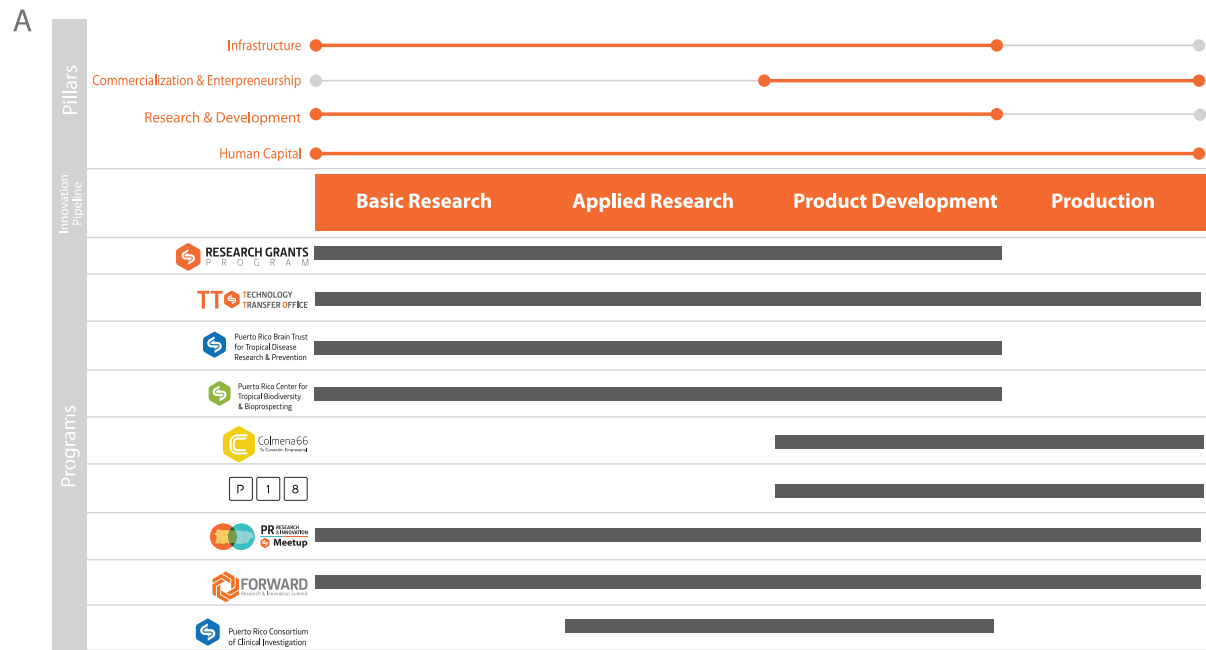
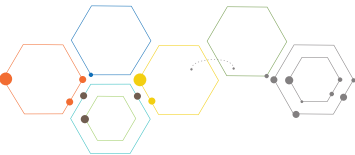


Figure 1: Trust’s Strategic Plan. In orange, areas that are directly or indirectly impacted by the Research Grants Program.



**B**

RESEARCH GRANTS PROGRAM	Academia, Non-profit			
	SRGP	RSFP	For profit	
			RFP	SBIR/STTR Matching Funds
Basic Research	✓	✓	✓	✓
Applied Research	✓	✓	✓	✓
Product Development	✓	✓	✓	✓





STRATEGIC SECTORS



Biotechnology and Natural Sciences



Information and communication technologies



Aerospace



Medical Devices



Clean Technologies and/or Renewable Energy



Electronics



Agriculture



Environmental Sciences

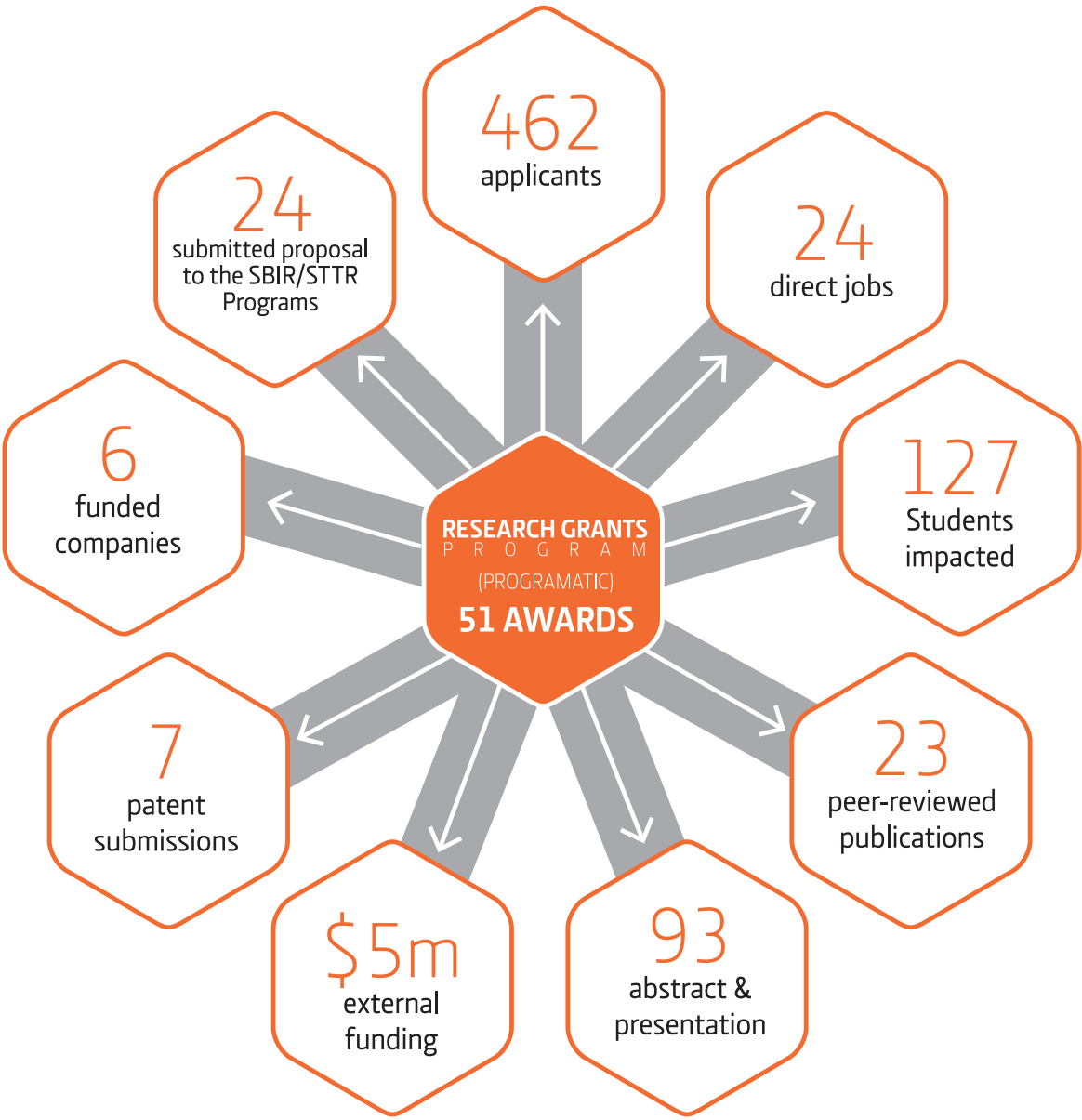
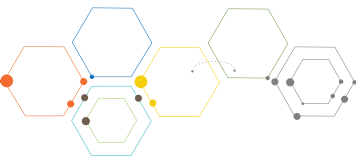


Figure 3: Research Grants Program Programmatic Achievements from 2015 to present.



Basic Research vs Commercialization Investment

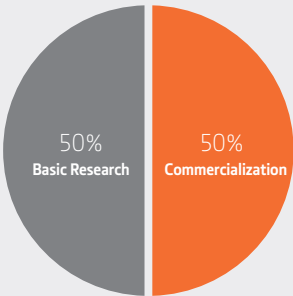
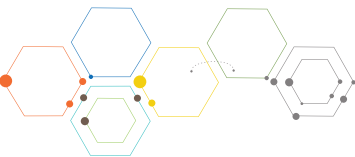


Figure 4: Puerto Rico Science, Technology and Research Trust’s Investment on Basic Research and Commercialization Projects from the RFP, SRGP and Matching Funds Grants Programs.

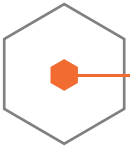


Figure 5: Research Grants Program Operational Achievements from 2015 to present.



The Research Grant Program's are Puerto Rico's local mechanism that allows to advance its own agenda and research priorities. The programs are designed to promote the production of knowledge and to foster economic development through science and technology.





## A. Programmatic (Funding and Training Initiatives)

### 1. Funding

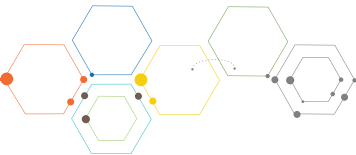
#### 1.1 Competitive Funding

### Science & Technology Request for Proposals (RFP)

The Trust launched in 2014 a Science & Technology Request for Proposals (RFP) as a competitive mechanism for the science and technology community on the island to submit proposals for proof-of-concept funding. This initiative seeks the most innovative and relevant research and development (R&D) Projects of Puerto Rico, by local researchers and entrepreneurs. The RFP Program was designed to award 10-15 grants per year of \$150,000 maximum (for 1 year).

The application process for the RFP starts with a call for letters of intent (LOIs). Those LOIs are reviewed by experts who score them; based on those scores, the top projects are invited to submit a full proposal. After full proposals are received, they are reviewed for completeness and responsiveness by the Research Grants Program staff. Based on scientific and technical qualifications, highly qualified reviewers have been identified and recruited from all the U.S, Latin America and Europe. These reviewers are officially invited and offered an honorarium for their service. Upon their acceptance, information about the review process, guidelines, instructions, and certification forms are sent. Reviewers must first confirm that they have no conflicts of interest on the proposals assigned to them for evaluation. The Research Grants Program staff is responsible for providing guidance and orientation about the review process, sending out applications, scoring forms and reviewing confidentiality guidelines. Since 2016, all these application processes, including submission and review, have been completed through a new electronic system with the company WizeHive.

According to The Trust's Review Guidelines, proposals for the RFP are scored individually on their approach/technical merit, innovation, significance, researcher, and environment/collaboration. In addition, reviewers comment on the viability of the project's commercialization plan (if applicable) and the budget justification. Reviewers assign an Overall Quality Score for each proposal they evaluate. Applications are triaged based on the preliminary rank of the average Overall Quality Score. In this way, only the most competitive applications are discussed and scored by the full panel at the panel meeting. At the beginning of each panel meeting, panel members are given the opportunity to recall any triaged application that they reviewed for consideration by the full panel. Applications with highly discrepant scores are also discussed. After the awards are announced, all applicants (principal investigators) who were not selected receive the final overall score, criteria scores, and redacted copies of the primary reviewers' critiques. The feedback that the Trust gives at the end of the grants process is important to enhance the understanding and future competitiveness the applicants.



As a result of the peer-review process, the Research Grants Program Director generates a list including the rank of the proposals discussed to be presented to the Board of Trustees’ Grant Committee. The members of the committee discuss the final rank and additional aspects of the candidates such as funding history, publication record, patents, and submit their recommendations of final grant awardees to the Board of Trustees for ratification. After awards announcement, the Research Grants Program Director proceeds to work with the grantee on the cooperative agreement processing and signing. Grantees are required to submit reports periodically and the Research Grants Program staff site visit the grantees and their facilities as a required follow-up to the progress reports. The Research Grants Program staff evaluates the report and comment on the visit in order to document the progress of the project and to approve future funding disbursements.

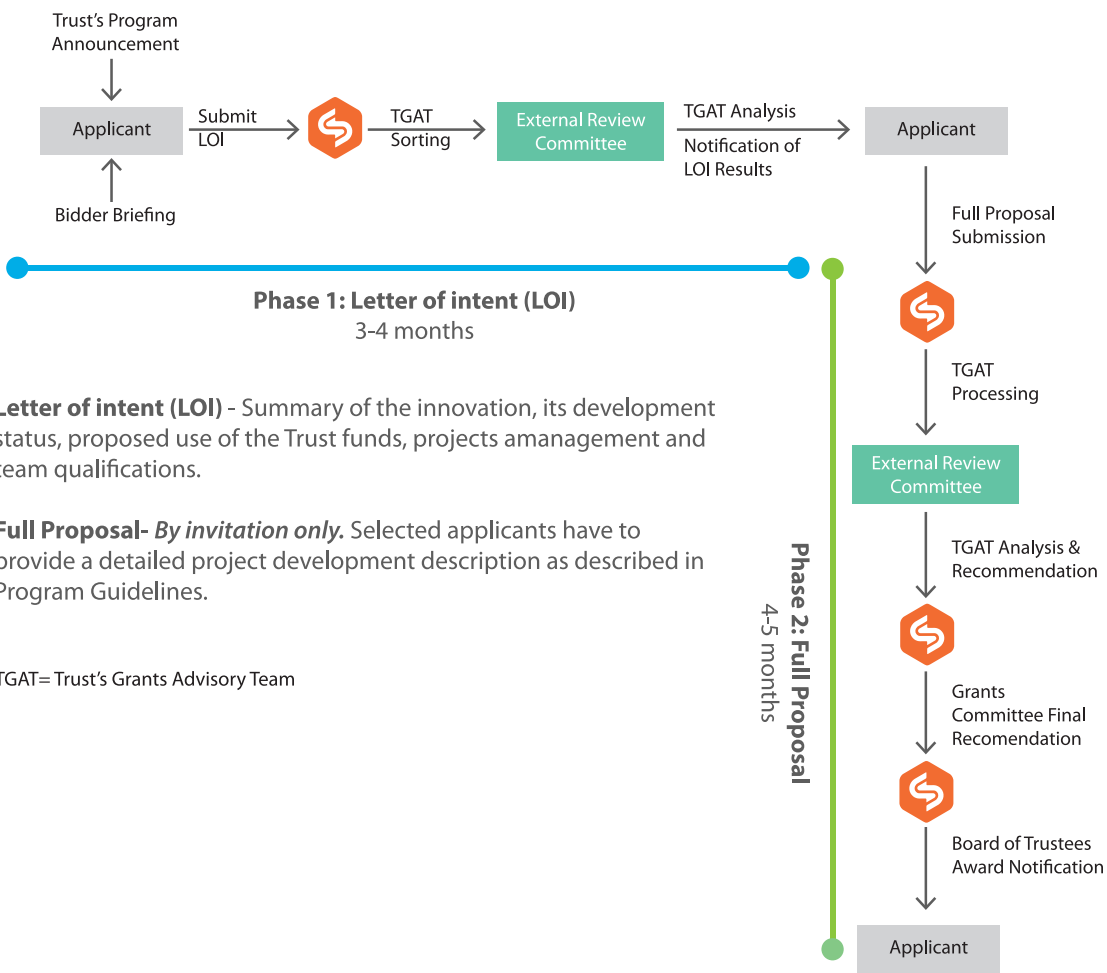


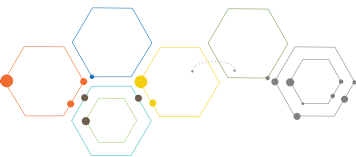
Figure 6: Science and Technology Request for Proposal (RFP) Program Application and Review Process.



The first RFP call received 234 letters of intent from which The Trust, after the recommendations from a group of expert reviewers, invited a total of 48 applicants to submit full proposals. A total of 43 full proposals from academia, for profit and non-profit entities were received by December 15th, 2014. For this RFP, each application was assigned two primary reviewers. Preliminary scores were received in the last week of February 2015, and the average Overall Quality Score was calculated in order to rank the applications for panel discussion. A teleconference panel meeting (3-4 hours each) was scheduled during the first and second week of March. Each panel was composed of the Research Grants Program Director, a Panel Chair, and Panel Reviewers.

After the full panel discussion, the Research Grants Program Director presented the ranked proposals to the Board of Trustees' Grant Committee. The committee selected 12 proposals to be ratified by the Board of Trustees for funding.





For the second RFP call, the application, review and evaluation processes were as described above but with the following changes:

Two new strategic sectors were added to this RFP: 1) Agriculture and Environmental Sciences, and 2) Biotechnology and Natural Sciences (previously called Biotechnology and Life Sciences strategic sector). On July 2015 the company WizeHive was hired to design a web system for the Research Grants Program application and review process. The staff worked closely with the WizeHive team to design the platform which was launched in October 2015 for the RFP.

The second RFP call received 166 letters of intent. The letters of intent were divided in two categories: Basic/Translational Research (Basic) and Technology/Product Development for Commercialization (Commercialization). 104 Basic applications and 62 Commercialization applications were received. . The Trust invited a total of 48 applicants to submit full proposals to compete for funding, 24 from each category. A total of 45 full proposals were received by February 4th, 2016.

Different to the first RFP, each application was assigned three primary reviewers. From this point, the review process was as described above. For the second RFP, the Board of Trustee’s Grant Committee generated a final list of 14 proposals to be recommended for funding (see appendix 3, for a complete list of proposals approved for funding).





Applications Reviewed per Legal Entity  
(Basic Research + Commercialization)

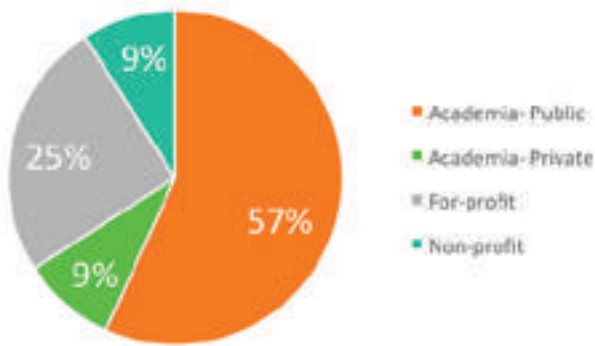


Figure 7: Distribution of applications based on the Legal Entity for the Science & Technology Request for Proposals (RFP).  
Numbers include the 88 applications reviewed in both RFP cycles (2014-15 and 2015-16).

Applications Reviewed per Strategic Sector (Basic Research + Commercialization)

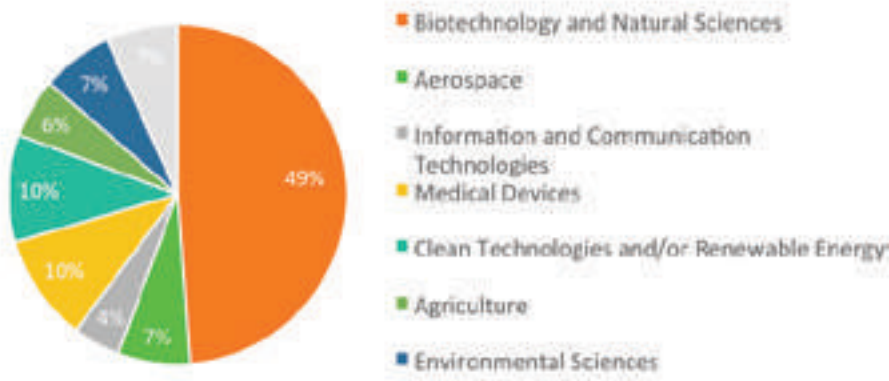
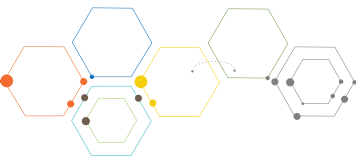


Figure 8: Distribution of approved applications based on the Strategic Sector for the Science & Technology Request for Proposals (RFP). Numbers include the 88 applications reviewed in both RFP cycles (2014-15 and 2015-16).



Since it launched in 2014, the **RFP Program has awarded a total of 26 R&D local projects**. This funding has been instrumental in the acceleration of R&D projects and the general science and technology ecosystem. So far, these grants have created 23 direct jobs and have impacted 63 undergraduate and graduate student who work directly on these projects. In addition, the contribution and impact of these projects have been highlighted in 12 publications in refereed journals (see appendix 4, for a complete list of publications) and in 54 presentations in local and international scientific forums (Figure 9). From the commercialization standpoint, it is important to highlight that 5 companies have been founded by academics, 6 patents submitted, and one of the supported startups has already launched a product to market.

Companies Funded

- Paul Bayman- Atabeil Ecosystems, LLC
- Suranganie Dharmawardhane- MetaBloq (MBQ), LLC
- Carlos Cabrera- BIDEA, LLC
- Rodolfo Romañach- IBS Caribe
- Pablo Vivas- Release Biotech CRL

Product Launched

- Lianable Oliver- OBALearn



Figure 9: Science and Technology Request for Proposal Achievements from 2015 to present. Includes two award cycles: RFP 2014-2015 (12 awards) and RFP 2015-2016 (14 awards).



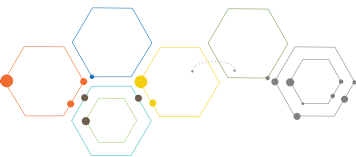
## Small Research Grant Program (SRGP)

The Trust launched in 2015 the **Small Research Grant Program (SRGP)** which aims to help local researchers increase their probabilities of success in securing federal funding for their research and development activities. The SRGP enhances the competitiveness of Puerto Rico's researchers by providing critical bridge funding to help them accomplish the following: (1) obtain reproducible and robust preliminary results, (2) address any recommendations from previous grant reviewers to improve the R&D project to strengthen its position to obtain the grant and (3) secure reagents, laboratory materials, collaborations or additional technical training necessary for the proposed goals. The SRGP was designed to award 5-10 grants per year of \$70,000 maximum. By strengthening local researchers' likelihood of submitting highly competitive R&D grants (within the 15-18 months after receiving the SRGP), the program expects to increase the number of proposals that are successful in attracting funding from private and/or federal agencies. In doing so, the SRGP will stimulate the development of Puerto Rico's knowledge-based economy.

The SRGP is open to researchers in public and private universities, colleges, and affiliated non-profit research institutions located in Puerto Rico. Ideal candidates fall into one of the following categories: (1) Junior Faculty (within their first five years of their faculty appointment) with a competitive publication record, seeking to secure their first grants; (2) PIs with a successful track record of securing funding in their primary research topic, who are now embarking in a new research topic and seeking to secure a grant; (3) PIs that applied for highly competitive federal funding, that had their proposal favorably reviewed, but fell short of being funded. In this case, the PI is asked to provide a copy of the evaluated proposal and the evaluations in addition to the SRGP application materials. Highly competitive funding refers to the types of grants that qualify for tax exemptions under Law 101. Applicants must submit a project plan designed to allow them to complete experiments suggested by previous reviewers or generate new data that will strengthen the competitiveness of the proposal.

Unlike the RFP, there are no letters of intent for the SRGP. An online electronic application and review platform was created for the 2016-17 SRGP cycle. All applications are checked for completeness and responsiveness by the Grants Advisory Team (Grants Team). Reviewers with excellent scientific and technical qualifications are recruited from all the U.S., Europe and Latin America. According to the SRGP Guidelines, proposals are scored individually by their research area, project status, technical merit, innovation, investigator, and budget justification. During the second year of the SRGP, the electronic application and review platform WizeHive was implemented. The new platform allows for direct submission of the applications, automatic email confirmation to the applicant when a proposal is submitted, and access to the proposal by the reviewers and electronic evaluation of the proposals by reviewers.

As with the RFP, the Research Grants Program Director generates a list of ranked proposals which are discussed by the Board of Trustees' Grant Committee. The committee then submits their recommendations to the Board of Trustees for ratification.



The application for this program was originally on a rolling basis, where applications were accepted throughout the year. However, the Grants staff decided to close the solicitation after two rounds in order to evaluate the application and review process. The first round of cycle 1 (cycle 1-a) closed on June 2015 and the second round (cycle 1-b) closed on September 2015.

The Trust received 13 applications for cycle 1-a, from which The Trust’s Grants Team, after careful evaluation of each application, sent 11 proposals for peer review. Each application was assigned two primary reviewers.

As in the RFP, reviewers with excellent scientific and technical qualifications, were recruited from all the U.S, Latin America and Europe. Potential reviewers were officially invited and offered an honorarium for their service. After their acceptance, information about the review process, guidelines, instructions, and certification forms were sent. After reviewers confirmed that there were no conflicts of interest on their assigned proposals, the Grants staff provided guidance and orientation about the review process, and sent out applications, scoring forms and confidentiality guidelines.

For the cycle 1-b, The Trust received 6 applications from which 5 proposals were sent for peer review, after careful evaluation. For both cycles 1 a-b, each criteria was evaluated in a scale of 1 (best) – 9 (worst) for a total score range of 5 (best) to 54 (worst). The Total Score was calculated by adding the scores of each individual category. Preliminary scores were received by the final week of August 2015 (cycle 1-a), and by the first week of December 2015 (cycle 1-b). The average Total Score was calculated in order to rank the applications.

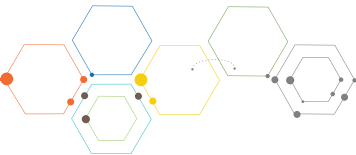




In both rounds for cycle 1 a-b, the Grants Team generated a list with the final ranking of all the applications evaluated, to be reviewed by the Board of Trustees' Grants Committee who in turn requested ratification of their recommendations by the Board of Trustees. The committee recommended the Board of Trustees to consider awarding a maximum of six awards for cycle 1-a. From this cycle, two proposals of senior faculty were put on hold for consideration during the next cycle of the SRGP. For cycle 1-b, the committee recommended to award five SRGP grants that included four junior faculty, and one senior faculty (evaluated during the cycle 1-a).

For the second cycle of the SRGP, the Grants Team decided to design an annual application process for this program, similar to the one used with our RFP Program. Thus, the call for proposals opened in May 31st, 2016 and closed August 17, 2016. As with the RFP Program, for this second year it was implemented an electronic application and review platform with the company WizeHive.

For this second cycle, The Trust received 43 applications from which The Trust's Grants Team, after careful evaluation of each application, sent 42 for peer review. For this SRGP, each application was assigned three primary reviewers. All preliminary scores were received by December 2016, and the Average Total Score was calculated in order to rank the applications. As a result of the peer-review process, the Grants Team generated a list with the final ranking of all the applications evaluated to be revised by the Board of Trustees' Grants Committee. The committee asked the Board of Trustees for ratification of 9 proposals for funding (see appendix 3, for a complete list of proposals approved for funding).



**Partial Application (PA)** Includes the PI information and Project Summary and should be completed by the date specified in the online application.

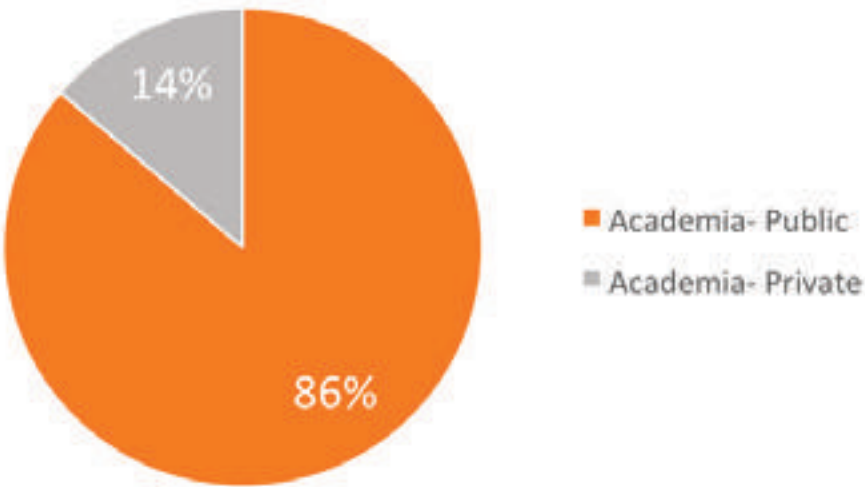
**Full Application (FA)** Includes a detailed description of the proposed project

Figure 10: Small Research Grant Program (SRGP) Application and Review Process.





Applications Reviewed per Academic Sector



Applications Reviewed per Category

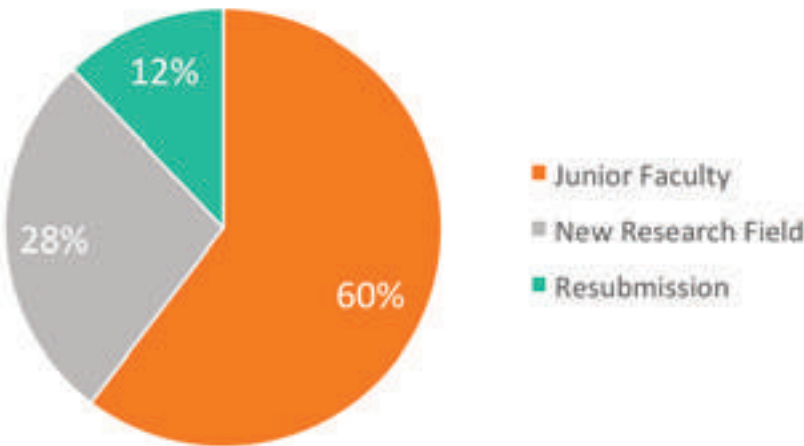
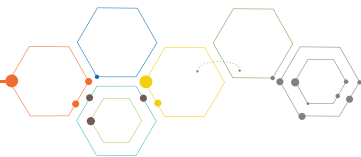


Figure 12: Distribution of applications based on the Category for the Small Research Grant Program (SRGP).  
Numbers include the 58 applications reviewed in both SRGP cycles (2015-16 and 2016-17).



### Applications Reviewed per Strategic Sector

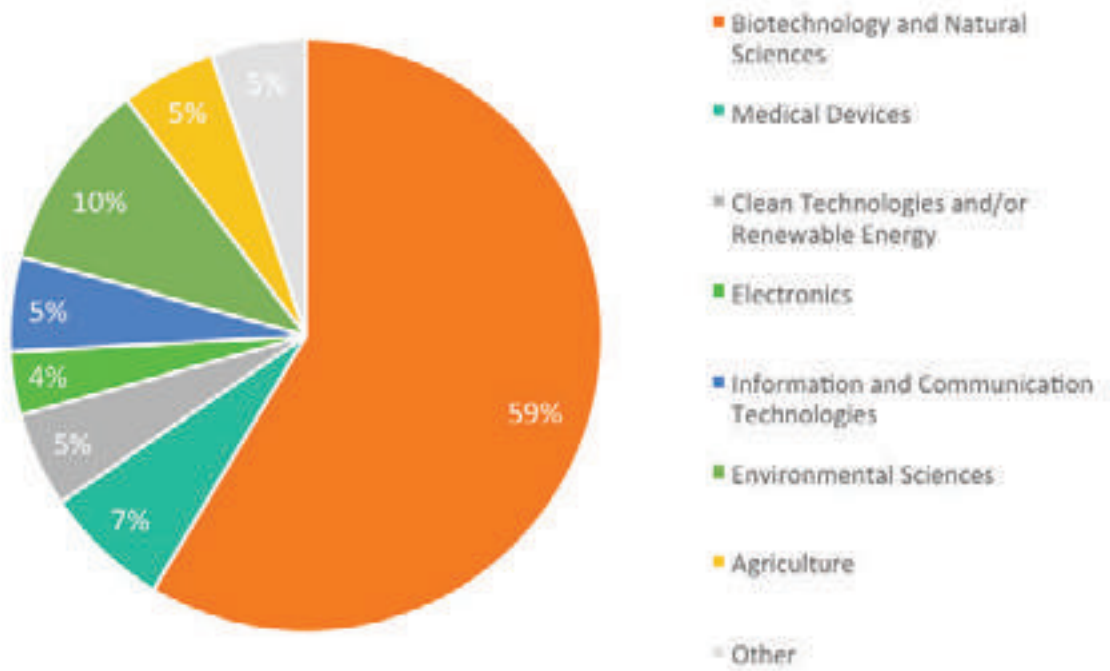


Figure 13: Distribution of applications based on Strategic Sector for the Small Research Grant Program (SRGP).  
Numbers include the 58 applications reviewed in both SRGP cycles (2015-16 and 2016-17).

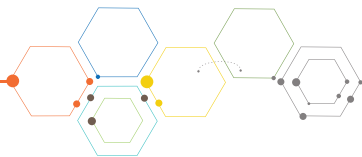




Since the SRGP was launched in 2015, the program has awarded a total of 18 awards. This funding has allowed academic researchers to start to work on the preliminary data they will need to prepare a highly competitive proposal for federal/private funding. So far, the SRGP have impacted 64 undergraduate and graduate students. Also the contributions of these projects have been highlighted in 7 peer-reviewed publications (see appendix 4, for a complete list of publications) and 34 abstracts and presentations at local and national scientific meetings. It is important to note that as intended, this program has helped scientists attract more than one million dollars in external funding (Figure 14).



Figure 14: Small Research Grant Program Achievements from 2015 to present.





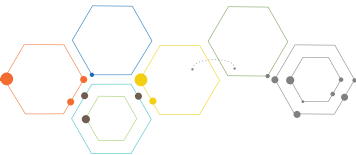
## Researchers Startup Funds Program (RSFP)

The Researchers Startup Funds Program (RSFP) was created to provide matching funds to institutional recruitment packages to enhance the ability of Puerto Rican universities to attract and recruit outstanding scientists that are well established in their field of research and are interested in working in Puerto Rico. This program is flexibly structured to enable institutions working in collaboration with The Trust to foster the recruitment, retention and development of world-class research in Puerto Rico. Funds can be used for the relocation of scientists to Puerto Rico or for the initiation of satellite (or mirror) research programs in Puerto Rico for researchers maintaining their appointments at other institutions.

Scientists considered for the program must have had a sustained, high level of productivity and be able to demonstrate how their expertise, research accomplishments, and contributions will enhance Puerto Rico's competitiveness in the global knowledge economy. This program is expected to: (1) Position Puerto Rico at the forefront of certain science fields identified as strategic to Puerto Rico's science and technology agenda, as defined by The Trust and the Puerto Rico's Public Policy on Science, Technology and Innovation; (2) Enhance the recruitment, development and retention of a strong scientific workforce—including the sponsored candidate, as well as his staff, trainees, and collaborators—that increases Puerto Rico's research expertise and/or capability and capacity to attract additional research funds; (3) Improve the setup of important laboratory infrastructure; (4) Leverage Trust funds as measured vis-à-vis the amount of additional funds brought to Puerto Rico as a direct result of the startup funds provided; (5) Increase in the amount of scientific and intellectual property outputs (e.g. science papers, invention disclosures, patents and other forms of intellectual property) from Puerto Rico. Awards in response to the RSFP are made to the Academic Institution. Funding request maximum is \$300,000 per year, with a cumulative budget for \$900,000 maximum, for no more than five years.

In 2015, the Research Grants Program received two proposals from the Ponce Research Institute, which is part of Ponce Health Sciences University (PHSU) to recruit two scientists in the areas of neurobiology and cancer. Well-established and highly respected reviewers from institutions outside of Puerto Rico were selected to give their opinion on whether the PRSTRT should support the recruitment of the candidate(s). Each application was assigned two reviewers, including an expert from the candidate(s)' field. Evaluation was based on: Candidate, Career and Research Plan, Institutional Environment, Budget, and Letters of Reference, according to the RSFP evaluation form. The Research Grants Program Director generated minutes for each reviewer conversation and asked for reviewer's approval. The Research Grants Program Director reported to the Board of Trustees' Grants Committee who in turn discussed the applications. Following this thorough evaluation process, the committee approved the two proposals (one with conditions) and asked the Board of Trustees for a ratification of their recommendation.

In less than 2 years, these two high-calibre faculty recruitments have resulted in the creation of 3 direct jobs, 4 scientific publications, impact on 9 students who work on these projects, and have contributed to attracting \$1.8M in additional external funding to Puerto Rico (Figure 16).



**Applicant Institution**

The institution must be in the process of recruiting the PI for an independent faculty position (or equivalent) at the time of submission.

**Application Submission**

The Academic Institution President and the Chancellor of the particular campus unit will submit applications on behalf of candidates.

Figure 15: Researchers Startup Funds Program (RSFP) Application and Review Process.



Figure 16: Research Start-Up Funds Program Achievements from 2015 to present.





## A. Programmatic (Funding and Training Initiatives)

### 1. Funding

#### 1.2 Non-competitive Funding

### SBIR/STTR Matching Fund Program (Phase I)

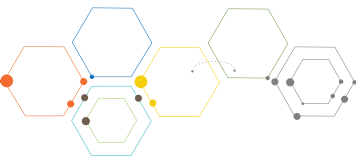
Enacted in the 1980s, the Small Business Innovation Research (SBIR) and the Small Business Technology Transfer (STTR) are highly competitive programs that encourage domestic small businesses to engage in federally sponsored Research and Development (R&D) activities that have the potential for commercialization. Through a competitive awards-based program, SBIR/STTR enables small businesses to explore their technological potential and provides incentives to profit from commercialization. By including qualified small businesses in the nation's R&D arena, high-tech innovation is stimulated and the United States gains entrepreneurial spirit as it meets its specific research and development needs.

The Trust implemented the **SBIR/STTR Matching Fund Program for Phase I** to incentivize local technology-oriented small business firms and researchers to compete for SBIR/STTR Phase I grant awards. The objective of Phase I is to establish the technical merit, feasibility, and commercial potential of the proposed R&D efforts and to determine the quality of performance of the small business awardee organization prior to providing further Federal support in Phase II. SBIR Phase I awards normally do not exceed \$150,000 total costs for 6 months.

The program benefits SBIR/STTR Phase I recipients by providing a matching grant from The Trust of up to \$100,000 to foster technology commercialization efforts and/or enhancing research activities. The benefits of this program for technology ventures include: (1) Provides attractive financial incentives to apply for Federal SBIR/STTR Phase I grants; (2) Enhances the competitiveness of proposal submitted for approval by Federal agencies because of matching funds; (3) Closes the funding gap between Phase I and Phase II contract awards; and (4) Provides additional capital to accelerate R&D and/or commercialization efforts.

The SBIR/STTR Matching Fund Program is one of several initiatives implemented by The Trust with the goal of increasing the number of SBIR/STTR Phase I awards in Puerto Rico. The Trust also offers an SBIR/STTR Proposal Preparation Workshop (see further details below) to assist participants in preparing competitive proposals for the SBIR/STTR Phase I program.

To apply, the researcher must complete an application to The Trust prior to submitting a SBIR/STTR Phase I proposal to a federal agency. The Trust must receive the application at least 15 days prior to the SBIR/STTR Phase I deadline submission due date. Within 5 days prior to SBIR/STTR deadline submission due date, applicants will receive a letter of support from The Trust, to be included with the SBIR/STTR proposal. If the applicant is successful in obtaining an SBIR/STTR award, it must submit to the Research Grants Program proof in the form of an executed SBIR/STTR contract, grant, or cooperative agreement between the federal agency and the applicant. Upon receiving the required documents from the applicant, The Trust sends a Matching Fund Award Agreement.



Through the assistance and incentives provided through the series of workshops and the SBIR/STTR Matching Fund Program, The Trust has made a significant contribution to the high-tech business community by attaining an unprecedented number of five active SBIR/STTR projects in Puerto Rico, as follows:

- | BS Caribe/UPR Mayaguez - SBIR Phase I NSF; \$225,000
- | CDI Laboratories Inc./Ponce Health Sciences University - STTR Phase I NIH; \$154,596
- | CDI Laboratories Inc./Rockefeller University - STTR Phase I NIH; \$294,320
- | STTR with UPR Mayaguez - STTR Phase I NASA; \$125,000
- | Protein Dynamics Solutions - SBIR Phase II NSF; \$750,000

The total number of SBIR/STTR grants in Puerto Rico **increased to 31**, representing an **increase of 25%** and over **\$1 million** in additional federal funding since the inception of the SBIR/STTR Matching Fund Program.

2. Research Grants Program Training and Outreach

2.1 Training

SBIR/STTR Proposal Preparation Workshop

Since FY2014-15, The Trust offers an SBIR/STTR Proposal Preparation Workshop to assist participants to prepare competitive proposals for the SBIR/STTR Phase 1 program. These workshops are offered by former Program Managers and experts of the SBIR/STTR Phase 1 program at the National Science Foundation (NSF), the National Institutes of Health (NIH) and the US Department of Energy (DOE). These workshops are being offered by Dr. Juan E. Figueroa, a former SBIR Program Manager along other experienced SBIR Program Managers from the National Institutes of Health (NIH) and the US Department of Energy (DOE). Through these workshops, The Trust has impacted over 20 companies and their teams, facilitating the submission of over 24 proposals since the inception of the initiative.

2.2 Outreach

The Research Grants Program constantly encourages and provides many opportunities to its grantees to participate in internal and external outreach activities. Internal activities include the Research and Innovation Meetups, the Forward Grantees Symposium and the Forward Research & Innovation Summit. Since 2016, the cooperative agreements include an obligation for all grantees of The Trust to participate in the Forward Summit. The level of participation varies, depending on the status of their work and relevance of the topic. Other internal activities provide opportunities for the grantees to engage with The Trust and broader science, technology and research community. In addition, The Trust sponsors external outreach activities in which grantees are usually invited to participate.



Figure 17: Research & Innovation in Agriculture Meetup



Figure 18: Research & Innovation in Bioinformatics Meetup

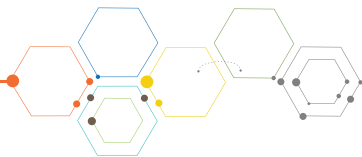
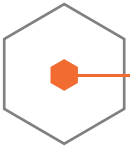


Figure 19: Forward Summit- Paul Bayman, RFP 2015-2016



Figure 20: Forward Summit- Lianabel Oliver, RFP 2014-2015

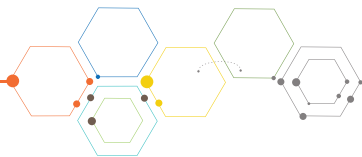




# PROGRAM INITIATIVES AND ACHIEVEMENTS

## B. Operational

1. Program Guidelines and Bidder Briefings
2. Communications and Outreach
3. Reviewer's Database
4. Applicants and Grantees Databases
5. Application/Review Online platform
6. Peer-review process
7. Research Grants Program grantee evaluation process
8. Assessment process for grantees by the Technology Transfer & Commercialization Office
9. Internships





## II. Program Initiatives and Achievements

### B. Operational

#### 1. Program Guidelines and Bidder Briefings

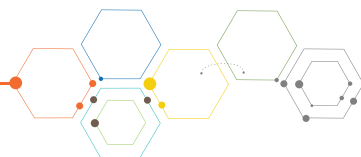
The orientation and outreach processes for potential applicants and grantees of our program, was optimized. For this, several resources were developed. First, the guidelines for the Science and Technology Grants Program (RFP), the Small Research Grant Program (SRGP), the Researchers Startup Funds Program (RSFP) and the SBIR/STTR Matching Fund Program were modified. Second, new materials were prepared to be used in booth presentations and bidder briefings to potential applicants, with emphasis on the processes and use of the new online platform. Third, the Research Grants Program created specific e-mail listings for applicants and grantees that are used to effectively share relevant information. Currently, the program listings total more than 1,500 contacts.

#### 2. Communications and Outreach

Since 2016, the cooperative agreements include an obligation to participate in the Forward Research and Innovation Summit as an outreach commitment from the grantees. Additionally, in coordination with The Trust's Communications and Marketing office, the Research Grants Program creates content and activities that emphasize the grantees, their teams and their work. The program monitors all of its media coverage, and the media coverage of its grantees to create a list that allows evaluation of the program's media presence, and analysis of the best media tools for dissemination and outreach (see appendix 6, for press coverage). Finally, the program's information on The Trust's website was updated and is still undergoing optimization.

#### 3. Reviewer's Database

The Research Grants Program maintains and is constantly adding to a database of external reviewers that are scientific and technical experts in various strategic sectors. This database is critical for efficient and rapid identification and selection of reviewers in each review process, and for raising the quality level of the reviewers. Presently, the database contains information from 279 potential reviewers from all over the world. Of these, more than 120 have contributed to completed review processes. The creation of the reviewer's database now allows the program to recruit 3 reviewers per proposal, something that was not possible for the first round of the RFP.



#### 4. Applicants and Grantees Databases

The Research Grants Program created two databases: one containing relevant information about all applicants and the other containing the grantees' details (contact information, cooperative agreements, reports, evaluations and metrics, among others). The information contained in these new tools will be crucial to understanding the profile of the applicants to our program and for the subsequent evaluation of the Research Grants Program impact.

#### 5. Application/Review Online platform

In July 2015 the company WizeHive was contracted to design an online system (e-platform) for the grant application and review processes. This company was selected because it specializes in simplifying grants, fellowships, awards and other similar procedures. They offer services to entities such as George W. Bush Presidential Center, UCLA, Petco Foundation, Carson Scholars Fund, Texas A&M, among many others. The Research Grants Program's staff worked closely with the WizeHive team to design the e-platform which went live in October 2015. The e-platform allows for direct submission of the applications, automatic email confirmation to the applicant when a proposal is submitted, archive of the proposals received, reports of the results and other statistical data of the applicants, among other things. The platform also contains a reviewer's portal that provides the reviewers with access to the reviewer's agreement, assigned proposal(s) and review forms. The e-platform was used for the whole RFP 2015-2016 process, from submission of the letters of intent to the final review and evaluation of the full proposals received. The system was used for a second time with the SRGP 2016-2017 application and review processes. The use of an e-platform offers reliability, has simplified the management of multiple applications, and has increased our capability to accept more applications and use more reviewers per application. Reports of results and applicant information can be easily generated and downloaded from the e-platform which has resulted in more efficient data management and monitoring of the review process. It is important to highlight that, despite the positive advantages of using an e-platform, significant effort is required by the Grants Team. Close collaboration with the WizeHive team, representing significant time and management investment, is needed to customize the e-platform for our needs. For example, reviewers need to be added to the system individually and be assigned each application separately.

#### 6. Peer-review processes

Since its launch in 2014, the peer-review process has been under continuous optimization. Several resources have been developed, such as new orientation materials for the external reviewers, the review score sheet and other review documents. Also, all the review processes were integrated into the e-platform.





## 7. Research Grants Program grantee evaluation process

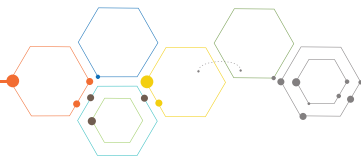
The grantees evaluation process has been established and undergoes continuous optimization. A report template for grantees was developed, and as part of the evaluation process, a site visit system that coincides with the delivery of the reports (2 visits in a year) was established (see appendix 5, for the schedule of visits). This visit system is currently being evaluated for future changes. The Research Grants Program developed a template to summarize the evaluation of the grantee progress report and site visit, which is submitted as evidence to the finance office to request the disbursement of funds (as applicable). As part of the development and optimization of the evaluation processes, the program also has established an internal policy and process for requesting no-cost extension and changes to the approved budget., The cooperative agreement has also been updated, and is under constant examination for future improvements.

## 8. Assessment process for grantees by the Technology Transfer & Commercialization Office

Beginning with the 2016 RFP grantees, the Research Grants Program established a new grantee obligation in the cooperative agreement that consists of one entry and one exit interview with Dr. David Gulley, director of The Trust's Technology Transfer Office (TTO). The goal of this requirement is to provide early advice on the potential for creation of intellectual property, commercialization, technology transfer, and other related aspects. Dr. Gulley was responsible for the preparation of assessment and counseling materials. Once the interviews are conducted, the TTO provides access to the documents, which are archived as part of the grantee record. We are still working on optimizing this process, which is now required for all grantees. The previous grantees, whose cooperative agreement did not contain this obligation, were offered the opportunity to receive this advice from the TTO.

## 9. Internships

In 2015, The Trust signed an agreement with the UPR-Río Piedras to recruit talented students as interns under a UPR program called "Mi primera experiencia laboral". During this reporting period, a total of five science students have been interns in our Research Grants Program. The main goal has been to provide diverse training experiences within the area of science and give exposure to various career opportunities. Students have the opportunity to learn about administrative activities that support and strength research activities and institutions. In addition, the interest is to make The Trust a place of preference among students to perform their internships. To complete these goals, the Research Grants Program uses a model of empowerment in which interns are assigned a specific projects and increasing responsibilities during the semester, while collaborating on other assignments of the Research Grants Program and outreach activities (see appendix 8, for testimonies). Based on the success of the Research Grants Program's internships, other programs of The Trust have begun recruiting students.



### III. General Conclusions

In less than 3 years since it was launched, the **Research Grants Program** initiatives have achieved several significant milestones. Probably the most important is that the community of scientists and entrepreneurs conducting research and development activities feel empowered. In addition to providing funds for research and facilitating training activities,

The Trust has been instrumental in bringing together coherent and engaged communities of researchers, entrepreneurs, investors and industrialists through outreach activities, creating a more robust interdisciplinary community in science and technology.

Since the start of the **Research Grants Program**, local researchers have shown a lot of interest in its initiatives and consider this program to be important and necessary for the progress of science on the island (see appendixes 7 and 8, for survey and testimonies). Although it is too early to assess the impact on the Puerto Rico’s research ecosystem over the long-term, the grantees in the short-term have already obtained very positive results and in many cases are transforming their projects thanks to the support of The Trust. Since the granting of these funds, **most of the projects have accelerated considerably and have benefitted from greater exposure and interactions with other programs and collaborators of The Trust.** In addition to generating additional external funds, patents, scientific publications, presentations in local and international forums and direct jobs, these funds have impacted hundreds of students in training and have contributed significantly to the retention of scientific talent on the island such as graduate students and postdoctoral researchers.

Although there is more work to do, the **Research Grants Program** has made significant progress in its programmatic and operational areas, and has established its credibility to win the support of the scientific community in general. It will be very important to ensure the continued growth and improvement of the Research Grants Program for the remainder of 2017 and beyond to ensure the development of the R&D



## IV- Plan of action for 2017-2018

### General

1. Complete Staffing: Research Grants Program Director and Research Grants Program Specialist (2017-18).
2. First Forward Grantees Symposium (May 2017; annual event)
3. Establishment of an External Advisory Grants Committee (2017)
4. Work in an external funding strategy to expand the program (2017-18)
5. Continue to optimize and update processes and guidelines of all initiatives (2017-18)

### Research & Technology RFP

1. A call per year

### Small Research Grant Program

1. A call per year

### Researcher Startup Funds Program

1. On hold.

### SBIR/STTR Matching Program

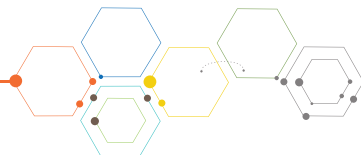
The Research Grants Program will continue to offer both programs to keep providing assistance and incentivize local aspiring entrepreneurs and researchers seeking SBIR/STTR Phase 1 awards. It also plans to expand its offering by providing a SBIR/STTR Matching Fund Program mechanism for Phase II awardees, and an initiative to proactively match researchers and companies.

### External Grants Advisory Committee

The Board of Trustees approved the creation of an External Grants Advisory Committee that will replace the actual Board of Trustees Grants Committee. The new advisory committee will be composed of top researchers and entrepreneurs that will make recommendations to the Board of Trustees after the peer-review processes. This committee also will give strategic advice for future initiatives.

### Strategy for External Funding

The Research Grants Program has achieved sufficient milestones and measurements of impact to justify new efforts underway to identify and cultivate potential external funding partners to continue the work of the Program. The Research Grants Program staff will be responsible for identifying private philanthropic organizations, corporate partnerships and individual donors who share the mission and vision of The Trust to build the R&D capacity and capabilities of Puerto Rico's science and technology communities. The Research Grants Program is charged with seeking collaborative funding opportunities in support of basic and applied research, building a diverse scientific workforce, and promoting the knowledge economy in Puerto Rico.

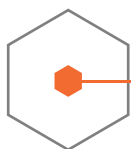


## V. Recommendations

### Application Process

1. The current RFP Commercialization track is very similar to an SBIR phase I. Evaluation of whether the RFP Commercialization track is the best mechanism for funding these types of projects is needed. The Research Grants Program has an important opportunity to better integrate The Trust's SBIR/STTR experts to guide and facilitate grantee applications.
2. Consider changes to the RFP such as awarding less money per year (e.g. 100K) or extending the grant period to two years.
3. Consider creating our own CV format with a maximum of 5 pages. Additional publications and funding can be requested to the finalists only.
4. Make Letters of Intent shorter.
5. Consider expanding the allowable costs in each grant
6. In the RFP commercialization track, provide for a small allocation for marketing costs only in the case of well justified projects.
7. Allow indirect cost in SRGP (at least a small percent), to enhance investigators' ability to receive more institutional resources.
8. Ask applicants who are resubmitting the same proposal to include a cover letter where they explain how the comments of the previous peer-review process were addressed as well as any other changes or progress in the project.
9. SRGP-New topic should include a justification on why this is a new topic for them.
10. Decide whether the SRGP should implement a process for triage because given there are very specific guidelines and too many applications to send for review. An "elimination sheet" could be used to identify and eliminate applications without review that do not meet specific criteria. This information should be in the application guidelines so applicants know what to expect.
11. Re-evaluate which grants qualify for the SRGP. There are currently grants that do not fall under law 101 that are highly competitive (e.g., R15) that should be considered for eligibility.
12. SRGP- Consider a better definition of junior faculty such as the definition used by the National Institutes of Health (NIH): Within 10 years of terminal degree and with no previous R01 funding, or faculty with 5 years of their first appointed faculty position, and with no previous R01 funding.
13. Ask applicants to submit a CV where the current and pending funding sources are clearly listed. Applicants should also include evidence of proposals and summary statements of any other efforts to obtain federal funding.
14. Discuss and decide specific deliverables that are expected from the commercialization proposals. (e. g. submission to SBIR programs or similar funding sources).
15. Discuss and decide whether basic research grantees should be expected to apply for external federal or private funding based on the findings of the funded research.
16. Include a limit for the amount of salary that could be requested in the proposals, particularly for the PIs who already have tenure or tenure track positions.
17. RSFP should also have specific deadlines designed in coordination with universities to determine what a reasonable timeline for faculty recruitment is. It could be only one per year and highly competitive.





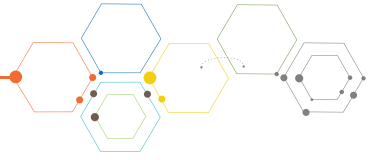
## Review Process

1. Assign a lead reviewer for each RFP application or have the panel chair (provide additional remuneration as needed) to compose a summary of the panel discussion for each application. This is commonly done in NIH/NSF and may save significant time/effort for the Grants Team and improve accuracy of the comments.
2. Provide a complete roster of reviewers at the end of each year.
3. Consider doing a review panel for the SRGP. Having a review panel where it is possible to engage in open discussion of the proposals can improve the confidence and veracity of the review results. In addition, there are reviewers that are “hard graders”, meaning that they give bad scores even though they are recommending the proposal for funding (this will probably require doing the SRGP in a different year of the RFP (biannual programs) or hire one more person to coordinate this)

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## Grantee Obligations

1. Create a short manual for grantees with the Research Grants Program’s procedures and regulations in addition to the contract.
2. Provide grantees with clear expectations of their work and provide feedback from the reports and visits.
3. Consider having a subject expert visit the grantees with the Grants Team to make sure their projects are moving forward and provide specific technical feedback.
4. Consider giving a few renewal awards (2-3 per cohort) for a maximum of 2-3 years to very successful RFP grantees whose projects we would like to see completed, for example a phase 2 SBIR, targeting commercial development of the project.
5. Decide if we will allow grantees to have two grants with us at the same time. They might be co-PIs but not PIs.
6. Request mandatory service activities to the Research Grants Program. These could include the following: participate in outreach activities, serve as mentors to other grantees, provide orientations to students/faculty, attend briefings with Grants Team, hire Puerto Rican talent, etc.
7. Provide more media coverage of the grantees and their projects.
8. Consider mandatory I-Corps or SBIR/STTR training for the commercialization grantees. Consider a less intensive training for the basic research grantees to introduce commercialization concepts.
9. Consider development and implementation of a post-award e-platform for the grantees mid and final reports.
10. Some grantees have asked if payment of their personnel/purchasing could be done through The Trust since UPR takes too long.



# APPENDIX

1. Procedures for the Research Grants Program
2. List of Reviewers (all initiatives)
3. Proposals approved for funding (all initiatives)
4. Grantees Publications
5. Laboratory Visits
6. Research Grants Program Press Coverage (TV coverage not included)
7. Research Grants Program General Survey
8. Testimonies



## 1. Procedures for the Research Grants Program

### i. Science and Technology RFP – Application, Review and Selection Process

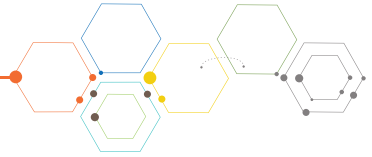
- a. The Research Grants Program Director and Management Specialist will announce the call for proposals and coordinate Bidder Briefings in The Trust Headquarters and other locations.
- b. The Science & Technology RFP application process consist of two phases: Letter of Intent (LOI) and Full Proposal. The LOI phase is open to all eligible applicants while the Full proposal phase is by invitation only.

#### Letters of Intent

- a. Letters of intent (LOIs) are received through the electronic platform
- b. All LOIs are checked for completeness and responsiveness by the Research Grants Program staff.
- c. An External Review committee is recruited to evaluate the LOIs. The reviewers must have general knowledge of the topic but do not need to be experts in the field.
- d. Potential reviewers are officially invited but no economic compensation is offered.
- e. After their acceptance, information about the review process, guidelines, instructions, and electronic certification forms are provided to the reviewer.
- f. After reviewers confirm no conflict of interest on the assigned LOIs, the Research Grants Program staff provide electronic access to LOIs and scoring forms.
- g. Once the review process is completed, the Research Grants Program staff rank the LOIs based on the score provided by the reviewers.
- h. The LOIs with the best scores and that go in accordance with the program guidelines and priorities are invited to submit a Full Proposal.

#### Full Proposal

- i. Selected applicants are invited to submit a Full Proposal through the electronic platform. Proposals are accepted until a pre-determined deadline.
- j. All proposals are checked for completeness and responsiveness by the Research Grants Program staff.
- k. To facilitate the assignment of reviewers based on their expertise and the future panel discussion, proposals are grouped by related topics and re-assigned to temporary field categories.
- l. Three potential qualified reviewers (experts in the field) are officially invited per proposal and an honorarium of \$250 is offered for their services.
- m. After their acceptance, information about the review process, guidelines, instructions, and electronic certification forms are provided to the reviewers.
- n. After reviewers confirm that there is no conflict of interest on the assigned proposal, the Research Grants Program staff provide electronic access to proposals and scoring forms.
- o. Reviewers assign an Overall Quality Score for each proposal evaluated.
- p. After all reviewers evaluate their assigned proposal (s), the overall Quality Score average is calculated in order to rank the applications for panel discussion.



- q. A teleconference panel meeting (2-3 hours each) is scheduled for each field category. Each panel is composed of the Research Grants Program Director, the Grants Management Specialist, a Panel Chair, and Panel Reviewers.
- r. Only the most competitive applications, based on the average Overall Quality Score, are discussed by the full panel at the panel meeting.
- s. Once the peer-review process is completed, the Research Grants Program staff generates a list of the top ranked proposals to be presented to the Board of Trustee's Grant Committee for their consideration.
- t. The Board of Trustee's Grant Committee and the Research Grants Program Director discuss the final rank and additional aspects of the candidates such as funding history, publication record, patents and others.
- u. The Board of Trustee's Grant Committee generates a final list of proposals to be recommended for funding.
- v. The Research Grants Program staff presents the final list to the Board of Trustees for final approval.
- w. Notification letters are sent to the applicants.

ii. **Small Research Grants – Applications, Review and Selection Process**

- a. The Research Grants Program Director and Management Specialist will announce the call for applications and coordinate Bidder Briefings in The Trust Headquarters and other locations.
- b. Applications are accepted through the electronic platform until a pre-determined deadline.
- c. All applications are checked for completeness and responsiveness by the Research Grants Program staff.
- d. Three potential qualified reviewers (experts in the field) are officially invited per application and an honorarium of \$150 is offered for their services.
- e. After their acceptance, information about the review process, guidelines, instructions, and certification forms are provided to the reviewers.
- f. After reviewers confirm no conflict of interest on the assigned proposal, the Research Grants Program staff provide electronic access to applications and scoring forms.
- g. Once the review process is completed, the Research Grants Program staff generates a list of the top ranked applications to be presented to the Board of Trustee's Grant Committee for their consideration.
- h. The Board of Trustee's Grant Committee and the Research Grants Program Director discuss the final rank and additional aspects of the candidates such as funding history, publication record, patents and others.
- i. The Board of Trustee's Grant Committee generates a final list of applications to be recommended for funding.
- j. The Research Grants Program staff presents the final list to the Board of Trustees for final approval.
- k. Notification letters are sent to the applicants.

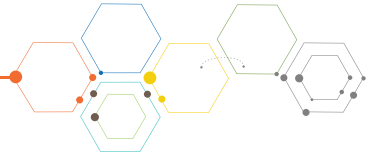


**iii. Reviewers' Honoraria**

- a. Once the reviewers evaluate all their assigned proposals, information about their preferred payment method is requested.
- b. The Grants Management Specialist request the payment for reviewers to the accounting office. The following documents are provided as evidence of the completed assignment
  - i. **Reviewers' payment info** – table that contains list of reviewers, payment information and amount to pay.
  - ii. Print Screen evidence - word document with the print screens of the WizeHive reviewers' platform showing evidence that the reviews were submitted electronically by each reviewer.
  - iii. **Reviews Summary** - excel document generated by the electronic platform with a summary of the reviews submitted by proposal and reviewers.
  - iv. **Link to reviewers' appointment letters**
- c. The accounting staff verify the information provided and process the payment.
- d. Payment is passed to The Trust CEO and COO for approval and signatures.
- e. Accounting staff do payments by wire transfer and the office clerk send the payments requested as checks by mail.
- f. The Grants Management Specialist follow-up on the payments and notify the reviewers.

**iv. Cooperative agreement and Award Disbursements:**

- a. **Signing of the Cooperative Agreement and First Disbursement**
  - i. After the PI is notified about the award, a draft of the Cooperative Agreement is sent to the PI.
  - ii. The agreement must be carefully revised by the PI and signed by an authorized representative of the legal entity receiving the award. In the case of universities, the Chancellor is the designated person. For private companies, the designee is the President of the company.
  - iii. The original signed agreement must be sent to The Trust Headquarters
  - iv. The Office Clerk will receive the signed agreement; will notify the Research Grants Program that the agreement was received and will pass it to the CEO for her signature.
  - v. After the agreement is signed, it will go back to the Office Clerk who will register it, create an electronic copy and pass copies to accounting and the Research Grants Program.
  - vi. The Research Grants Program staff will send an electronic copy to the grantees within 15 days of the signature date.
  - vii. The Accounting office will generate a check for the amount of the first disbursement.
  - viii. The check will be passed to The Trust CEO and COO for the necessary signatures.
  - ix. The signed check will be received by the Office Clerk who will notify the Research Grants Program that the check is ready and ask how to proceed.
  - x. The Research Grants Program staff will notify the grantee the payment is ready and ask for the preferred delivery method.
  - xi. The Office Clerk will send the checks by mail or will deliver the checks personally to the PIs.
- b. **Second Disbursement** - The second disbursement will be processed after evaluation of the midterm report and the first visit to the facilities. If approved, the funds will be available by the date stated in the cooperative agreement.
  - i. A progress report and laboratory visit will be performed by the Research Grants Program staff to evaluate



the progress of the project.

ii. If the progress is considered satisfactory, the Research Grants Program Director will approve the second disbursement.

iii. The Research Grants Program staff will request the accounting office to process the second disbursement. The grantees progress report as well as the written evaluation will be submitted as evidence of the grantees compliance.

iv. The Accounting office will generate a check for the amount of the second disbursement.

v. The check will be passed to The Trust CEO and COO for the necessary signatures.

vi. The signed check will be received by the Office Clerk who will notify the Research Grants Program that the check is ready and ask how to proceed.

vii. The Research Grants Program staff will notify the grantee the payment is ready and ask for the preferred delivery method.

viii. The Office Clerk will send the checks by mail or will deliver the checks personally to the PIs.

**v. Grantees Evaluation Process** – The Grants Team evaluates the grantees progress through progress reports and site visits to the research facilities.

a. **Progress Reports:** As part of the Cooperative Agreement with The Trust, grantees are required to submit two progress reports; one at 6 months and a final report that is due one month after the expiration date of the Cooperative Agreement. The dates for both reports are stipulated in the contract. A template of the report is prepared by the Grants Team and is sent to the grantees at least one month prior the due date of the first report. As part of each report all grantees submit an official financial statement that shows a record of purchases and expenses paid with Trust funds. For academic institutions this report should be generated by the purchasing office or sponsorship program office. For private companies, the report should be generated by an authorized accountant and should include evidence of the expenses (e. g. receipts, invoices, credit card statements, etc.).

b. **Visits to the Grantees Laboratory/Research Facilities:** At least two follow-up site visits will be done during the award period. One after the midterm report is received and the other after the final report is received. One or more members of the Research Grants Program will visit the laboratory/company to meet the research team and get to know the research facilities. The visits are coordinated ahead of time according to the availability of the grantee, his/her research team and the Research Grants Program representative (s).

vi. **Budget Changes:** Significant changes in the approved use of funds require the approval of The Trust. Changes within the same category do not need previous approval. Steps to request a budget change are as follow:

a. The grantee should send a letter to the Research Grants Program Director describing and justifying the necessary changes. The petition should be accompanied by a new budget table, comparing the original budget with the new budget proposed.

b. The request is evaluated by the Research Grants Program Director and additional information may be requested.

c. If approved, the Research Grants Program Director sends an authorization letter to the grantee and the Institution can proceed with the necessary changes.



- d. Once the process is completed, the Grants Management Specialist must send the request letter, new budget and approval letter to the Office Clerk to be added to the grantee's Cooperative Agreement.

vii. **No-Cost Extensions:** A no-cost extension can be requested for 6 or 12 months after the original expiration date of the agreement. No-cost extensions will be granted only if necessary for the successful completion of the project, do not require additional funding, and does not change the original scope of the project. The request must be made at least one month before the expiration date of the agreement. **The process must be completed before the expiration date of the Cooperative Agreement. If a contract expires and unexpended funding remains that was not used during the award period, the money must be returned to The Trust.** Steps to process a no cost extension are as follow:

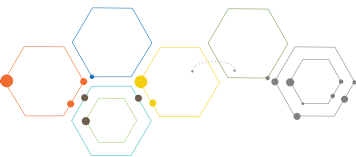
### First No Cost Extension

- a. To obtain a first no-cost extension the grantee should send a letter to the Research Grants Program Director requesting and justifying the no-cost extension and stating the period of time needed.
- b. The request is evaluated by the Research Grants Program Director and additional information may be requested.
- c. If approved, the Research Grants Program Director sends an authorization letter accompanied by an addendum to the grantee to be signed by the Chancellor or authorized person of the company (same one who signed the original agreement).
- d. The original copy must be sent to The Trust to be signed by The Trust CEO before the expiration date of the Cooperative agreement.
- e. Request letter, approval letter and amendment must be sent to the Office Clerk to be added to the grantee's Cooperative Agreement.

**Second No-Cost Extension** – Second no cost extensions are managed similar to the process described above. However, additional information is required:

- The PI must submit a request letter explaining in detail why the project could not be finished within the originally approved end date. The letter should also contain a scientific rationale for continuing the project, the amount of funds remaining and the level of effort for Key Personnel during the extended period.
- The letter should be accompanied by a detailed budget and budget narrative describing the proposed plans to use the remaining funds during the extension.
- If requesting a third extension, the PI should explain how will finish the project in this final extension and a plan to continue the project without funds if it is not completed on time.
- Third extensions are rarely approved and only under extraordinary circumstances. If approved, this would be the FINAL extension for the grant.

viii. **Meeting with Technology Transfer Office:** All of grantees should have an entry and exit meeting with Dr. David Gulley to discuss the potential for technology transfer or intellectual property discussions of their research. During this meeting they will sign a pre-Disclosure form.



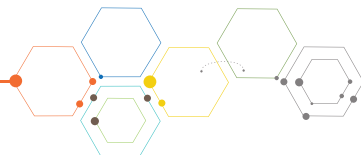
2. List of Reviewers (all initiatives)

Reviewer	Affiliation
Aaron Beeler, PhD	Boston University
Abraham Rodríguez, PhD	Savannah River National Lab
Alberto Cruz, PhD	Boston University
Alberto Rivera, PhD	National Institutes of Health (NIH)
Alejandro Caro Quintero, PhD	Corporación Colombiana de Investigación Agropecuaria, Bogotá, Colombia
Aleksei Aksimentiev, PhD	University of Illinois, Urbana-Champaign, IL
Alessandro Catenazzi	Southern Illinois University, Carbondale, IL
Ali Andalibi	George Mason University
Andres Garcia	Georgia Institute of Technology
Anindo Choudhury	St. Norbert College, Wisconsin, USA
Anna Cinzia Squicciarini	Pennsylvania State University, Pennsylvania, USA
Annika Fitzpatrick Barber	University of Pennsylvania, Philadelphia, PA
Aseneth Herrera	Universidad Autonoma de Baja California
Augusto E. Valderrama Aguirre	Universidad Libre de Colombia, Bogotá, Colombia
Baoshan Huang	University of Tennessee
Boris Stoeber	University of British Columbia, Vancouver, Canada
Brian Murphy	Queen’s University Belfast, Belfast, UK
Carlos A. Mejias-Aponte	NIH National Institute on Drug Abuse, Bethesda, MD
Carlos A. Urrea Florez	University of Nebraska-Lincoln, Lincoln, NE
Carlos C. Martinez Rivera	Philadelphia Zoo, Philadelphia, PA
Carlos Crespo	Case Western Reserve University
Carlos Cruz Noguez	University of Alberta
Carlos Mejias	NIH National Institute on Drug Abuse
Carlos Molina	Montclair State University
Carlos Rinaldi	University of Florida
Carol Prentice	USGS Hazard Earthquake Program, Menlo Park, CA
Ce Yang	University of Minnesota, St. Paul, MN
Chinedum Osuji	Yale University, New Haven, CT
Christian R. Goldsmith	Auburn University, Auburn, AL
Daniel Leznoff	Simon Fraser University, Burnaby, CA





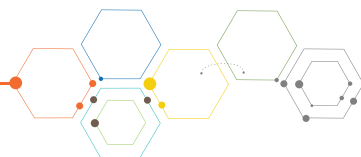
Daniel Mooradian	University of Minnesota, Minneapolis, MN
Daniel Salkeld	Colorado State University, Fort Collins, CO
David Allred	University of Florida, Gainesville
David Cormode	University of Pennsylvania, Philadelphia, PA
David Fannon	Northeastern University
David Salas	University of Pennsylvania
David Salas	Rutgers University
David Shapiro	US Department of Agriculture
Dawn W. Dowding	Columbia University School of Nursing, New York, NY
Deborah Delaney	University of Delaware, Newark, DE
Deepa Bedi	Tuskegee University, Alabama, USA
Edgar Díaz	Belmont University, Tennessee, USA
F. C. Thomas Allnutt	BrioBiotech LLC, Glenelg, MD
Felix N. Castellano	North Carolina State University, Raleigh, NC
Fernando A de Torres Jr.	EcoSafe Environmental Management System, Ocala, FL
Frances Santiago Schwarz	Farmingdale State University
Francisco Agosto	Cornell University
Frank Hunte	North Carolina State University
Gary Vallad	University of Florida, Gainesville, FL
Giovanna Guerrero	Yale University
Graciela Brelles-Mariño	Universidad Nacional de La Plata, Buenos Aires, Argentina
Haiqing Lin	State University of New York at Buffalo, NY
Harbinder Singh Dhillon	Delaware State University, Dover, DE
Hongbo Ma	University of Wisconsin, Milwaukee, WI
Horacio Olivo	University of Iowa
Hugo Ruben Arias	California Northstate University, Elk Grove, CA
Ioannis Kymissis	Columbia University, New York, NY
Jacob Berlin	Beckman Research, City of Hope, Duarte, CA
James C. Fell	NORC, University of Chicago, Chicago, IL
James Coffman	Mount Desert Island Biological Labs, Bar Harbor, ME
Jeroen Pollet	Baylor College of Medicine, Houston, TX
Joan Curry	University of Arizona
Joaquin Dopazo	Centro de Investigación Príncipe Felipe, Valencia, Spain



Jocelyn Biagini Myers	Cincinnati Children's Hospital Medical Center, Cincinnati, OH
John Tooker	Pennsylvania State University, Pennsylvania, USA
Jos. J. Schall	University of Vermont, Burlington, VT
José E. Vidal	Amgen, Puerto Rico
José Jiménez	University of North Florida
Jose Mur	Franklin W. Olin College of Engineering
José Torres	University of California at Davis
Joseph Hale	Technological Leadership Institute
Juan Figueroa	Abenaki Connect Inc.
Juan L. Suarez	The University of Western Ontario
Julia Díaz	University of Georgia
Julia Neilson	University of Arizona
Karl A. van Bibber	University of California, Berkeley
Karl Milette	Delaware State University
Ken Dawson-Scully	Florida Atlantic University, Boca Raton, FL
Keykavous Parang	Brown University
Kristina Bailey	University of Nebraska-Medical Center, Omaha, NE
Ksenija D. Glusac	Bowling Green State University, Bowling Green, OH
Lars Oddsson	Technological Leadership Institute-University of Minnesota, Minneapolis, MN
Le Song	Georgia Institute of Technology, Atlanta, GA
Leah McHale	Ohio State University, Columbus, OH
Lian Duan	Missouri University of Science and Technology, Rolla, MO
Luis Martínez	New York Institute of Technology
Lumarie Pérez	The Ohio State University
Manuel Leal	University of Missouri
Manuel Navedo	University of California at Davis
Manuel Pérez	Virginia Tech University
Marcelo Febo	University of Florida
Marcos López	Fundación Cardiovascular de Colombia
Maribel Rios	Tufts University
Marirosa Molina	USEPA/Office of Research and Development, Athens, GA
Marvi Matos	The Boeing Company
Melany P. Puglisi-Weening	Chicago State University, Chicago, IL



Michael Duffey	George Washington University
Michael Leibowitz	University of California at Davis
Michael P. Cummings	University of Maryland, College Park, MD
Michael R Hamblin	Harvard Medical School, Boston, MA
Michael Ramage	University of Cambridge
Mihaela Balu	University of California, Irvine
Mildred Acevedo	University of South Florida
Moraima Reyes	University of Washington
Morton A. Barlaz	North Carolina State University, Raleigh, NC
Mukesh Limbachiya	Kingston University
Nelson Sepúlveda	Michigan State University
Nichole Broderick	University of Connecticut, Storrs, CT
Nicolae Barsan	University of Tübingen, Tübingen, Germany
Nripesh Dhungel	Stanford University
Olav Rueppell	University of North Carolina, Greensboro
Oné Pagán	West Chester University
Paul Sikkel	Arkansas State University, Arkansas, USA
Qihai Gu	Mercer University, Macon, GA
Ramphis Castro	Simple Engineering Corporation
Raul Bayoan Cal	Portland State University, Portland, OR
Raúl Cal	Portland State University
Raymond B Huey	University of Washington, Seattle, WA
Rebecca A. Cole, PhD	US Geological Survey, Wisconsin, USA
Reinier Hernández	University of Wisconsin-Madison
Reyna Martínez	Upstate Medical University
Richard (Cole) Brokamp	Cincinnati Children's Hospital Medical Center, Cincinnati, OH
Ritu Aneja	Georgia State University, Atlanta, GA
Robert Berger	Small Innovation Research
Robert C Pierce	University of Pennsylvania, Philadelphia, PA
Robert King	Independent consultant
Robert R. Díaz	GMP & Analytical Development Consultant
Roger C. Lo	California State University, Long Beach
Sarah Penniston-Dorland	University of Maryland, College Park, MD



Scott Boitano	University of Arizona, Tucson, AZ
Scott Schaus	Boston University
Sergio Morales	University of Otago (New Zealand)
Serhat Hosder	Missouri University of Science & Technology, Rolla, MO
Shandra Justicia	Arcadis, PR
Sharilyn Almodóvar	University of Colorado, Denver
Stephen Richards	Baylor College of Medicine
Steven Justiniano	Ohio State University
Steven M Drew	Carleton College, Northfield, MN
Susan G Ernst	Tufts University, Medford, MA
Tanya Furman	Pennsylvania State University, State College, PA
Tara Kelley-Baker	University of Chicago, Chicago, IL
Thomas Ebert	Oregon State University, Corvallis, OR
Thomas Jaramillo	Stanford University
Thomas Marcotte	University of California, San Diego, CA
Thomas Vetter	University of Manchester, England
Timothy Iwao Miyashiro	Pennsylvania State University, State College, PA
Tyrone Rooney	Michigan State University, East Lansing, MI
Valerie Bar	Union College, New York, USA
Valerie Barr	Union College
Víctor Maldonado	University of Texas at San Antonio
Víctor Torres	New York University
Warren Foster	McMaster University
William Ja	The Scripps Research Institute, Jupiter, Florida
Wilson Francisco	Arizona State University
Won Suk Lee	University of Florida, Gainesville, FL
Xiaoke Chen	Stanford University, Stanford, CA
Yajaira Sierra	US Department of Treasury
Yarimar Carrasquillo	NIH
Yih-Horng Shiao	United States Patent and Trademark Office, Alexandria, VA
Ying Diao	University of Illinois at Urbana-Champaign, USA
Yufang Jin	University of California, Davis, CA
Yujui Yvonne Wan	University of California, Davis, CA





### 3. Proposals approved for funding (all initiatives)

#### Science & Technology Request for Proposals (RFP)

##### 1st cycle

1. Novel inhibitors of the malarial GST protein - from bench to a marketable drug.

PI: Adelfa Serrano, PhD, University of Puerto Rico-School of Medicine

Strategic Sector: Biotechnology and Natural Sciences

2. NEWPUNCH Biopsy Device.

PI: José Méndez, MD, Tailwind Medical Devices

Strategic Sector: Medical Devices

The principal investigator of this project passed away. A process is currently being followed to determine the continuity of the project and steps to follow.

3. OBA: An Innovative, Online Learning Solution for the 21st Century.

PI: Lianabel Oliver, MBA, Pathways PR Inc. dba OBA

Strategic Sector: Information and Communications Technology

4. A Scientifically Justified Interface and Sample Reduction System for Powders.

PI: Rodolfo Romanach, PhD, University of Puerto Rico- Mayagüez

Strategic Sector: Biotechnology and Natural Sciences

5. Photosensitized generation of nitric oxide.

PI: Antonio Alegría, PhD, University of Puerto Rico- Humacao

Strategic Sector: Biotechnology and Natural Sciences

6. Hybrid Mechanical/Electronic Steerable Antenna Array for Beyond Line of Sight Communications for UAS Applications

PI: Rafael Medina, PhD, University of Puerto Rico- Mayagüez

Strategic Sector: Aerospace

7. Development of Advanced Unmanned Aerial Vehicle with Vertical Takeoff or Landing Capabilities for Commercial Civil Markets.

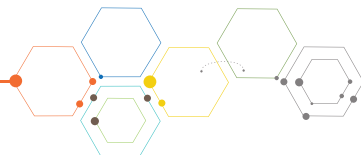
PI: Juan Cruz, MS, ComQuest Ventures LLC

Strategic Sector: Aerospace

8. Development of a Biosensor Microchip for the Detection of Microorganisms and Cancer Cells at the Point-of-Care.

PI: Carlos Cabrera, PhD, University of Puerto Rico-Río Piedras

Strategic Sector: Biotechnology and Natural Sciences



9. Inertial sensors development for Space Weather and Planetary Research.

PI: Jonathan Friedman, PhD, Universidad Metropolitana

Strategic Sector: Aerospace

10. Novel Ionic Polymer Nanocomposite Membranes for Advanced Water Purification

PI: David Suleiman, PhD, University of Puerto Rico- Mayagüez

Strategic Sector: Biotechnology and Natural Sciences

11. Endocytic Regulation of the Adhesion G protein- coupled receptors (GPCRs), BAI1 and EMR2, during Pediatric Retinoblastoma (Rb) Optic Nerve Invasion.

PI: Jaqueline Flores, PhD, University of Puerto Rico - Medical Sciences Campus

Strategic Sector: Biotechnology and Natural Sciences

12. Development of EHOp-016 as an anti-metastatic cancer therapeutic.

PI: Suranganie Dharmawardhane, PhD. University of Puerto Rico- Medical Sciences Campus

Strategic Sector: Biotechnology and Natural Sciences

## 2nd cycle

### Basic Research

1. Uncovering the role of adrenergic activated macrophages on the tumor microenvironment of Puerto Rican patients with breast and ovarian cancer.

PI: Guillermo N. Armaiz-Peña, PhD, Ponce Research Institute

Strategic Field: Biotechnology and Natural Sciences

2. Recycled glass as beach nourishment material to mitigate Puerto Rico erosion problems: An integrated effort between scientists, engineers and citizens

PI: Sylvia Rodríguez-Abudo, PhD, University of Puerto Rico – Mayagüez

Strategic Field: Other-Environmental Sciences

3. Bioprospecting for plant protection: biocontrol of the coffee berry borer (broca del cafe) with local strains of the pathogenic fungus Beauveria bassiana.

PI: Paul Bayman-Gupta, PhD, University of Puerto Rico - Río Piedras

Strategic Field: Agriculture

4. Enabling technology for Puerto Rican Apiculture: Genetic SNP databases for timely identification of honey bee subspecies.

PI: Tugrul Giray, PhD, University of Puerto Rico - Río Piedras

Strategic Field: Agriculture



5. The Endometriosis Proteome: Diagnostic and Therapeutic Target.

PI: Idhaliz Flores, PhD, Ponce Research Institute

Strategic Field: Biotechnology and Natural Sciences

6. Role of microglia in glioma tumor relapse after surgical resection.

PI: Lilia Kucheryavykh, PhD, Universidad Central del Caribe

Strategic Field: Biotechnology and Natural Sciences

7. A high throughput method to measure DNA repair levels and estimate breast cancer risk.

PI: Jaime Matta, PhD, Ponce Research Institute

Strategic Sector: Other

8. Bridging towards commercialization of a technology to prevent Decompression Sickness.

PI: Silvina Cancelos, PhD, University of Puerto Rico – Mayagüez.

Strategic Sector: Biotechnology and Natural Sciences

9. 3-D Femur orthopedic femoral drill guide for anterior cruciated ligament replacement.

PI: Carlos Alvarado, PhD, Novel Biomedical Devices Corporation

Strategic Sector: Medical Devices

**Commercialization**

1. Project Wearables

PI: Norman Ortiz, MS, iDev LLC

Strategic Sector: Information and Communication Technologies

2. Targeting Integrin Linked Kinase in Ovarian Cancer with Liposomal-Gold-Small Interference RNA

PI: Pablo Vivas-Mejía, PhD, University of Puerto Rico - Medical Sciences.

Strategic Sector: Biotechnology and Natural Sciences

3. Development of a soil microbial consortium to enhance plant nutrient uptake and control soil-borne parasitic nematodes in plantain and banana (*Musa spp.*) farms

PI: Elizabeth Padilla-Crespo, PhD, Agro Tropical, Inc.

Strategic Sector: Agriculture

4. A novel field remote sensing system for rapid determinations of total suspended solids in surface waters.

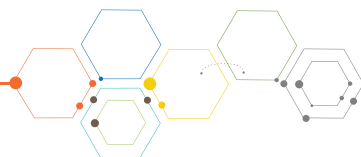
PI: Roy Armstrong, PhD, Roy A Armstrong dba Remote Sensing Consultants

Strategic Sector: Environmental Sciences

5. Development of a novel anti metastatic cancer drug.

PI: Suranganie Dharmawardhane, PhD, University of Puerto Rico - Medical Sciences

Strategic Sector: Biotechnology and Natural Sciences



## Small Research Grant Program (SRGP)

### 1<sup>st</sup> cycle-a

#### Senior Faculty (resubmission)

1. Association of gut bacterial genes and diet to colorectal neoplasia.

PI: Marcia Cruz-Correa, MD, PhD, University of Puerto Rico- Medical Sciences Campus

Strategic Sector: Biotechnology and Natural Sciences

This project was not funded as it receives alternative funding and was dropped.

#### Junior Faculty

1. Development of metal-catalyzed, step and atom economical methods toward N-, and O-heterocycles. PI: Wildeliz Torres-Irizarry, PhD, University of Puerto Rico- Mayagüez

Strategic Sector: Biotechnology and Natural Sciences

2. Mesenchymal modulation and abundance of active Hh signaling in triple negative breast cancer.

PI: Maribella Domenech, PhD, University of Puerto Rico- Mayagüez

Strategic Sector: Biotechnology and Natural Sciences

3. Agricultural Lab-on-a-chip device for point-of-care pathogen detection using a disposable microfluidic device and open source tools for optical detection.

PI: Pedro Resto-Irizarry, PhD, University of Puerto Rico- Mayagüez

Strategic Sector: Biotechnology and Natural Sciences, Medical Devices

4. Biocompatible fluorescent graphene oxide quantum dots for cancer biosensing and selective bioimaging.

PI: Lisandro Cunci-Pérez, PhD, Universidad del Turabo

Strategic Sector: Biotechnology and Natural Sciences, Medical Devices

5. Osteoinductive integrin-containing biomaterials for bone repair.

PI: Jorge Almodóvar, PhD, University of Puerto Rico- Mayagüez

Strategic Sector: Medical Devices

### 1<sup>st</sup> cycle-b

#### Junior Faculty

1. Polymorphic control of small organic semiconductor materials using thioaromatic self-assembled monolayers on gold.

PI: Vilmalí López, PhD, University of Puerto Rico- Río Piedras

Strategic Sector: Electronics





2. Development of purification and formulation processes for manufacturing of personalized medication. PI: Torsten Stelzer, PhD, University of Puerto Rico- Medical Sciences Campus  
Strategic Sector: Biotechnology and Natural Sciences, Medical Devices

3. Dimensions of biodiversity in pathogens of Puerto Rican wildlife.  
PI: Sean Locke, PhD, University of Puerto Rico- Mayagüez\*\*  
Strategic Sector: Biotechnology and Natural Sciences

4. Butterflies for bioprospecting: The use of evolutionary theory to direct drug discovery.  
PI: Catherine M. Hulshof, PhD, University of Puerto Rico- Mayagüez\*\*  
Strategic Sector: Biotechnology and Natural Sciences

\*\* The applications of Dr. Catherine Hulshof and Dr. Sean Locke were recommended subjected to receive a support letter from their institution indicating that they have the necessary laboratory space and equipment to carry out the research proposed.

Application approved from cycle 1-a  
Senior Faculty (new topic)

1. Robustness of developmental trajectories to varying temperatures in a tropical vertebrate.  
PI: Carla Restrepo, PhD, University of Puerto Rico- Río Piedras  
Strategic Sector: Biotechnology and Natural Sciences

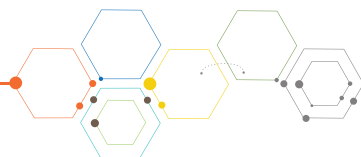
#### **2<sup>nd</sup> cycle (The SRGP grantees of this cycle will report for the first time in November, 2017)**

##### **Resubmission**

1. Microbiota role in intestinal regeneration.  
PI: José E. García-Arrarás, PhD, University of Puerto Rico- Río Piedras  
Strategic Sector: Biotechnology and Natural Sciences

2. Subtropical bee longevity and response to seasonal changes.  
PI: Tugrul Giray, PhD, University of Puerto Rico- Río Piedras  
Strategic Sector: Biotechnology and Natural Sciences

3. Role of Metadherin in inflammatory breast cancer progression.  
PI: Michelle Martínez-Montemayor, PhD, Universidad Central del Caribe  
Strategic Sector: Biotechnology and Natural Sciences



#### New Topic

1. Investigating if unregulated mitotic kinases mediate the aggressive behavior of breast cancers in Puerto Rican women.

PI: Harold Saavedra\*, PhD, Ponce Research Institute

Strategic Sector: Biotechnology and Natural Sciences

\*Conditioned: Ponce Research Institute is recipient of a Researchers Startup Fund (RSFP) award to recruit Dr. Saavedra. The award establishes a first disbursement of \$250K for the first year. For the remaining years, the disbursement was conditioned to Dr. Saavedra get a R01 grant during the first period. The recommendation is that if Dr. Saavedra accomplishes this using the SRGP award, and the RSFP funds are approved for the remaining years, the amount of the SRGP award will be discounted from the RSFP.

2. PAR-2 Variants: A Step Forward to Individualized Medicine in Asthma.

PI: Edu Suarez-Martinez, PhD, University of Puerto Rico- Ponce

Strategic Sector: Biotechnology and Natural Sciences

#### Junior Faculty

1. Spatial complexities in vector-borne disease dynamics: theory and applications in lizard and human malaria.

PI: Miguel Acevedo, PhD, University of Puerto Rico- Río Piedras

Strategic Sector: Biotechnology and Natural Sciences

2. Nanocellulose-based nanocomposites for the removal of contaminants of emerging concern: a water remediation strategy.

PI: Eduardo Nicolau, PhD, University of Puerto Rico- Río Piedras

Strategic Sector: Environmental Sciences

3. Towards the design of heterogeneous catalysts for the production of bio-based polymer building blocks.

PI: Yomaira Pagán-Torres, PhD, University of Puerto Rico- Mayagüez

Strategic Sector: Clean Technologies and/or Renewable Energy

4. Timing and Style of Fault development in western Puerto Rico: Integration of Stratigraphic, Geomorphic, and Isotopic approaches.

PI: Kenneth Hughes, PhD, University of Puerto Rico- Mayagüez

Strategic Sector: Environmental Sciences

#### **Researchers Startup Funds Program (RSFP)**

1- Approval of funding to support the recruitment of Dr. Devin Mueller as requested by PHSU. FY1: \$300,000 FY2: \$300,000 FY3: \$150,000 FY4: \$150,000 Total: \$900,000

2-Approval of \$250,000 of funding for a first year to support the recruitment of Dr. Harold I. Saavedra by the PHSU. Approval of funds in subsequent years will depend on the candidate's progress.



#### 4. Grantees Publications

##### RFP 2014-2015

###### Rodolfo Romañach

- Pinzon-De la Rosa C., Rodriguez V., Hormaza M., Romanach R. J. (2017) "Theory of Sampling meets the National Science Foundation I-Corps program". Proceedings del World Conference on Sampling and Blending, 8, Pages 9-11
- Romañach R. J.; Esbensen, K. H., (2016) "Theory of Sampling (TOS)". Development of Spectroscopic Calibration Models American Pharmaceutical Review, 19 (6), Pages 138-139.
  - D. Mateo-Ortiz, R. Mendez, Microdynamic Analysis of Particle Flow in a Confined Space Using DEM: The Feed Frame Case. Advance Powder Technology, July 2016, Volume 27, Issue 4, Pages 1597-1606

###### Antonio Alegria

- Sanchez-Cruz P., Alegria A. E. (2016) "Photosensitized production of nitric oxide and peroxyxynitrite from a carbon-bound diazenium diolate and 2-methyl-2-nitrosopropane". Journal of Photochemistry and Photobiology A: Chemistry, 330 (1), Pages 79-85

###### Suranganie Dharmawardhane

- Castillo-Pichardo, L, Borrero-Garcia, L, Forrestier-Roman, I, Martinez-Ferrer, M, Hernandez-O'Farrill, E, Vlaar, C, Cubano, LA, Dharmawardhane, S. "Antibreast cancer effects of the Vav/Rac inhibitor EHop-016 in the tumor microenvironment", February 2016 Molecular Cancer Research 14(2 Supplement):B29-B29

##### SRGP 2015-2016

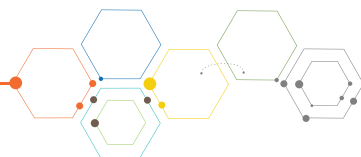
###### Cycle 1-a

###### Maribella Domenech

- Domenech, M., Polo-Corrales, L., Ramirez-Vick, J. E., Freytes, D.O. (2016) "Tissue Engineering Strategies for Myocardial Regeneration", Tissue Engineering Part B, 6, Pages 438-458.

###### Jorge Almodovar

- Castilla Casadiego D., Maldonado M., Sundaram P., Almodovar J. (2016) "Green electrospinning of a collagen/hydroxyapatite composite nanofibrous scaffold", MRS Communications, 6(40), Pages 402-407.
- Castilla Casadiego D., Ramos Avilez H. V., Herrera-Posada S., Calcagno B., Loyo L., Shipmon J., Acevedo A., Quintana A., Almodovar J. (2016) "Engineering of a stable collagen nanofibrous scaffold with tunable fiber diameter, alignment, and mechanical properties", Macromolecular Materials and Engineering
- Ramos Avilez H.V., Castilla Casadiego D.A., Vega A.L., Perales O.J., Almodóvar J. (2016) "Production of Chitosan Coatings on Metal and Ceramic Biomaterials". Chitosan-based biomaterials Fundamentals, 1, Pages 255-294. Print



## Cycle 2-b

### Sean Locke

- Caffara M§, Locke S.A.§, Cristanini C., Davidovich N., Markovich M..P., Fioravanti M.L. (2016) "A combined morphometric and molecular approach to identifying metacercariae of *Euclinostomum heterostomum* (Digenea: Clinostomidae)". *Journal of Parasitology* 102(2), Pages 239-48 (§=contributed equally)
- Marcogliese DJ, Locke SA, Gélinas M, Gendron AD (2016) "Variation in parasite communities in spottail shiners (*Notropis hudsonius*) linked with precipitation". *Journal of Parasitology* 102(1), Pages 27-36

### Carla Restrepo

- Colón, Z., L. Rosario, and C. Restrepo. "Retrofitting rodent housing for captive breeding of the direct developing frogs *Eleutherodactylus coqui* and *E. antillensis*: from troubleshooting to monitoring". *Herpetological Review*. In press

## RFP 2015-2016

### Guillermo Armaiz-Peña

- Previs R.A., Armaiz-Peña G.N., Ivan C., Dalton H.J., Rupaimoole R., Hansen J.M., Lyons Y., Huan J., Haemmerle M., Wagner M.J., Gharpure K.M., Nagaraja A.S., Filant J., McGuire M.H., Noh K., Dorniak P.L., Linesch S.L., Mangala L.S., Pradeep S., Wu S.Y., Sood A.K.. "Role of YAP1 as a Marker of Sensitivity to Dual AKT and P70S6K Inhibition in Ovarian and Uterine Malignancies.". *J Natl Cancer Inst* 2017; 109 (7): djw296.

### Paul Bayman

- Mariño, Y. A., Vega, V. J., García, J. M., Verle Rodrigues, J. C., García, N. M., & Bayman, P. (2017) "The Coffee Berry Borer (Coleoptera: Curculionidae) in Puerto Rico: Distribution, Infestation, and Population per Fruit". *Journal of Insect Science*, 17(2), Page 58

### Tugrul Giray

- Avalos A, Pérez E, Vallejo L, Pérez ME, Abramson CI, Giray T. Social signals and aversive learning in honey bee drones and workers. *Biol Open*. 2017 Jan 15;6(1):41-49. doi: 10.1242/bio.021543

### Suranganie Dharmawardhane

- Humphries-Bickley T., Castillo-Pichardo L., Hernandez-O'Farrill E., Borrero-García L.D., Forestier-Roman I., Gerena Y., Blanco M., Rivera-Robles M.J., Rodriguez-Medina J.R., Cubano L.A., Vlaar C.P., Dharmawardhane S. (2017) "Characterization of a Dual Rac/Cdc42 Inhibitor MBQ-167 in Metastatic Cancer". *Molecular Cancer Therapeutics*; 16(5), Pages 805-818
- De La Parra C., Castillo-Pichardo L., Cruz-Collazo A., Cubano L., Redis R., Calin G.A., and Dharmawardhane S. (2016) "Soy isoflavone genistein-mediated downregulation of miR-155 contributes to the anticancer effects of genistein". *Nutr. Cancer*, 68(1), Pages 154-64
- Rivera-Rivera A., Castillo-Pichardo L., Gerena Y., Dharmawardhane S. (2016) "Anti-breast cancer potential of quercetin





via the Akt/mTOR/AMPK/Mammalian Target of Rapamycin (mTOR) signaling cascade". PLoS One

- Tessa Humphries-Bickley, Linette Castillo-Pichardo, Eliud Hernandez-O’Farrill, Luis D. Borrero-Garcia, Ingrid Forestier-Roman, Yamil Gerena, Manuel Blanco, Michael J Rivera-Robles, José R Rodriguez-Medina, Luis A Cubano, Cornelis P Vlaar, Suranganie Dharmawardhane. Characterization of a Dual Rac/Cdc42 Inhibitor MBQ-167 in Mol Cancer Ther. 2017 May; 16(5):805-818.

RSFP 2015

Devin Mueller

- Otis, J.M., and Mueller, D. Reversal of cocaine-associated synaptic plasticity in prefrontal cortex eliminates drug-associated memory retrieval. Neuropsychopharmacology. 2017 May 3. doi: 10.1038/npp.2017.90. [Epub ahead of print]
- Hafenbreidel, M., Rafa Todd, C., and Mueller, D. Infralimbic GluN2A-containing NMDA receptors are necessary for the reconsolidation of cocaine self-administration memory. Neuropsychopharmacology. 2017 Apr;42(5):1113-1125. doi: 10.1038/npp.2016.288. Epub 2017 Jan 2.

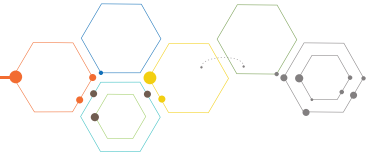
Harold Saavedra

- Lee, MY, Oprea-Ilies, G and Saavedra, HI. Silencing of E2F3 suppresses tumor growth of Her2+ breast cancer cells by restricting mitosis. Oncotarget. 2015 Nov 10;6(35):37316-34
- Rivera-Rivera, Y and Saavedra, HI. Centrosome - a promising anti-cancer target. Biologics: Targets and Therapy Biologics. 2016 Dec 13;10:167-176. doi: 10.2147/BTT.S87396. eCollection 2016. Review.

5. Laboratory Visits

RFP 2014-2015

Grantee	Midterm Visit	Final Visit
Adelfa Serrano	Feb 8, 2016	-
Antonio Alegría	Dec 4, 2015	Aug 18, 2016
Carlos Cabrera	Dec 4, 2015	Apr 11, 2017
David Suleiman	Dec 8, 2015	-
Jacqueline Flores	Dec 11, 2015	Feb 16, 2017
Jonathan Friedman	Dec 11, 2015	Aug 15, 2016
Juan Cruz	Dec 14, 2015	Aug 18, 2016
Lianabel Oliver	-	Aug 16, 2016-
Rafael Medina	Dec 8, 2015	Feb 16, 2017
Rodolfo Románach	Dec 11, 2015	Feb 16, 2017
Suranganie Dhramawardhane	Dec 9, 2015	Nov 21, 2016

**RFP 2015-2016**

Grantee	Midterm Visit	Final Visit
Pablo Vivas	Jan 10, 2017	-
Suranganie Dharmawardhane	Jan 10, 2017	-
Guillermo Armaiz	Jan 12, 2017	-
Idhaliz Flores	Jan 12, 2017	-
Elizabeth Padilla	Jan 16, 2017	-
Lilia Kucheryavykh	Jan 17, 2017	-
Sylvia Rodriguez	Jan 18, 2017	-
Tugrul Giray	Jan 19, 2017	-
Paul Bayman	Jan 24, 2017	-
Norman Ortiz	Jan 18, 2017	-
Carlos Alvarado	Feb 8, 2017	-
Silvina Cancelos	Feb 16, 2017	-
Jaime Matta	Feb 14, 2017	-
Roy Armstrong	Mar 8, 2017	-

**SRGP 2015-2016**

Grantee	Midterm Visit	Final Visit
Lisandro Cunci	Jul 19, 2016	-
Maribella Domenech	Jul 18, 2016	-
Pedro Resto	Jul 15, 2016	-
Jorge Almodovar	Jul 15, 2016	-
Wildeliz Torres	Jul 15, 2016	-
Catherine Hulshof	Sept 15, 2016	-
Sean Locke	Sept 15, 2016	-
Vilmali López	Sept 12, 2016	-
Torsten Stelzer	Sept 12, 2016	-
Carla Restrepo	Sept 2016	-

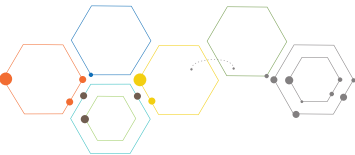
**Research Startup Funds Program (RSFP)**

Grantee	Visit
Devin Mueller	Jan 12, 2017
Harold Saavedra	Jan 12, 2017



6. Research Grants Program Press Coverage (TV coverage not included)





**INNOVACIÓN**



**"Una nueva generación de científicos de alto nivel se está formando en el país"**

El director del Centro de Investigación y Desarrollo Tecnológico (CITEC) de la Universidad Metropolitana, Lory Crego, afirma que el país está viviendo una revolución científica. Gracias a los recursos del Programa de "Grants" del PCTE, se están formando una nueva generación de científicos de alto nivel que se dedicarán a la investigación y al desarrollo tecnológico.

**\$150k**

El monto de los recursos asignados al proyecto de investigación.

**Science Trust Achievements 2014-2017**



**Grants Distribution by Sector**

Sector	Grants
Health	10
Education	8
Environment	5
Other	3

**Impact of Grants**

- 100% of grants resulted in publications.
- 50% of grants resulted in patents.
- 25% of grants resulted in new products.

# Paso al frente en la investigación científica

Doce proyectos de investigación reciben "grants" del Pictosomio de Ciencias, Tecnología e Investigación

El Pictosomio de Ciencias, Tecnología e Investigación (PCTE) de la Universidad Metropolitana, anunció que ha otorgado doce "grants" de investigación a científicos de alto nivel.

Una de las prioridades del PCTE es apoyar a la investigación científica de alto nivel. Los recursos asignados a los "grants" se utilizarán para financiar la investigación y el desarrollo tecnológico.

El principal oficial de operaciones del PCTE, Lory Crego, indicó que los científicos se comprometen a publicar sus resultados en revistas de alto impacto.

Los recursos se utilizarán para financiar la investigación y el desarrollo tecnológico.

En este primer entregable, los científicos recibieron recursos para financiar sus proyectos de investigación.

De una inversión global de \$1.5 millones, el PCTE destinó \$150,000 para el primer entregable. Entre los proyectos seleccionados se encuentran aquellos que buscan desarrollar nuevos productos y servicios.

Con este entregable se profesa la

visión del Pictosomio, indicó Lory Crego.

Lory Crego, principal oficial de operaciones del PCTE, dijo que de los doce proyectos seleccionados, nueve son de la Academia de la Universidad Metropolitana y tres de la Universidad Metropolitana.

En un momento histórico para Puerto Rico, para sus otros proyectos seleccionados ante la comunidad científica internacional que, como país, tenemos una enorme oportunidad para la investigación y que hemos creado las condiciones para apoyar a la investigación y el desarrollo de la ciencia y la tecnología.

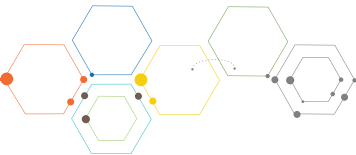


Desde la izquierda, Alberto Ríos, secretario de Desarrollo Económico; Lory Crego, CEO del Pictosomio de Ciencias, Tecnología e Investigación; y Jonathan Friedman de la Universidad Metropolitana.



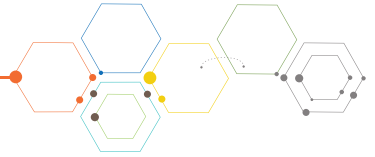


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Date (mm/dd/yyyy)	Title	Media
6/4/2017	iGenApps levanta capital para crecer	El Nuevo Día
5/30/2017	Programa de subvenciones adelanta 33 proyectos de investigación	Diario Metro Puerto Rico
5/14/2017	Dr. Eduardo Nicolau: Creating Solutions With Nanoparticle Chemistry	CienciaPR
4/19/2017	Nueve científicos ganan \$630,000 para avanzar proyectos.	El Nuevo Día
4/19/2017	Investigadores de universidades ponceñas reciben importantes subvenciones	Voces del Sur
4/18/2017	Nine Researchers Receive Science Trust Grant	CienciaPR
4/18/2017	9 Local researchers receive Science Trust Grants	News is my business
4/18/2017	Nueve Investigadores reciben subvenciones del Fideicomiso	Sin Comillas
3/23/2017	Eligen a científica ponceña como parte de la junta de directores de organización internacional	Periódico La Perla del Sur
3/21/2017	Científica Boricua se distingue en el ASM	El Nuevo Día
3/20/2017	Científica Puertorriqueña en Junta de Sociedad Americana para Microbiología	Sin Comillas
3/20/2017	Reconocen a científica puertorriqueña en la Sociedad Americana para la Microbiología	Caribe Tecno
3/20/2017	Egresada de CROEM y el RUM a la junta de la Sociedad Americana de Microbiología	Mayaguez sabe a mango
2/11/2017	Centro de Ciencias Moleculares, casa de la experimentación	Noticel
1/31/2017	Carla Restrepo: Leaving a Mark with Ecological Studies	CienciaPR
1/31/2017	Labor científica por la cura del retinoblastoma en Puerto Rico	Revista Medicina y Salud Pública
1/27/2017	Save the date: Forward Mentoring Day	CienciaPR
1/25/2017	Oportunidad de mentoría para estudiantes	El Nuevo Día
1/23/2017	Oportunidad de mentoría sobre el mundo laboral para los estudiantes	Diálogo UPR
12/1/2016	Exitoso puente para las ciencias vivas	El Nuevo Día
12/1/2016	Puerto Rico unites the Latin American Scientific Community at Biolatam 2016	Caribbean Business
12/1/2016	Puerto Rico unites the Latin American Scientific Community at Biolatam 2016	FOX8 New Orleans
11/30/2016	Puerto Rico unites the Latin American Scientific Community at Biolatam 2016	PR Newswire
11/30/2016	Puerto Rico unites the Latin American Scientific Community at Biolatam 2016	Market Watch

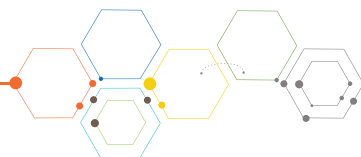


10/28/2016	PROMO: Viento en popa la innovación científica boricua	Laboratorio de Comunicaciones Científicas
10/20/2016	Científicos unen esfuerzos en Ponce para combatir varios tipos de cáncer	Diario Vegabajeño
10/12/2016	Vislumbran materiales fotovoltaicos económicamente accesibles	Laboratorio de Comunicaciones Científicas
9/28/2016	Investigación en Ponce sobre endometriosis con repercusiones a nivel mundial	Voces del Sur
8/17/2016	Junte inédito de ciencia, empresa e inversión	El Nuevo Día
8/9/2016	Investigadores del RCM ganan premio por estudio	El Nuevo Día
8/10/2016	Ponce Health Sciences University invierte \$1.4 millones en investigaciones de neurociencias	Sin Comillas
7/26/2016	Investigadores de institución educativa de Ponce reciben ayuda para sus proyectos	Voces del Sur
7/22/2016	FCTIPR entrega subvenciones a nuevos investigadores	Caribbean Business
7/22/2016	14 projects split \$2.1M in P.R. Science Trust grants	News is my Business
7/22/2016	Science Trust Grants \$2.1 Million in Research Funds	Caribbean Business
7/22/2016	Greetchen Díaz, ponceña que se destaca en el Fideicomiso de Ciencia, Tecnología e Investigación	Laboratorio de Comunicaciones Científicas
7/21/2016	Entregan subvenciones a investigadores <a href="http://sincomillas.com/entregan-subvenciones-investigadores/">http://sincomillas.com/entregan-subvenciones-investigadores/</a>	Sin Comillas
7/21/2016	Catorce proyectos recibirán subvenciones del “Science & Technology Grants Program” del FCTIPR	Agro Tropical INC
7/7/2016	OBA Learn nabs national business certification	News is my Business
7/7/2016	FCTI’ Financed Project Receives Certification from Women’s Business Enterprise	Caribbean Business
6/26/2017	Oportunidad de fondos para investigadores locales	Ciencia PR
6/22/2016	Oportunidad de fondos para investigadores locales	Diálogo UPR
6/9/2016	Abren convocatoria de becas proyectos locales de ciencia y tecnología	Diálogo UPR
6/7/2016	The front pages of “El Nuevo Día” highlighted Professor Cabrera and Professor Nicolau’s innovative work	College of Natural Sciences UPR-RP News
5/26/2016	Vínculo entre el estrés y el cáncer	El Nuevo Día
4/17/2016	Completan primera fase del proyecto de posible vacuna contra el VIH	El Nuevo Día
4/13/2016	Dispositivo facilitará complicada operación de rodilla	El nuevo Periódico de Caguas





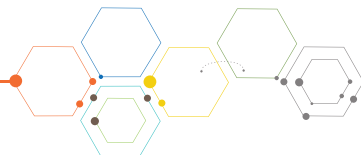
4/8/2016	Rodolfo Romañach: Improving Production Of Pharmaceutical And Food Products Through Scientific Research	CienciaPR
3/14/2016	Estrés empeora los síntomas de la endometriosis	El Nuevo Día
3/5/2016	Llega al mercado OBALearn	El Nuevo Día
3/4/2016	Llega al mercado OBALearn	Guayacán
2/24/2016	FCTI comprometido con la economía del conocimiento	Diálogo UPR
2/24/2016	FCTI comprometido con la economía del conocimiento	CienciaPR
2/24/2016	Buscan ampliar la economía del conocimiento en Puerto Rico	Diario Metro Puerto Rico
2/22/2016	P.R. Science Trust grants \$350K to 5 scientists for R&D	News is my Business
2/22/2016	Prof. Restrepo ha ganado la beca del Fideicomiso para Ciencia, Tecnología e Investigación de Puerto Rico (FCTI)	College of Natural Sciences UPR- RP News
2/19/2016	2da Edición Pequeñas Subvenciones- Fideicomiso de Ciencias	Revista Medicina y Salud Pública
2/19/2016	Entregan fondos a nuevos investigadores para fortalecer la economía del conocimiento	Revista Medicina y Salud Pública
1/25/2016	Subvención del programa Small Research Grant Program	Foro Colegial
12/10/2015	Colegiales brillan en diversos foros	Biblioteca Colegial UPRM
12/7/2015	Four UPRM Faculty Members Awarded PRSTRT Small Grants!	CID UPRM
12/3/2015	UPR investiga: uso de polímeros en la guerra, la energía y el agua	Dialogo UPR
12/3/2015	Científico de la UT recibe subvención	Turabo Noticias
12/3/2015	Science Trust grants \$350K to fund new research	News is my Business
12/2/2015	Boricua busca un medicamento que evite la metástasis	El Nuevo Día
12/2/2015	Fideicomiso para Ciencia y Tecnología impulsa propuestas de investigación federal	Empresarios
12/2/2015	Cinco científicos abren ruta hacia fondos de alta competencia	Noticel
11/12/2015	Ponce Health Sciences University Attracts Top-Tier Medical Researchers to Address Growing Health Disparities Among Hispanics	Market Wired
10/19/2015	PRSTRT Science and Technology Grants RFP	CID UPRM
10/7/2015	Ofrecen becas para innovación científica en Puerto Rico	Indice
10/2/2015	Puerto Rico: convocan científicos a desarrollar 15 proyectos de investigación	NodalTec
10/2/2015	Se entregarán becas para innovación científica en Puerto Rico	Universia
9/25/2015	Otorgan “grants” de investigación para adelantar la agenda científica del país	La Voz Hispana NY
9/22/2015	Scientists Bet on Entrepreneurship	El Nuevo Día



9/20/2015	Otorgan "grants" de investigación para adelantar la agenda científica del país	Diario de Puerto Rico
9/14/2015	Puerto Rico's New Promise: Science City	El Nuevo Día
7/22/2015	Puerto Rico: Investigadores diseñan microchip capaz de detectar cáncer de manera rápida y económica	Nodal
7/8/2015	Puerto Rican researchers get grant for cancer-detecting microchip	Agencia EFE
7/8/2015	Científicos de Puerto Rico avanza en un microchip para detectar el cáncer	Agencia EFE
7/7/2015	Crean un microchip que permite detectar el cáncer <a href="http://www.immedicohospitalario.es/noticia/6088/crean-un-microchip-que-permite-detectar-el-caacutencernbsp">http://www.immedicohospitalario.es/noticia/6088/crean-un-microchip-que-permite-detectar-el-caacutencernbsp</a>	IM Medico
7/7/2015	Científicos de la Universidad de Puerto Rico crean un microchip que permite detectar el cáncer	El Economista
7/7/2015	Científicos de la Universidad de Puerto Rico crean un microchip que permite detectar el cáncer	Saludemia
7/2/2015	Crean un microchip que permite detectar el cáncer	El Nacional
7/2/2015	Científicos de la Universidad de Puerto Rico crean un microchip que permite detectar el cáncer	Hoy Digital
5/27/2015	Microbióloga ambiental boricua recorre el mundo gracias a la ciencia	El Nuevo Día
5/25/2015	Microchip boricua para detectar el cáncer	El Vocero
5/24/2015	Científicos de la UPR crean microchip para detectar cáncer	Indice
5/22/2015	Cáncer: científicos de UPR crean microchip para detectar la enfermedad	Universia
5/22/2015	Puerto Rico: investigadores desarrollan microchip capaz de detectar cáncer	NodalTec
5/21/2015	Diseñan microchip en UPR Río Piedras para detectar cáncer	El Nuevo Día
5/21/2015	Diseñan microchip en UPR Río Piedras para detectar cáncer	Diario Dom Digital
5/20/2015	Investigadores de la UPRRP diseñan microchip para detectar cáncer	UPRRP
5/20/2015	Investigadores de la UPRRP diseñan microchip para detectar cáncer	UPRRP
5/6/2015	Profesor de Ciencias Naturales recibe importante "Grant del Fideicomiso para Ciencias, Tecnologías e Investigación"	UPRRP
4/30/2015	Puerto Rico Science & Technology Trust grants groundbreaking funding as it ushers in new leadership	Black Engineer (blog)
4/27/2015	Duo boricua abren campaña en Kickstarter con el fin de lanzar un dron híbrido, el Vertex Hybrid UAV	Digitalika
4/22/2015	Paso al frente en la investigación científica	El Nuevo Día
4/22/2015	Science Trust grants \$1.8M to 12 local scientific projects	News is my Business



4/22/2015	Impulso a la Investigación	Indice
4/21/2015	Primera entrega de fondos del FCTI para el desarrollo de proyectos científicos (documento)	Noticel
4/21/2015	Primera entrega en Puerto Rico de fondos a investigadores para el desarrollo de 12 proyectos científicos <a href="http://www.peoplemusic.com/primera-entrega-en-puerto-rico-de-fondos-a-investigadores-para-el-desarrollo-de-12-proyectos-cientificos/">http://www.peoplemusic.com/primera-entrega-en-puerto-rico-de-fondos-a-investigadores-para-el-desarrollo-de-12-proyectos-cientificos/</a>	People Music La Revista
3/20/2015	Former HP exec Crespo to lead P.R. Science & Tech Trust	News is my Business
3/20/2015	Empresaria dirigirá Fideicomiso Ciencia-Tecnología	Wapa TV
3/7/2015	En su fase final la evaluación de propuestas de “grants” para la investigación científica	N-punto
2/23/2015	Crean beca para científicos en Puerto Rico	holaciudad!
2/3/2015	Science Trust poised to grant \$2.2M for R&D projects	News is my Business
1/26/2015	Fideicomiso destinará un millón de dólares para fomentar el desarrollo científico en Puerto Rico	Universia
1/23/2015	Fideicomiso de Ciencias ofrece becas para investigación y atraer científicos	Noticel
1/22/2015	Science Trust announces availability of \$1.4M in grants	News is my Business
1/21/2015	Fideicomiso de Ciencias, Tecnología e Investigación da impulso a investigadores	Foro Noticioso
8/21/2014	Anuncian \$5 millones para proyectos de ciencias e investigación	Periódico Visión
8/19/2014	Science Trust opens RFP for \$5M innovation grant cycle	News is my Business
8/14/2014	Abre convocatoria competitiva para propuestas de innovación	El Nuevo Día
7/8/2014	Convocatoria para investigadores y científicos locales	El Nuevo Día
7/8/2014	Fondos para investigadores y científicos	Noticel
7/8/2014	Fideicomiso de Ciencias, Tecnología e Innovación anuncia programa de subvenciones	Microjuris (blog)



## 7. Research Grants Program General Survey

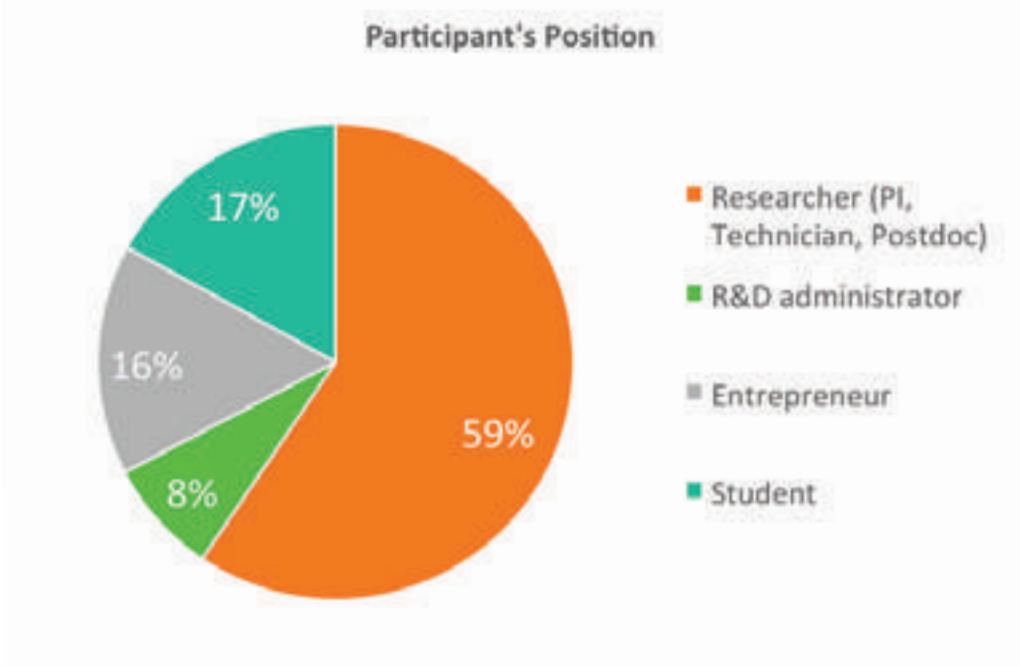
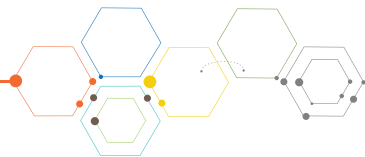
This Survey was created with the purpose of knowing the general opinion about The Trust's Research Grants Program. A Google Form with 11 questions was sent to The Trust's contact list and we received a total of 153 answers. The following are the questions that were sent and the answers analysis. Answers of question 11 (additional comments) are not shown.

1. Choose the position that best describes you.
  - a. Researcher (PI, Technician, Postdoc)
  - b. R&D administrator
  - c. Entrepreneur
  - d. Student
2. Do you know about the Grants Program at the Puerto Rico Science, Technology and Research Trust?
  - a. Yes
  - b. No
3. How did you find out about the Program?
  - a. Social Media
  - b. Media (Press, TV)
  - c. Email
  - d. Through a colleague or student
  - e. Trust's Website
  - f. Orientation given by The Trust
  - g. N/A (If you answered NO in #2)
4. Have you applied for a grant through this Program before?
  - a. Yes
  - b. No
  - c. N/A (If you answered NO in #2)
5. Whether you received the funding or not, would you consider reapplying to the Grants Program? \*
  - a. Yes
  - b. No
  - c. Maybe
  - d. N/A (if you answered NO in #4 and #2)
6. Would you recommend the Program to your colleagues?
  - a. Yes
  - b. No
  - c. Maybe
  - d. N/A (If you answered NO in #2)

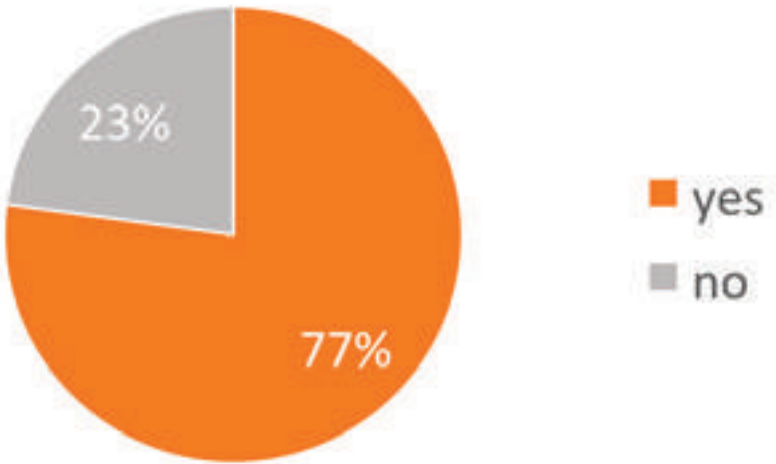




7. Do you consider that it is important for Puerto Rico to have a local Grants Program?
  - a. Yes
  - b. No
  
8. Why do you think it is important to have a local Grants Program? (Check all that apply)
  - a. It helps to strengthen the research ecosystem in Puerto Rico
  - b. It allows the prioritization of the most relevant research topics for Puerto Rico
  - c. It provides help for the advancement and development of a research project
  - d. It helps the principal investigator to obtain external funding
  - e. It helps to incite more research in the Private Sector
  - f. N/A (If you answered NO in #7)
  - g. Other
  
9. The Trust's strategic plan establishes that one of its priorities is to expand the Grants Program.  
Do you agree with this statement?
  - a. Strongly agree
  - b. Agree
  - c. Neutral
  - d. Disagree
  - e. Strongly Disagree
  
10. In addition to the existing grants, which type of funding do you think is more necessary in Puerto Rico?  
(Choose one)
  - a. Grants for postdocs
  - b. Matching/Supplementary Funds
  - c. Seed Money Grants
  - d. Travel Awards
  - e. Undergraduate/Graduate Fellowships
  - f. Grants for Equipment/Infrastructure
  - g. Other
  
11. Additional Comments (Not Included in this document)

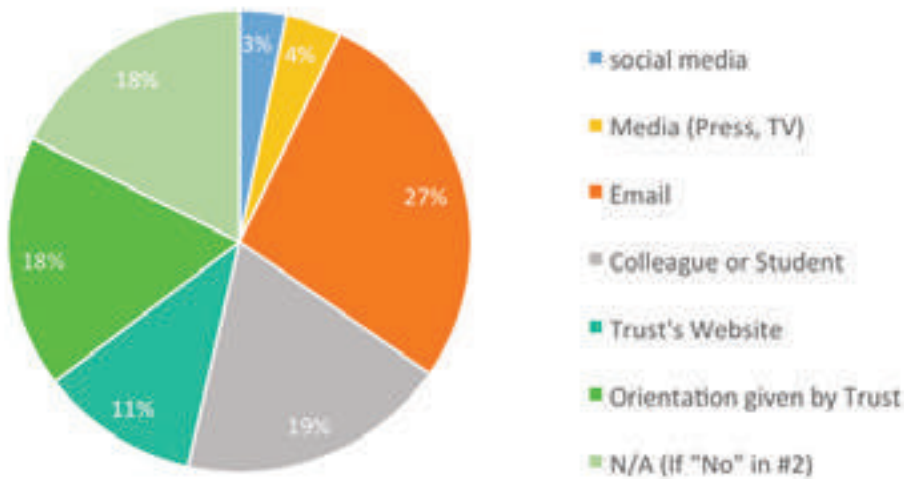


**Do you know about the Grants Program at PRSTRT?**

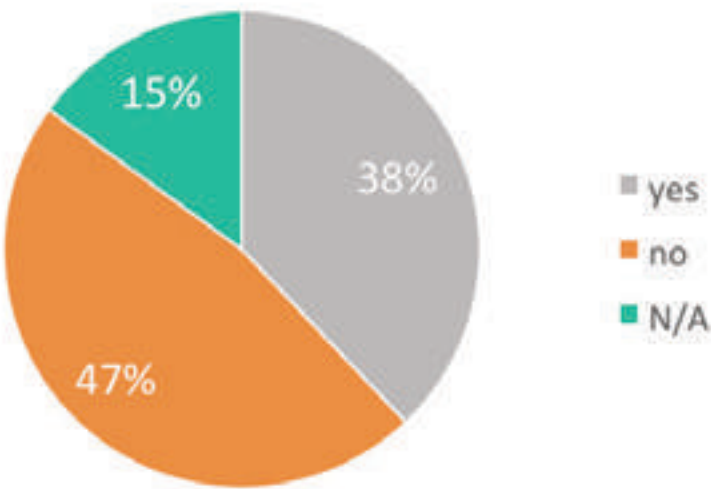


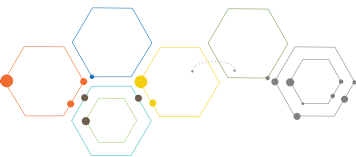


How did you find out about the Program?

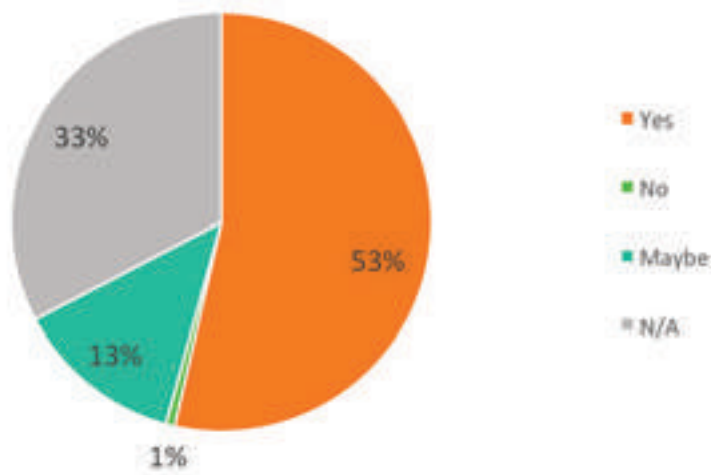


Have you applied for a grant through this program before?

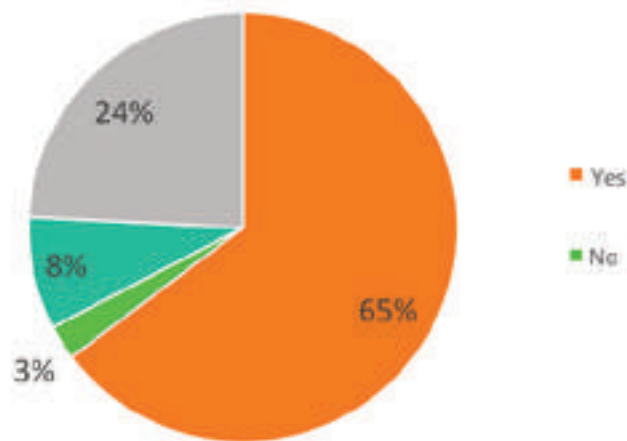




Whether you received the funding or not, would you consider reapplying to the Grants Program?



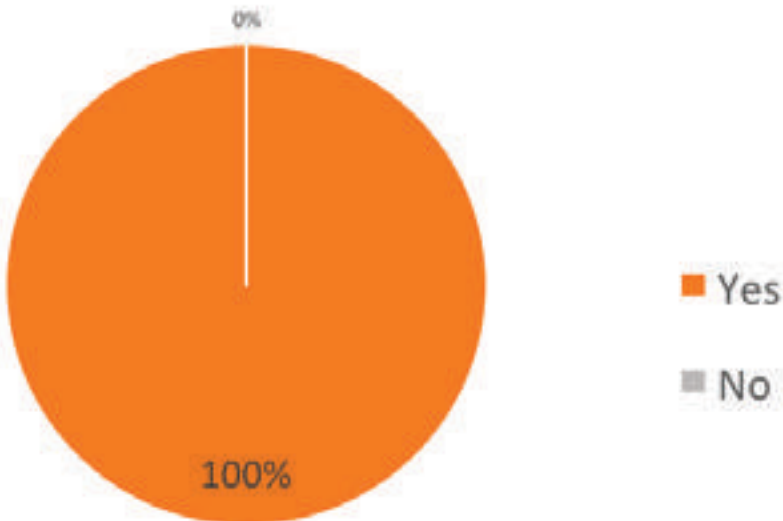
Would you recommend the Program to your colleagues?



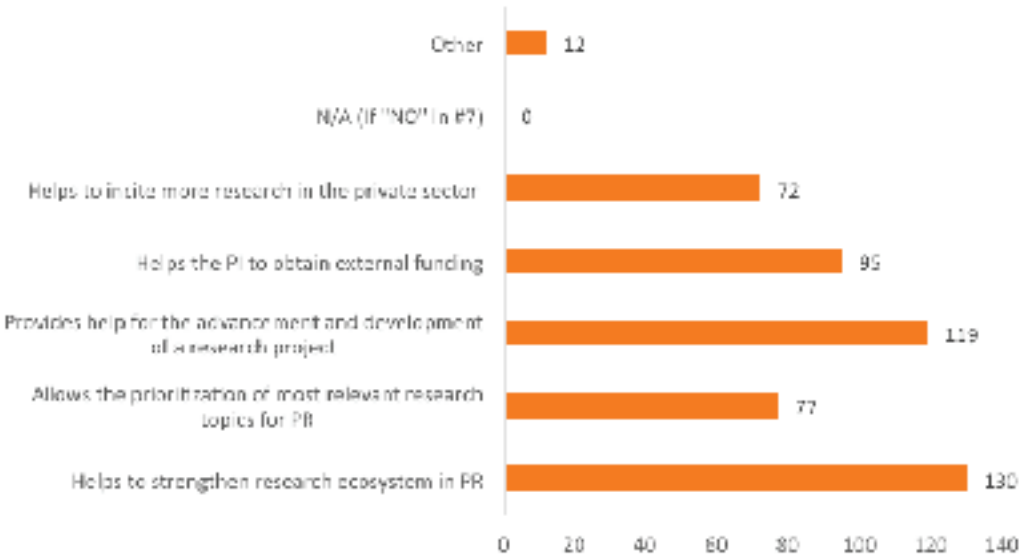


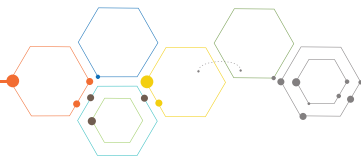


Do you consider that it is important for Puerto Rico to have a local Grants Program?

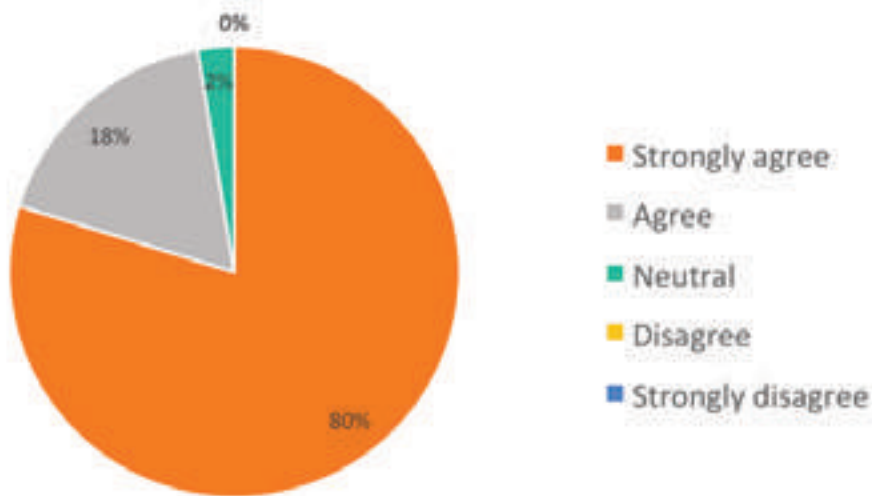


Why do you think it is important to have a local Grants Program? (Check all that apply).

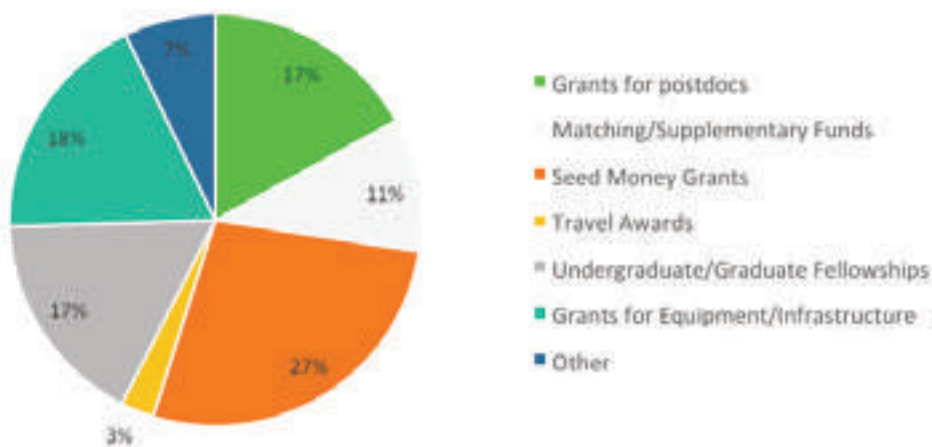




The Trust's strategic plan establishes that one of its priorities is to expand the Grants Program.



In addition to the existing grants, which type of funding do you think is more necessary in Puerto Rico?





# TESTIMONIES

## Grantees' Testimonies



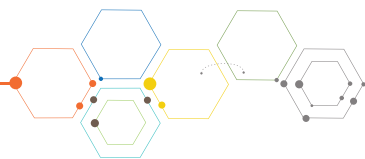
**Norman Ortiz**  
Founder/CEO iGenApps™ Inc.  
Project Wearables

"For the last 3 years, the Science and Technology Trust has helped us with the legal costs of patenting our unique methods of mobile app creation. The Trust have also welcomed us with open arms to do events and conferences using their office space, which has been one of the best places to do activities and events. With the support of the Trust, and the recent grant we have obtained for R&D, it has helped us tremendously in exploring new ways of doing things within our industry, becoming more competitive and at the forefront of technology".

"Our laboratory is focused on investigation of brain tumors and currently granted with the Trust funding support for the study, aimed at the development of new treatment approaches for the prevention of tumor recurrence after surgical resection. Trust provided us with the unique mechanism of efficient short-time funding allowing composition of advanced research group for the extensive study. Results of this study have a potential to serve for further development of the project to the human trials and significantly improve treatment technology for brain tumor patients".



**Lilia Kucheryavykh, PhD**  
Universidad Central del Caribe  
Role of microglia in glioma tumor relapse after surgical resection



“Novel Biomedical Devices is a company dedicated to the designing of orthopedic instruments and implants. One of the products is a 3d femoral orthopedic drill guide tool to help orthopedists to perform anterior cruciate ligament surgeries more accurately.

The Puerto Rico Science, Technology, and Research Trust has supported the project with the assignment of a \$150,000 competitive research grant. This grant is used to aid in the prototype creation, acquisition of artificial model, cadaver testing in partnership with the Medical Sciences Campus of the UPR, support technical and research personnel, and commercialization.

Without this assistance it would have been difficult to execute this project that can potentially impact over 700,000 surgeries of this kind that are performed each year in the U.S. market alone”.



**Carlos Alvarado, PhD**

Novel Biomedical Devices Corporation

A high throughput method to measure DNA repair levels and estimate breast cancer risk

Our group was able to obtain important preliminary data for the submission of competitive proposals using Funds from the Trust. Moreover, our group was able to present this preliminary data in over multiple local, national, and international conferences giving us more exposure within the scientific community. Lastly, some of the preliminary data obtained was recently published”.



**Jorge L. Almodovar-Montañez, PhD**

University of Puerto Rico – Mayagüez

Osteoinductive integrin-containing biomaterials for bone repair





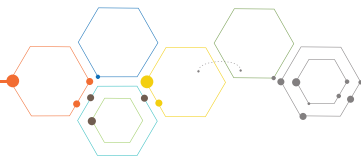
**Pablo Vivas-Mejías, PhD**  
University of Puerto Rico- Medical Sciences Campus  
Targeting Integrin Linked Kinase in Ovarian Cancer with  
Liposomal-Gold-Small Interference RNA

“The Trust funds have greatly helped us to continue working in our research projects and have allowed us to obtain preliminary data to submit stronger proposal to federal agencies (STTR to NCI). At the same time, this funds have allowed us training more graduate students in cancer and nanomedicine-related areas. Similarly this program have allowed me to networking and explore the commercialization potential of the research I’m doing in my laboratory”.

“Funding from the Trust has been absolutely critical for maintaining my research laboratory productive during these highly competitive times. Not only have they provided the funds that allowed me to continue researching the molecular signature of endometriosis but also they have contributed to the training of two PhD students, several undergraduate students, and laboratory personnel in research techniques. The Trust has also greatly supported my development in the area of scientific entrepreneurship and has provided support in intellectual property protection, something that we scientists are not usually trained in. I am currently funded through an STTR grant from the NIH; I am grateful to the Trust for providing guidance in the process and tools for improving our grant application”.



**Idhaliz Flores, PhD**  
Ponce Research Institute  
The Endometriosis Proteome: Diagnostic and Therapeutic Target



**Antonio Alegría, PhD**  
University of Puerto Rico- Humacao  
Photosensitized generation of nitric oxide

“I have been a recipient of a PRST research grant regarding the development of lipid nanoparticles for the photosensitized generation and delivery of nitric oxide, as a means to improve the photodynamic therapy of tumors. Before this grant, I was not successful in acquiring federal funds for this project, mostly due to the lack of preliminary work with tumor cells. The PRST grant provided us funds to start a collaboration with professor Pablo Vivas from the PR Comprehensive Cancer Center. At present, we have positive results regarding the improved toxicity against resistant ovary cancer cells by these lipid nanoparticles and thus we are in better shape when applying for NIH research funds”.

“Funding from the PRSTRT has allowed me begin developing a prototype of an instrument to measure turbidity and other water quality parameters. Even though I had the theoretical water optics background I was missing the software and hardware skills that are essential for this innovation. I was able to contract two engineers with the required software and spectroscopy skills to accomplish these goals. We are now working as a team to create the first hand-held, remote sensing device to measure suspended sediments in real-time”.



**Roy Armstrong, PhD**  
Roy A Armstrong dba Remote Sensing Consultants  
A novel field remote sensing system for rapid determinations of total suspended solids in surface waters



**Paul Bayman, PhD**  
University of Puerto Rico- Río Piedras  
Bioprospecting for plant protection: biocontrol of the coffee berry borer (broca del café) with local strains of the pathogenic fungus Beauveria bassiana

“With the support of PRSTRT we founded a company, Atabei Ecosystems LLC, dedicated to biological products and services for plant health and pest control. The company submitted an SBIR proposal for development of biological control products”.



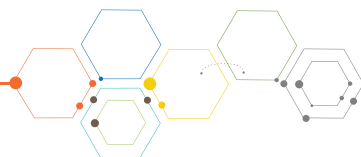
**Carla Restrepo, PhD**  
University of Puerto Rico- Río Piedras  
Robustness of developmental trajectories to varying temperatures in a tropical vertebrate

“Several years ago we discovered a high prevalence of subtle skeletal abnormalities in coqui frogs. The uniqueness of this finding is that because coqui frogs are direct developers - a small frog rather than a free larva emerges after egg hatching - current hypotheses explaining abnormalities in frogs with indirect development are unlikely to apply. Our intuition tells us that we have something novel in front of us, yet we have to substantiate this with solid data. The small grant from the PR Science Trust is enabling us to produce and analyze such data”.

“The Trust grant has been of great help to launch my academic career. It is providing precious resources to develop critical infrastructure at the UPRM Ocean Engineering Laboratory, while supporting fundamental research of potential beach erosion mitigation strategies. Additionally, it has provided great exposure to the research being done by my team, the UPRM Center for Applied Ocean Science and Engineering and CREST”.



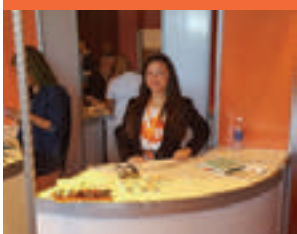
**Sylvia Rodríguez-Abudo, PhD**  
University of Puerto Rico- Mayagüez  
Hydrodynamical assessment of recycled glass cullets as beach nourishment material to mitigate Puerto Rico erosion problems



## TESTIMONIES

### Interns' Testimonies

"I always had the interest in an internship in Puerto Rico and it was the Trust that gave me the opportunity to do so in my homeland. During my 6-month internship, I worked mostly in the Grants Program and Outreach areas. I learned about ongoing investigations in Puerto Rico and their value to the scientific and engineering communities. I had the unique opportunity to meet high caliber scientists and their work during outreach activities held by the Trust, experience I would recommend to any young scientist. The Forward Summit was one of the most remarking meet-ups I experienced because it compiled the most relevant works done recently in Puerto Rico in the scientific and technology areas. I also had the opportunity to participate in SRGP and RFP cycles, in which I learned to search for qualified reviewers for the applications and proposals received, a skill I had never used before in college. This task helped me to get more involved in recent investigations in the science and technology ecosystems as to match the more appropriate professionals in those areas. The RFP and SRGP award ceremonies that I was part of were a symbol of huge success for Puerto Rico and it showed the hard work done behind the scenes by the Trust staff, which I feel honored to have been part of in the time being. The experience was enriching as a student and future professional. The internship provides a new setting where scientists can excel by contributing in the promotion of science and technology in the island. My perspective changed completely when I learned that a scientist is not always the one behind a bench but the one that with its knowledge can give other professionals the necessary tools to share, commercialize, and contribute to society with their amazing ideas. If I had the chance I would do it all over again and even for a longer time. To all science students out there, I invite you to get more involved in the research made here in Puerto Rico through the PRSTRT! I assure you that an internship in the PRSTRT will help you in all areas as a professional and future scientist".



**Stephanie M. Soto Kortright**

"Primera Experiencia Laboral"

University of Puerto Rico- Río Piedras

Intern January-May 2016

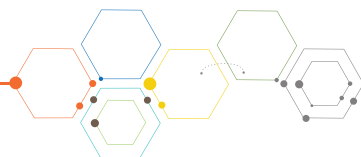




"I first heard about the Puerto Rico Science, Technology & Research Trust thanks to a program from the University of Puerto Rico that gave the opportunity to students to do an internship in one of several companies related to science. The Trust caught my attention because as a science student you often tend to lean towards research or medicine, and the Trust offered something different. During my time at the Trust, I saw a side of science I hadn't considered before. I learned about how an investigation is funded and the hard work behind the process of revision of proposals for grants. I also had the opportunity to work in the Bioprospecting Initiative and learned about the vast potential for biodiversity-based research in Puerto Rico and how important it is to conserve and protect it. Finally, my time at the Trust showed me that is not only important to create science, it's important to communicate it. I learned how vital it is to create connections between the different branches of science and technology to create a better future. The perfect example of this was the Forward Research & Innovation Summit, an event I had the privilege to collaborate with. Overall I loved my experience working with the Trust, and I'm extremely grateful to all the great people I worked with. Every single one of them was a great mentor and role model. I couldn't recommend this experience more to any students considering doing an internship with the Trust. Believe me when I say you won't regret it."

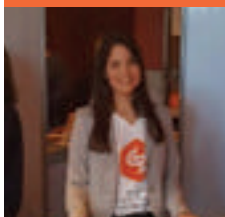


**Grace M. Rendón Febles**  
"Primera Experiencia Laboral"  
University of Puerto Rico- Río Piedras  
Intern January-May 2016



“With my college graduation fast approaching, I knew I wanted to do an internship that would allow me to apply all that I had learned during the years I spent completing my bachelor’s degree in Cell and Molecular Biology. The Program “Primera Experiencia Laboral” at the University of Puerto Rico Río Piedras Campus provided me the opportunity I was looking for. The Puerto Rico Science, Technology and Research Trust was one of the organizations offering to take students as interns, specifically in their Grants Program. As an undergraduate student I have had hands-on research lab experience, but had little knowledge of the complete process and steps needed to obtain funding for a project. I saw the opportunity of doing an internship at the Trust as a way of expanding and strengthening my knowledge of science and research. Not only that, as a student involved in the STEM fields I believe in the Trust’s mission of “continually advancing Puerto Rico’s economy and its citizens’ well-being through innovation-driven enterprise, science and technology”. As an intern, not only have I learned about grants, writing proposals and reviewing, I have also had the chance to visit different research laboratories, participate of interdisciplinary research meet-ups and of the first Forward Research and Innovation Summit. Along the way, I have met brilliant scientists, learned about their research projects and had my eyes opened to all the science and technology innovation that exist in Puerto Rico. I have also enhanced both my communication and networking skills. I believe the Trust’s job is very important, not only to help scientists develop their research projects, but also to share and let everyone else know and understand how significant science is in society, in terms of its economy and education, and how vital it is that Puerto Rico takes advantage of all the talent, intellect and capacity of our local scientist.

I will be forever grateful with the Trust’s staff for welcoming me and teaching me everything they could. Thanks to this internship I am now sure that I will be including research in my future and if I ever have to write a grant proposal, I know that I will be looking back to everything I learned in this experience. I hope other students will also have this wonderful opportunity and that they will take advantage of all the things they will learn. I will be recommending this internship to my friends and classmates”.



**Lauren N. Rivera Pagán**

“Primera Experiencia Laboral”  
University of Puerto Rico- Río Piedras  
Intern August-December 2016



# RESEARCH GRANTS P R O G R A M

## IMPACT REPORT

Prepared by:

Greetchen Díaz (Research Grants Program Director)

Marianyoly Ortiz (Grants Program Management Specialist)

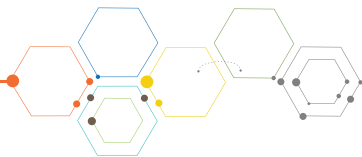
Gilberto Márquez (SBIR/STTR Matching Funds Program)

Lauren Rivera (Research Grants Program Intern)

Grace Rendón (Research Grants Program Intern)



Fideicomiso para Ciencia,  
Tecnología e Investigación  
de Puerto Rico



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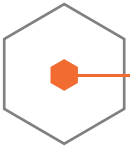
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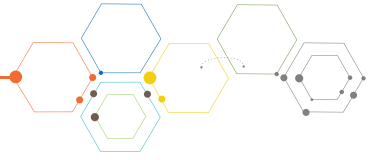
# IMPACT REPORT





# INDEX





About Colmena66

Results

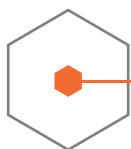
Levanta tu Negocio PR

Shop+Hire PR

Success stories

Testimonials

How to get involved



**What a year!** Without a doubt, Puerto Rico faced one of its toughest years in recent history. Nevertheless, we are convinced that it's not about what's happened, **it's about what's next.**

Our passion is entrepreneurship—connecting entrepreneurs and business owners to the right resource for their business challenge, so that they can realize their dreams, grow their businesses, create jobs, build a strong economy and create the Puerto Rico we love.

It all starts with an idea. Entrepreneurs shape and share them with the world as they create new realities. **And we, the community that supports them, create entrepreneurship.**

Just as beehives serve several purposes such as the production of honey and pollination of crops, Colmena66, comprising 200+ business-building organizations and hundreds of experienced mentors, coaches, community builders, consultants, investors and, yes, entrepreneurs, has created an infrastructure to support, build and measure entrepreneurship in Puerto Rico, located on the geographical longitude 66° W. What a perfect synopsis of our purpose and guidepost for the future.

Together, we help educate, coach, train and guide entrepreneurs down the right path. We make collisions, pollinations and collaborations possible. We match people to people and track entrepreneurial needs, successes and gaps. Our local economy and our future rely on the ideas, jobs and hopes that entrepreneurs, our hard-working bees, create. And entrepreneurs rely on us. **Because in the end, entrepreneurship requires all hands on deck. And only together can we strengthen Puerto Rico's entrepreneurship ecosystem.**

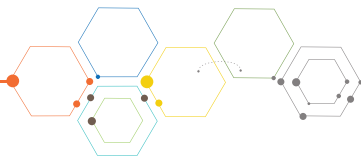
Hurricane Maria brought all of us back to the drawing board to design a new plan, a new strategy, a new future. And that we did.

Deprived of the access and technologies we're used to, we visited multiple towns to assess the damages and needs of entrepreneurs and business owners. On the other hand, we researched business relief and support initiatives and matched those to the entrepreneurs in need. Simultaneously, we quickly identified an opportunity to help our entrepreneurs reach other markets.

In the following pages, we are happy to share the results of our initiatives, including Levanta tu Negocio PR and Shop+HirePR. Take a look at who we talked to, what questions they were asking and what actions they took to grow and strengthen their businesses and the Puerto Rico economy.

Thank YOU: SourceLink, Resource Partners, Board of Advisors, mentors, team members, and entrepreneurs around Puerto Rico. This year's Impact Report highlights your passion and commitment.

There is no better way to celebrate our first anniversary than to have our sleeves rolled up, be on the road, helping our entrepreneurs and the entrepreneurial ecosystem reconnect and reinvent itself. While we celebrate where we are today, we still have much to do to help all types of entrepreneurs grow and prosper. We have great plans for 2018. We hope you'll join us on that journey.



Denisse Rodríguez Colón  
Director of Colmena66







# What is Colmena66?

**Colmena66** is your link with the services and assistance needed to help your business grow and prosper.

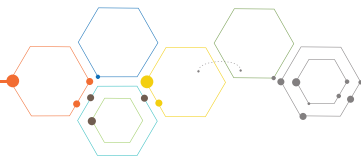
A PROGRAM OF:



Puerto Rico  
Science, Technology  
& Research Trust

POWERED BY:





# We are your entrepreneurial connection.



## Link

Connect entrepreneurs with the resources they need to start or grow their business.



## Network Building

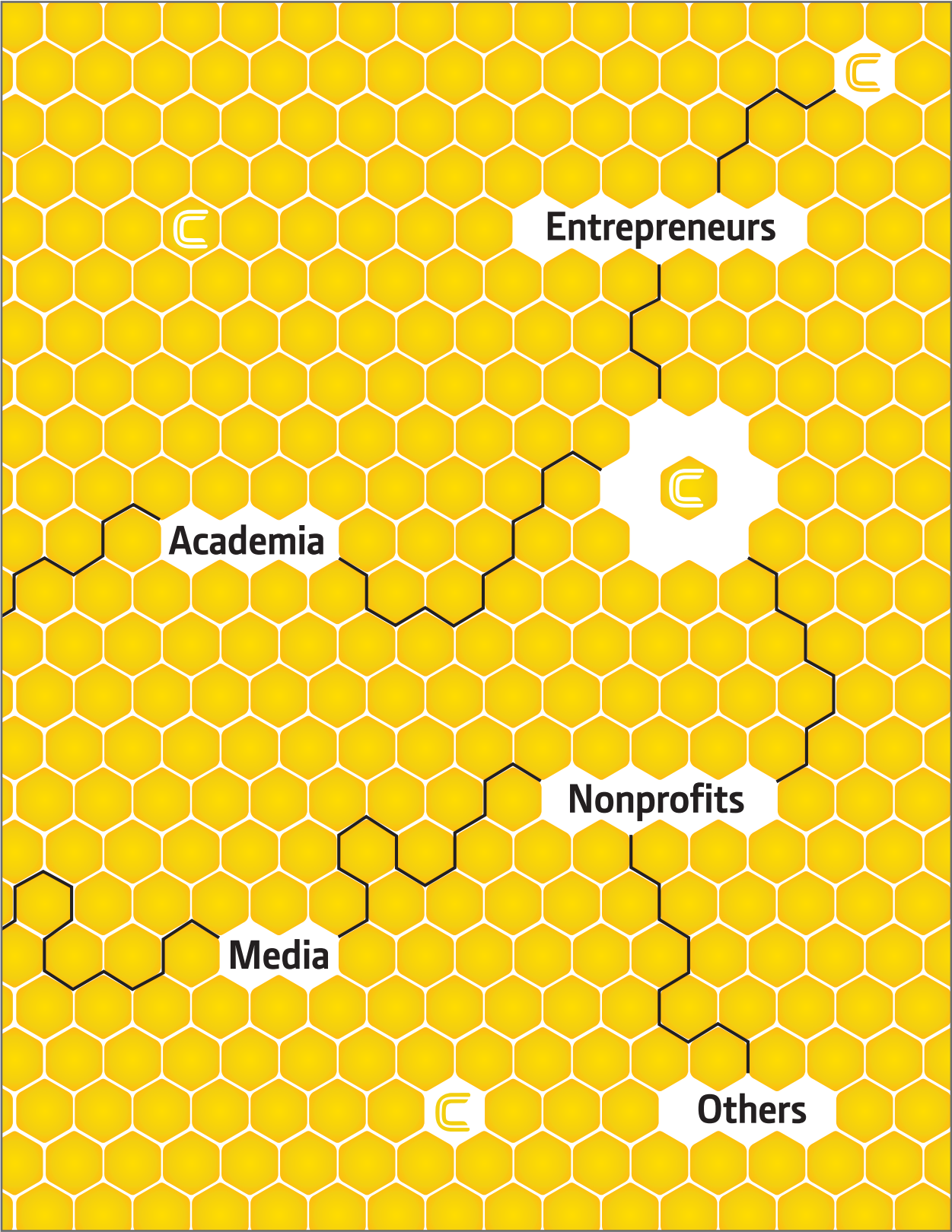
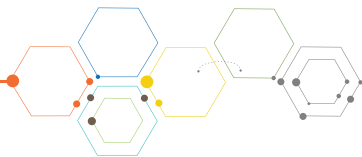
Convene all organizations that provide entrepreneurial support and identify gaps and areas of opportunity in the entrepreneurial ecosystem.

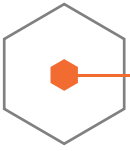


## Access

Easy access for entrepreneurs to a specialized network of service providers offering a broad range of expertise, networking events and workshops.







Identify nonprofit organizations, academia and public sector entities that provide entrepreneurial support.

01

## Resource Partners



We log in the interaction and the referral in our CRM, to track the entrepreneur's progress.

04

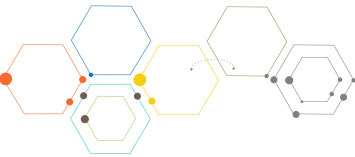
We refer you to the Resource Partners that specialize in providing the service and support you need.

03

02

Give us a brief background of who you are and what your idea or business is all about.





Once a member, we start referring entrepreneurs that contact us in need of your services!

02

03

We work together to continuously improve and strengthen your programs.

# This is how we work

## Entrepreneurs

01

I

Contact us via our Hotline, Email or Live Chat.



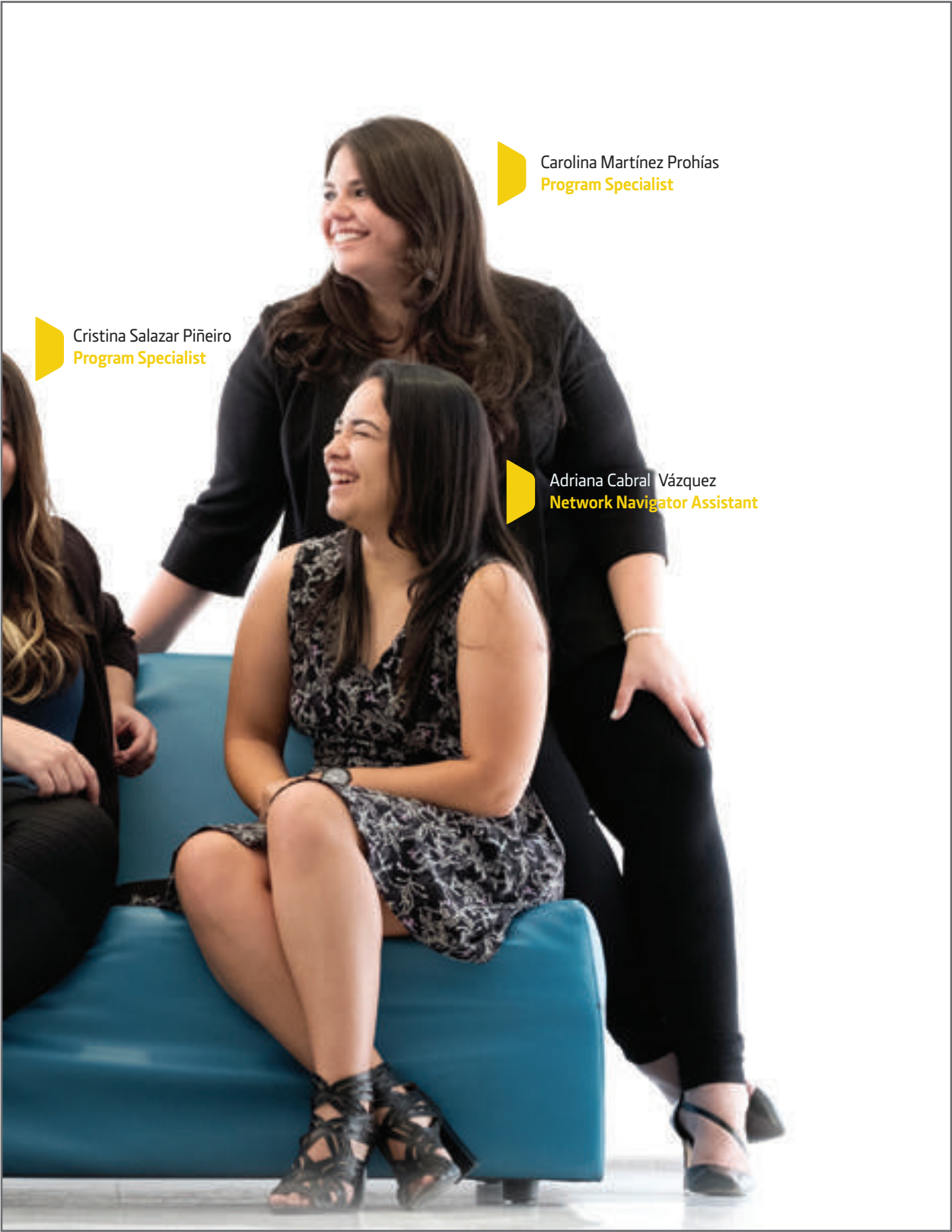
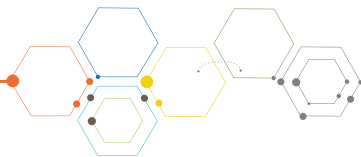
# Team

All the help you need  
to start or grow your  
business in one place

Denisse Rodríguez Colón  
Director of Colmena66

Desirée Rodríguez Cález  
Network Navigator

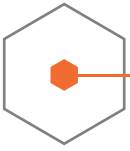




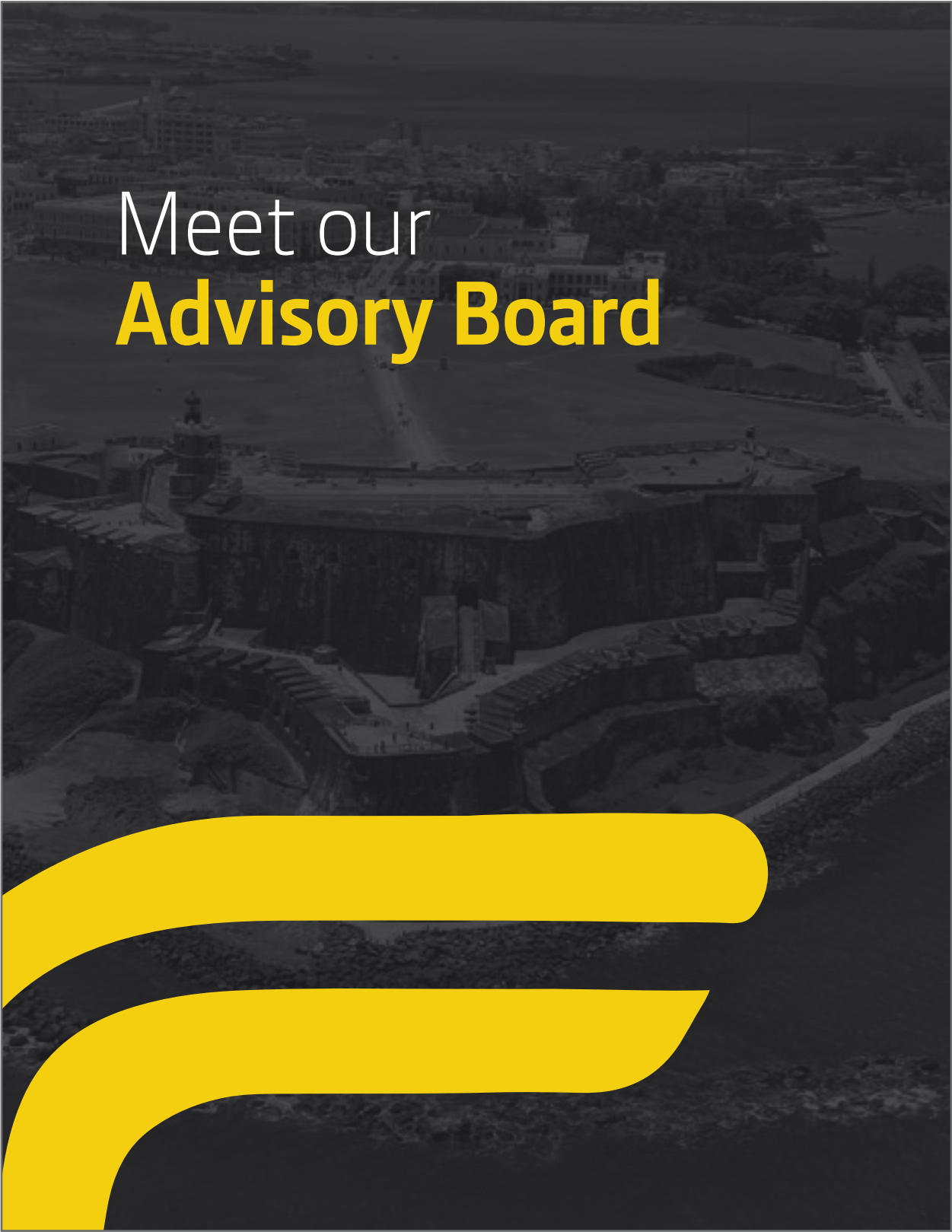
Cristina Salazar Piñeiro  
Program Specialist

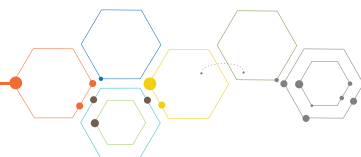
Carolina Martínez Prohías  
Program Specialist

Adriana Cabral Vázquez  
Network Navigator Assistant



# Meet our **Advisory Board**




**Lucy Crespo,**
**CEO, Puerto Rico Science, Technology & Research Trust**

Lucy Crespo is the Chief Executive Officer of the Puerto Rico Science, Technology and Research Trust, with the mission to advance the research and innovation ecosystem in Puerto Rico. Member of the Board of Directors of the FirstBank Corp. She retired as General Manager of Hewlett-Packard Puerto Rico for the Enterprise Business Division (Puerto Rico Manufacturing Operation-PRMO), located in Aguadilla in 2013. Her tenure at HP lasted for 31 year, successfully working in the HP Computing and Printing and Personal Systems business units and contributing in the enterprise and consumer segments through various roles. Lucy holds a Bachelor's degree in Industrial Engineering from the University of Puerto Rico, Mayagüez Campus and completed her Executive Development education at the Kellogg's Graduate School of Management of Northwestern University. She is a member of the Alpha Pi Mu, the Industrial Engineering Honor Society.

In her role as CEO of the Puerto Rico Science, Technology and Research Trust she led the implementation of the following key initiatives to advance the Puerto Rico's Science and Technology agenda: (1) Established the Puerto Rico Consortium for Clinical Research, (2) Launched Parallel18 a Global Entrepreneurship initiative, (3) Established the Technology Transfer Office to serve all universities in Puerto Rico, (4) Expanded Trust's Research Grant programs, (5) Established Puerto Rico Center for Tropical Biodiversity and Bioprospecting and (6) Colmena 66. She is also leading the development of Science City, a technology and research infrastructure with the vision to create a globally recognized innovation hub connecting and integrating Puerto Rico's science and technology ecosystems. Lucy is a former president of the Puerto Rico Industrial Association (PRMA), and a recipient of the Hector Jiménez Juarbe award. Under her leadership, HP Puerto Rico received the HP's President Quality Award given by the HP's CEO. Lucy has been recognized by various institutions, i.e., Commerce Chambers, SME, AIHE, American Society of Quality Control and "Colegiala Ilustre" by the UPR, Mayaguez Campus. She was also a member of the Manufacturing Advisory Board during the incumbency of Governor Luis Fortuño.


**Sofia Stolberg,**
**Founder and CEO, Piloto 151**

Serial entrepreneur, mentor and entrepreneurship ecosystem developer with experience across diverse industries and international markets. She is the CEO of Piloto 151, Puerto Rico's first coworking space and growth platform for entrepreneurs, recently recognized by the US Small Business Administration and the White House as one of 50 organizations nation-wide developing the most innovative programs for high growth potential entrepreneurs to thrive. Her most recent venture is Codetrotters Academy, the first hacker school in Puerto Rico and the Caribbean, committed to training the next generation of coders and innovators on the Island. As an ecosystem developer, Sofia has helped strengthen underdeveloped entrepreneurial and startup communities internationally. She co-directs the Founder Institute Puerto Rico chapter and has previously collaborated with Babson College, leading and advising international multi-stakeholder entrepreneurial initiatives (including Manizales-Más and Scale-up Milwaukee) to support and accelerate the development of high growth ventures.


**Laura Cantero,**
**Executive Director, Grupo Guayacán, Inc.**

Prior to joining Guayacán, Laura was Program Director at Foundation for Puerto Rico and worked as Manager at the Latin America Financial Services (LAFSA) practice for Ernst & Young in Panama. She has over ten years of experience in the financial services industry (banking and insurance), specifically in the implementation and delivery of organizational effectiveness and corporate change initiatives focused on improving company performance. Laura holds a Bachelor's Degree in Economics from The Wharton School, University of Pennsylvania and an MBA from IE Business School in Madrid.





**Nerma Albertorio,**  
**Founder, Centro para Emprendedores**

Founder of Centro para Emprendedores and 100 Ventures with over 18 years of experience in the creation and implementation of entrepreneurship education and training programs. Her experience includes identifying business opportunities and developing and creating business and marketing plans for various industries and nonprofit organizations. She has a broad knowledge of business models MSMEs in Canada, Colombia, Spain and the United States. Nerma Albertorio was awarded a scholarship by Grupo Guayacán, Inc. to participate in the Babson Entrepreneurship Fellowship program. She is also a guest professor in the Universidad del Turabo and Universidad del Sagrado Corazón. Albertorio serves as advisory board member for Echar Pa'lante, Colmena66 and the Internet Society of Puerto Rico. She is also a professional coach, the only Startup Weekend facilitator in Puerto Rico and a Cordes Fellow. Nerma holds a BSBA in Marketing from the University of Puerto Rico at Mayagüez, an MS in Nonprofit Organizations Management from Universidad del Sagrado Corazón and a Professional Certification in European Communications from Foro Europeo in Spain.



**José Vega,**  
**Director, Centro de Negocios y Desarrollo Económico (CNDE), UPRM**

Director of the Business & Economic Development Center of the School of Business Administration at the University of Puerto Rico, Mayagüez Campus (UPRM). since its establishment in 1986. He is editor and co-author of How to Establish a Small Business in Puerto Rico, co-chair of the National Forum on Entrepreneurship Education held annually at UPRM and is a key player in the New Venture Design Experience faculty team. He teaches courses in marketing and entrepreneurship, is a founding member of the UPRM E-Ship Network, an innovation support ecosystem within the University. He is passionate about helping innovators make the right business connections, encouraging social entrepreneurship, and promoting an enterprising mindset among faculty and students.



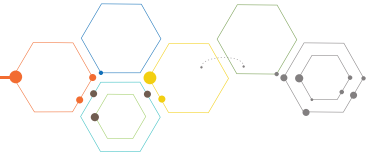
**Ricardo Burgos,**  
**Innovation Agent**

Serial entrepreneur, consultant and innovation agent with multidisciplinary skills developed over twenty-five years of professional experience. Considered a creative and forward thinker, Ricardo's experience spans several areas of expertise, such as: creative industries development, retail sales, youth marketing, digital communications, publishing, content strategy, cultural and creative event production, creative direction, design thinking, agro-industrial enterprises, as well as other areas of analysis such as: business culture and project management.



**Jorge González,**  
**Partner, Tactical Media**

During his senior year at American University, he began developing the business plan for Tactical Media Group (TMG) and in 1999 co-founded the company. Jorge is the COO of the enterprise and is responsible for the R&D spectrum of the corporation. He is committed to the development of the OOH industry, as he's one of the founding members of the Outdoor Advertising Association of Puerto Rico (OAAPR). Jorge is also dedicated to the entrepreneurship business development growth in the Island and is one of the founding members of the Entrepreneurs Organization (EO) - Puerto Rico Chapter.



**Yvette Collazo,**

**District Director, Puerto Rico & U.S. Virgin Islands, U.S. Small Business Administration**

As District Director, Ms. Collazo is responsible for the delivery of the agency's financial assistance, management counseling, business development and minority enterprise development activities throughout the islands of Puerto Rico, St. Croix, St. John and St. Thomas. Before joining SBA, Ms. Collazo served as Senior Advisor and Director for the Office of Technology Innovation & Development at the U.S. Department of Energy's Office of Environmental Management in Washington, DC. In this capacity, she was responsible for identifying and advancing technologies, processes, and technical practices that improve the performance of EM's waste processing, groundwater and soil, decontamination and decommissioning, and nuclear materials projects over their life cycle, from planning to disposal. She was also responsible for the Small Business Innovation Research Program.



**Ricardo Llerandi, Esq.**

**Executive Director, Puerto Rico Trade & Export Company**

In 2012, Mr. Llerandi was elected as House Representative for the 14th district of Puerto Rico. During his tenure, he was the author of bills on health, environment, security, education, sports and economic topics. He was re-elected for a second term in 2016, but appointed by Governor Rosselló as Executive Director of the Puerto Rico Trade Company on December 22, 2016. During his appointment, Ricardo Llerandi wishes to continue his compromise with Puerto Rico by contributing to the revitalization and revamping of our economy. Mr. Llerandi has a Bachelor's Degree in Business Administration from the University of Puerto Rico, Arecibo Campus. While pursuing his Juris Doctor at the Interamerican University, he worked as an accountant for several local companies. In 2006, he obtained his Juris Doctor and ever since has focused his practice on civil law. He is also a Notary Public.

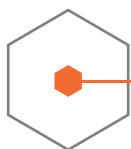


**Jorge Rodríguez,**

**President & CEO, PACIV**

Global leader in industrial automation solutions with over 26 years of experience in the areas of industrial automation, instrumentation, commissioning, qualification and computer system validation for the Biotechnology, Pharmaceutical and Medical Devices industry. He is a Harvard Business School alumni, holds a Master in Business Administration from the University of Puerto Rico and a Bachelors of Science in Electrical Engineering from Syracuse University. He is a licensed Professional Engineer in Control Systems in the State of Indiana and the Commonwealth of Puerto Rico. Prior to founding PACIV, he worked for over 8 years as a control system engineer in various positions within Westinghouse Electric, Eli Lilly & Co. and J&J Janssen.

## Advisory Board



# What an **AWESOME** year!

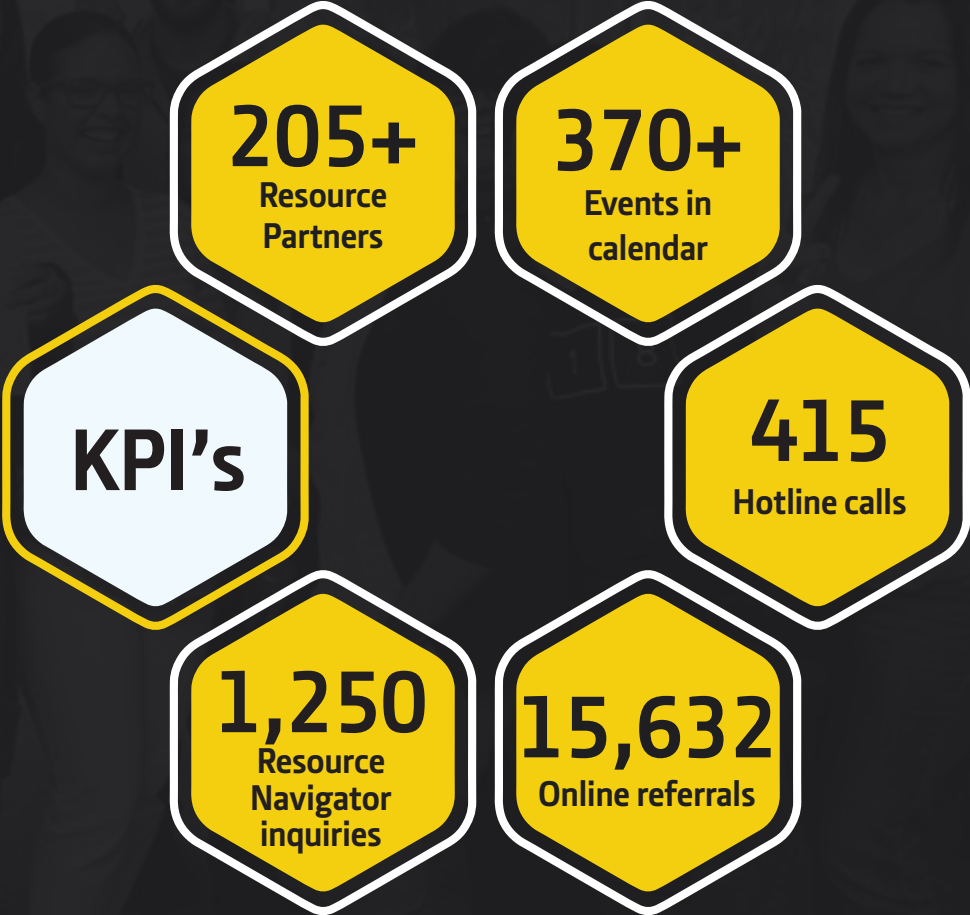
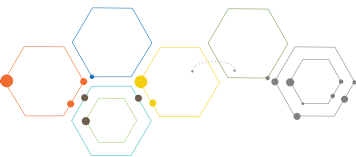
## **RESULTS**

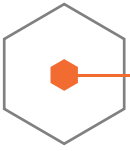
Colmena66 launched with **162 Resource Partners**, and now has a network of **205 ORGANIZATIONS**, and counting!

Colmena66's collective calendar has promoted **over 370 EVENTS** all over the Island.

## **Check out our Blog!**

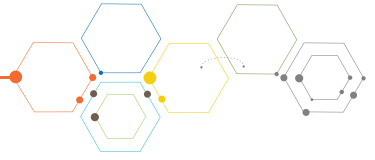
Resource Partners, entrepreneurs and experts on entrepreneurial topics submit **WEEKLY ENTRIES** sharing their work, achievements, best practices, success stories, and more!





## WHAT ARE ENTREPRENEURS LOOKING FOR?





## Top 5 Hotline Calls

Entrepreneurs' top requests for assistance through the hotline are:

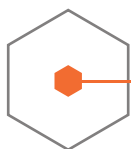
- eCommerce
- Business plan assistance
- Start up assistance
- Business
- Management
- Marketing and sales



## Top 5 Website Requests

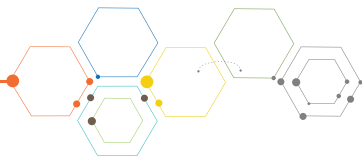
The most requested types of assistance through our website are:

- Business planning
- Financial resources and assistance
- Starting a business
- Marketing and sales
- Legal services



## How are we doing among SourceLink Affiliates?

**Colmena66** is one of more than 30 affiliates of SourceLink, an organization that helps communities with R&D to identify, connect, empower and measure their entrepreneurial ecosystems.



The following numbers represent **Colmena66's** ranking among Sourcelink's national network.

Clients seeking assistance through hotline and/or email



Total searches through the Resource Navigator



Organizations using the Resource Navigator



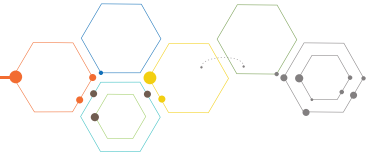
Counseling Hours Provided





# Colmena66 response to Hurricane María

After the impact of Hurricane María, **Colmena66 QUICKLY pivoted to IDENTIFY and ADDRESS the various needs of local entrepreneurs and business owners.**



## THREE THINGS became very clear



With unstable internet connectivity and lack of power,  
**WE OPENED** a temporary **COWORKING SPACE**.



In order to understand the magnitude of the Hurricane's  
aftermath in our local economy,  
**WE CONVENED** the entrepreneurial ecosystem  
to carry out an Island-wide **CENSUS OF DAMAGES  
AND NEEDS**.



Facing a need to keep local businesses afloat  
and reactivate the money flow,  
**WE DEVELOPED** a directory of **ONLINE SHOPS**  
and **Puerto Rican freelancers**.





# COWORKING

@ the Puerto Rico Science, Technology and Research Trust

## METRICS

201

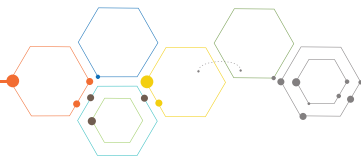
REGISTERED  
COMPANIES

374

GUESTS

26

DIFFERENT  
INDUSTRIES



**Colmena66 designed a framework to effectively operate a coworking space for entrepreneurs and business owners after Hurricane María.**



**INDUSTRIES**

- Education
- Engineering
- Social Entrepreneurs
- Biotechnology
- Consulting
- Security
- Information Systems
- Web Development
- Cyber Security
- Academy
- Entertainment
- Food & Agriculture
- Health & Wellness
- Law
- Project Management
- Nonprofits
- Sustainable Energy
- Journalism
- Architecture
- Communications
- Digital Marketing
- Manufacture
- Technology StartUps
- Retail
- Fashion
- Capital Investing
- Transportation and many more.



# LEVANTA TU NEGOCIO

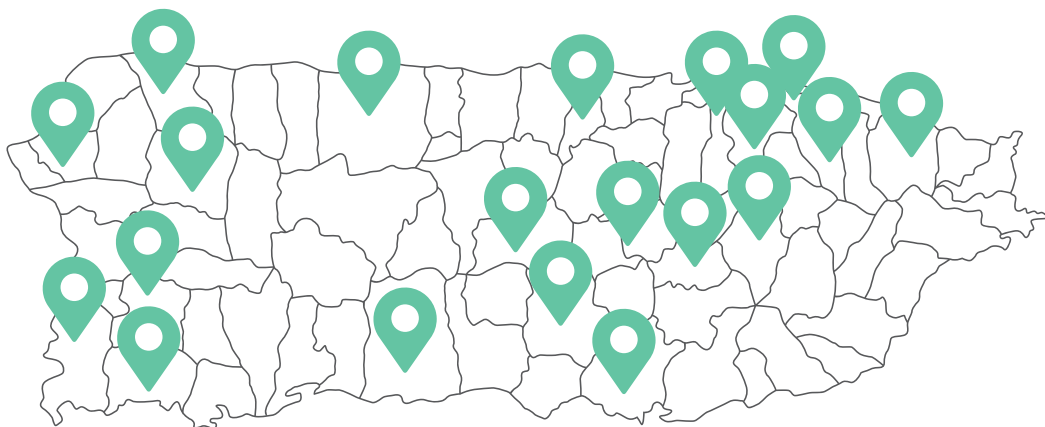
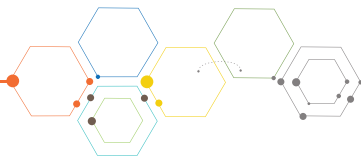
## What was it?

**ISLAND-WIDE CENSUS** powered by a robust group of Colmena66's Resource Partners to **COLLECT DATA ON THE DAMAGES AND NEEDS** of local businesses and entrepreneurs.

## How did we do it?

Via an online survey that could be answered by:

- 1 visiting [www.LevantaTuNegocioPR.com](http://www.LevantaTuNegocioPR.com)**
- 2 calling our Hotline at 787-525-4111**
- 3 attending onsite info sessions around the Island**



And then what?

Colmena66 did what it does best!

**We researched an extensive list of aid and support available to local businesses after Hurricane María, which is continuously updated!** This list is available in our blog and is shared weekly with all surveyed entrepreneurs:

<http://bit.ly/TodasLasAlternativasParaLevantarTuNegocio>

With this list, entrepreneurs and local businesses had a tool with updated resources to assess their business, financing alternatives, grants, power generators, and specific help for the agriculture industry, among others.

The main purpose was to match entrepreneurs’ needs with the Resource Partners that could best assist them.

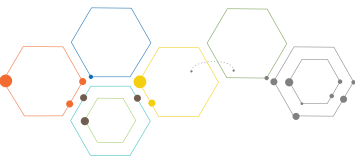


# TOP 3 INDUSTRIES



\*of the 34 participating industries





# FINDINGS

LEVANTA  
TU NEGOCIO 

1,132

Surveyed businesses

76

Entrepreneurs from  
76 municipalities participated

94%

of businesses have  
less than 20 employees

43%

of businesses are  
open but with damages

35%

of businesses  
are temporarily closed

58%

of businesses had  
monthly losses of \$10,000

48%

of businesses indicated they need  
business advisory to recover

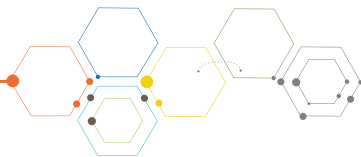
66%

Over 66% of businesses indicated  
the need for capital of between  
\$5,000 and \$50,000



## We connected Entrepreneurs

- Kiva Puerto Rico >> **591**
- Economic Development Bank >> **1,050**
- Lendreams (Cofecc) >> **1,050**
- Pathstone >> **1,050**
- U.S. Small Business Administration >> **1,050**
- U.S. Commercial Service Puerto Rico >> **5**
- Minority Business Development Agency >> **559**
- Instituto Empresarial para la Mujer >> **559**
- Compañía de Comercio y Exportación >> **1,075**
- Grupo Guayacán >> **559**
- Centro para Emprendedores >> **597**
- INprende >> **559**

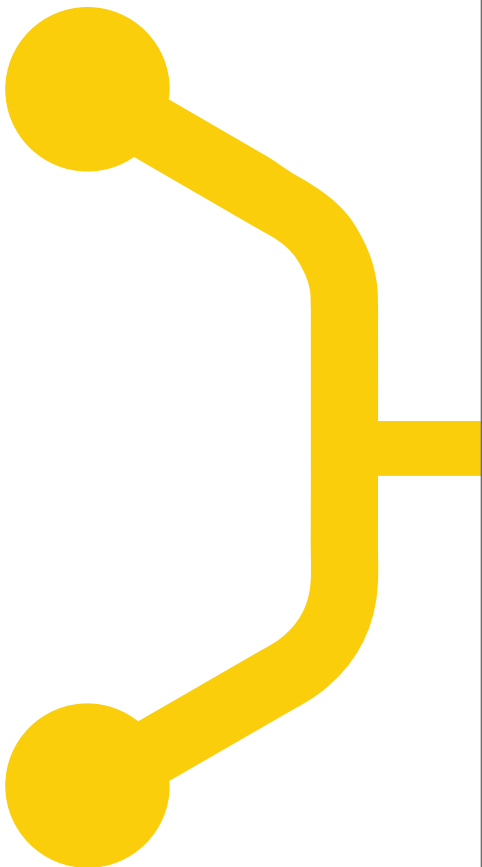


# CONNECTIONS

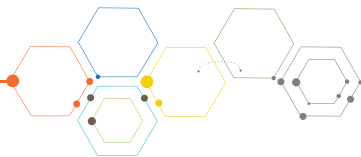
LEVANTA  
TU NEGOCIO **PR**

## with business disaster relief...

- Parallel18 >> **559**
- SBTDC >> **559**
- Foundation for Puerto Rico >> **802**
- Centro Unido de Detallistas >> **802**
- ConPRmetidos >> **802**
- Nick Pastrana Foundation >> **802**
- PRIMEX >> **154**
- Needs List >> **45**
- Puerto Rico Farm Credit >> **33**
- Semillero Ventures >> **33**
- Visit Rico >> **33**







Huge thanks to the Levanta tu Negocio PR Partners who made it all possible!

ena66  
En Empresarial



Compañía de Comercio y  
Exportación de Puerto Rico  
PUERTO RICO TRADE  
COMISSION DE PUERTO RICO

Centro para  
Emprendedor@s



Foundation  
for Puerto Rico

CONPRMETIDOS  
+ IDEAS + ACCIÓN



CENTRO UNIDO  
DE DETALLISTAS  
DE PUERTO RICO



ECHAR  
PA'LANTE

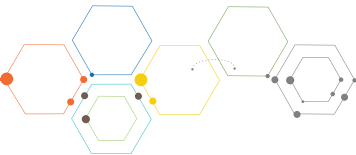
COMMONWEALTH OF PUERTO RICO

PRIDCO  
PUERTO RICO INDUSTRIAL  
DEVELOPMENT COMPANY









# In the news!

LEVANTA  
TU NEGOCIO **PR**

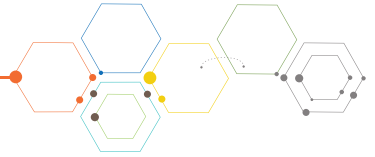




**SHOP+HIREPR**

As part of a common strategy to support and strengthen entrepreneurship in Puerto Rico, particularly after the landfall of Hurricane María, Colmena66 and Parallel18, both verticals of the Puerto Rico Science, Technology and Research Trust, partnered with the Puerto Rico Trade and Export Company and SouceLink to launch Shop+Hire PR.

**[www.shopandhirepr.com](http://www.shopandhirepr.com)**



## What is it?

Shop+Hire PR is a directory of online local stores and freelancers that serves as a tool to boost economic development and unfold a strong and sustainable mechanism to help local businesses and freelancers recover from the aftermath of Hurricane Maria. Through Shop+Hire PR, we seek to implement the start of the e-commerce culture in Puerto Rico.

## How did we do it?

### #ShopFromABoricua:

Users can find local online stores and shop this Holiday season and beyond.

### #HireABoricua:

Users can find the talent they need. Today, many of us can work remotely from Puerto Rico so we wanted to make it easy for anyone in the world to find the programmer, graphic designer, translator, accountant, etc. that they're looking for.

## What else?

To help brick and mortar shops go online, we are doing a series of in depth e-commerce workshops where entrepreneurs learn step by step how to build their online shop. This effort will continue throughout 2018 with the intention of promoting an ecommerce culture on the Island so that our entrepreneurs, business owners and local talent can export their goods and services.

POWERED BY:



Puerto Rico  
Science, Technology  
& Research Trust



Corporación de Comercio y  
Exportación de Puerto Rico  
CORPORACIÓN DE COMERCIO Y  
EXPORTACIÓN DE PUERTO RICO

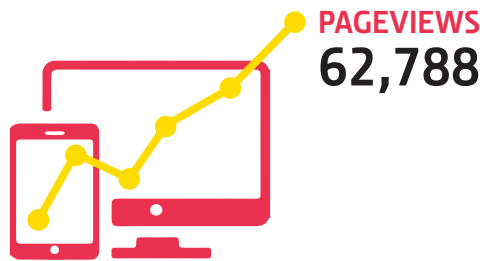


Colmena66  
Tu Conexión Empresarial





# How is our website doing?



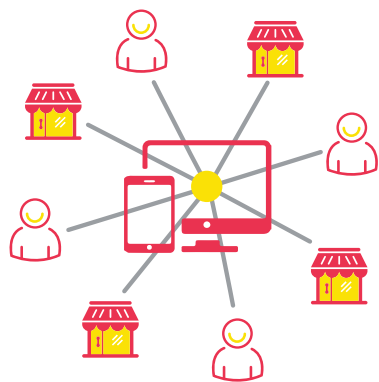
## Shops and Freelancers



**HIRES**  
**187**

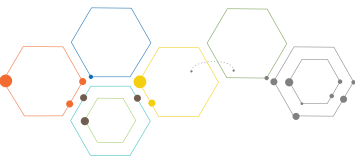


**SHOPS**  
**181**



**21,660+**  
increase in visits  
to our Shops+Hires



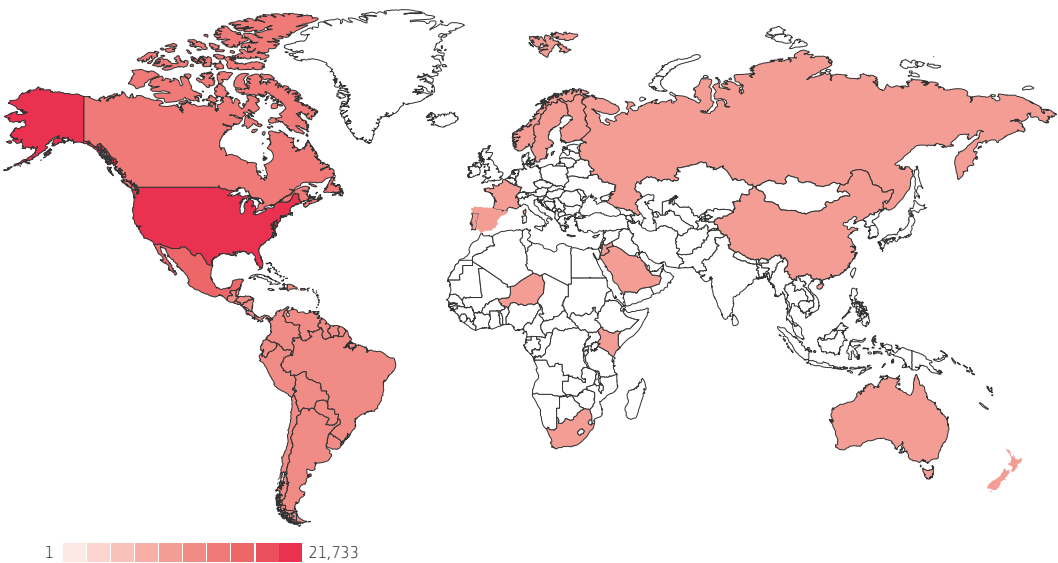


# Metrics



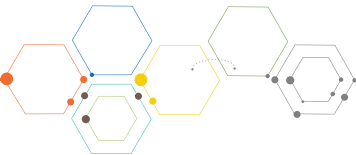
## Shop+Hire around the world!

All users - Location



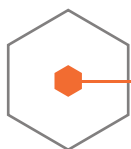
The diaspora and friends of Puerto Rico have stepped up and supported our Shops+Hires in a **magnificent way!** We’ve had over 62k pageviews from all over the world, 75% of which come from the US, mainly from Florida, New York, Texas, California, and North Carolina.





# In the news!



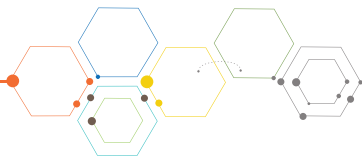


In less than a year Colmena66 – ‘Your Entrepreneurial Connection’ has become an essential tool in our entrepreneurs’ toolbox. Colmena66 is a network that provides easy access to all the resources available for entrepreneurs and small businesses to grow. We also identify ecosystem support gaps and work with the different partners to fulfill or overcome these gaps. Over two hundred **200 ORGANIZATIONS ARE PARTNERS** in Colmena66; we fulfilled over fifteen thousand **15K INFORMATION REQUESTS**, and managed over three hundred **300 EVENTS** in the shared calendar. Colmena66’s regional meet ups were one of the most important deployment activities completed this year. In its first year of operation, Colmena66 key performance indicators are among the top third in the United States Sourcelink affiliates.

Colmena66 is a transformational initiative that is creating knowledge and capabilities for our entrepreneurial ecosystem, its transforming the lives of our entrepreneurs, and is creating commercial opportunities to advance Puerto Rico’s economic development.



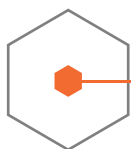
Puerto Rico  
Science, Technology  
& Research Trust



Lucy Crespo  
CEO, Puerto Rico Science, Technology & Research Trust







# SUCCESS STORIES

## FROM ENTREPRENEURS

“Thanks to **Colmena66** we learned about EnterPRize, Grupo Guayacán’s business building competition and accelerator. Since the start of the program, we have grown and strengthened the base of our business. We are so grateful to Colmena66 for making the connections that boost small businesses and in turn helps Puerto Rico’s economic growth.”

**Ángela González, Founder, Feliche Artisan Yogurt**

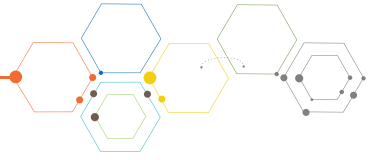
“**Colmena66** has provided our company with that crucial connection that we have been searching for years to establish our farm operations. We now have the ideal scenario for growth that we always imagined.”

**Duamed Colón-Carrión, President, Agro Tropical, Inc.**

## FROM RESOURCE PARTNERS

“We are very happy and satisfied with the work that Colmena66 is doing to serve as a link between entrepreneurs and entrepreneurial support organizations, giving clarity and direction to people seeking assistance to start or grow their business.”

**Nelson Perea, Executive Director, PRTEC**



## COWORKING @ the Puerto Rico Science, Technology and Research Trust:

“You did a great job helping individuals and small businesses by providing the necessary relief and support that enabled us to fulfill our responsibilities.”

Coworking Guest

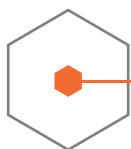
“You have been a true oasis. Everyone has been very kind and responsive.”

Coworking Guest

“The service has been incredible and so important to us. Thanks to this initiative, we have been able to continue operating uninterrupted, for which we are very grateful!”

Coworking Guest





# TESTIMONIALS

## LEVANTA TU NEGOCIO PR

### **Kiva:**

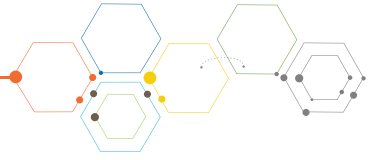
“Kiva Puerto Rico’s biggest challenge before María was communicating our crowlending platform to potential borrowers all over Puerto Rico, therefore joining Levanta Tu Negocio PR was an automatic decision. From the beginning we knew it was the perfect partnership since it was going to serve as the link between us and local small business owners who need access to capital around the island. As small business owners recover from hurricane María, it is essential that we support them by providing them with loans of up to \$10,000 so that they can continue to operate, provide jobs, services, goods, and support the local economy. Levanta Tu Negocio PR has exponentially expanded our connection with Puerto Rican small businesses, which are the backbone of our economy and it is imperative we make them our priority.”

**Ana Maria Cintrón, Growth & Development Director, Kiva PR**

### **Centro para Emprendedores:**

“The alliance of Levanta tu Negocio PR exemplifies how promptly our ecosystem is ready to work together for a greater good.”

**Nerma Albertorio Barnés, Founder, Centro para Emprendedores**

**INprende:**

“Although hurricane María greatly affected thousands of Puerto Rican entrepreneurs, it also left us with a unique opportunity for the entrepreneurial ecosystem to come together in a single effort. When we thought of making an assessment of the damages and additional efforts to provide immediate support to entrepreneurs, it was automatic to think of Colmena66 as a co-lead in this effort, since they specialize in guiding and connecting entrepreneurs. Colmena66 was the key to achieve a greater scope and effectiveness in the implementation of the initiative. The results of Levanta tu Negocio PR, besides giving us important statistics, reflects the importance of a business ecosystem in the economic development of a country.”

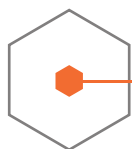
**Alessandra Correa, Founder, INprende**

**SBA:**

“In times of disaster, the US Small Business Administration becomes the largest bank in the nation, providing direct financial assistance not only to small businesses, but also to large companies, homeowners, renters and private non-profit organizations,” said Yvette T. Collazo, SBA Puerto Rico & Virgin Islands District Director. “The support of organizations like Colmena66 and other groups that have helped us distribute information, has allowed us to reach a greater number of citizens that are in need of much assistance during this historic time for Puerto Rico.”

**Yvette T. Collazo, District Director SBA Puerto Rico & Virgin Islands**





# TESTIMONIALS

## SHOP+HIREPR

### **Brands of Puerto Rico:**

“The population movement we have experienced in the past few years, intensified by the impact of Hurricane Maria, has created an opportunity for Puerto Rican entrepreneurs. This opportunity gave life to our company 3 years ago. The collaboration with Shop+HirePR exponentially increases the reach of the more than 60 brands that are part of Brands of Puerto Rico. Since the launch of shopandhirepr.com our monthly sales have increased 3X and the average basket of products has risen exponentially. This result validates our thesis on the syndication of e-commerce, since in addition to selling the products on Amazon and Brands of Puerto Rico, now we have the help of Shop+HirePR to promote our local products.”

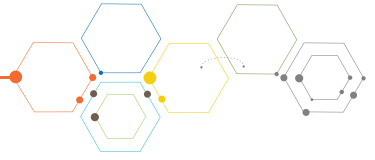
**Alan Taveras Sepúlveda, Co-founder and CMO, Brands of Americas**

### **San Juan Freelance:**

“Since day one this partnership has been a win. Being part of Shop+HirePR increases our web site traffic about +15%, our #PRFreelanceCommunity has had the opportunity to do business with companies all around the world and get noticed as the best digital talent in the Caribbean. Great partnerships build the success of a business, independent professionals (#freelancers) and a country! Thanks for letting us be part of the new way of making business in Puerto Rico!”

**Zoraida Fournier, Content and Event Director, San Juan Freelance**





### **Shops and freelancers :**

“ We have received orders from Washington, Oregon, Philadelphia, New Jersey, New York and Florida thanks to Shop+HirePR. For us it is a sign that we must cause good things to happen. And it has happened to us. We are very grateful to the Colmena66 team for the support and the invitation to be part of this project. They have supported small local shops to continue doing business with the help of the Puerto Ricans who although are not physically in our island, they're hearts are with us.”

**Yami Otero, Owner, Benestare**

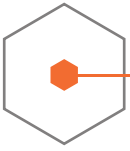
“ After appearing in Shop+HirePR, my shop was featured in Remezcla, I'm making approximately \$300 a week and my traffic increased from 3 to 4 visits in one day to more than 100 visits in a day. Thank you for your interest and for what you are doing for Puerto Rico.”

**Magaly Santiago Ortiz, Owner, Be You Be Handbags**

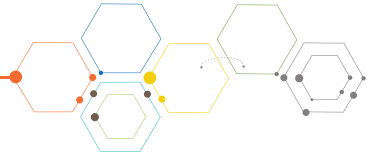
“ We are very grateful for the initiative and we understand that it has been successful. A week ago the sales in our online store have increased and several of the customers have sent us messages of support. In the last 30 days, from November 14 to December 13, we received 22 orders of 1,178 visits to our page. Thanks again!”

**Giovanna Rodríguez, Owner, Pupa by Gio**





OUR  
RESOURCE PARTNERS!



## Business Planning:

- ACT Global Technology Accelerator
- Apoyo Empresarial Península de Cantera
- Bioprocess Development & Training Complex
- Brands of
- Cámara de Comercio de Puerto Rico
- Casa Sin Fronteras
- Centro de Acción Urbana, Comunitaria y Empresarial de Río Piedras
- Centro de Negocios y Desarrollo Económico
- Centro Empresarial para la Mujer en la Agricultura
- Centro para Emprendedores
- Centro para Puerto Rico, Fundación Sila María Calderón
- Centro Unido de Detallistas
- Centros Sor Isolina Ferré
- Code 4 Puerto Rico
- Compañía de Comercio y Exportación de Puerto Rico
- ConPRmetidos
- Consumer Credit Counseling Services of Puerto Rico
- Corporación Juvenil para el Desarrollo de Comunidades Sostenibles (AgroInnova)
- Departamento de Agricultura de Puerto Rico
- Departamento de Desarrollo Económico, Municipio Mayagüez
- Founder Institute - Piloto Labs
- Fundación Lo de Aquí Primero
- Grameen Puerto Rico
- H3 Tech Conference
- Incubadora de Microempresas Comunitarias Surcos
- INprende
- Instituto de Aeronáutica y Aeroespacial de Puerto Rico
- Instituto de Cooperativismo de la Universidad de Puerto Rico
- Instituto Empresarial para la Mujer
- Interamerican University of Puerto Rico
- Inversión Cultural
- Klingbird Innovation Center, UNE
- Oficina de Propiedad Intelectual y Transferencia de Tecnología de la UPR Mayagüez
- PathStone Enterprise Center
- PRIMEX (Puerto Rico Manufacturing Extension)
- Programa de Apoyo a la Innovación y Empresarismo
- Promo Caguas
- Proyecto Matria
- Proyecto P.E.C.E.S.
- PR-SBTDC Ponce
- PR-SBTDC, San Germán
- Puerto Rico District Export Council
- Puerto Rico Techno Economic Corridor, Inc. (PRTEC)
- Startup Weekend PR
- U.S Export Assistance Center of San Juan
- UPRM E-Ship Network
- Voz Activa

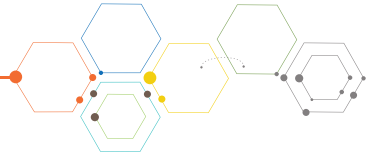


## OUR RESOURCE PARTNERS!



### Financial Resources and Assistance:

- ACT Global Technology Accelerator
- AntRocket
- Apoyo Empresarial Península de Cantera
- Ausubo Ventures
- Banco de Desarrollo Económico para Puerto Rico
- Brands of
- Casa Sin Fronteras
- Centro de Negocios y Desarrollo Económico
- Centro Empresarial para la Mujer en la Agricultura
- Centro para Puerto Rico, Fundación Sila María Calderón
- Centro Unido de Detallistas
- Centros Sor Isolina Ferré
- Co.co.haus
- Compañía de Comercio y Exportación de Puerto Rico
- ConPRmetidos
- Consumer Credit Counseling Services of Puerto Rico, Inc.
- Corporación Juvenil para el Desarrollo de Comunidades Sostenibles (Agrolnnova)
- Departamento de Agricultura de Puerto Rico
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- Grameen Puerto Rico
- Grupo Guayacán, Inc.
- H3 Tech Conference
- Incubadora de Microempresas Comunitarias Surcos
- Instituto de Aeronáutica y Aeroespacial de Puerto Rico (AAIPR)
- Instituto de Cooperativismo de la Universidad de Puerto Rico
- Instituto Empresarial para la Mujer
- Inversión Cultural
- Kingbird Innovation Center, UNE
- Kiva Puerto Rico
- Lend Dreams (COFECC)
- Oficina de Propiedad Intelectual y Transferencia de Tecnología de la UPR Mayagüez
- Oficina de Transferencia de Tecnología y Comercialización, PR Science, Technology and Research Trust
- Oficina para la Promoción y el Desarrollo Humano, Inc. (OPDH)
- PathStone Enterprise Center
- Promo Caguas
- Proyecto Matria
- PR-SBTDC, Ponce
- PR-SBTDC, San Germán
- Puerto Rico Techno Economic Corridor, Inc. (PRTEC)
- Puerto Rico Venture Forum
- Small Research Grants Program, PR Science, Technology and Research Trust
- U.S Export Assistance Center of San Juan
- U.S. Small Business Administration
- UPRM E-Ship Network



## Internship Programs and Student Services:

- ACT Global Technology Accelerator
- Bioprocess Development & Training Complex
- Apoyo Empresarial Península de Cantera
- Brands of
- C3Tec - Center for Caribbean Science & Technology
- Centro de Acción Urbana, Comunitaria y Empresarial de Río Piedras
- Centro de Negocios y Desarrollo Económico
- Centro Empresarial para la Mujer en la Agricultura
- Centro para Puerto Rico, Fundación Sila María Calderón
- Code 4 Puerto Rico
- Codetrotters
- ConPRmetidos
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- Fundación Lo de Aquí Primero
- Grupo Guayacán, Inc.
- H3 Tech Conference
- Industry University Research Center, Inc.
- Iniciativa Tecnológica Centro Oriental (INTECO)
- Instituto de Aeronáutica y Aeroespacial de Puerto Rico
- Kingbird Innovation Center, UNE
- Oficina de Propiedad Intelectual y Transferencia de Tecnología de la UPR Mayagüez
- Pathways to Innovation
- Promo Caguas
- Proyecto P.E.C.E.S.
- Puerto Rico District Export Council
- Puerto Rico Techno Economic Corridor, Inc. (PRTEC)
- UPR Arecibo, Departamento de Ciencias de Computadora
- UPRM E-Ship Network
- Young Entrepreneurs Puerto Rico

## Import and Export Assistance:

- Brands of
- Centro de Microempresas y Tecnologías Agrícolas Sustentables Yauco
- Centro Empresarial para la Mujer en la Agricultura
- Compañía de Comercio y Exportación
- ConPRmetidos
- Corporación Juvenil para el Desarrollo de Comunidades Sostenibles (AgroInnova)
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- Fundación Lo de Aquí Primero
- H3 Tech Conference
- Iniciativa Tecnológica Centro Oriental (INTECO)
- Kingbird Innovation Center, UNE
- Oficina para la Promoción y el Desarrollo Humano, Inc. (OPDH)
- PRIMEX (Puerto Rico Manufacturing Extension)
- Promo Caguas
- Programa de Industrias Creativas
- PR-SBTDC, Ponce
- PR-SBTDC, San Germán
- PR-SBTDC, San Juan
- Puerto Rico District Export Council
- Puerto Rico Minority Supplier Development Council
- U.S. Export Assistance Center of San Juan
- U.S. Small Business Administration





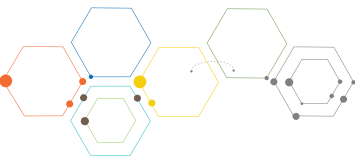
## OUR RESOURCE PARTNERS!

### Legal Services:

- ACT Global Technology Accelerator
- Apoyo Empresarial Península de Cantera
- Casa Sin Fronteras
- Centro Empresarial para la Mujer en la Agricultura
- Centro para Puerto Rico, Fundación Sila María Calderón
- Centros Sor Isolina Ferré
- ConPRmetidos
- Corporación Juvenil para el Desarrollo de Comunidades Sostenibles (AgroInnova)
- Departamento de Agricultura de Puerto Rico
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- Fundación Lo de Aquí Primero
- H3 tech Conference
- Incubadora de Microempresas Comunitarias Surcos
- Industry University Research Center
- Iniciativa Tecnológica Centro Oriental (INTECO)
- Instituto de Cooperativismo de la Universidad de Puerto Rico
- Inversión Cultural
- Kingbird Innovation Center, UNE
- Oficina de Propiedad Intelectual y Transferencia de Tecnología de la UPR Mayagüez
- Oficina para la Promoción y el Desarrollo Humano, Inc. (OPDH)
- PathStone Enterprise Center
- Proyecto P.E.C.E.S.
- PR-SBTDC, Ponce
- PR-SBTDC, San Germán
- PR-SBTDC, San Juan
- U.S. Export Assistance Center of San Juan
- U.S. Small Business Administration
- University of Puerto Rico Intellectual Property & Entrepreneurship Clinic
- UPRM E-Ship Network
- Voz Activa

### Technical Assistance:

- ACT Global Technology Accelerator
- Apoyo Empresarial Península de Cantera
- APRODEC Inc.
- Ausubo Ventures
- Casa Sin Fronteras
- Centro de Negocios y Desarrollo Económico
- Centro Empresarial para la Mujer en la Agricultura
- Centro Unido de Detallistas
- Centro Sor Isolina Ferré
- ConPRmetidos
- Corporación Juvenil para el Desarrollo de Comunidades
- Sostenibles (AgroInnova)
- H3 Tech Conference
- Incubadora de Microempresas Comunitarias Surcos
- Inversión Cultural
- Oficina de Transferencia de Tecnología y Comercialización, PR Science, Technology, and Research Trust
- PRIMEX (Puerto Rico Manufacturing Extension)
- PR-SBTDC, San Germán
- Puerto Rico Diseña
- Puerto Rico Techno Economic Corridor, Inc. (PRTEC)
- UPR Arecibo, Departamento de Ciencias de Computadoras



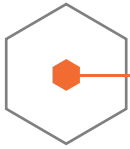
## Libraries and Research Organizations:

- Apoyo Empresarial Península de Cantera
- Cámara de Comercio de Puerto Rico
- Casa Sin Fronteras
- Centro de Acción Urbana, Comunitaria y Empresarial de Río Piedras
- Centro de Negocios y Desarrollo Económico
- Centro para Puerto Rico, Fundación Sila María Calderón
- ConPRmetidos
- Departamento de Agricultura de Puerto Rico
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- Industry University Research Center
- Instituto de Aeronáutica y Aeroespacial de Puerto Rico
- Instituto de Cooperativismo de la Universidad de Puerto Rico
- Promo Caguas
- Proyecto Matría
- PR-SBTDC, San Germán
- U.S. Export Assistance Center of San Juan
- UPRM E-Ship Network



## Management Issues:

- Animus Women's Innovation Journey
- Apoyo Empresarial Península de Cantera
- Cámara de Comercio de Puerto Rico
- Casa Sin Fronteras
- Centro para Puerto Rico, Fundación Sila María Calderón
- Centros Sor Isolina Ferré
- Co.co.haus
- ConPRmetidos
- Founder Institute - Piloto Labs
- Fundación Lo de Aquí Primero
- H3 Tech Conference
- Incubadora de Microempresas Comunitarias Surcos
- Instituto de Aeronáutica y Aeroespacial de Puerto Rico
- Instituto de Cooperativismo de la Universidad de Puerto Rico
- Instituto Empresarial para la Mujer
- Interamerican University of Puerto Rico
- Kingbird Innovation Center, UNE
- Oficina para la Promoción y el Desarrollo Humano, Inc.
- PathStone Enterprise Center
- PRIMEX
- PR-SBTDC, San Germán
- Puerto Rico Techno Economic Corridor, Inc.
- U.S. Export Assistance Center of San Juan
- Voz Activa
- Young Entrepreneurs Puerto Rico



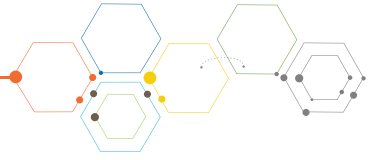
## OUR RESOURCE PARTNERS!

### Marketing/sales:

- ACT Global Technology Accelerator
- Apoyo Empresarial Península de Cantera
- APRODEC, Inc.
- Brands of
- Cámara de Comercio de Puerto Rico
- Casa Sin Fronteras
- Centro de Acción Urbana, Comunitaria y Empresarial de Río Piedras
- Centro de Negocios y Desarrollo Económico
- Centro Empresarial para la Mujer en la Agricultura
- Centro para Emprendedores
- Centro para Puerto Rico - Fundación Sila María Calderón
- Centro Unido de Detallista
- Centros Sor Isolina Ferré
- ConPRmetidos
- Departamento de Agricultura de Puerto Rico
- Diseñado en Puerto Rico
- Fundación Lo de Aquí Primero
- H3 Tech Conference
- Incubadora de Microempresas Comunitarias Surcos
- Interamerican University of Puerto Rico
- Instituto de Aeronáutica y Aeroespacial de Puerto Rico
- Instituto Empresarial para la Mujer
- Inversión Cultural
- Kingbird Innovation Center, UNE
- PathStone Enterprise Center
- PRIMEX (Puerto Rico Manufacturing Extension)
- Promo Caguas
- PR-SBTDC, Ponce
- PR-SBTDC, San Germán
- PR-SBTDC, San Juan
- Puerto Rico Minority Supplier Development Council
- U.S. Export Assistance Center of San Juan
- U.S. Small Business Administration
- UPR Arecibo, Departamento de Ciencias de Computadoras
- UPRM E-Ship Network
- Voz Activa

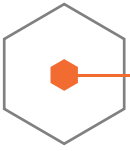
### Manufacturing, High Tech, Life Sciences Development:

- ACT Global Technology Accelerator
- Apoyo Empresarial Península de Cantera
- Ausubo Ventures
- C3Tec - Center for Caribbean Sciences & Technology
- Casa Sin Fronteras
- Centro de Microempresas y Tecnologías Agrícolas Sustentables Yauco
- Centro de Negocios y Desarrollo Económico
- Centro para Puerto Rico, Fundación Sila María Calderón
- Codetrotters
- Compañía de Comercio y Exportación de Puerto Rico
- ConPRmetidos
- Consorcio de Investigación Clínica de Puerto Rico (PRCCI)
- Fab Lab Puerto Rico
- H3 Tech Conference
- Industry University Research Center, Inc.
- Instituto de Aeronáutica y Aeroespacial de Puerto Rico
- Oficina de Propiedad Intelectual y Transferencia de Tecnología de la UPR Mayagüez
- Oficina de Transferencia de Tecnología y Comercialización - PR Science, Technology and Research Trust
- PathStone Enterprise Center
- Pathways to Innovation
- PRIMEX (Puerto Rico Manufacturing Extension)
- PR-SBTDC, San Germán
- Puerto Rico Techno Economic Corridor, Inc.
- UPR Arecibo, Departamento de Ciencias de Computadoras
- UPRM E-Ship Network



## Mentoring:

- 1 Million Cups
- ACT Global Technology Accelerator
- Animus Women's Innovation Journey
- Apoyo Empresarial Península de Cantera
- Brands of
- Centro de Negocios y Desarrollo Económico
- Centro para Emprendedores
- Centro para Puerto Rico, Fundación Sila María Calderón
- Centro Unido de Detallistas
- Centro Sor Isolina Ferré
- Code 4 Puerto Rico
- Codetrotters
- Compañía de Comercio y Exportación de Puerto Rico
- ConPRmetidos
- Consumer Credit Counseling Services of Puerto Rico, Inc.
- Corporación Juvenil para el Desarrollo de Comunidades Sostenibles (AgroInnova)
- Entrepreneurs Organization PR
- Fab Lab Puerto Rico
- Fundación Lo de Aquí Primero
- H3 Tech Conference
- Incubadora de Microempresas Comunitarias SURCOS
- Iniciativa Tecnológica Centro Oriental (INTECO)
- Instituto de Aeronáutica y Aeroespacial de Puerto Rico
- Instituto de Cooperativismo de la Universidad de Puerto Rico
- Instituto Empresarial para la Mujer
- Inversión Cultural
- Kingbird Innovation Center, UNE
- Oficina de Propiedad Intelectual y Transferencia de Tecnología de la UPR Mayagüez
- Oficina para la Promoción y el Desarrollo Humano, Inc
- Pathways to Innovation
- PRIMEX (Puerto Rico Manufacturing Extension)
- Promo Caguas
- Proyecto Matria
- PR-SBTDC, Ponce
- PR-SBTDC, San Germán
- Puerto Rico Minority Supplier Development Council (PRMSDC)
- Puerto Rico Techno Economic Corridor, Inc. (PRTEC)
- Startups of Puerto Rico
- U.S. Export Assistance Center of San Juan
- U.S. Small Business Administration
- UPRM E-Ship Network
- Young Entrepreneurs Puerto Rico



## OUR RESOURCE PARTNERS!

### Nonprofit Development:

- ACT Global Technology Accelerator
- Apoyo Empresarial Península de Cantera
- Casa Sin Fronteras
- Centro de Acción Urbana, Comunitaria y Empresarial de Río Piedras
- Centro de Negocios y Desarrollo Económico
- Centro Unido de Detallistas
- Centros Sor Isolina Ferré
- Instituto de Cooperativismo de la Universidad de Puerto Rico
- Kingbird Innovation Center, UNE
- Proyecto Matria
- Voz Activa

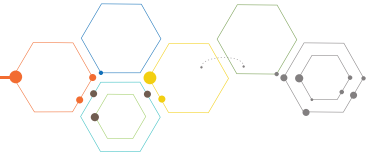
### Operations and Logistics:

- Ausubo Ventures
- PRIMEX (Puerto Rico Manufacturing Extension)
- Puerto Rico District Export Council
- U.S. Export Assistance Center of San Juan

### Office, Incubator, Laboratory, Kitchen and Meeting Space:

- Bioprocess Development & Training Complex
- ACT Global Technology Accelerator
- Apoyo Empresarial Península de Cantera
- ARODEC Inc.
- Cámara de Comercio de Puerto Rico
- Centro de Negocios y Desarrollo Económico
- Centro para Emprendedores
- Centro para Puerto Rico, Fundación Sila María Calderón
- Centro Unido de Detallistas
- Centros Sor Isolina Ferré
- Co.co.haus
- ConPRmetidos
- Corporación Juvenil para el Desarrollo de Comunidades Sostenibles (AgroInnova)
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- Engine-4 Co-Working Space
- Fab Lab Puerto Rico
- Founder Institute - Piloto Labs
- Grameen Puerto Rico
- Incubadora De Microempresas Comunitarias Surcos
- Industry University Research Center Inc.
- Iniciativa Tecnológica Centro Oriental (INTECO)
- Instituto de Aeronáutica y Aeroespacial de Puerto Rico
- Kingbird Innovation Center, UNE
- Oficina para la Promoción y el Desarrollo Humano, Inc
- Piloto 151
- Promo Caguas
- Proyecto Matria
- Proyecto P.E.C.E.S.
- Puerto Rico Techo Economic Corridor, Inc. (PRTEC)
- UPRM E-Ship Network
- Young Entrepreneurs Puerto Rico





### Product Development:

- ACT Global Technology Accelerator
- APRODEC Inc.
- Centro de Negocios y Desarrollo Económico
- Centro para Emprendedores
- Centro para Puerto Rico, Fundación Sila María Calderón
- Centro Unido de Detallistas
- Centros Sor Isolina Ferré
- ConPRmetidos
- Corporación Juvenil para el Desarrollo de Comunidades Sostenibles (AgroInnova)
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- Diseñado en Puerto Rico
- Fab Lab Puerto Rico
- Incubadora de Microempresas Comunitarias Surcos
- Inversión Cultural
- Kingbird Innovation Center, UNE
- Oficina de Propiedad Intelectual y Transferencia de Tecnología de la UPR Mayagüez
- Pathways to Innovation
- PRIMEX (Puerto Rico Manufacturing Extension)
- PR-SBTDC, San Germán
- Puerto Rico Techno Economic Corridor, Inc.
- U.S. Export Assistance Center of San Juan
- UPRM E-Ship Network

### Regulatory Compliance:

- Bioprocess Development & Training Complex
- ACT Global Technology Accelerator
- Apoyo Empresarial Península de Cantera
- Cámara de Comercio de Puerto Rico
- Centro de Acción Urbana, Comunitaria y Empresarial de Río Piedras
- Centro de Negocios y Desarrollo Económico
- Centro para Puerto Rico, Fundación Sila María Calderón
- Centro Unido de Detallistas
- Centros Sor Isolina Ferré
- Co.co.haus
- Compañía de Comercio y Exportación de Puerto Rico
- ConPRmetidos
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- Incubadora de Microempresas Comunitarias Surcos
- Instituto de Aeronáutica y Aeroespacial de Puerto Rico (AAIPR)
- Instituto de COoperativismo de la Universidad de Puerto Rico
- Inversión Cultural
- Kingbird Innovation Center, UNE
- Oficina de Propiedad Intelectual y Transferencia de Tecnología de la UPR Mayagüez
- PRIMEX (Puerto Rico Manufacturing Extension)
- Programa de industrias Creativas
- PR-SBTDC, San Germán
- Puerto Rico Techo Economic Corridor, Inc. (PRTEC)
- U.S. Export Assistance Center of San Juan
- U.S. Small Business Administration
- UPRM E-Ship Network



## OUR RESOURCE PARTNERS!

### Public Policy and Government Relations:

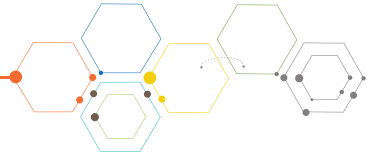
- Apoyo Empresarial Península de Cantera
- APRODEC Inc.
- Brands of
- Cámara de Comercio de Puerto Rico
- Casa Sin Fronteras
- Centro de Acción Urbana, Comunitaria y Empresarial de Río Piedras
- Centro de Negocios y Desarrollo Económico
- Centro Empresarial para la Mujer en la Agricultura
- Centro para Emprendedores
- Centro para Puerto Rico, Fundación Sila María Calderón
- Centro Unido de Detallistas
- Centros Sor Isolina Ferré
- ConPRmetidos
- Corporación Juvenil para el Desarrollo de Comunidades
- Sostenibles (Agrolnnova)
- Departamento de Desarrollo Económico y Comercio (DDEC)
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- Fundación Lo de Aquí Primero
- Grupo Guayacán
- H3 Tech Conference
- Industry University Research Center Inc. (INDUNIV)
- Iniciativa Tecnológica Centro Oriental (INTECO)
- Instituto de Aeronáutica y Aeroespacial de Puerto Rico
- Kingbird Innovation Center, UNE
- Oficina para la Promoción y el Desarrollo Humano, Inc. (OPDH)
- Promo Caguas
- Programa de Industrias Creativas
- Proyecto Matria
- PR-SBTDC, San Germán
- Puerto Rico Minority Supplier Development Council (PRMSDC)
- Puerto Rico Techo Economic Corridor, Inc. (PRTEC)
- Startups of Puerto Rico
- U.S. Small Business Administration

### Selling to the Government and Large Corporations:

- Centro para Puerto Rico, Fundación Sila María Calderón
- Centro Unido de Detallistas
- Compañía de Comercio y Exportación de Puerto Rico
- ConPRmetidos
- Departamento de Agricultura de Puerto Rico
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- PR-SBTDC, San Germán
- Puerto Rico District Export Council
- Puerto Rico Minority Supplier Development Council (PRMSDC)
- U.S. Export Assistance Center of San Juan
- U.S. Small Business Administration

### Tax Services:

- Apoyo Empresarial Península de Cantera
- Centro para Puerto Rico, Fundación Sila María Calderón
- Centro Unido de Detallistas
- Centros Sor Isolina Ferré
- Co.co.haus
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- Inversión Cultural
- PR-SBTDC, San Germán
- Puerto Rico Techno Economic Corridor, Inc. (PRTEC)



## Starting a Business:

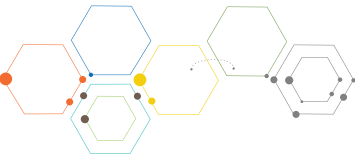
- Biprocess Development & Training Complex (BDTC)
- ACT Global Technology Accelerator
- Apoyo Empresarial Peninsula de Cantera
- APRODEC, Inc.
- Brands of
- Cámara de Comercio de Puerto Rico
- Casa Sin Fronteras
- Centro de Negocios y Desarrollo Económico
- Centro Empresarial para la Mujer en la Agricultura
- Centro para Emprendedores
- Centro para Puerto Rico, Fundación Sila María Calderón
- Centro Unido de Detallistas
- Centros Sor Isolina Ferré
- Compañía de Comercio y Exportación de Puerto Rico
- ConPRmetidos
- Consumer Credit Counseling Services of Puerto Rico, Inc.
- Corporación Juvenil para el Desarrollo de Comunidades Sostenibles (AgroInnova)
- Departamento de Agricultura de Puerto Rico
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- Empresarios con Pablo Tirado
- Entrepreneurs Organization PR
- Fundación Lo de Aquí Primero
- Gramen Puerto Rico
- H3 Tech Conference
- Incubadora de Microempresas Comunitarias Surcos
- Instituto de Aeronáutica y Aeroespacial de Puerto Rico
- Instituto de Cooperativismo de la Universidad de Puerto Rico
- Instituto Empresarial para la Mujer
- Inversión Cultural
- Kingbird Innovation Center, UNE
- Oficina para la Promoción y el Desarrollo Humano, Inc.
- PathStone Enterprise Center
- Pathways to Innovation
- PRIMEX (Puerto Rico Manufacturing Extension)
- Promo Caguas
- PR-SBTDC, Ponce
- PR-SBTDC, San Germán
- PR-SBTDC, San Juan
- Puerto Rico Techno Economic Corridor, Inc. (PRTEC)
- Startup Weekend PR
- Startups of Puerto Rico
- U.S. Small Business Administration
- UPRM E-Ship Network
- Young Entrepreneurs Puerto Rico



## OUR RESOURCE PARTNERS!

### Training:

- ACT Global Technology Accelerator
- Apoyo Empresarial Península de Cantera
- APRODEC Inc.
- Ausubo Ventures
- Centro de Microempresas y Tecnologías Agrícolas Sustentables Yauco (CMTAS)
- Centro de Negocios y Desarrollo Económico
- Centro Empresarial para la Mujer en la Agricultura
- Centro para Emprendedores
- Centro para Puerto Rico, Fundación Sila María Calderón
- Centro Unido de Detallistas
- Centros Sor Isolina Ferré
- ConPRmetidos
- Consumer Credit Counseling Services of Puerto Rico, Inc.
- Corporación Juvenil para el Desarrollo de Comunidades Sostenibles (AgroInnova)
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- Fab Lab Puerto Rico
- Fundación lo de Aquí Primero
- Grameen Puerto Rico
- Incubadora de Microempresas Comunitarias Surcos
- Interamerican University of Puerto Rico
- Instituto Empresarial para la Mujer
- Inversión Cultural
- Kingbird Innovation Center, UNE
- Oficina para la Promoción y el Desarrollo Humano, Inc. (OPDH)
- PathStone Enterprise Center
- PRIMEX (Puerto Rico Manufacturing Extension)
- Promo Caguas
- Proyecto P.E.C.E.S.
- PR-SBTDC, San Germán
- Puerto Rico District Export Council
- Puerto Rico Techno Economic Corridor, Inc. (PRTEC)
- U.S. Export Assistance Center of San Juan
- U.S. Small Business Administration
- UPRm E-Ship Network



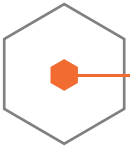
### Economic and Site Development:

- Apoyo Empresarial Península de Cantera
- Banco de Desarrollo Económico para Puerto Rico
- Bioprocess Development & Training Complex
- Centro de Acción Urbana, Comunitaria y Empresarial de Río Piedras
- Centro Empresarial para la Mujer en la Agricultura
- Centro para Puerto Rico, Fundación Sila María Calderón
- Centro Unido de Detallistas
- Centros Sor Isolina Ferré
- Co.co.haus
- Compañía de Comercio y Exportación de Puerto Rico
- Corporación Juvenil para el Desarrollo de Comunidades Sostenibles (AgroInnova)
- Departamento de Agricultura de Puerto Rico
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- Fundación Lo de Aquí Primero
- Instituto de Aeronáutica y Aeroespacial de Puerto Rico (AAIPR)
- Instituto de Cooperativismo de la Universidad de Puerto Rico
- Kingbird Innovation Center, UNE
- PRIMEX (Puerto Rico Manufacturing Extension)
- Promo Caguas
- PR-SBTDC Ponce
- PR-SBTDC, San Germán
- Puerto Rico Techno Economic Corridor, Inc. (PRTEC)
- U.S. Export Assistance Center of San Juan

### Human Resources:

- ACT Global Technology Accelerator
- Apoyo Empresarial Península de Cantera
- Cámara de Comercio de Puerto Rico
- Centro de Negocios y Desarrollo Económico
- Centro Unido de Detallistas
- Centro Sor Isolina Ferré
- Codetrotters
- Departamento de Desarrollo Económico, Municipio de Mayagüez
- Founder Institute - Piloto Labs
- Incubadora de Microempresas Comunitarias Surcos
- Instituto de Cooperativismo de la Universidad de Puerto Rico
- PathStone Enterprise Center
- PRIMEX (Puerto Rico Manufacturing Extension)
- Promo Caguas
- PR-SBTDC, Ponce
- PR-SBTDC, San Germán
- Puerto Rico Minority Supplier Development Council
- Puerto Rico Techno Economic Corridor, Inc. (PRTEC)
- UPRM E-Ship Network





## How to get involved

If you're an entrepreneur who needs connections contact  
**[info@colmena66.com](mailto:info@colmena66.com)**

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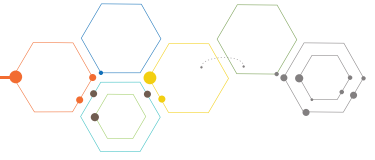
If you want to join our Resource Network contact  
**[carolina@colmena66.com](mailto:carolina@colmena66.com)**

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If you want your event featured in our calendar contact  
**[desiree@colmena66.com](mailto:desiree@colmena66.com)**

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Want more info?  
**Call 787-525-4111**



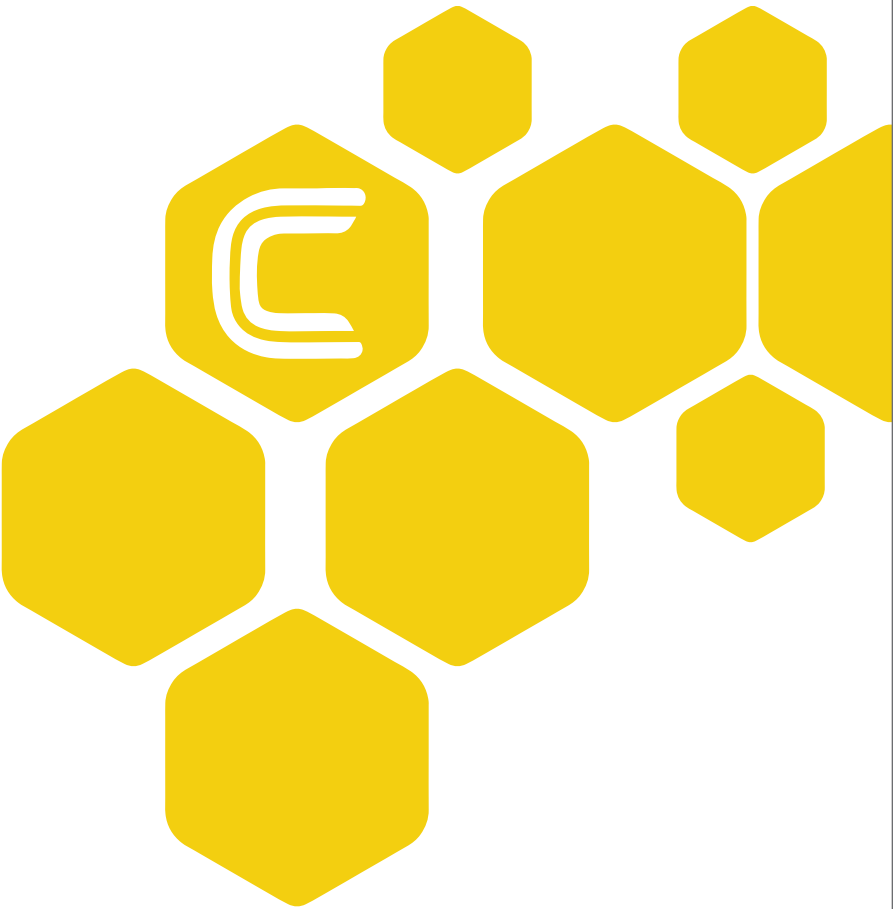
**[www.colmena66.com](http://www.colmena66.com)**

[info@colmena66.com](mailto:info@colmena66.com)

787-525-4111



A program of:  Puerto Rico  
Science, Technology  
& Research Trust





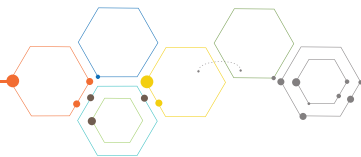
Puerto Rico  
Science, Technology  
& Research Trust

# CONSOLIDATED FINANCIAL STATEMENTS

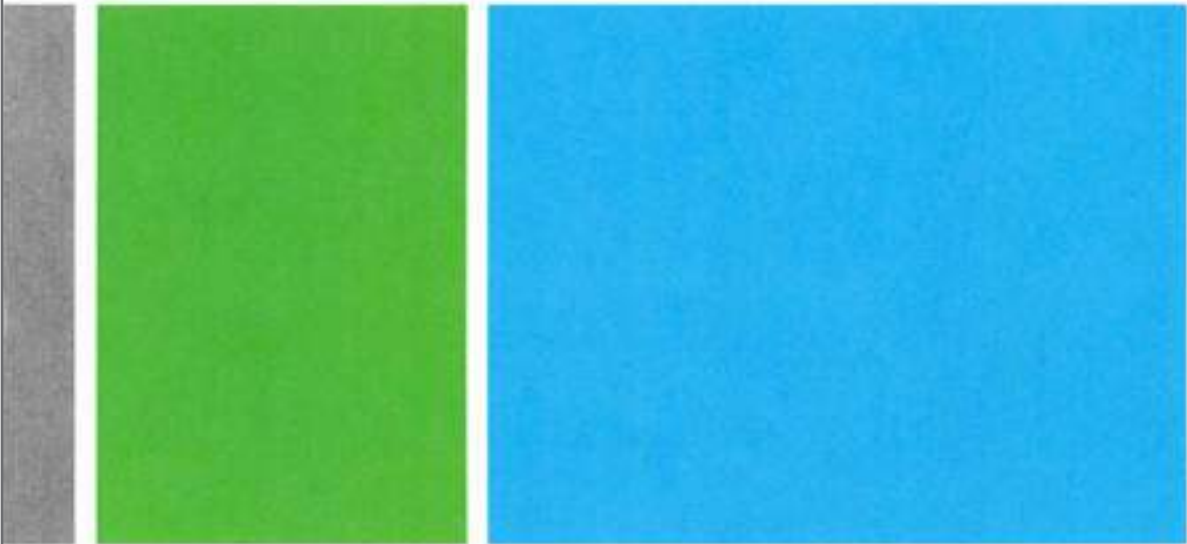


Growing through Innovation  
and Commercialization





RSM Puerto Rico



Puerto Rico Science, Technology and Research Trust

Program-Specific Audit Report  
(Puerto Rico Vector Control Unit Project)  
Prevention of Disease, Disability and Death by  
Infectious Diseases Federal Program  
For the year ended June 30, 2017

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**PUERTO RICO SCIENCE, TECHNOLOGY AND  
RESEARCH TRUST**

**Program-Specific Audit Report  
June 30, 2017**

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Notes to Schedule of Expenditures of Federal Awards	4
Independent Auditors' Report on Compliance for a Federal Program and Report on Internal Control Over Compliance When Using the Program-Specific Audit Option to Satisfy the Uniform Guidance Audit Requirements	5-6
Schedule of Findings and Questioned Costs	7





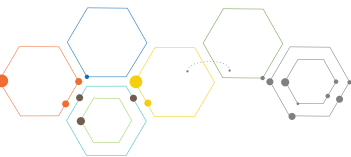
*Opinion*

In our opinion, the financial statement referred to above presents fairly, in all material respects, the expenditures of federal awards for the Prevention of Disease, Disability and Death by Infectious Diseases Federal Program of Puerto Rico Science, Technology and Research Trust, under its Puerto Rico Vector Control Unit Project, for the year ended June 30, 2017, in accordance with accounting principles generally accepted in the United States of America.

San Juan, Puerto Rico  
December 20, 2017.

*RSM Puerto Rico*

Stamp No. E306058 was affixed to  
the original of this report



**PUERTO RICO SCIENCE, TECHNOLOGY AND  
RESEARCH TRUST**



**SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS**  
For the year ended June 30, 2017

<u>Federal Grantor/Program</u> <u>Pass- Through</u> <u>Grantor/ Program or Cluster Title</u>	<u>Federal</u> <u>CFDA</u> <u>Number</u>	<u>Pass-Through</u> <u>Entity</u> <u>Identifying</u> <u>Number</u>	<u>Total</u> <u>Federal</u> <u>Expenditures</u>
U.S. Department of Health and Human Services:			
Pass-Through Program From:			
Centers for Disease Control and Prevention (CDC)			
Prevention of Disease, Disability, and Death by Infectious Diseases Federal Program	93.084	Not available	\$ <u>1,024,116</u>

The accompanying notes are an integral part of this schedule.





## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST

### NOTES TO THE SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS For the year ended June 30, 2017

---

#### 1) Basis of Presentation:

The accompanying schedule of expenditures of federal awards (the Schedule) includes the federal award activity of Puerto Rico Science, Technology and Research Trust (the Trust) under its Puerto Rico Vector Control Unit Project, under the program of the federal government for the year ended June 30, 2017. The information in the Schedule is presented in accordance with the requirements of Title 2 U.S. Code of Federal Regulations (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance).

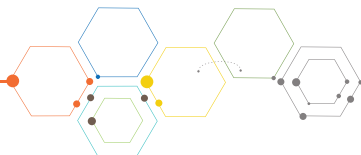
Because the Schedule presents only a selected portion of the operations of the Trust, it is not intended to and does not present the financial position, changes in net assets or cash flows of the Trust.

#### 2) Summary of Significant Accounting Policies:

Expenditures reported on the Schedule are reported under the accrual basis of accounting. Such expenditures are recognized following the cost principles contained in the Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement.

#### 3) Indirect Cost Rate:

The Trust has elected not to use the 10- percent of modified indirect cost rate allowed under the Uniform Guidance.



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PO Box 10538  
San Juan, PR 00922-0538  
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F (787) 759-7479

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**INDEPENDENT AUDITORS' REPORT ON COMPLIANCE FOR A FEDERAL  
PROGRAM AND REPORT ON INTERNAL CONTROL OVER COMPLIANCE  
WHEN USING THE PROGRAM-SPECIFIC AUDIT OPTION TO SATISFY  
THE UNIFORM GUIDANCE AUDIT REQUIREMENTS**

To: The Board of Directors of  
Puerto Rico Science, Technology and Research Trust

**Report on Compliance for the Prevention of Disease, Disability and Death by Infectious Diseases Federal Program**

We have audited Puerto Rico Science, Technology and Research Trust's compliance with the types of compliance requirements described in the GMB Compliance Supplement that could have a direct and material effect on its Prevention of Disease, Disability and Death by Infectious Diseases Federal Program under its Puerto Rico Vector Control Unit Project for the year ended June 30, 2017.

**Management's Responsibility**

Management is responsible for compliance with Federal statutes, regulations, and the terms and conditions of federal awards applicable to the Prevention of Disease, Disability and Death by Infectious Diseases Federal Program under its Puerto Rico Vector Control Unit Project.

**Auditors' Responsibility**

Our responsibility is to express an opinion on compliance of Puerto Rico Science, Technology and Research Trust's Prevention of Disease, Disability and Death by Infectious Diseases Federal Program under its Puerto Rico Vector Control Unit Project, based on our audit of the types of compliance requirements referred to above.

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. Code of Federal Regulations (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on Prevention of Disease, Disability and Death by Infectious Diseases Federal Program under its Puerto Rico Vector Control Unit Project occurred. An audit includes examining, on a test basis, evidence about Puerto Rico Science, Technology and Research Trust's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for Puerto Rico Science, Technology and Research Trust's Prevention of Disease, Disability and Death by Infectious Diseases Federal Program under its Puerto Rico Vector Control Unit Project. However, our audit does not provide a legal determination of Puerto Rico Science, Technology and Research Trust's compliance.

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Page 5

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***Opinion on Compliance for the Prevention of Disease, Disability and Death by Infectious Diseases Federal Program***

In our opinion, Puerto Rico Science, Technology and Research Trust complied, in all material respects, with the compliance requirements referred to above that could have a direct and material effect on its Prevention of Disease, Disability and Death by Infectious Diseases Federal Project under its Puerto Rico Vector Control Unit Project for the year ended June 30, 2017.

**Report on Internal Control over Compliance**

Management of Puerto Rico Science, Technology and Research Trust is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered Puerto Rico Science, Technology and Research Trust's internal control over compliance with the types of requirements that could have a direct and material effect on the Prevention of Disease, Disability and Death by Infectious Diseases Federal Program under its Puerto Rico Vector Control Unit Project to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for its Prevention of Disease, Disability and Death by Infectious Diseases Federal Program under its Puerto Rico Vector Control Unit Project and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of Puerto Rico Science, Technology and Research Trust's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A material weakness in internal control over compliance is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis.

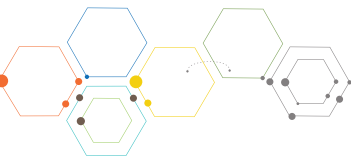
Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

San Juan, Puerto Rico  
December 20, 2017.

*RSM Puerto Rico*

Stamp No. E306059 was affixed to  
the original of this report.



**PUERTO RICO SCIENCE, TECHNOLOGY AND  
RESEARCH TRUST**



**SCHEDULE OF FINDINGS AND QUESTIONED COSTS**  
**For the year ended June 30, 2017**

**Summary of auditors' results**

**Financial Statements**

Type report the auditor issued on whether the  
schedule of expenditures of federal awards  
were prepared in accordance with GAAP

**Unmodified Opinion**

Internal control over financial reporting:

- Material weakness (es) identified?
- Significant deficiency (ies) identified?

\_\_\_\_ yes      X no  
\_\_\_\_ yes      X none reported

Noncompliance material to financial statements noted?

\_\_\_\_ yes      X no

**Federal Awards**

Internal control over program:

- Material weakness (es) identified
- Significant deficiency (ies) identified?

\_\_\_\_ yes      X no  
\_\_\_\_ yes      X none reported

Type of auditors' report issued on compliance for  
its program:

**Unmodified Opinion**

Any audit findings disclosed that are required to be  
reported in accordance with 2 CFR 200.516 (a)?

\_\_\_\_ yes      X no

**Identification of federal program**

CFDA Number

83.084

Name of Federal Program or Cluster

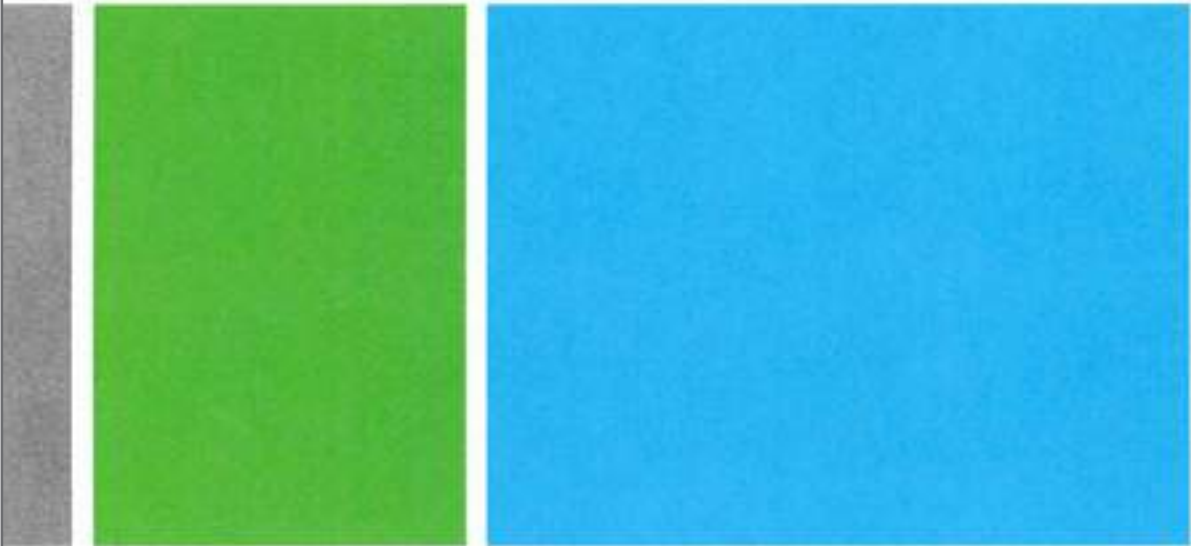
Prevention of Disease, Disability and Death by  
Infectious Diseases

Auditee qualified as low-risk auditee?

\_\_\_\_ yes      X no



RSM Puerto Rico



PUERTO RICO SCIENCE, TECHNOLOGY AND  
RESEARCH TRUST AND ITS SUBSIDIARY

Consolidated Financial Statements  
June 30, 2017 and 2016

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F (787) 759-7479

INDEPENDENT AUDITORS' REPORT

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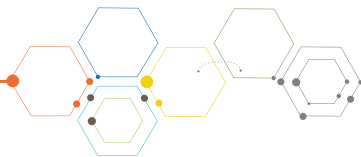


#### Basis for Qualified Opinion

As described in Notes 2 and 3 of the consolidated financial statements, as of June 30, 2017 and 2016, the Trust and its Subsidiary had cash deposits in the Government Development Bank for Puerto Rico (GDB) amounting to approximately \$6,385,000 and \$7,129,000, respectively, and certificates of deposits (CDs) amounting to approximately \$87,400,000 and \$83,488,000, respectively. As described in Note 16, on April 6, 2016, the Governor of the Commonwealth of Puerto Rico (the Governor) signed the Act No. 21 *Puerto Rico Emergency Moratorium and Rehabilitation Act* (the Act 21). Pursuant to the Act 21, the Governor signed the executive order EO-2016-010, declaring the GDB to be in a state of emergency. In accordance with the emergency powers provided in Act 21, the EO-2016-010 implemented a regulatory framework governing GDB's operations and liquidity, including prohibiting loan disbursements by GDB and establishing a procedure with respect to governmental withdrawals, payments, and transfer requests in respect of funds held on deposit at GDB. To that effect, EO-2016-010 restricts the withdrawal, payment and transfer of funds held on deposit at GDB to those reasonable and necessary to ensure the provision of essential services and authorizes GDB to establish weekly limits on the aggregate amount of such disbursements. The procedures implemented by EO-2016-010 result in restrictions on the ability of the Trust and its Subsidiary to withdraw funds held on deposit at GDB. Later, on October 16, 2016, the Puerto Rico Department of Treasury issued the Circular Letter 1300-08-17 whereby it is declaring that GDB's management understand that there is a substantial doubt as to GDB's ability to continue as a going concern. Further, the Circular Letter requires the Corporations and Municipalities to perform an impairment analysis of its deposits on GDB, in which the unrealizable deposits need to be accounted as an impairment loss. As of June 30, 2016, the management of the Trust and its Subsidiary has not performed an impairment analysis of the cash deposited at GDB and we were unable to obtain sufficient appropriate audit evidence about the realizable values of cash deposited at GDB as of such date. Consequently, we were unable to determine whether any adjustments to these amounts were necessary as of June 30, 2016.

As described in Note 3 of the consolidated financial statements, on June 16, 2017, the Trust, as approved by its Board of Trustees, entered into a Restructuring Support Agreement (RSA) with GDB and the Puerto Rico Fiscal Agency and Financial Advisory Authority. The RSA is enabled by Title VI of the Puerto Rico Oversight, Management and Economic Stability Act (PROMESA). The Trust participates in the RSA as a non-public Supporting Deposit Claimant entity. The Trust holds claims against GDB that constitutes Participating Bond Claims on account of certain deposits held at GDB. As a holder of Participating Bond Claims, the Trust is entitled to exchange the value of its deposits held at GDB into a new bond, based on several tranche bonds offered through the RSA. The Trust's management intention is to convert its deposits and CDs into Tranche A Bonds, which offer a face value of 55% of the value of assets at 7.5% annual coupon interest rate with maturity on July 1, 2040. In addition, Tranche A Bonds will be secured on a *pari passu* basis by a first priority lien on the new bonds collateral. As of January 18, 2018, the RSA has not been approved by the District Court pursuant to Section 601(m)(1)(D) of PROMESA.

Based on the Trust's management intention to pursue Tranche A Bonds as a financing restructuring of deposits held at GDB, the Trust recognized a loss of approximately \$42,200,000 million equivalent to 45% of deposits at GDB as of June 30, 2017. We were unable to obtain sufficient appropriate audit evidence about the realizable values of the remaining cash deposits and CDs deposited at GDB as of June 30, 2017. Consequently, we were unable to determine whether any adjustments to these amounts were necessary as of June 30, 2017.



**Qualified Opinion**

In our opinion, except for the possible effects of the matter described in the Basis for Qualified Opinion paragraph, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Puerto Rico Science, Technology and Research Trust and its Subsidiary as of June 30, 2017 and 2016, and the changes in its net assets and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

San Juan, Puerto Rico  
January 18, 2018.

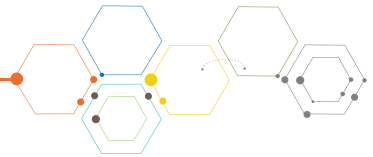
Stamp No. E310962 was affixed to  
the original of this report.

*RSM Puerto Rico*

**PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST  
AND ITS SUBSIDIARY****CONSOLIDATED BALANCE SHEETS**  
As of June 30, 2017 and 2016

	2017	2016
<b>ASSETS:</b>		
Cash	\$ 11,314,386	\$ 18,145,142
Accounts receivable	474,607	89,122
Prepaid expenses	77,202	41,550
Due from governmental entities, net of allowance for doubtful accounts of \$3,483,782 and \$4,463,782, respectively	3,373,455	9,349,226
Unrestricted investments	44,819,874	77,717,841
Investment, including restricted portion of \$3,036,801 and \$5,690,758, respectively	3,199,726	5,767,875
Other assets	12,533	12,533
Convertible promissory notes receivable	300,000	-
Equity investments	1,017,292	867,292
Property and equipment, net	442,649	471,072
Equipment under capital leases, net of accumulated depreciation of \$22,341 and \$17,283, respectively	2,951	8,009
Building, net	5,774,446	4,189,173
Restricted land and property for research, development and infrastructure project related to science and technology	18,000,000	18,000,000
Land development costs	11,329,395	11,329,395
Construction in progress - Science City	11,018,924	4,183,481
	<u>\$ 111,357,440</u>	<u>\$ 150,175,691</u>
<b>LIABILITIES AND NET ASSETS</b>		
<b>LIABILITIES:</b>		
Program services payable	\$ 456,227	\$ 2,008,225
Accounts payable	5,350,752	2,315,974
Due to related parties	3,864	-
Accrued expenses	118,310	95,514
Obligations under capital lease	3,212	9,180
Other liabilities	5,158	5,435
	<u>5,941,523</u>	<u>4,432,328</u>
<b>NET ASSETS:</b>		
Unrestricted	84,423,116	122,096,605
Temporarily restricted	2,992,801	5,646,758
Permanently restricted	18,000,000	18,000,000
	<u>105,415,917</u>	<u>145,743,363</u>
	<u>\$ 111,357,440</u>	<u>\$ 150,175,691</u>

The accompanying notes are an integral part of these consolidated balance sheets.



**PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST  
AND ITS SUBSIDIARY**



**CONSOLIDATED STATEMENTS OF ACTIVITIES AND CHANGES IN NET ASSETS**  
For the years ended June 30, 2017 and 2016

	2017			
	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
<b>CHANGES IN NET ASSETS</b>				
<b>REVENUES AND SUPPORT:</b>				
Grants and assessments	\$ 8,902,715	\$ -	\$ -	\$ 8,902,715
Federal sponsor program	1,024,118	-	-	1,024,118
Clinical trials	9,550	-	-	9,550
Rental income	78,400	-	-	78,400
Interest income	3,870,098	-	-	3,870,098
Other income	552,152	-	-	552,152
	<u>14,435,031</u>	<u>-</u>	<u>-</u>	<u>14,435,031</u>
<b>OPERATING EXPENSES:</b>				
Program and services:				
Research and data	3,790,504	-	-	3,790,504
Technology transfer and commercialization	5,651,534	-	-	5,651,534
Science City development	390,034	-	-	390,034
	<u>9,832,072</u>	<u>-</u>	<u>-</u>	<u>9,832,072</u>
Supporting services:				
General and administrative	2,732,233	-	-	2,732,233
Total expenses from operations	<u>12,564,305</u>	<u>-</u>	<u>-</u>	<u>12,564,305</u>
<b>CHANGES IN NET ASSETS FROM OPERATIONS</b>	<u>1,870,726</u>	<u>-</u>	<u>-</u>	<u>1,870,726</u>
<b>LOSS ON IMPAIRMENT OF CASH AND INVESTMENTS</b>	<u>(39,544,215)</u>	<u>(2,653,967)</u>	<u>-</u>	<u>(42,198,172)</u>
<b>CHANGES IN NET ASSETS</b>	<u>(37,673,489)</u>	<u>(2,653,967)</u>	<u>-</u>	<u>(40,327,446)</u>
<b>NET ASSETS, beginning of year</b>	<u>122,096,605</u>	<u>5,846,758</u>	<u>18,000,000</u>	<u>145,743,363</u>
<b>NET ASSETS, end of year</b>	<u>\$ 84,423,116</u>	<u>\$ 2,002,801</u>	<u>\$ 18,000,000</u>	<u>\$ 105,415,917</u>

Continues...





**PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST  
AND ITS SUBSIDIARY**

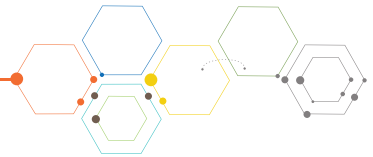


**CONSOLIDATED STATEMENTS OF ACTIVITIES AND CHANGES IN NET ASSETS**  
**For the years ended June 30, 2017 and 2016**

... Continued

	2016			
	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
<b>CHANGES IN NET ASSETS</b>				
<b>REVENUES AND SUPPORT:</b>				
Grants and assessments	\$ 6,567,442	\$ -	\$ -	\$ 6,567,442
Clinical trials	6,894	-	-	6,894
Rental income	41,853	-	-	41,853
Interest income	4,052,498	-	-	4,052,498
Other income	132,446	-	-	132,446
	10,801,133	-	-	10,801,133
Net assets released from restrictions	238,000	(238,000)	-	-
	11,039,133	(238,000)	-	10,801,133
<b>OPERATING EXPENSES:</b>				
Program and services:				
Research and data	5,724,805	-	-	5,724,805
Technology transfer and commercialization	4,830,524	-	-	4,830,524
Science City development	533,646	-	-	533,646
	11,097,975	-	-	11,097,975
Supporting services:				
General and administrative	2,138,763	-	-	2,138,763
Bad debt expense	4,483,782	-	-	4,483,782
	6,602,545	-	-	6,602,545
Total expenses from operations	17,700,520	-	-	17,700,520
<b>CHANGES IN NET ASSETS FROM OPERATIONS</b>	(6,661,387)	(238,000)	-	(6,899,387)
<b>NON-OPERATING EXPENSE:</b>				
Loss on conversion of note receivable	(22,403)	-	-	(22,403)
<b>CHANGES IN NET ASSETS</b>	(6,683,790)	(238,000)	-	(6,921,790)
<b>NET ASSETS, beginning of year</b>	128,780,395	5,884,758	18,000,000	152,665,153
<b>NET ASSETS, end of year</b>	\$ 122,096,605	\$ 5,646,758	\$ 18,000,000	\$ 145,743,363

The accompanying notes are an integral part of these consolidated statements.


**PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST  
AND ITS SUBSIDIARY**

**CONSOLIDATED STATEMENTS OF FUNCTIONAL EXPENSES**  
 For the years ended June 30, 2017 and 2016

	2017				
	Program and services			Supporting services	
	Research and data	Technology transfer and commercialization	Science City development	General and administrative	Total
Program support:					
Capacity building and sponsorship	\$ 59,215	\$ 341,340	\$ -	\$ 20,738	\$ 421,324
Innovators support	250,000	-	-	-	250,000
Research and commercialization grants	-	940,300	-	-	940,000
Matching grants	-	300,900	-	-	300,000
Clinical trials	1,201,809	-	-	-	1,201,809
Reprospecting	43,297	-	-	-	43,297
Small research grants	450,000	-	-	-	450,000
Researchers startup program	300,000	-	-	-	300,000
Parallel to goods	-	2,369,358	-	-	2,369,358
Other program initiative	169,114	-	-	-	169,114
	<u>2,472,486</u>	<u>5,653,858</u>	<u>-</u>	<u>20,738</u>	<u>8,544,856</u>
Personnel costs:					
Salaries and wages	637,948	673,330	49,994	990,732	1,951,964
Benefits and payroll taxes	118,319	128,838	7,912	259,032	562,027
	<u>954,268</u>	<u>811,868</u>	<u>57,266</u>	<u>1,229,794</u>	<u>2,453,896</u>
Professional services	<u>595,442</u>	<u>617,223</u>	<u>295,992</u>	<u>323,394</u>	<u>1,832,058</u>
Occupancy expenses:					
Depreciation and amortization	4,832	94,940	-	83,155	182,942
Rent	-	129,180	-	-	129,180
Repairs and maintenance	-	1,500	-	373,131	374,131
Security	-	-	-	193,836	193,836
Other	-	1,893	-	174,940	176,372
	<u>4,832</u>	<u>227,513</u>	<u>-</u>	<u>724,461</u>	<u>957,430</u>
Travel	<u>69,439</u>	<u>215,832</u>	<u>98,319</u>	<u>34,351</u>	<u>532,732</u>
Other operating expenses	<u>51,048</u>	<u>358,955</u>	<u>30,000</u>	<u>199,394</u>	<u>639,620</u>
Total program and support expenses	<u>\$ 3,700,624</u>	<u>\$ 6,881,534</u>	<u>\$ 380,034</u>	<u>\$ 2,752,233</u>	<u>\$ 12,894,328</u>

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PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST  
AND ITS SUBSIDIARY

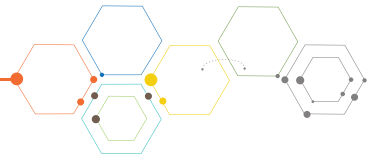


CONSOLIDATED STATEMENTS OF FUNCTIONAL EXPENSES  
For the years ended June 30, 2017 and 2016

...Continued

	2017				Total
	Program and services			Supporting services	
	Research and data	Technology transfer and commercialization	Science City development	General and administrative	
Program support:					
Capacity building and sponsorship	\$ 103,000	\$ 98,205	\$ -	\$ -	\$ 201,205
Institutions support	390,000	-	-	-	390,000
Centenary fund grants	238,000	-	-	-	238,000
Research and commercialization grants	-	1,396,000	-	-	1,396,000
Clinical trials	2,653,334	-	-	-	2,653,334
Patented 10 grants	-	1,386,000	-	-	1,386,000
Other program initiative	1,234,000	-	-	-	1,234,000
	4,876,334	2,229,205	-	-	7,057,639
Personnel costs:					
Salaries and wages	109,195	268,094	-	495,365	1,032,219
Benefits and payroll taxes	24,375	81,362	-	174,762	280,845
	133,590	326,446	-	626,762	1,086,798
Professional services	729,688	287,223	815,983	283,968	1,956,862
Outpatient activities:					
Depreciation and amortization	-	7,812	-	82,732	90,544
Rent	-	90,115	-	-	90,115
Repairs and maintenance	-	-	-	287,811	287,811
Security	-	-	-	154,295	154,295
Other	-	33	-	168,840	168,840
	-	98,907	-	701,118	798,199
Taxes	68,193	470,433	2,745	21,968	214,429
Bad debt expense	-	-	-	4,462,782	4,462,782
Other operating expenses	132,133	908,140	17,218	298,798	1,354,247
Total program and support expenses	\$ 5,754,805	\$ 4,829,524	\$ 293,648	\$ 8,625,548	\$ 17,700,525

The accompanying notes are an integral part of these consolidated statements.



**PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST  
AND ITS SUBSIDIARY**



**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
For the years ended June 30, 2017 and 2016

	2017	2016
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Decrease in net assets	\$ (40,327,446)	\$ (6,921,790)
Adjustments to reconcile decrease in net assets to net cash provided by (used in) operating activities:		
Depreciation and amortization	182,942	80,844
Loss on conversion of note receivable	-	22,403
Loss on impairment of investments	39,324,753	-
Bad debts (recoveries)	(980,000)	4,453,782
Changes in assets and liabilities:		
Decrease (increase) in assets:		
Accounts receivable	(385,435)	(86,473)
Prepaid expenses	(35,652)	-
Due from governmental entities	6,955,771	(1,235,404)
Other assets	-	(5,836)
Increase (decrease) in liabilities:		
Program service payable	(1,527,510)	992,587
Accounts payable	3,012,390	(446,264)
Due to related parties	3,864	-
Accrued expenses	22,796	75,606
Other liabilities	3,723	197
Net cash provided by (used in) operating activities	<u>6,250,056</u>	<u>(3,050,548)</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Reinvestment of interest earned	(3,858,647)	(4,030,806)
Purchase of equity investments	(150,000)	-
Proceeds from investments	-	238,000
Advances under promissory notes receivable	(300,000)	-
Purchase of property and equipment	(73,629)	(474,725)
Additions to construction in progress - building	(1,661,108)	(1,737,854)
Additions to construction in progress - Science City	(6,835,453)	(4,130,211)
Net cash used in investing activities	<u>(12,878,844)</u>	<u>(10,135,396)</u>
<b>CASH USED IN FINANCING ACTIVITIES:</b>		
Principal payment of obligations under capital leases	(5,958)	(5,301)
<b>NET DECREASE IN CASH</b>	<u>(6,634,756)</u>	<u>(13,191,305)</u>
<b>CASH, beginning of year</b>	<u>18,149,142</u>	<u>31,340,447</u>
<b>CASH, end of year</b>	<u>\$ 11,514,386</u>	<u>\$ 18,149,142</u>

The accompanying notes are an integral part of these consolidated statements.



## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARY



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2017 and 2016

#### 1) Organization and summary of significant accounting policies:

- A) **Organization** – Puerto Rico Science, Technology and Research Trust (the Trust) is a not-for-profit organization created on August 18, 2004 by Act No. 214, as amended (the Act 214), of the Legislature of the Commonwealth of Puerto Rico (the Commonwealth). The purpose of the Trust is to foster and fund research, development and infrastructure projects related to science and technology that will promote the economic, social or educational development of the Commonwealth and to operate exclusively for charitable, educational and scientific purposes. These projects are to be financed as follows: (i) the greater of \$6,340,000 or 31% and the greater of \$5,630,000 or 28% out of the monies deposited in the Special Fund for Economic Development managed by the Puerto Rico Industrial Development Company (PRIDCO) for the fiscal years ended June 30, 2017 and 2016, respectively (ii) the monies of Scientific Investigation Fund for the Centenary of the University of Puerto Rico (Centenary Fund), (iii) a special appropriation of \$5,000,000 from the Improvements Fund, (iv) \$5,000,000 from the balance of collections of federal excise taxes in accordance with Section 7652(a)(3) of the United States Internal Revenue Code 1986, as amended, (v) private donations, other government funds, and legislative appropriations, and (vi) effective fiscal year 2014-15, an annual assessment from the University of Puerto Rico and the Puerto Rico's Department of Economic Development and Commerce determined based on certain administrative personnel costs incurred by the Trust.

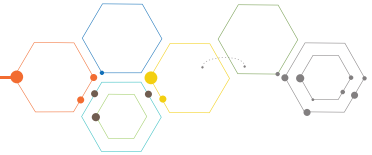
The Act 214, as amended, provides that the Board of Trustees, composed of eleven (11) trustees, four (4) of whom shall be members *ex officio*, representing the government agencies: the Secretary of the Economic Development and Commerce Department, the President of the Government Development Bank, the Executive Director of the Puerto Rico Industrial Development Company and the Director of the Office of Management and Budget, four (4) members from the academy, including the President of the University of Puerto Rico, and three (3) members from private sector related to high technology and business environment, will act as the Trustees of the Trust.

During September 2016, the Trust was granted with a federal award from the Center for Disease Control (CDC) titled Vector Control Strategies Enhancing Capacity for Vector Surveillance and Control to Prevent Zika, Dengue and Chikungunya Infection in Puerto Rico. The purpose of the award is to establish the Puerto Rico Vector Control Unit (VCU) to oversee and implement comprehensive vector control activities in Puerto Rico, specifically with *Aedes aegypti* (the vector of dengue, chikungunya and zika). For the first year of the program, the award provides approximately \$14,000,000. The grant with the CDC is expected to last for a total of five (5) years.

The Puerto Rico Consortium for Clinical Investigation, Inc. (the Subsidiary), a not-for-profit corporation, was organized on January 20, 2016 as a subsidiary of the Trust. The Subsidiary was established by virtue of Article 5(26) of the Act 214, as amended, whereby the Trust may organize subsidiaries or affiliates subject to its total or partial control to carry out any assignment from the Trust's Board of Trustees for the best interests of the Trust. The Subsidiary began operations on April 1, 2016 and its purpose is to improve the impact, quality, and speed of clinical research activity conducted in Puerto Rico, especially in the fields of oncology, infectious diseases, neurological disorders and cardio-metabolism. To achieve its mission, the Subsidiary partners with clinical research sites across Puerto Rico to ensure access to a diverse patient population. The Subsidiary's operations are sustained through a combination of revenues obtained from clinical research sponsors, grants and contracts with state and private entities, and contributions from the Trust.

These consolidated financial statements include the accounts of the Trust and its Subsidiary (collectively referred as the Trust and its Subsidiary) as of and for the years ended June 30, 2017 and 2016.





## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARY



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2017 and 2016

- B) Summary of significant accounting policies – The Trust and its Subsidiary prepare its consolidated financial statements in accordance with accounting principles generally accepted in the United States of America for not-for-profit organizations. The significant accounting policies used by the Trust and its Subsidiary are as follows:

Principles of consolidation – The accompanying consolidated financial statements include the accounts of the Trust and its Subsidiary, as described in Note 1A. Intercompany transactions and accounts have been eliminated in consolidation.

Basis of presentation – Not-for-profit organizations are required to present a balance sheet, a statement of activities, and a statement of cash flows. In addition, net assets are classified in one or more of the following categories: unrestricted, temporarily restricted and permanently restricted:

- Unrestricted net assets – Unrestricted net assets are resources available to support operations. These resources are unrestricted as to their use and expendable at the discretion of the Board of Trustees.
- Temporarily restricted net assets – Temporarily restricted net assets are resources that are restricted by a donor for use for a particular purpose or in a particular future period.
- Permanently restricted net assets – Permanently restricted net assets are resources whose use is limited by donor-imposed restrictions that neither expires by being used in accordance with a donor's restriction nor by the passage of time.

The following is a description of the temporarily restricted and permanently restricted net assets as of June 30, 2017 and 2016:

- Temporarily restricted net assets consist of monies for the Scientific Investigation Fund for the Centenary of the University of Puerto Rico. This fund was created to improve the infrastructure, activities and environment of investigative activities of the University of Puerto Rico and to facilitate the commercialization of the innovations that are developed there. Among the activities to be supported are the recruitment and retention of researchers and the promotion of technology transfer.
- Permanently restricted net assets consist of a land, described in Note 8 that was contributed with the restriction of using it for the purpose described in Act 214, as amended, through the implementation of a Master Plan.

Accounting estimates – The preparation of consolidated financial statements in conformity with generally accepted accounting principles in the United States of America requires management to make estimates and assumptions that affect certain reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Accordingly, actual results could differ from those estimates.

Allowance for doubtful accounts – The Trust and its Subsidiary provide an allowance for doubtful accounts equal to the amount of estimated uncollectible amounts. The estimate is based on the review of the current status of donor pledges, contributions and grants.



**PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH  
TRUST AND ITS SUBSIDIARY**



**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**June 30, 2017 and 2016**

Investments – The Trust and its Subsidiary invest its cash reserves (restricted and unrestricted) in certificate of deposits held at the Government Development Bank for Puerto Rico (GDB). These certificate of deposits are open-ended instruments, yielding annual interest rates from 1.5% and 5.75%, depending on their maturity dates. These investments are carried at the lower of cost or net realizable value.

Equity investments – The equity investments are carried at the lower of cost or net realizable value.

Property and equipment and equipment under capital leases – Property and equipment are stated at cost, or if donated, at the fair value at date of receipt. Equipment under capital leases is stated at the net present value of the minimum lease payments. Expenditures for major additions and improvements are capitalized, while minor replacements, maintenance, and repairs are charged to expense as incurred.

Depreciation and amortization are computed using the straight-line method over the estimated useful lives of the related assets, as follows:

Description	Estimated Useful Life
Furniture and fixtures	5 years
Computer and laboratory equipment	3 to 5 years
Leasehold improvements	Lease term
Equipment under capital leases	Lease term

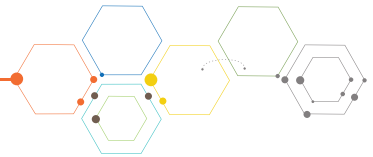
At the time property and equipment is sold or otherwise disposed of, the cost and related accumulated depreciation or amortization are removed from the books and the resulting gain or loss, if any, is credited or charged to operations.

Accounting for the impairment or disposal of long-lived assets – The Trust and its Subsidiary's long-lived assets held and used in operations are tested for recoverability whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. Assets are considered to be impaired if the carrying amount of the asset exceeds the sum of the undiscounted cash flow expected to result from the use and eventual disposition of the asset.

If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds its fair value. Assets to be disposed of, other than by sale, continue to be classified as held and used until they are disposed of. Assets to be disposed of by sale are classified as held for sale in the period in which certain criteria are met and reported at the lower of the carrying amount or fair value. At the time such criteria are no longer met, such assets are reclassified as assets held and used in operations.

Land development costs – Represent costs for a land site consultation approval, certification of environmental compliance, architectural design, and other costs incurred in connection with land received by the Trust for the construction of its facilities.

Fair value measurements – Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Market or observable inputs are the preferred source of value, followed by assumptions based on hypothetical transactions in the absence of market input.



## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARY



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2017 and 2016

The valuation techniques are based upon observable or unobservable inputs. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the entity's market assumptions. These two types of inputs create the following fair value hierarchy:

- Level 1 – Quoted prices for identical instruments in active markets.
- Level 2 – Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-derived valuations whose inputs are observable or whose significant value drivers are observable.
- Level 3 – Significant inputs to the valuation model are unobservable.

The Trust maintains policies and procedures to value financial instruments using the best and most relevant data available.

**Contributions and support revenue** – The Trust and its Subsidiary derive its revenues from contributions received from the government, corporations, sponsors and individuals. All contributions are considered to be available for unrestricted use, unless specifically restricted by the donor. Amounts received that are restricted by the donor for specific purposes or future period are reported as temporarily restricted or permanently restricted support that increases the net assets of those net asset classes. When a donor restriction expires, that is, when a stipulated time restriction ends or purpose restriction is accomplished, temporarily restricted net assets are reclassified to unrestricted net assets and reported in the statement of activities as net assets released from restrictions. However, if a restriction is fulfilled in the same time period in which the contribution is received, the Trust and its Subsidiary report the support as unrestricted.

**Contributed services** – Contributions of services are only recognized if services received: (a) create or enhance non-financial assets or would typically need to be purchased if not provided by donation, (b) require specialized skills and are provided by individuals possessing those skills. The contribution revenue for services received is recognized at the fair value of those services. There were no contributed services during the years ended June 30, 2017 and 2016.

**Income taxes** – The Trust and its Subsidiary is exempt from Puerto Rico income taxes under the provisions of Act No 214, as amended, and from federal taxes under the provisions of Section 501(c) of the Internal Revenue Code. Accordingly, no provision for income taxes has been recorded in the accompanying consolidated financial statements.

The Trust and its Subsidiary follows the guidance for uncertainty in income taxes issued by the Financial Accounting Standards Board. Management evaluated the Trust and its Subsidiary's tax positions and concluded that the Trust and its Subsidiary had taken no uncertain tax positions that require adjustments or disclosure in the consolidated financial statements.





## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARY

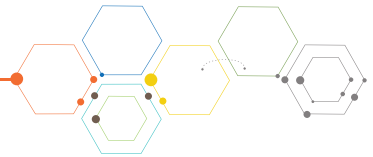


### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2017 and 2016

**Functional allocation of expenses and operational expenditures** – The costs of providing the Trust and its Subsidiary's programs and other activities have been summarized on a functional basis in the accompanying consolidated statements of activities. During the years ended June 30, 2017 and 2016, certain costs have been allocated among the following programs and support activities:

- **Research and data:** includes expenses aimed to improve, analyze and/or strengthen the local research and development (R&D) infrastructure and the breadth of science and technology activity in Puerto Rico. These expenses, however, do not have a direct effect upon technology commercialization efforts. Examples of expenses within this function include: clinical trials, grants to support laboratory infrastructure, grants to attract or retain distinguished researchers, studies to determine R&D, innovation, knowledge economy activity in the Island; and, salaries and professional services to support this area.
- **Technology transfer and commercialization:** includes expenses incurred in initiatives to support technology transfer and commercialization and direct investments in technology development projects which have a clear commercialization aim. Examples of expenses within this function include: intellectual property assistance, sponsorship, grants for technology developments with a clear commercialization aim and plan; investment in technology commercialization accelerators and startup incubators, salaries and professional services to support this area. During the year ended June 30, 2016, the Trust and its Subsidiary implemented Parallel 18 (P18), a startup creation initiative. The purpose of P18 is to provide startups, selected competitively from Puerto Rico and abroad, with funding, complete support system, and an acceleration program with high-level resources and access to a global network of mentors. During the years ended June 30, 2017 and 2016, a total of 59 and 35 startups, respectively, were selected and provided each with a \$40,000 grant. The P18 program is financed by the support from the Department of Economic Development and Commerce, the Puerto Rico Industrial Development Company, and the Trust.
- **Science City development:** includes non-capitalizable expenditures necessary for the on-going development and construction of sites at the Science City. These expenditures include salary and professional services to support this area, planning and assessment projects, security services to enable construction work, etc.
- **General and administrative:** includes all administrative expenses incurred to support all functional areas as described above which are not directly allocable to any of them. Example of these expenses include administrative staff salaries, accounting fees, depreciation and amortization, utilities, etc.
- **Fundraising:** includes expenses incurred in soliciting contributions, gifts, grants, etc. Example of these expenses, include: publicizing and conducting fundraising campaigns, soliciting grants from foundations and government agencies, costs of participating in federated fundraising campaigns, preparing and distributing fundraising manuals, instructions and other materials. The Trust and its Subsidiary did not engage in any fundraising activity during the years ended June 30, 2017 and 2016.

**Advertising and promotion** – The Trust and its Subsidiary charge to operations advertising and promotion costs as they are incurred. During the years ended June 30, 2017 and 2016, the Trust and its Subsidiary incurred in advertising and promotion expenses of approximately \$82,000 and \$240,000, respectively.



## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARY



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2017 and 2016

#### 2) Concentration of credit risks:

Financial instruments, which potentially subject the Trust and its Subsidiary to concentration of credit risks, consist of cash deposits and accounts receivable.

The Trust and its Subsidiary has cash deposits with two financial institutions. As of June 30, 2017 and 2016, part of the Trust and its Subsidiary's cash deposits aggregating approximately \$3,512,000 and \$7,129,000, respectively, all of which are maintained with GDB, are uninsured and uncollateralized. Cash deposits maintained in other financial institutions, at times, may exceed the amount insured by the Federal Deposit Insurance Corporation (FDIC). As of June 30, 2017 and 2016, the Trust and its Subsidiary's cash deposits exceeded the FDIC guarantee of \$250,000 per financial institution by approximately \$7,882,000 and \$10,997,000, respectively.

For the year ended June 30, 2017, grants and contributions from governmental entities and interest earned on deposits in GDB represent approximately 88% of total revenues and the balance due from governmental entities represents 88% of total accounts receivable. For the year ended June 30, 2016, grants and contributions from governmental entities and interest earned on deposits in GDB represented approximately 99% of total revenues and the balance due from governmental entities represents 99% of total accounts receivable.

#### 3) Investments

As of June 30, 2017 and 2016, the investments consist of certificates of deposits held at GDB, as follows:

Description	June 30, 2017	
	Unrestricted	Restricted
CD, 1.64% rate yield, maturing in December 2017	\$ -	\$ 3,199,726
CD, 1.5% rate yield, maturing in November 2017	14,409,932	-
CD, 6.75% rate yield, maturing in March 2020	30,409,942	-
	<u>\$ 44,819,874</u>	<u>\$ 3,199,726</u>

Description	June 30, 2016	
	Unrestricted	Restricted
CD, 1.5% rate yield, maturing in December 2016	\$ -	\$ 5,767,875
CD, 2% rate yield, maturing in November 2016	25,783,881	-
CD, 6.75% rate yield, maturing in March 2020	51,933,980	-
	<u>\$ 77,717,841</u>	<u>\$ 5,767,875</u>

The Commonwealth of Puerto Rico (the Commonwealth), is experiencing a severe economic and fiscal crisis resulting from continuing economic contractions, persistent and significant budget deficits, and high debt burden, unfunded legacy obligations and lack of access to the capital markets, among other factors.





## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARY



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2017 and 2016

On April 6, 2016, the Commonwealth enacted the Puerto Rico Emergency Moratorium and Financial Rehabilitation Act ("Act 21"), whereby the Commonwealth and certain instrumentalities suspended the payment of debt service on their respective debts and redirected certain revenues assigned to certain public corporations for the funding of operational expenses.

On April 8, 2016, pursuant to Act 21, the Governor of Puerto Rico signed Executive Order No. 2016-010 ("EO No. 2016-010"), declaring the Bank to be in a state of emergency. In accordance with the emergency powers vested to the Governor in Act 21, EO No. 2016-010 implemented a regulatory framework governing the Government Development Bank for Puerto Rico (the Bank)'s operations and liquidity, including prohibiting disbursements by the Bank and establishing a procedure with respect to governmental withdrawals, payments, and transfer requests with respect to funds held on deposit at the Bank.

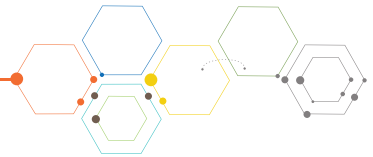
In response to this crisis, in June 2016, the U.S. Federal Government enacted the Puerto Rico Oversight, Management and Economic Stability Act (PROMESA), which among other things establishes an oversight board composed of seven members appointed by the U.S. Federal Government, with broad powers over finances of the Commonwealth and its instrumentalities. PROMESA seeks to provide the Commonwealth with (i) fiscal and economic discipline through the creation of the Oversight Board, (ii) relief from creditor lawsuits through the enactment of a temporary stay on litigation to enforce rights or remedies related to outstanding liabilities of the Commonwealth and its instrumentalities and municipalities and (iii) two separate processes for the restructuring of the debt obligations of such entities.

On June 16, 2017, the Trust, as approved by its Board of Trustees, entered into a Restructuring Support Agreement (RSA) with GDB and the Puerto Rico Fiscal Agency and Financial Advisory Authority. The RSA is enabled by Title VI of PROMESA. The Trust participates in the RSA as a non-public Supporting Deposit Claimant entity. The Trust holds claims against GDB that constitutes Participating Bond Claims on account of certain deposits held at GDB. As a holder of Participating Bond Claims, the Trust is entitled to exchange the value of its deposits held at GDB into a new bond, based on several tranche bonds offered through the RSA. The Trust's management intention is to convert its deposits and CDs into Tranche A Bonds, which offer a face value of 55% of the value of assets at 7.5% annual coupon interest rate with maturity on July 1, 2040. In addition, Tranche A Bonds will be secured on a *pari passu* basis by a first priority lien on the new bonds collateral. As of January 18, 2018, the RSA has not been approved by the District Court pursuant to Section 601(m)(1)(D) of PROMESA.

Based on the Trust's management intention to pursue Tranche A Bonds as a financing restructuring of deposits held at GDB, the Trust recognized a loss of approximately \$42,200,000 million equivalent to 45% of deposits at GDB as of June 30, 2017.

#### 4) Convertible promissory notes receivable:

As of June 30, 2017, the Trust is the holder of four (4) convertible notes of \$75,000 each. The notes accrue interest at an annual interest rate between 2% and 6%. These notes may be converted into shares of common stock upon the occurrence of certain events, including the companies' failure to pay in full the principal and accrued interest upon its maturity date or a change of control transaction.



## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARY



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2017 and 2016

#### 5) Equity investments:

As of June 30, 2017 and 2016, the equity investments consist of the following:

Description	2017	2016
49,222 shares of common stock of CDI Laboratories, Inc. (CDI), a nonaffiliated company, which as of June 30, 2017 and 2016, represent approximately 9.57% and 9.90% of the CDI's common stock, respectively.	\$ 867,292	\$ 867,292
312,500 shares of Series Seed preferred stock of Timokids, Inc., a nonaffiliated company. These preferred shares provide its holders voting and liquidation preference rights and the option to convert to shares of common stock.	75,000	-
62,500 shares of Series Seed preferred stock of Brands of Holdings Inc., a nonaffiliated company. These preferred shares provide its holders voting and liquidation preference rights and the option to convert to shares of common stock.	75,000	-
	<u>\$ 1,017,292</u>	<u>\$ 867,292</u>

#### 6) Property and equipment:

As of June 30, 2017 and 2016, property and equipment consist of the following:

Description	Cost	June 30, 2017	
		Accumulated depreciation and amortization	Book value
Furniture and fixtures	\$ 100,727	\$ 98,742	\$ 1,985
Computer and laboratory equipment	95,131	28,335	66,796
Leasehold improvements	474,725	102,857	371,868
	<u>\$ 870,583</u>	<u>\$ 227,934</u>	<u>\$ 442,649</u>
Description	Cost	June 30, 2016	
		Accumulated depreciation and amortization	Book value
Furniture and fixtures	\$ 100,727	\$ 96,468	\$ 4,259
Computer equipment	21,502	21,502	-
Leasehold improvements	474,725	7,912	466,813
	<u>\$ 596,954</u>	<u>\$ 125,882</u>	<u>\$ 471,072</u>



**PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH  
TRUST AND ITS SUBSIDIARY**



**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**June 30, 2017 and 2016**

Depreciation and amortization expense for the years ended June 30, 2017 and 2016, amounted to approximately \$183,000 and \$91,000, respectively, and it is presented as general and administrative expenses in the accompanying statements of activities and changes in net assets.

**7) Building:**

As of June 30, 2017 and 2016, the building consists of the following:

Description	2017	2016
Innovation Center Building- a three-story building which houses the Trust's headquarters and provides space for both, the incubation of local hi-tech startups and strategic service providers, creating a synergistic effect to accelerate the commercialization of technologies.	\$ 2,654,131	\$ 2,638,949
Less: Accumulated depreciation	(339,728)	(263,896)
	2,314,403	2,375,053
Construction in progress	3,460,043	1,814,120
	\$ 5,774,446	\$ 4,189,173

The construction in progress includes costs incurred in the rehabilitation of the Building 8, located at Science City premises, for the use in activities related to environmental sciences and environmental remediation. As part of this intended use, the building will house, the Environmental Research Laboratory of the Puerto Rico Environmental Quality Board and the laboratory facilities of the Puerto Rico Vector Control Unit.

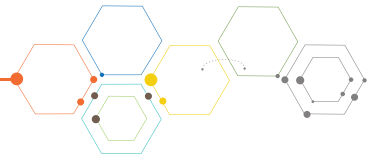
**8) Restricted land and property for research, development and infrastructure project related to science and technology:**

On October 22, 2007, the Trust received 67.88 acres of prime real estate in the metropolitan area of San Juan, which includes the former Río Piedras Correctional Facilities (Oso Blanco State Penitentiary).

The land and property was valued at \$18,000,000, based on a market appraisal opinion report, dated October 20, 2008.

As established by Act 214, as amended, the Trust and its Subsidiary plan to develop the 67.88 acres of Oso Blanco State Penitentiary site into a research park, which combines residential, retail, educational, and civic facilities with laboratory and research and development facilities with the purpose of facilitating the development of infrastructure favorable to the research and development of science and technology. Costs related to the design, development and improvements of the campus are capitalized as incurred.

During the year ended June 30, 2016, the Board of Trustees approved the transfer of ownership of 6.8 acres of the land to the Puerto Rico Department of Transportation and Public Works (DTPW). The purpose of the transfer is to enable DTPW to seek financing from the Federal Highway Authority (FHA) for the construction of the Science City Boulevard. The transfer is subject to the financing approval from the FHA, which is currently in an early stage.



## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARY



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2017 and 2016

#### 9) Program service payable:

As of June 30, 2017 and 2016, program service payable consists of accrued obligations related to program support grants awarded during the period through both, unrestricted and restricted funds.

The balance of program service regarding program support grants as of June 30, 2017 and 2016, are as follows:

Description	2017	2016
Program support grants payable – unrestricted funds	\$ 412,227	\$ 1,962,225
Program support grants payable – restricted funds	44,000	44,000
	<u>\$ 456,227</u>	<u>\$ 2,006,225</u>

#### 10) Obligations under capital leases:

The Trust and its Subsidiary leases certain assets under capital lease agreements expiring at various dates through 2018. Future minimum lease payments subsequent to June 30, 2017, all of which are due during the year ending June 30, 2018, approximates \$3,200.

#### 11) Designated unrestricted net assets:

On June 8, 2017, the Board of Trustees designated approximately \$600,000 from the unrestricted net assets for the creation of a capital fund to be used for the data integration project.

#### 12) Operating lease agreement:

The Trust and its Subsidiary entered into a lease agreement for the use of the facilities for P18, described in Note 1B. The agreement calls for escalating monthly rental payments ranging from \$11,983 to \$13,510 through December 2020. Total rent expense for the years ended June 30, 2017 and 2016, amounted to approximately \$126,000 and \$60,000, respectively.

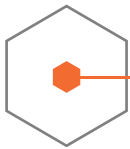
Future minimum lease payments subsequent to June 30, 2017, are as follows:

Year ending June 30,	Amount
2018	\$ 151,656
2019	158,574
2020	162,125
2021	81,063
Total future minimum lease payments	<u>\$ 553,418</u>

#### 13) Rental income:

The Trust and its Subsidiary lease building spaces under operating lease agreements. The lease agreements are for periods of one year with a renewal option for an additional year on month to month basis. The aggregate future minimum rental income under these lease agreements subsequent to June 30, 2017, all of which are due during the year ending June 30, 2018, approximates \$62,000.





## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARY



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2017 and 2016

#### 14) In-kind contributions:

In-kind contributions for the years ended June 30, 2017 and 2016, amounted to approximately \$2,100, and \$7,000, respectively, which consisted mainly of services provided by tenants related to science, technology, and research.

#### 15) Supplemental disclosures for the statements of cash flows:

A) Non-cash from investing and financing transactions – For the year ended June 30, 2017, there was no non-cash investing and financing transaction. For the year ended June 30, 2016, non-cash investing and financing transactions consisted of the conversion of the note receivable to an equity investment in the amount of approximately \$867,000.

B) Other cash flows information – During the year ended June 30, 2017 and 2016, the Trust and its Subsidiary paid approximately \$600 and \$1,200, respectively, in interest.

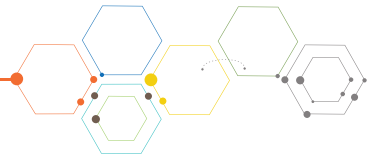
#### 16) Contingency:

On April 6, 2016, the Governor of the Commonwealth of Puerto Rico (the Governor) signed the Act No. 21 *Puerto Rico Emergency Moratorium and Rehabilitation Act* (the Act 21). Among other objectives, the Act 21 allows the Governor to declare a moratorium on debt service payments and to stay related creditor remedies for a temporary period for the Commonwealth and its component units. The temporary period set forth in the Act 21 lasts until January 2017, with a possible two-month extension at the Governor's discretion. The moratorium and stay provisions of Act 21 require executive actions of the Governor to become effective.

Pursuant to Act 21, on April 8, 2016, the Governor signed the executive order EO-2016-010, declaring the GDB to be in a state of emergency. In accordance with the emergency powers provided in Act 21, the EO-2016-010 implemented a regulatory framework governing GDB's operations and liquidity, including prohibiting loan disbursements by GDB and establishing a procedure with respect to governmental withdrawals, payments, and transfer requests in respect of funds held on deposit at GDB. To that effect, EO-2016-010 restricts the withdrawal, payment and transfer of funds held on deposit at GDB to those reasonable and necessary to ensure the provision of essential services and authorizes GDB to establish weekly limits on the aggregate amount of such disbursements. The procedures implemented by EO-2016-010 result in restrictions on the ability of the Trust and its Subsidiary to withdraw funds held on deposit at GDB.

As described in Note 3, on June 16, 2017, the Trust entered into a RSA with GDB and the Puerto Rico Fiscal Agency and Financial Advisory Authority. The RSA is enabled by Title VI of PROMESA. The Trust participates in the RSA as a non-public Supporting Deposit Claimant entity. The Trust holds claims against GDB that constitutes Participating Bond Claims on account of certain deposits held at GDB. As a holder of Participating Bond Claims, the Trust is entitled to exchange the value of its deposits held at GDB into a new bond, based on several tranche bonds offered through the RSA. The Trust's management intention is to convert its deposits and CDs into Tranche A Bonds, which offer a face value of 55% of the value of assets at 7.5% annual coupon interest rate with maturity on July 1, 2040. In addition, Tranche A Bonds will be secured on a *pari passu* basis by a first priority lien on the new bonds collateral. As of January 18, 2018, the RSA has not been approved by the District Court pursuant to Section 601(m)(1)(D) of PROMESA.





## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARY



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2017 and 2016

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#### 17) Subsequent events:

On September 20, 2017, Hurricane Maria reached Puerto Rico as a major Category 4 hurricane. The hurricane resulted in widespread damage, flooding, and power outages. Many companies with facilities in Puerto Rico have been unable to resume operations due to physical damage, loss of power and/or employees being unable to return to work. As a result of the Hurricane Maria, the Trust and its Subsidiary incurred in extraordinary expenses that amounted to approximately \$305,000, for the purchase of diesel, debris removal and disposal, property damage and for payment of salaries to employees. Management expect to recover approximately 60% of these expenses from the insurance company.

Subsequent events were evaluated through January 18, 2018, the date the basic financial statements were available to be issued.



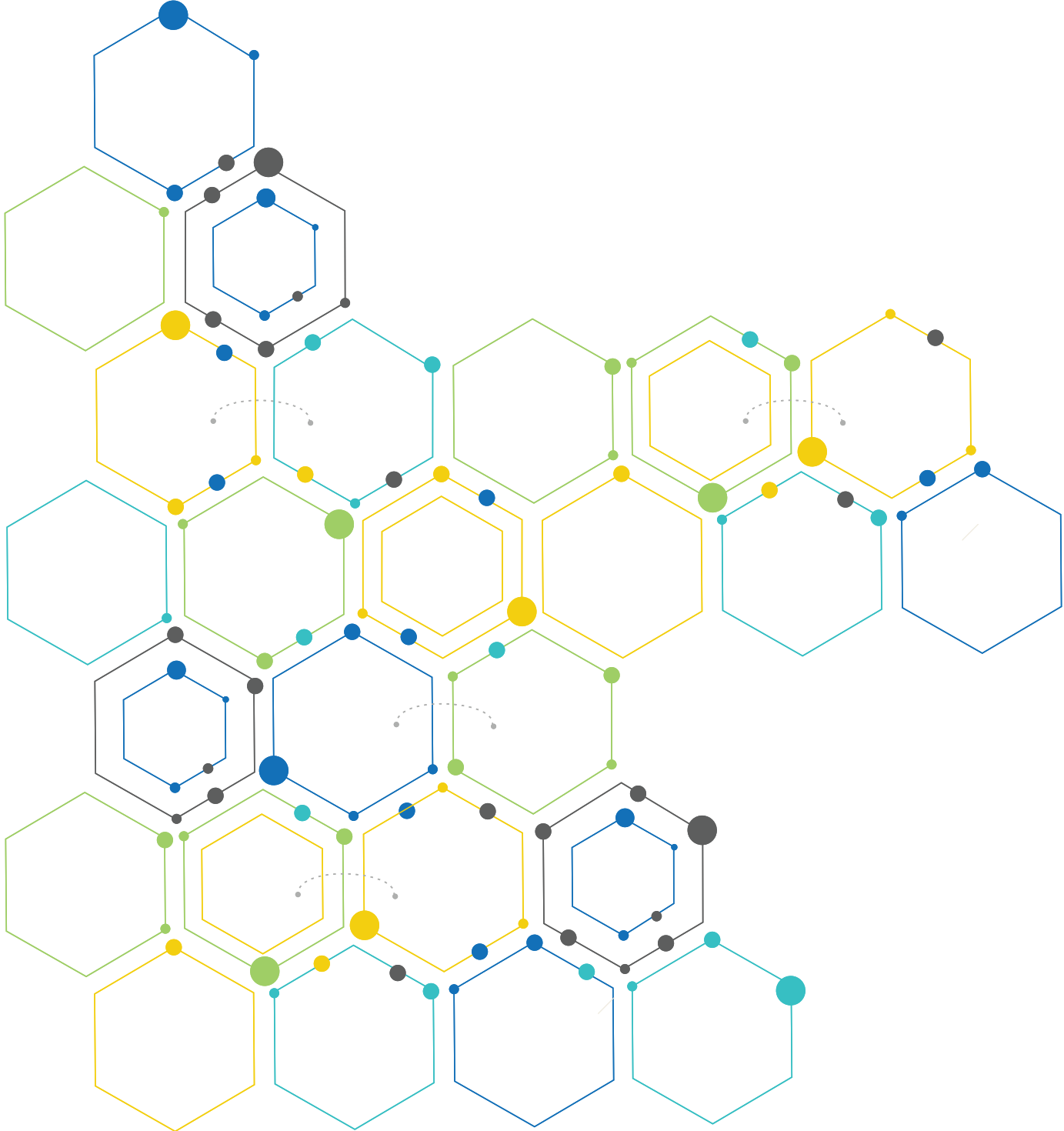
Puerto Rico  
Science, Technology  
& Research Trust



 **Innovation**  
fuels the economy

 **Science** creates the future

 **Technology** enables change



## Puerto Rico Science, Technology & Research Trust

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