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.
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...
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 that 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 hold 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.
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 sell 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 breading 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.
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.

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).
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.
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.
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 students 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 in 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.
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.
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:

**Number of applications processed and approved:** 47

**Number of Researchers Benefited by the Program:** 33

**University of Puerto Rico (UPR)**
- Cayey: 1
- UPR Rio Piedras: 13
- UPR MSC: 28
- 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.
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. Maranyoly 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 representatives 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 on 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 Ovitraps (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-Marstellar 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. 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.
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.
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

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

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.
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 mission of the Puerto Rico Brain Trust for Tropical Disease Research and Prevention is to promote research and development in the 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.

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.

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.
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 leptospirosa. 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.

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

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

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.

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

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

Abel Baerga gives lecture on the capabilities of Puerto Rico as a destination for technological innovation at Biospain Conference in Bilbao, Spain.
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.
FORWARD CENTER - SCHEMATIC DESIGN
CABALLERIZA DE LA ANGOSTA PRISIONAL ESTATAL CARR #21, BO. MONACILLOS, SAN JUAN, PUERTO RICO

PLANOS ESQUEMÁTICOS
NO. DESCRIPCIÓN FECHA     APROB.
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

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

- 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

- 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

<table>
<thead>
<tr>
<th>Event Details</th>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSU</td>
<td>Aug 25</td>
<td>Ponce, PHSU</td>
</tr>
<tr>
<td>Biolatam Workshops</td>
<td>Oct 18</td>
<td>San Juan, Trust</td>
</tr>
<tr>
<td></td>
<td>Oct 19</td>
<td>Ponce, PHSU</td>
</tr>
<tr>
<td></td>
<td>Oct 20</td>
<td>Mayaguez, UPR Mayaguez</td>
</tr>
<tr>
<td>TTS Latin America</td>
<td>Nov 15-16</td>
<td>Medellin, Colombia</td>
</tr>
<tr>
<td>Biolatam 2016</td>
<td>Nov 29-30</td>
<td>San Juan</td>
</tr>
<tr>
<td>NIH-BRAD</td>
<td>Feb 10</td>
<td>Mayaguez, UPR Mayaguez</td>
</tr>
<tr>
<td>IP for Natural Products</td>
<td>Feb 17</td>
<td>San Juan, Trust</td>
</tr>
<tr>
<td>IP for Tropical Diseases</td>
<td>Feb 17</td>
<td>San Juan, Trust</td>
</tr>
<tr>
<td>Tech Transfer and IP</td>
<td>March 8</td>
<td>Rio Piedras, UPR Law School</td>
</tr>
</tbody>
</table>

Webinars

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

Performance Metrics

- New Disclosures: 18 (14 from university partners, 4 from small companies)
- New applications: 3
- Agreements: 13
- Patent Portfolio Issued/Filed: 14
- New standard agreements developed:
  - 3 US Provisional
  - 10 US Utility/CIP
  - 1 Foreign
  - 1 US Provisional
  - 1 US Utility
  - 1 PCT

Inventor Assignments
- SUAGM Oct 25
- PHSU/PMSF Oct 17

Invention Management
- SUAGM Feb 15
- PHSU/PMSF March 3
- UPR April 7
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).

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.

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.
Mission and Vision

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. These resources are represented by nonprofit organizations, academia, government agencies, and others that provide services and support to entrepreneurs.

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 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
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. 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 and Commerce 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.
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.
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.

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.
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.

**Mission and Vision**

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 without reach 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

<table>
<thead>
<tr>
<th>Attendees</th>
<th>Speakers &amp; Panelists</th>
<th>Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>465</td>
<td>62</td>
<td>Agro Research &amp; Innovation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bioinformatics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Creative Industries</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Virtual Reality</td>
</tr>
</tbody>
</table>
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.

**Mission and Vision**

**I-Corps**

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**

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**

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:

<table>
<thead>
<tr>
<th>I-Corps</th>
<th>Codetrotters Academy</th>
<th>Biolatam 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>68 teams trained</td>
<td>20 individual scholarships awarded</td>
<td>131 Companies Qualified and Identified for PartneringOne</td>
</tr>
<tr>
<td>249 participants</td>
<td>Many awardees have started new jobs as a direct result of their training in Codetrotters Academy</td>
<td>44 registered participants for Academic Investigators and Startups Workshops, supported by TTO</td>
</tr>
<tr>
<td>Participating industries: Biomedical, Information Technology/Communications, Clean Technology</td>
<td></td>
<td>87 Company matches recommended on Workshops supported by TTO</td>
</tr>
<tr>
<td>More than 250+ contact hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$225K awarded in SBIR Phase 1 Grants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$ 2.3M total capital raised by graduates</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.
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.

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.

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.
Since 2014, $8 million awarded to science and technology research projects
EVENTS and MEDIA COVERAGE

Parallel18’s Demo Day | January 20, 2017

Parallel18 Ventures | January 11, 2017

Forward Mentoring Day | January 27, 2017

STE Mpresarial.org | February 7, 2017

FreeMind Group Presentation | February 16, 2017

TTO Intellectual Property Workshop | February 18, 2017
EVENTS and MEDIA COVERAGE

**UPR-Cayey & Parallel18 Agreement | March 28, 2017**

**Monsanto’s Dr. Goldstein Presentation | April 4, 2017**

**Techno Savvy Women™ Event | March 31, 2017**

**URP-Cayey & Parallel18 Agreement | March 28, 2017**

**CIO IT | April 4, 2017**

**Who’s Who in Our Startup Ecosystems | February 22, 2017**

**Enterprise Law Announcement | February 20, 2017**

**Monsanto’s Dr. Goldstein Presentation | April 4, 2017**
EVENTS and MEDIA COVERAGE

Small Research Grants | April 18, 2017

PRCCI Anniversary | April 6, 2017

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

Agriculture Meet Ups Mayagüez | April 25, 2017

Innovation Round Table Meeting | March 15, 2017

“Relatos de Mujeres” at STEM | March 30, 2017
EVENTS and MEDIA COVERAGE

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
EVENTS and MEDIA COVERAGE

- 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 & ABI PR | August 9, 2017
- Inprende Intrapreneurship Conference | August 11, 2017
EVENTS and MEDIA COVERAGE

ANNUAL REPORT
FISCAL YEAR 2016-2017

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...
Parallel18 Ventures invierte en tres startups
Burea, Pair y Cinemad ganan la primera edición de este fondo de seguimiento para compañías egresadas de P18

El Nuevo Día | January 12, 2017

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. "Parallel18 Ventures es el primer fondo de seguimiento para compañías egresadas de P18," comentó Crespo, quien junto con Sebastián Vidal, director ejecutivo de Parallel18, anunciaron la coinversión. (Suministrada)

Lucy Crespo, presidente del Fideicomiso de Ciencias, Tecnología e Investigación (FCTI), que se celebra hoy en el Hotel Sheraton Puerto Rico. (Yeyi Serra Díaz)

La falta de talento técnico y de profesionales preparados en ciencias de cómputo 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 en mente. "La inquietud, que figura como uno de los temas recurrentes del CEO & 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."

"Parallel18 Ventures proporciona al [Science Trust] la oportunidad de participar en el acelerador de startups del que hasta ahora se habían beneficiado las empresas de las primeras generaciones de P18, y que han tenido un desempeño sobresaliente, capaces de levantar al menos $75,000 en capital privado, cuya inversión cumple con el programa semilla sin exigir acciones a cambio, P18 Ventures," dijo Crespo, quien también mencionó que la Science Trust planea mantener sus acciones en las startups durante varios años.

"Mientras que P18 da a cada startup una oportunidad de crecimiento y exportación, Parallel18 Ventures proporcionará una inversión adicional de $225,000 a cada empresa seleccionada para continuar su crecimiento y expandir sus operaciones. Asimismo, el Fideicomiso de Ciencias, Tecnología e Investigación (FCTI) ha anunciado el nuevo fondo de inversión, que contará con la participación de P18 Ventures, para potenciar el crecimiento y exportación de startups que han recibido el apoyo del acelerador.

"Este es el primer paso en nuestra estrategia para apoyar el crecimiento de las startups que han sido seleccionadas en el acelerador de P18, y que han tenido un desempeño sobresaliente, capaces de levantar al menos $75,000 en capital privado, cuya inversión cumple con el programa semilla sin exigir acciones a cambio, P18 Ventures," comentó también Crespo.

"Asimismo, la Science Trust planea mantener sus acciones en las startups durante varios años, lo que permitirá a las empresas seguir creciendo y expandiendo sus operaciones. Además, el Fideicomiso de Ciencias, Tecnología e Investigación (FCTI) ha anunciado el nuevo fondo de inversión, que contará con la participación de P18 Ventures, para potenciar el crecimiento y exportación de startups que han recibido el apoyo del acelerador.

"Este es el primer paso en nuestra estrategia para apoyar el crecimiento de las startups que han sido seleccionadas en el acelerador de P18, que han tenido un desempeño sobresaliente, capaces de levantar al menos $75,000 en capital privado, cuya inversión cumple con el programa semilla sin exigir acciones a cambio, P18 Ventures," comentó también Crespo.

"Asimismo, la Science Trust planea mantener sus acciones en las startups durante varios años, lo que permitirá a las empresas seguir creciendo y expandiendo sus operaciones. Además, el Fideicomiso de Ciencias, Tecnología e Investigación (FCTI) ha anunciado el nuevo fondo de inversión, que contará con la participación de P18 Ventures, para potenciar el crecimiento y exportación de startups que han recibido el apoyo del acelerador.

"Este es el primer paso en nuestra estrategia para apoyar el crecimiento de las startups que han sido seleccionadas en el acelerador de P18, que han tenido un desempeño sobresaliente, capaces de levantar al menos $75,000 en capital privado, cuya inversión cumple con el programa semilla sin exigir acciones a cambio, P18 Ventures," comentó también Crespo.

"Asimismo, la Science Trust planea mantener sus acciones en las startups durante varios años, lo que permitirá a las empresas seguir creciendo y expandiendo sus operaciones. Además, el Fideicomiso de Ciencias, Tecnología e Investigación (FCTI) ha anunciado el nuevo fondo de inversión, que contará con la participación de P18 Ventures, para potenciar el crecimiento y exportación de startups que han recibido el apoyo del acelerador.

"Este es el primer paso en nuestra estrategia para apoyar el crecimiento de las startups que han sido seleccionadas en el acelerador de P18, que han tenido un desempeño sobresaliente, capaces de levantar al menos $75,000 en capital privado, cuya inversión cumple con el programa semilla sin exigir acciones a cambio, P18 Ventures," comentó también Crespo.

"Asimismo, la Science Trust planea mantener sus acciones en las startups durante varios años, lo que permitirá a las empresas seguir creciendo y expandiendo sus operaciones. Además, el Fideicomiso de Ciencias, Tecnología e Investigación (FCTI) ha anunciado el nuevo fondo de inversión, que contará con la participación de P18 Ventures, para potenciar el crecimiento y exportación de startups que han recibido el apoyo del acelerador.

"Este es el primer paso en nuestra estrategia para apoyar el crecimiento de las startups que han sido seleccionadas en el acelerador de P18, que han tenido un desempeño sobresaliente, capaces de levantar al menos $75,000 en capital privado, cuya inversión cumple con el programa semilla sin exigir acciones a cambio, P18 Ventures," comentó también Crespo.

"Asimismo, la Science Trust planea mantener sus acciones en las startups durante varios años, lo que permitirá a las empresas seguir creciendo y expandiendo sus operaciones. Además, el Fideicomiso de Ciencias, Tecnología e Investigación (FCTI) ha anunciado el nuevo fondo de inversión, que contará con la participación de P18 Ventures, para potenciar el crecimiento y exportación de startups que han recibido el apoyo del acelerador.

"Este es el primer paso en nuestra estrategia para apoyar el crecimiento de las startups que han sido seleccionadas en el acelerador de P18, que han tenido un desempeño sobresaliente, capaces de levantar al menos $75,000 en capital privado, cuya inversión cumple con el programa semilla sin exigir acciones a cambio, P18 Ventures," comentó también Crespo.
El Consorcio de Investigación Clínica reporta sus logros

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

El Nuevo Día | April 6, 2017

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

The Sociable | April 11, 2017

Nueve investigadores reciben subvenciones de Fideicomiso para Ciencia

Por redacción de Sin Comillas

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.

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 création 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 6, 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.
Nueve científicos ganan $630,000 para avanzar proyectos

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

Por Sharon Minelli Pérez

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

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 airosos en la ronda del programa de subvenciones del Fideicomiso para Ciencia, Tecnología e Investigación (FCTI), anunció la doctora Gretchen Díaz, directora del programa.

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.

“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 beneficio de la subvención.

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. Madera)

Nine local researchers receive Science Trust grants

El Nuevo Día

April 19, 2017

newsismybusiness.com

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 geologic 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 attract 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 Arocho, of the University of Puerto Rico, Rio Piedras Campus with his project “Space Complexities in the dynamics of vector-borne diseases: theory and applications of malaria on islands and humans”.

- Michelle Kantrow

El Nuevo Día | April 19, 2017

ANNUAL REPORT FISCAL YEAR 2016-2017
EVENTS and MEDIA COVERAGE

Panel: Commercializing innovation key to PR 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.

“We do not have enough small and medium-sized companies focused on science and technology, and they are the ones that move the economy,” said Lucy Crespo, chief executive officer of the Puerto Rico Science, Technology and Research Trust, and one of the panelists.

“We have to transform the culture and spirit of knowledge to one of commercialization,” she said.

To achieve this, “scientists have to dare” and seek advice from entities to help them get their ideas across. “We fall in love with our ideas, they are like our babies, but perhaps it is not attractive to our market, and we do not know it. And you must dare to ask for help,” said Crespo, who took the opportunity to list the various programs Trust has which are focused on fostering innovation such as Parallel 18 and the Office of Technology Transfer.

Luben Ron García, general manager of OMICS Global Solutions, emphasized that one of the competitive advantages of Puerto Rico to develop its scientific economy is the extraordinary human capital the Island has, “but you have to believe in it,” said García, who is from Venezuela.

In addition, he stressed the importance of retired professionals must continue to contribute to the scientific and economic development of Puerto Rico.

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.
Repudio a que se “polícite” 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 movida 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 reconocido por la Oficina del Contralor, el Banco Gubernamental de Fomento y la Oficina de Ética.

Industriales piden reconsiderar la intervención en Fideicomiso Ciencia

El presidente de la AIPR, 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 Tonito Zayas)

La Asociación de Industriales de Puerto Rico (AIPR), 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, lo que ha sido criticado por las organizaciones científicas y empresariales, que consideran que el proyecto se dirige hacia sectores que no son universitarios ni privados de bienes de fuego sus dirigidos por síndicos que respondan al Gobierno de turno, debido a que —según el proyecto— tendrán que ser nombrados por el gobernador y confirmados por el Senado.
**EVENTS and MEDIA COVERAGE**

**ECONOMÍA**

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) de Puerto Rico “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.

---

**“Enfocado” el Fideicomiso en medio de la controversia**

Lucy Crespo, principal oficial ejecutiva del 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 adelantan 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.

"Ante el cambio de visión y gobernanza expuesto en este proyecto de ley, confío y espero que se continúe adelantando la agenda de ciencia, tecnologías e inversión que adelanta el FCTI, así como se cumplan sus objetivos y metas fijadas en su plan estratégico".

Por Sharon Minelli Pérez

---

ANNUAL REPORT FISCAL YEAR 2016-2017

87
EVENTS and MEDIA COVERAGE

El Nuevo Día | June 28, 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 Innovación (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 alegación del Ejecutivo, respaldada por el Proyecto de la Cámara 1129, se sumerge en el pantalón del vaivén partidista y corporativista que ha impedido al país avanzar.

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

Por virtud de la Ley 714 de 2004, la Asamblea Legislativa delegó en el PCTI asumir la política pública conducente a la innovación en la tecnología, la ciencia, la investigación y el desarrollo. La Ley facilita la alianza entre la empresa, el gobierno y el sector privado, que intervienen organizaciones con y sin fines de lucro e instituciones educativas dentro y fuera de la isla.

La nueva medida propone sacar del camino la estructura de la institución para acortar a ocho personas nombradas por el Gobernador y confirmadas por el Senado. El proyecto, además, reduce los títulos de las licencias de seis años a tres. Sin clara contradicción con los principios de transparencia y participación, el proyecto de ley fue aprobado por la Cámara de Representantes en toda la presencia, sin celebración previa de visitas públicas. Tales formas, además de indecentes y sospechosas, anuncian con maña las lagunas y la credibilidad del PCTI.

Fue previamente, esa cesión previa del control partidista lo que mantenía 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 valiosas programas necesario en la era de Puerto Rico. Es el caso de la aceleradora Parallellab, impulsada del cunado de un centenar de empresas tecnológicas y de la generación de 368 empleos directos.

También cuenta como logro el Consorcio para las Investigaciones Clínicas. Tal fue el centro de investigación, ha generado 55 alianzas con farmacéuticas, fundaciones e injertos, y se enlaza entre 210 y 350 por ciertas restos de inversión.
Temen la pérdida de $50 millones federales

El CDC asignó fondos al Fideicomiso de Ciencia por ser una entidad no gubernamental

jueves, 29 de junio de 2017 - 5:00 AM
Por Sharon Minelli Pérez

Los fondos federales en peligro se asignan a una entidad sin fines de lucro, no gubernamental, para combatir las enfermedades que transmite el mosquito aedes aegypti, como el zika y el dengue. (Ramón Tonito Zayas)

Cerca de $50 millones en fondos federales para combatir las enfermedades que transmite el mosquito aedes aegypti, como zika y dengue, están en riesgo si el Fideicomiso para Ciencia, Tecnología e Investigación (FCTI) pierde su estatus de entidad independiente, denunciaron dos fuentes a El Nuevo Día.

Esta inquietud responde a que el FCTI ganó una subvención de $65 millones para cinco años, que el Centro para el Control de Enfermedades (CDC, por sus siglas en inglés) le otorgó en 2016 “basándose en la premisa de que el FCTI es una entidad independiente”, alertó una de las fuentes.

Las fuentes, que forman parte de la comunidad científica, temen que, de convertirse el FCTI en una entidad dependiente, el CDC reconsidere el resto de la asignación. Esto responde, añadieron, a que el CDC buscó expresamente una entidad sin fines de lucro, no gubernamental, para...
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...
When Karl Marx wrote in the essay "The Eighteenth Brumaire of Louis Napoleon," he did not intend to predict that the time is ripe for the second time. As far as he could, the communist revolution was still on the horizon. The Science Trust system, which has been around for about 150 years, is in trouble. It seems that the current leadership has failed to provide the fiscal stability that is necessary in these difficult times. Talk about the pot calling the kettle.

There is a political agenda to transform HR 1120 that is necessary and prudent. Puget Sound’s orcas need new creating plans for the future. If the Service administration wants to replace the orcas, it should be done on the basis of merit—not on one’s personal political agenda. The orcas are not thriving. They are endangered. The orcas are not the orcas of today. This is the first time that the threat of under-assault. In 2011, during the Luis Fortuño administration, the orcas were targeted by less-than-economic Development Secretary José Antonio Peña-Rodríguez. He tried to replace them before the onset of the 2012 Cuban revolution. This newspaper community recognized the threat and protested. The fight to save the orcas was waged over a year and a half. It helped to generate national awareness in the United States.

Caribbean Business | July 13, 2017

Del View Master a los hologramas

Lucy Ocampo

La opinión expuesta

Q ¿Cómo uno llega a su propia visión de realidad? En el caso de los hologramas, la pregunta es: ¿cómo se llega a una visión de la realidad que no se corresponda con la percepción bidimensional que tenemos de nuestro entorno? La idea de crear una simulación tridimensional del espacio físico para crear una realidad virtual que se interese a la persona ha sido propuesta e investigada por algunos científicos. La simulación tridimensional se ha utilizado para crear un ambiente virtual en el que se puedan experimentar diferentes contextos de vida, como deportes, actividades recreativas, etc. Sin embargo, se espera que los futuros avances en el campo de la realidad virtual propulsen la creación de una vez más versátil y realista simulación.

El Nuevo Día | July 16, 2017
**EVENTS and MEDIA COVERAGE**

**ANNUAL REPORT**
**FISCAL YEAR 2016-2017**

NBC.com  |  August 1, 2017

Tech.co  |  July 19, 2017

The Sociable  |  July 18, 2017

Caribbean Business  |  July 18, 2017

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

**Meet the 14 Startups from Parallel18 Fueling the Puerto Rico Economy**

**In Puerto Rico, Program Attracts Young Entrepreneurs, Sees Results**
EVENTS and MEDIA COVERAGE

Latina Magazine | August 2, 2017

The New York Times | August 5, 2017

BW Disrupt | August 17, 2017

esnoticiapr | August 25, 2017
EVENTS and MEDIA COVERAGE

**Anuncian ayuda económica para investigadores**

Metro | October 19, 2017

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

El Vocero | October 19, 2017

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

Caribbean Business | October 20, 2017

**Parallel18 abre nuevo programa preparatorio de startups**

Metro | November 16, 2017
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
**I-CORPS PUERTO RICO**

**Cohorts**
- San Juan (3)
- Mayagüez (1)
- Ponce (1)

**At-a-glance**
- **5 Cohorts**
- **249 Participants**
- **68 I-CORPS teams graduated**
- **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**

**Where are they now?**
- **Participating Teams: 87**
- **Grads: 68**
- **Active: 59**
- **In Active: 9**
- **Dropouts: 19**

- **Where are they now?**

**Impact**
- **78% Graduation rate**
- **87% Graduates still active**
- **24% Women participants**
- **98% Would Recommend I-Corps PR**

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).
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.

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 -Maria, Jonathan, Lucas, Belisa, Amenica, 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. 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.

What a Ride!

Sebastian Vidal, Executive Director
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).

### 5 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/offshore 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.
- Transform the local mindset of entrepreneurs into a global one.
- Make Puerto Rico a portal for startups that want to scale globally.
- Integrate & collaborate with the local education system and entrepreneurial community.
- Create a new set of local companies that grow beyond Puerto Rico.
- Leverage this uniqueness will help us position the Island as an innovation tech hub in the Caribbean.

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.

### 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

---

*The boulevard of broken behaviors* by Leatherbee and Easley. Stamford 2014
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.

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 includes founders who struggled, some, 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
Board of Advisors

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

**Javier Soltero**
Javier is the Corporate VP President for the Office of Product Growth at Microsoft. He is a Fellow at the Institute of Defense Analysis, a Senior Researcher in Science from the Carnegie Mellon University with a focus on Computational Finance. He is an accomplished entrepreneur. He was the engineer after graduating he had a successful exit with his first company Hyperic (now Hyperic). He then co-founded Acompli, an email app that was later acquired by Microsoft in December of 2014.

**Nancy Santiago-Negrón**
While with the Obama Administration she worked on initiatives with local, national, and international communities to help build start-up ecosystems 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 USD200MM 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 of the most important in the world.

**Barry Katz**
Barry is 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 Innovation 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 Now: The History of Silicon Valley Design (MIT Press, 2015). Barry brings his expertise in design and innovation to understand the future of Paralalitah from a thoughtful and deep perspective.

**Nicholas Shea**
Born and raised in California studying in Stanford University, this entrepreneur by nature realized that most of his classmates had to go back to their country 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 Cumplo, a P2P lending platform for Latin America, which he人民法院EDE. Nicholas co-invented that mix of entrepreneurship and government policies that countries desperately need.

**David Lopez**
David is the founder of Monos 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 the expertise and knowledge to the program.

**Cyril Meduña**
Cyril is a recognized expert in the investment and banking industry. He was a Vice President of the Chase Manhattan Bank, and the President/Managing Director of Advent-Morro Equity, Studios. He is a deep knowledge of the local industry, the understanding of the investment landscape of Puerto Rico, and he manages the connections throughout Latin America that 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, Macy’s, J. Crew, Kate Spade & Company, Estee Lauder, Ralph Lauren Corporation, Urban Outfitters, Alice and Aria, and Amo Inc., while serving as Executive Director for the first cohort. Her previous fashion tech contextual search startup, Shoppy, participated in Techstars Miami, after she was selected as one of the Top 10 Women in DTC Tech.

**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
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**: 401 Companies Applying, 31 Countries
- **Gen.2**: 507 Companies Applying, 44 Countries
- **Gen.3**: 507 Companies Applying, 48 Countries
- **Gen.4**: 457 Companies Applying, 48 Countries

**Total Companies**: 1,872

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 Movil, 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:

- Education 5%
- Cleantech 5%
- Social Media 2%
- Healthcare/ Biotech 9%
- Media/ Advertising 5%
- E-commerce 20%
- IT/Software 30%
- Tourism 3%
- Gaming 3%
- FinTech 3%
- Mobile/ Wireless 8%
- AgroTech 3%
- Energy 3%

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

“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

“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

“During the first 10 weeks of the program we have sold more than what we did in all of 2015.”
Alan Taveras, founder of Blendy
Gen.2 alumna
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.

“Listening to what works now for a company in a similar industry helps us validate initiatives for our startup.”

Eric Crespo
CEO Lunchera
Gen.3 Participant

Puerto Rican startups Lunchera and Compra Fresca during their weekly KPI meeting.

Results

From 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.

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:

Grants Distributed

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

$2,480,000

Changing the Mindset

31 full-time jobs
61 part-time jobs
76 intern positions

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

Retention 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.

- 30% of startups were Puerto Rican
- 34 companies established operations in Puerto Rico
- 40% of foreign companies that came to the program established operations in Puerto Rico
- 17 business connections initiated in Puerto Rico

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

Revenue

From April 2016 to April 2017

$13,990,059

Total revenue (Gen.1 and Gen.2).

$7,988,506

Total revenue generated in Puerto Rico (Gen.1 and Gen.2).

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

Raising investment is always a tough one for startups. This is why we prepare them raising 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.

$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
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 USD$75,000, 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 began working full-force in September 2016. 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 reinforce the corporate partners’ competitiveness in the market. More importantly, we want that innovation becomes more than a thing of startups and that big corporations can think differently about ways to scale.

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.
Giovanni Collazo
Founder, Gasolina Movil
Interview Conducted: May 2017, Parallel18

Q: What were your expectations about Parallel18?
GC: On my previous experience, 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 learn from people with more experience than us. We wanted to take advantage of all the new wonderful resources available thanks to Parallel18.

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 Parallel18, we had launched and were looking for customers. We had 2 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: 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 believe 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: 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: How do you think Parallel18 is influencing you?
GC: Absolutely. As an entrepreneur you have to take every opportunity even if there are high risks. To take the risks. If you believe that your company is at the place where it can benefit from network and mentoring, that’s the perfect place. But you need to allow yourself to be mentored by the team and the coaches. It brings you to a whole new level.

Q: What is your inspiration to be an entrepreneur?
LC: I do.

Q: What was your top three aspects of the program?
LC: Connections & Networking, Marketing & Communications and the office environment was a very good influence for creativity.
Transforming 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
- 2,521 approximate number of people impacted
- 562 hours spent giving back

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

The 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

Lisandro Martino
Platform Manager
INprende

Since 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.

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

Necessary. 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.
Retaining 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 resumés 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 Juvemento. Juvemento 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.

Camila Hernandez, intern Gen.1

Camila learned about Parallel18 through a college professor. Although she was skeptical 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 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 Pa18 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 Pa18 made her an entrepreneur. Her plan is to start her own architecture company. Besides the experience she got in Pa18 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 Pa18 was 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 Pa18. “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 Pa18 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 Pa18 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 Pa18 Director of Operations, Lucas Arzola, who introduced him to the program. Rodolfo states that “Pa18 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 Pa18 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
Our 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

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 collaborative engagements on campus.

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

Increasing the pipelines of Puerto Rican startups is very important for P18. That’s 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 Gen.4.
Parallel18 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.

Thanks to mentors & partners

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 PROGRAM
IMPACT REPORT (2014- to present)

Prepared by:
Greetchen Díaz (Research Grants Program Director)
Marianyolú Ortiz (Grants Program Management Specialist)
Gilberto Márquez (SBIR/STTR Matching Funds Program)
Lauren Rivera (Research Grants Program Intern)
Grace Rendón (Research Grants Program Intern)
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I- Executive Summary</td>
<td>4</td>
</tr>
<tr>
<td>II- Program Initiatives and Achievements</td>
<td>10</td>
</tr>
<tr>
<td>A. Programmatic (Funding and Training Initiatives)</td>
<td>12</td>
</tr>
<tr>
<td>1. Funding</td>
<td>12</td>
</tr>
<tr>
<td>1.1 Competitive Funding</td>
<td>12</td>
</tr>
<tr>
<td>12 - Science &amp; Technology Request for Proposals (RFP)</td>
<td>12</td>
</tr>
<tr>
<td>12 - Small Research Grant Program (SRGP)</td>
<td>18</td>
</tr>
<tr>
<td>12 - Researchers Startup Funds Program (RSFP)</td>
<td>26</td>
</tr>
<tr>
<td>1.2 Non-competitive Funding</td>
<td>28</td>
</tr>
<tr>
<td>12 - SBIR/STTR Matching Fund Program (Phase I)</td>
<td>28</td>
</tr>
<tr>
<td>2. Research Grants Program Training and Outreach</td>
<td>29</td>
</tr>
<tr>
<td>B. Operational</td>
<td>32</td>
</tr>
<tr>
<td>1. Program Guidelines and Bidder Briefings</td>
<td>34</td>
</tr>
<tr>
<td>2. Communications and Outreach</td>
<td>34</td>
</tr>
<tr>
<td>3. Reviewer’s Database</td>
<td>34</td>
</tr>
<tr>
<td>4. Applicants and Grantees Databases</td>
<td>35</td>
</tr>
<tr>
<td>5. Application/Review Online platform</td>
<td>35</td>
</tr>
<tr>
<td>6. Peer-review process</td>
<td>35</td>
</tr>
<tr>
<td>7. Research Grants Program grantee evaluation process</td>
<td>36</td>
</tr>
<tr>
<td>8. Assessment process for grantees by the Technology Transfer &amp; Commercialization Office</td>
<td>36</td>
</tr>
<tr>
<td>9. Internships</td>
<td>36</td>
</tr>
<tr>
<td>III. General Conclusions</td>
<td>37</td>
</tr>
<tr>
<td>IV- Plan of action for 2017-2018</td>
<td>38</td>
</tr>
<tr>
<td>V. Suggestions</td>
<td>39</td>
</tr>
<tr>
<td>VI- Appendix</td>
<td>41</td>
</tr>
<tr>
<td>1. Procedures for the Research Grants Program</td>
<td>42</td>
</tr>
<tr>
<td>2. List of Reviewers (all initiatives)</td>
<td>47</td>
</tr>
<tr>
<td>3. Proposals approved for funding (all initiatives)</td>
<td>52</td>
</tr>
<tr>
<td>4. Grantees Publications</td>
<td>58</td>
</tr>
<tr>
<td>5. Laboratory Visits</td>
<td>60</td>
</tr>
<tr>
<td>6. Research Grants Program Press Coverage (TV coverage not included)</td>
<td>62</td>
</tr>
<tr>
<td>7. Research Grants Program General Survey</td>
<td>71</td>
</tr>
<tr>
<td>8. Testimonies</td>
<td>78</td>
</tr>
</tbody>
</table>
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 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 peer 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

<table>
<thead>
<tr>
<th></th>
<th>Academia, Non-profit</th>
<th>For profit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SRGP</td>
<td>RSFP</td>
</tr>
<tr>
<td>Basic Research</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Applied Research</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Product Development</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

---

**Note:** This table outlines the scope of the RESEARCH GRANTS PROGRAM across different categories and funding streams.
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.

**Phase 1: Letter of intent (LOI)**

3-4 months

**Letter of intent (LOI)** - Summary of the innovation, its development status, proposed use of the Trust funds, projects amangement and team qualifications.

**Full Proposal** - *By invitation only*. Selected applicants have to provide a detailed project development description as described in Program Guidelines.

TGAT = Trust’s Grants Advisory Team
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).
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).

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.
Figure 11: Distribution of applications based on Academic Sector for the Small Research Grant Program (SRGP). Numbers include the 58 applications reviewed in both SRGP cycles (2015-16 and 2016-17).

Figure 12: Distribution of applications based on Category for the Small Research Grant Program (SRGP). Numbers include the 58 applications reviewed in both SRGP cycles (2015-16 and 2016-17).
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).
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 1 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:

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Agency</th>
<th>Phase</th>
<th>Grant Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS Caribe/UPR Mayaguez - SBIR Phase I NSF</td>
<td>$225,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDI Laboratories Inc./Ponce Health Sciences University - STTR Phase I NIH</td>
<td>$154,596</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDI Laboratories Inc./Rockefeller University - STTR Phase I NIH</td>
<td>$294,320</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STTR with UPR Mayaguez - STTR Phase I NASA</td>
<td>$125,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protein Dynamics Solutions - SBIR Phase II NSF</td>
<td>$750,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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
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 process
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 grantee 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 strengthen 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 project 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
2. First Forward Grantees Symposium (May 2017; annual event)
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.


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)

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 to 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, the 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 an 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)

<table>
<thead>
<tr>
<th>Reviewer</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaron Beeler, PhD</td>
<td>Boston University</td>
</tr>
<tr>
<td>Abraham Rodríguez, PhD</td>
<td>Savannah River National Lab</td>
</tr>
<tr>
<td>Alberto Cruz, PhD</td>
<td>Boston University</td>
</tr>
<tr>
<td>Alberto Rivera, PhD</td>
<td>National Institutes of Health (NIH)</td>
</tr>
<tr>
<td>Alejandro Caro Quintero, PhD</td>
<td>Corporación Colombiana de Investigación Agropecuaria, Bogotá, Colombia</td>
</tr>
<tr>
<td>Aleksei Aksimentiev, PhD</td>
<td>University of Illinois, Urbana-Champaign, IL</td>
</tr>
<tr>
<td>Alessandro Catenazzi</td>
<td>Southern Illinois University, Carbondale, IL</td>
</tr>
<tr>
<td>Ali Andalibi</td>
<td>George Mason University</td>
</tr>
<tr>
<td>Andres Garcia</td>
<td>Georgia Institute of Technology</td>
</tr>
<tr>
<td>Anindo Choudhury</td>
<td>St. Norbert College, Wisconsin, USA</td>
</tr>
<tr>
<td>Anna Cinzia Squicciarini</td>
<td>Pennsylvania State University, Pennsylvania, USA</td>
</tr>
<tr>
<td>Annika Fitzpatrick Barber</td>
<td>University of Pennsylvania, Philadelphia, PA</td>
</tr>
<tr>
<td>Aseneth Herrera</td>
<td>Universidad Autonoma de Baja California</td>
</tr>
<tr>
<td>Augusto E. Valderrama Aguirre</td>
<td>Universidad Libre de Colombia, Bogotá, Colombia</td>
</tr>
<tr>
<td>Baoshan Huang</td>
<td>University of Tennessee</td>
</tr>
<tr>
<td>Boris Stoeber</td>
<td>University of British Columbia, Vancouver, Canada</td>
</tr>
<tr>
<td>Brian Murphy</td>
<td>Queen’s University Belfast, Belfast, UK</td>
</tr>
<tr>
<td>Carlos A. Mejias-Aponte</td>
<td>NIH National Institute on Drug Abuse, Bethesda, MD</td>
</tr>
<tr>
<td>Carlos A. Urrea Florez</td>
<td>University of Nebraska-Lincoln, Lincoln, NE</td>
</tr>
<tr>
<td>Carlos C. Martinez Rivera</td>
<td>Philadelphia Zoo, Philadelphia, PA</td>
</tr>
<tr>
<td>Carlos Crespo</td>
<td>Case Western Reserve University</td>
</tr>
<tr>
<td>Carlos Cruz Noguez</td>
<td>University of Alberta</td>
</tr>
<tr>
<td>Carlos Mejias</td>
<td>NIH National Institute on Drug Abuse</td>
</tr>
<tr>
<td>Carlos Molina</td>
<td>Montclair State University</td>
</tr>
<tr>
<td>Carlos Rinaldi</td>
<td>University of Florida</td>
</tr>
<tr>
<td>Carol Prentice</td>
<td>USGS Hazard Earthquake Program, Menlo Park, CA</td>
</tr>
<tr>
<td>Ce Yang</td>
<td>University of Minnesota, St. Paul, MN</td>
</tr>
<tr>
<td>Chinedum Osuji</td>
<td>Yale University, New Haven, CT</td>
</tr>
<tr>
<td>Christian R. Goldsmith</td>
<td>Auburn University, Auburn, AL</td>
</tr>
<tr>
<td>Daniel Leznoff</td>
<td>Simon Fraser University, Burnaby, CA</td>
</tr>
<tr>
<td>Name</td>
<td>Institution/Address</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>Daniel Mooradian</td>
<td>University of Minnesota, Minneapolis, MN</td>
</tr>
<tr>
<td>Daniel Salkeld</td>
<td>Colorado State University, Fort Collins, CO</td>
</tr>
<tr>
<td>David Allred</td>
<td>University of Florida, Gainesville</td>
</tr>
<tr>
<td>David Cormode</td>
<td>University of Pennsylvania, Philadelphia, PA</td>
</tr>
<tr>
<td>David Fannon</td>
<td>Northeastern University</td>
</tr>
<tr>
<td>David Salas</td>
<td>University of Pennsylvania</td>
</tr>
<tr>
<td>David Salas</td>
<td>Rutgers University</td>
</tr>
<tr>
<td>David Shapiro</td>
<td>US Department of Agriculture</td>
</tr>
<tr>
<td>Dawn W. Dowding</td>
<td>Columbia University School of Nursing, New York, NY</td>
</tr>
<tr>
<td>Deborah Delaney</td>
<td>University of Delaware, Newark, DE</td>
</tr>
<tr>
<td>Deepa Bedi</td>
<td>Tuskegee University, Alabama, USA</td>
</tr>
<tr>
<td>Edgar Diaz</td>
<td>Belmont University, Tennessee, USA</td>
</tr>
<tr>
<td>F. C. Thomas Allnutt</td>
<td>BrioBiotech LLC, Glenelg, MD</td>
</tr>
<tr>
<td>Felix N. Castellano</td>
<td>North Carolina State University, Raleigh, NC</td>
</tr>
<tr>
<td>Fernando A de Torres Jr.</td>
<td>EcoSafe Environmental Management System, Ocala, FL</td>
</tr>
<tr>
<td>Frances Santiago Schwarz</td>
<td>Farmingdale State University</td>
</tr>
<tr>
<td>Francisco Agosto</td>
<td>Cornell University</td>
</tr>
<tr>
<td>Frank Hunte</td>
<td>North Carolina State University</td>
</tr>
<tr>
<td>Gary Vallad</td>
<td>University of Florida, Gainesville, FL</td>
</tr>
<tr>
<td>Giovanna Guerrero</td>
<td>Yale University</td>
</tr>
<tr>
<td>Graciela Brelles-Mariño</td>
<td>Universidad Nacional de La Plata, Buenos Aires, Argentina</td>
</tr>
<tr>
<td>Haiqing Lin</td>
<td>State University of New York at Buffalo, NY</td>
</tr>
<tr>
<td>Harbinder Singh Dhillon</td>
<td>Delaware State University, Dover, DE</td>
</tr>
<tr>
<td>Hongbo Ma</td>
<td>University of Wisconsin, Milwaukee, WI</td>
</tr>
<tr>
<td>Horacio Olivo</td>
<td>University of Iowa</td>
</tr>
<tr>
<td>Hugo Ruben Arias</td>
<td>California Northstate University, Elk Grove, CA</td>
</tr>
<tr>
<td>Ioannis Kymissis</td>
<td>Columbia University, New York, NY</td>
</tr>
<tr>
<td>Jacob Berlin</td>
<td>Beckman Research, City of Hope, Duarte, CA</td>
</tr>
<tr>
<td>James C. Fell</td>
<td>NORC, University of Chicago, Chicago, IL</td>
</tr>
<tr>
<td>James Coffman</td>
<td>Mount Desert Island Biological Labs, Bar Harbor, ME</td>
</tr>
<tr>
<td>Jeroen Pollet</td>
<td>Baylor College of Medicine, Houston, TX</td>
</tr>
<tr>
<td>Joan Curry</td>
<td>University of Arizona</td>
</tr>
<tr>
<td>Joaquin Dopazo</td>
<td>Centro de Investigación Príncipe Felipe, Valencia, Spain</td>
</tr>
<tr>
<td>Name</td>
<td>Affiliation</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Jocelyn Biagini Myers</td>
<td>Cincinnati Children’s Hospital Medical Center, Cincinnati, OH</td>
</tr>
<tr>
<td>John Tooker</td>
<td>Pennsylvania State University, Pennsylvania, USA</td>
</tr>
<tr>
<td>Jos. J. Schall</td>
<td>University of Vermont, Burlington, VT</td>
</tr>
<tr>
<td>José E. Vidal</td>
<td>Amgen, Puerto Rico</td>
</tr>
<tr>
<td>José Jiménez</td>
<td>University of North Florida</td>
</tr>
<tr>
<td>Jose Mur</td>
<td>Franklin W. Olin College of Engineering</td>
</tr>
<tr>
<td>José Torres</td>
<td>University of California at Davis</td>
</tr>
<tr>
<td>Joseph Hale</td>
<td>Technological Leadership Institute</td>
</tr>
<tr>
<td>Juan Figueroa</td>
<td>Abenaki Connect Inc.</td>
</tr>
<tr>
<td>Juan L. Suarez</td>
<td>The University of Western Ontario</td>
</tr>
<tr>
<td>Julia Diaz</td>
<td>University of Georgia</td>
</tr>
<tr>
<td>Julia Neilson</td>
<td>University of Arizona</td>
</tr>
<tr>
<td>Karl A. van Bibber</td>
<td>University of California, Berkeley</td>
</tr>
<tr>
<td>Karl Miletti</td>
<td>Delaware State University</td>
</tr>
<tr>
<td>Ken Dawson-Scully</td>
<td>Florida Atlantic University, Boca Raton, FL</td>
</tr>
<tr>
<td>Keykavous Parang</td>
<td>Brown University</td>
</tr>
<tr>
<td>Kristina Bailey</td>
<td>University of Nebraska-Medical Center, Omaha, NE</td>
</tr>
<tr>
<td>Ksenija D. Glusac</td>
<td>Bowling Green State University, Bowling Green, OH</td>
</tr>
<tr>
<td>Lars Oddsson</td>
<td>Technological Leadership Institute-University of Minnesota, Minneapolis, MN</td>
</tr>
<tr>
<td>Le Song</td>
<td>Georgia Institute of Technology, Atlanta, GA</td>
</tr>
<tr>
<td>Leah McHale</td>
<td>Ohio State University, Columbus, OH</td>
</tr>
<tr>
<td>Lian Duan</td>
<td>Missouri University of Science and Technology, Rolla, MO</td>
</tr>
<tr>
<td>Luis Martinez</td>
<td>New York Institute of Technology</td>
</tr>
<tr>
<td>Lumarie Pérez</td>
<td>The Ohio State University</td>
</tr>
<tr>
<td>Manuel Leal</td>
<td>University of Missouri</td>
</tr>
<tr>
<td>Manuel Navedo</td>
<td>University of California at Davis</td>
</tr>
<tr>
<td>Manuel Pérez</td>
<td>Virginia Tech University</td>
</tr>
<tr>
<td>Marcelo Febo</td>
<td>University of Florida</td>
</tr>
<tr>
<td>Marcos López</td>
<td>Fundación Cardiovascular de Colombia</td>
</tr>
<tr>
<td>Maribel Rios</td>
<td>Tuft University</td>
</tr>
<tr>
<td>Marirosa Molina</td>
<td>USEPA/Office of Research and Development, Athens, GA</td>
</tr>
<tr>
<td>Marvi Matos</td>
<td>The Boeing Company</td>
</tr>
<tr>
<td>Melany P. Puglisi-Weening</td>
<td>Chicago State University, Chicago, IL</td>
</tr>
</tbody>
</table>

**RESEARCH GRANTS PROGRAM IMPACT REPORT (2014– to present)**
<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael Duffey</td>
<td>George Washington University</td>
</tr>
<tr>
<td>Michael Leibowitz</td>
<td>University of California at Davis</td>
</tr>
<tr>
<td>Michael P. Cummings</td>
<td>University of Maryland, College Park, MD</td>
</tr>
<tr>
<td>Michael R Hamblin</td>
<td>Harvard Medical School, Boston, MA</td>
</tr>
<tr>
<td>Michael Ramage</td>
<td>University of Cambridge</td>
</tr>
<tr>
<td>Mihaela Balu</td>
<td>University of California, Irvine</td>
</tr>
<tr>
<td>Mildred Acevedo</td>
<td>University of South Florida</td>
</tr>
<tr>
<td>Moraima Reyes</td>
<td>University of Washington</td>
</tr>
<tr>
<td>Morton A. Barlaz</td>
<td>North Carolina State University, Raleigh, NC</td>
</tr>
<tr>
<td>Mukesh Limbachiya</td>
<td>Kingston University</td>
</tr>
<tr>
<td>Nelson Sepúlveda</td>
<td>Michigan State University</td>
</tr>
<tr>
<td>Nichole Broderick</td>
<td>University of Connecticut, Storrs, CT</td>
</tr>
<tr>
<td>Nicolae Barsan</td>
<td>University of Tübingen, Tübingen, Germany</td>
</tr>
<tr>
<td>Nripesh Dhungel</td>
<td>Stanford University</td>
</tr>
<tr>
<td>Olav Rueppell</td>
<td>University of North Carolina, Greensboro</td>
</tr>
<tr>
<td>Oné Pagán</td>
<td>West Chester University</td>
</tr>
<tr>
<td>Paul Sikkel</td>
<td>Arkansas State University, Arkansas, USA</td>
</tr>
<tr>
<td>Qihai Gu</td>
<td>Mercer University, Macon, GA</td>
</tr>
<tr>
<td>Ramphis Castro</td>
<td>Simple Engineering Corporation</td>
</tr>
<tr>
<td>Raul Bayoan Cal</td>
<td>Portland State University, Portland, OR</td>
</tr>
<tr>
<td>Raúl Cal</td>
<td>Portland State University</td>
</tr>
<tr>
<td>Raymond B Huey</td>
<td>University of Washington, Seattle, WA</td>
</tr>
<tr>
<td>Rebecca A. Cole, PhD</td>
<td>US Geological Survey, Wisconsin, USA</td>
</tr>
<tr>
<td>Reinier Hernández</td>
<td>University of Wisconsin-Madison</td>
</tr>
<tr>
<td>Reyna Martínez</td>
<td>Upstate Medical University</td>
</tr>
<tr>
<td>Richard [Cole] Brokamp</td>
<td>Cincinnati Children’s Hospital Medical Center, Cincinnati, OH</td>
</tr>
<tr>
<td>Ritu Aneja</td>
<td>Georgia State University, Atlanta, GA</td>
</tr>
<tr>
<td>Robert Berger</td>
<td>Small Innovation Research</td>
</tr>
<tr>
<td>Robert C Pierce</td>
<td>University of Pennsylvania, Philadelphia, PA</td>
</tr>
<tr>
<td>Robert King</td>
<td>Independent consultant</td>
</tr>
<tr>
<td>Robert R. Diaz</td>
<td>GMP &amp; Analytical Development Consultant</td>
</tr>
<tr>
<td>Roger C. Lo</td>
<td>California State University, Long Beach</td>
</tr>
<tr>
<td>Sarah Penniston-Dorland</td>
<td>University of Maryland, Long Beach</td>
</tr>
<tr>
<td>Name</td>
<td>Institution</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Scott Boitano</td>
<td>University of Arizona, Tucson, AZ</td>
</tr>
<tr>
<td>Scott Schaus</td>
<td>Boston University</td>
</tr>
<tr>
<td>Sergio Morales</td>
<td>University of Otago (New Zealand)</td>
</tr>
<tr>
<td>Serhat Hosder</td>
<td>Missouri University of Science &amp; Technology, Rolla, MO</td>
</tr>
<tr>
<td>Shandra Justicia</td>
<td>Arcadis, PR</td>
</tr>
<tr>
<td>Sharifly Almodóvar</td>
<td>University of Colorado, Denver</td>
</tr>
<tr>
<td>Stephen Richards</td>
<td>Baylor College of Medicine</td>
</tr>
<tr>
<td>Steven Justiniano</td>
<td>Ohio State University</td>
</tr>
<tr>
<td>Steven M Drew</td>
<td>Carleton College, Northfield, MN</td>
</tr>
<tr>
<td>Susan G Ernst</td>
<td>Tufts University, Medford, MA</td>
</tr>
<tr>
<td>Tanya Furman</td>
<td>Pennsylvania State University, State College, PA</td>
</tr>
<tr>
<td>Tara Kelley-Baker</td>
<td>University of Chicago, Chicago, IL</td>
</tr>
<tr>
<td>Thomas Ebert</td>
<td>Oregon State University, Corvallis, OR</td>
</tr>
<tr>
<td>Thomas Jaramillo</td>
<td>Stanford University</td>
</tr>
<tr>
<td>Thomas Marcotte</td>
<td>University of California, San Diego, CA</td>
</tr>
<tr>
<td>Thomas Vetter</td>
<td>University of Manchester, England</td>
</tr>
<tr>
<td>Timothy Iwao Miyashiro</td>
<td>Pennsylvania State University, State College, PA</td>
</tr>
<tr>
<td>Tyrone Rooney</td>
<td>Michigan State University, East Lansing, MI</td>
</tr>
<tr>
<td>Valerie Bar</td>
<td>Union College, New York, USA</td>
</tr>
<tr>
<td>Valerie Barr</td>
<td>Union College</td>
</tr>
<tr>
<td>Víctor Maldonado</td>
<td>University of Texas at San Antonio</td>
</tr>
<tr>
<td>Víctor Torres</td>
<td>New York University</td>
</tr>
<tr>
<td>Warren Foster</td>
<td>McMaster University</td>
</tr>
<tr>
<td>William Ja</td>
<td>The Scripps Research Institute, Jupiter, Florida</td>
</tr>
<tr>
<td>Wilson Francisco</td>
<td>Arizona State University</td>
</tr>
<tr>
<td>Won Suk Lee</td>
<td>University of Florida, Gainesville, FL</td>
</tr>
<tr>
<td>Xiaoke Chen</td>
<td>Stanford University, Stanford, CA</td>
</tr>
<tr>
<td>Yajaira Sierra</td>
<td>US Department of Treasury</td>
</tr>
<tr>
<td>Yarimar Carrasquillo</td>
<td>NIH</td>
</tr>
<tr>
<td>Ying Diao</td>
<td>University of Illinois at Urbana-Champaign, USA</td>
</tr>
<tr>
<td>Yufang Jin</td>
<td>University of California, Davis, CA</td>
</tr>
<tr>
<td>Yujui Yvonne Wan</td>
<td>University of California, Davis, CA</td>
</tr>
</tbody>
</table>
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.

   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

   PI: Juan Cruz, MS, ComQuest Ventures LLC  
   Strategic Sector: Aerospace

   PI: Carlos Cabrera, PhD, University of Puerto Rico-Río Piedras  
   Strategic Sector: Biotechnology and Natural Sciences
   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

    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

PI: Suranganie Dharmawardhane, PhD, University of Puerto Rico - Medical Sciences  
Strategic Sector: Biotechnology and Natural Sciences
## Small Research Grant Program (SRGP)

### 1st 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

   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

### 1st cycle-b

#### Junior Faculty
1. Polymorphic control of small organic semiconductor materials using thioaromatic self-assembled monolayers on gold.  
   PI: Vilma 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

PI: Sean Locke, PhD, University of Puerto Rico- Mayagüez**
Strategic Sector: Biotechnology and Natural Sciences

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** 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

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

   PI: Miguel Acevedo, PhD, University of Puerto Rico- Rio Piedras
   Strategic Sector: Biotechnology and Natural Sciences

   PI: Eduardo Nicolau, PhD, University of Puerto Rico- Rio 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

   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

**Antonio Alegría**

**Suranganie Dharmawardhane**

**SRGP 2015-2016**

**Cycle 1-a**

**Maribella Domenech**

**Jorge Almodovar**

58 RESEARCH GRANTS PROGRAM IMPACT REPORT (2014- to present)
Cycle 2-b

Sean Locke


Carla Restrepo


RFP 2015-2016

Guillermo Armaiz-Peña


Paul Bayman


Tugrul Giray


Suranganie Dharmawardhane

via the Akt/mTOR/AMPK/Mammalian Target of Rapamycin (mTOR) signaling cascade”. PLoS One


RSFP 2015

Devin Mueller


Harold Saavedra


5. Laboratory Visits

RFP 2014-2015

<table>
<thead>
<tr>
<th>Grantee</th>
<th>Midterm Visit</th>
<th>Final Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelfa Serrano</td>
<td>Feb 8, 2016</td>
<td>-</td>
</tr>
<tr>
<td>Antonio Alegria</td>
<td>Dec 4, 2015</td>
<td>Aug 18, 2016</td>
</tr>
<tr>
<td>Carlos Cabrera</td>
<td>Dec 4, 2015</td>
<td>Apr 11, 2017</td>
</tr>
<tr>
<td>David Suleiman</td>
<td>Dec 8, 2015</td>
<td>-</td>
</tr>
<tr>
<td>Jacqueline Flores</td>
<td>Dec 11, 2015</td>
<td>Feb 16, 2017</td>
</tr>
<tr>
<td>Juan Cruz</td>
<td>Dec 14, 2015</td>
<td>Aug 18, 2016</td>
</tr>
<tr>
<td>Lianabel Oliver</td>
<td>-</td>
<td>Aug 16, 2016-</td>
</tr>
<tr>
<td>Rafael Medina</td>
<td>Dec 8, 2015</td>
<td>Feb 16, 2017</td>
</tr>
<tr>
<td>Rodolfo Romañach</td>
<td>Dec 11, 2015</td>
<td>Feb 16, 2017</td>
</tr>
<tr>
<td>Suranganie Dhramawardhane</td>
<td>Dec 9, 2015</td>
<td>Nov 21, 2016</td>
</tr>
</tbody>
</table>
### RFP 2015-2016

<table>
<thead>
<tr>
<th>Grantee</th>
<th>Midterm Visit</th>
<th>Final Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pablo Vivas</td>
<td>Jan 10, 2017</td>
<td>-</td>
</tr>
<tr>
<td>Suranganie Dharmawardhane</td>
<td>Jan 10, 2017</td>
<td>-</td>
</tr>
<tr>
<td>Guillermo Armaiz</td>
<td>Jan 12, 2017</td>
<td>-</td>
</tr>
<tr>
<td>Idhaliz Flores</td>
<td>Jan 12, 2017</td>
<td>-</td>
</tr>
<tr>
<td>Elizabeth Padilla</td>
<td>Jan 16, 2017</td>
<td>-</td>
</tr>
<tr>
<td>Lilia Kucheryavykh</td>
<td>Jan 17, 2017</td>
<td>-</td>
</tr>
<tr>
<td>Sylvia Rodriguez</td>
<td>Jan 18, 2017</td>
<td>-</td>
</tr>
<tr>
<td>Tugrul Giray</td>
<td>Jan 19, 2017</td>
<td>-</td>
</tr>
<tr>
<td>Paul Bayman</td>
<td>Jan 24, 2017</td>
<td>-</td>
</tr>
<tr>
<td>Norman Ortiz</td>
<td>Jan 18, 2017</td>
<td>-</td>
</tr>
<tr>
<td>Carlos Alvarado</td>
<td>Feb 8, 2017</td>
<td>-</td>
</tr>
<tr>
<td>Silvina Cancelos</td>
<td>Feb 16, 2017</td>
<td>-</td>
</tr>
<tr>
<td>Jaime Matta</td>
<td>Feb 14, 2017</td>
<td>-</td>
</tr>
<tr>
<td>Roy Armstrong</td>
<td>Mar 8, 2017</td>
<td>-</td>
</tr>
</tbody>
</table>

### SRGP 2015-2016

<table>
<thead>
<tr>
<th>Grantee</th>
<th>Midterm Visit</th>
<th>Final Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lisandro Cunci</td>
<td>Jul 19, 2016</td>
<td>-</td>
</tr>
<tr>
<td>Maribella Domenech</td>
<td>Jul 18, 2016</td>
<td>-</td>
</tr>
<tr>
<td>Pedro Resto</td>
<td>Jul 15, 2016</td>
<td>-</td>
</tr>
<tr>
<td>Jorge Almodovar</td>
<td>Jul 15, 2016</td>
<td>-</td>
</tr>
<tr>
<td>Wildeliz Torres</td>
<td>Jul 15, 2016</td>
<td>-</td>
</tr>
<tr>
<td>Catherine Hulshof</td>
<td>Sept 15, 2016</td>
<td>-</td>
</tr>
<tr>
<td>Sean Locke</td>
<td>Sept 15, 2016</td>
<td>-</td>
</tr>
<tr>
<td>Vilmali López</td>
<td>Sept 12, 2016</td>
<td>-</td>
</tr>
<tr>
<td>Torsten Stelzer</td>
<td>Sept 12, 2016</td>
<td>-</td>
</tr>
<tr>
<td>Carla Restrepo</td>
<td>Sept 2016</td>
<td>-</td>
</tr>
</tbody>
</table>

### Research Startup Funds Program (RSFP)

<table>
<thead>
<tr>
<th>Grantee</th>
<th>Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devin Mueller</td>
<td>Jan 12, 2017</td>
</tr>
<tr>
<td>Harold Saavedra</td>
<td>Jan 12, 2017</td>
</tr>
</tbody>
</table>
6. Research Grants Program Press Coverage (TV coverage not included)
Paso al frente en la investigación científica

Dos proyectos de investigación recibieron “grants” del Fondo Estatal de Ciencia, Tecnología e Investigación.

Una vez más, los tres proyectos de investigación más imponentes fueron los seleccionados para recibir el apoyo de la Agencia de Fomento de Investigación y Desarrollo (AGFID). Los proyectos seleccionados fueron:

1. El proyecto “Investigación en Tecnología e Investigación” (ITI)
2. El proyecto “Desarrollo de Tecnologías Avanzadas” (DTA)
3. El proyecto “Innovación en Energías Renovables” (IER)

Los proyectos seleccionados recibieron un total de $1,450,000.00, distribuidos de la siguiente manera:

- ITI: $700,000.00
- DTA: $400,000.00
- IER: $350,000.00
- QI: $300,000.00

El proyecto ITI recibió el mayor apoyo, seguido por el proyecto DTA. El proyecto IER recibió el menor apoyo, pero su potencial y impacto son impresionantes.

Los proyectos seleccionados recibieron un total de $1,450,000.00, distribuidos de la siguiente manera:

- ITI: $700,000.00
- DTA: $400,000.00
- IER: $350,000.00
- QI: $300,000.00

El proyecto ITI recibió el mayor apoyo, seguido por el proyecto DTA. El proyecto IER recibió el menor apoyo, pero su potencial y impacto son impresionantes.

El proyecto ITI recibió el mayor apoyo, seguido por el proyecto DTA. El proyecto IER recibió el menor apoyo, pero su potencial y impacto son impresionantes.

El proyecto ITI recibió el mayor apoyo, seguido por el proyecto DTA. El proyecto IER recibió el menor apoyo, pero su potencial y impacto son impresionantes.
RESEARCH GRANTS PROGRAM IMPACT REPORT (2014- to present)
<table>
<thead>
<tr>
<th>Date (mm/dd/yyyy)</th>
<th>Title</th>
<th>Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/4/2017</td>
<td>iGenApps levanta capital para crecer</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>5/30/2017</td>
<td>Programa de subvenciones adelanta 33 proyectos de investigación</td>
<td>Diario Metro Puerto Rico</td>
</tr>
<tr>
<td>5/14/2017</td>
<td>Dr. Eduardo Nicolau: Creating Solutions With Nanoparticle Chemistry</td>
<td>CienciaPR</td>
</tr>
<tr>
<td>4/19/2017</td>
<td>Nueve científicos ganan $630,000 para avanzar proyectos.</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>4/19/2017</td>
<td>Investigadores de universidades ponceñas reciben importantes</td>
<td>Voces del Sur</td>
</tr>
<tr>
<td></td>
<td>subvenciones</td>
<td></td>
</tr>
<tr>
<td>4/18/2017</td>
<td>Nine Researchers Receive Science Trust Grant</td>
<td>CienciaPR</td>
</tr>
<tr>
<td>4/18/2017</td>
<td>9 Local researchers receive Science Trust Grants</td>
<td>News is my business</td>
</tr>
<tr>
<td>4/18/2017</td>
<td>Nueve Investigadores reciben subvenciones del Fideicomiso</td>
<td>Sin Comillas</td>
</tr>
<tr>
<td>3/23/2017</td>
<td>Eligen a científica ponceña como parte de la junta de directores de</td>
<td>Periódico La Perla del Sur</td>
</tr>
<tr>
<td></td>
<td>organización internacional</td>
<td></td>
</tr>
<tr>
<td>3/21/2017</td>
<td>Científica Boricua se distingue en el ASM</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>3/20/2017</td>
<td>Científica Puertoriquense en Junta de Sociedad Americana para</td>
<td>Sin Comillas</td>
</tr>
<tr>
<td></td>
<td>Microbiología</td>
<td></td>
</tr>
<tr>
<td>3/20/2017</td>
<td>Reconocen a científica puertorriquena en la Sociedad Americana</td>
<td>Caribe Tecnó</td>
</tr>
<tr>
<td></td>
<td>para la Microbiología</td>
<td></td>
</tr>
<tr>
<td>3/20/2017</td>
<td>Egresada de CROEM y el RUM a la junta de la Sociedad Americana</td>
<td>Mayaguez sabe a mango</td>
</tr>
<tr>
<td></td>
<td>de Microbiología</td>
<td></td>
</tr>
<tr>
<td>2/11/2017</td>
<td>Centro de Ciencias Moleculares, casa de la experimentación</td>
<td>Noticel</td>
</tr>
<tr>
<td>1/31/2017</td>
<td>Carla Restrepo: Leaving a Mark with Ecological Studies</td>
<td>CienciaPR</td>
</tr>
<tr>
<td>1/31/2017</td>
<td>Labor científica por la cura del retinoblastoma en Puerto Rico</td>
<td>Revista Medicina y Salud Pública</td>
</tr>
<tr>
<td>1/27/2017</td>
<td>Save the date: Forward Mentoring Day</td>
<td>CienciaPR</td>
</tr>
<tr>
<td>1/25/2017</td>
<td>Oportunidad de mentoria para estudiantes</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>1/23/2017</td>
<td>Oportunidad de mentoria sobre el mundo laboral para los estudiantes</td>
<td>Diálogo UPR</td>
</tr>
<tr>
<td>12/1/2016</td>
<td>Exitoso puente para las ciencias vivas</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>12/1/2016</td>
<td>Puerto Rico unites the Latin American Scientific Community at</td>
<td>Caribbean Business</td>
</tr>
<tr>
<td></td>
<td>Biolatam 2016</td>
<td></td>
</tr>
<tr>
<td>12/1/2016</td>
<td>Puerto Rico unites the Latin American Scientific Community at</td>
<td>FOXB New Orleans</td>
</tr>
<tr>
<td></td>
<td>Biolatam 2016</td>
<td></td>
</tr>
<tr>
<td>11/30/2016</td>
<td>Puerto Rico unites the Latin American Scientific Community at</td>
<td>PR Newswire</td>
</tr>
<tr>
<td></td>
<td>Biolatam 2016</td>
<td></td>
</tr>
<tr>
<td>11/30/2016</td>
<td>Puerto Rico unites the Latin American Scientific Community at</td>
<td>Market Watch</td>
</tr>
<tr>
<td></td>
<td>Biolatam 2016</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Article Title</td>
<td>Source</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>10/28/2016</td>
<td>PROMO: Viento en popa la innovación científica boricua</td>
<td>Laboratorio de Comunicaciones Científicas</td>
</tr>
<tr>
<td>10/20/2016</td>
<td>Científicos unen esfuerzos en Ponce para combatir varios tipos de cáncer</td>
<td>Diario Vegabajeño</td>
</tr>
<tr>
<td>10/12/2016</td>
<td>Vislumbran materiales fotovoltaicos económicamente accesibles</td>
<td>Laboratorio de Comunicaciones Científicas</td>
</tr>
<tr>
<td>9/28/2016</td>
<td>Investigación en Ponce sobre endometriosis con repercusiones a nivel mundial</td>
<td>Voces del Sur</td>
</tr>
<tr>
<td>8/17/2016</td>
<td>Junte inédito de ciencia, empresa e inversión</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>8/9/2016</td>
<td>Investigadores del RCM ganan premio por estudio</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>8/10/2016</td>
<td>Ponce Health Sciences University invierte $1.4 millones en investigaciones de neurociencias</td>
<td>Sin Comillas</td>
</tr>
<tr>
<td>7/26/2016</td>
<td>Investigadores de institución educativa de Ponce reciben ayuda para sus proyectos</td>
<td>Voces del Sur</td>
</tr>
<tr>
<td>7/22/2016</td>
<td>FCTIPR entrega subvenciones a nuevos investigadores</td>
<td>Caribbean Business</td>
</tr>
<tr>
<td>7/22/2016</td>
<td>14 projects split $2.1M in P.R. Science Trust grants</td>
<td>News is my Business</td>
</tr>
<tr>
<td>7/22/2016</td>
<td>Science Trust Grants $2.1 Million in Research Funds</td>
<td>Caribbean Business</td>
</tr>
<tr>
<td>7/21/2016</td>
<td>Entregan subvenciones a investigadores [link]</td>
<td>Sin Comillas</td>
</tr>
<tr>
<td>7/21/2016</td>
<td>Catorce proyectos recibirán subvenciones del “Science &amp; Technology Grants Program” del FCTIPR</td>
<td>Agro Tropical INC</td>
</tr>
<tr>
<td>7/7/2016</td>
<td>OBALearn nabs national business certification</td>
<td>News is my Business</td>
</tr>
<tr>
<td>6/26/2017</td>
<td>Oportunidad de fondos para investigadores locales</td>
<td>Ciencia PR</td>
</tr>
<tr>
<td>6/22/2016</td>
<td>Oportunidad de fondos para investigadores locales</td>
<td>Diálogo UPR</td>
</tr>
<tr>
<td>6/9/2016</td>
<td>Abren convocatoria de becas proyectos locales de ciencia y tecnología</td>
<td>Diálogo UPR</td>
</tr>
<tr>
<td>6/7/2016</td>
<td>The front pages of “El Nuevo Día” highlighted Professor Cabrera and Professor Nicolau’s innovative work</td>
<td>College of Natural Sciences UPR-RP News</td>
</tr>
<tr>
<td>5/26/2016</td>
<td>Vinculo entre el estrés y el cáncer</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>4/17/2016</td>
<td>Completan primera fase del proyecto de posible vacuna contra el VIH</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>4/13/2016</td>
<td>Dispositivo facilitará complicada operación de rodilla</td>
<td>El nuevo Periódico de Caguas</td>
</tr>
</tbody>
</table>

**RESEARCH GRANTS PROGRAM IMPACT REPORT (2014- to present)**
<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/8/2016</td>
<td>Rodolfo Romañach: Improving Production Of Pharmaceutical And Food Products Through Scientific Research</td>
<td>CienciaPR</td>
</tr>
<tr>
<td>3/14/2016</td>
<td>Estrés empeora los síntomas de la endometriosis</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>3/5/2016</td>
<td>Llega al mercado OBALearn</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>3/4/2016</td>
<td>Llega al mercado OBALearn</td>
<td>Guayacán</td>
</tr>
<tr>
<td>2/24/2016</td>
<td>FCTI comprometido con la economía del conocimiento</td>
<td>Diálogo UPR</td>
</tr>
<tr>
<td>2/24/2016</td>
<td>FCTI comprometido con la economía del conocimiento</td>
<td>CienciaPR</td>
</tr>
<tr>
<td>2/22/2016</td>
<td>P.R. Science Trust grants $350K to 5 scientists for R&amp;D</td>
<td>News is my Business</td>
</tr>
<tr>
<td>2/22/2016</td>
<td>Prof. Restrepo ha ganado la beca del Fideicomiso para Ciencia, Tecnología e Investigación de Puerto Rico (FCTI)</td>
<td>College of Natural Sciences UPR-RP News</td>
</tr>
<tr>
<td>2/19/2016</td>
<td>2da Edición Pequeñas Subvenciones- Fideicomiso de Ciencias</td>
<td>Revista Medicina y Salud Pública</td>
</tr>
<tr>
<td>2/19/2016</td>
<td>Entregan fondos a nuevos investigadores para fortalecer la economía del conocimiento</td>
<td>Revista Medicina y Salud Pública</td>
</tr>
<tr>
<td>1/25/2016</td>
<td>Subvención del programa Small Research Grant Program</td>
<td>Foro Colegial</td>
</tr>
<tr>
<td>12/10/2015</td>
<td>Colegiales brillan en diversos foros</td>
<td>Biblioteca Colegial UPRM</td>
</tr>
<tr>
<td>12/7/2015</td>
<td>Four UPRM Faculty Members Awarded PRSTRT Small Grants!</td>
<td>CID UPRM</td>
</tr>
<tr>
<td>12/3/2015</td>
<td>UPR investiga: uso de polímeros en la guerra, la energía y el agua</td>
<td>Diálogo UPR</td>
</tr>
<tr>
<td>12/3/2015</td>
<td>Científico de la UT recibe subvención</td>
<td>Turabo Noticias</td>
</tr>
<tr>
<td>12/3/2015</td>
<td>Science Trust grants $350K to fund new research</td>
<td>News is my Business</td>
</tr>
<tr>
<td>12/2/2015</td>
<td>Boricua busca un medicamento que evite la metástasis</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>12/2/2015</td>
<td>Fideicomiso para Ciencia y Tecnología impulsa propuestas de investigación federal</td>
<td>Empresarios</td>
</tr>
<tr>
<td>12/2/2015</td>
<td>Cinco científicos abren ruta hacia fondos de alta competencia</td>
<td>Noticel</td>
</tr>
<tr>
<td>11/12/2015</td>
<td>Ponce Health Sciences University Attracts Top-Tier Medical Researchers to Address Growing Health Disparities Among Hispanics</td>
<td>Market Wired</td>
</tr>
<tr>
<td>10/19/2015</td>
<td>PRSTRT Science and Technology Grants RFP</td>
<td>CID UPRM</td>
</tr>
<tr>
<td>10/7/2015</td>
<td>Ofrecen becas para innovación científica en Puerto Rico</td>
<td>Indice</td>
</tr>
<tr>
<td>10/2/2015</td>
<td>Puerto Rico: convocan científicos a desarrollar 15 proyectos de investigación</td>
<td>NodalTec</td>
</tr>
<tr>
<td>10/2/2015</td>
<td>Se entregarán becas para innovación científica en Puerto Rico</td>
<td>Universia</td>
</tr>
<tr>
<td>9/25/2015</td>
<td>Otorgan “grants” de investigación para adelantar la agenda científica del país</td>
<td>La Voz Hispana NY</td>
</tr>
<tr>
<td>9/22/2015</td>
<td>Scientists Bet on Entrepreneurship</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>Date</td>
<td>Description</td>
<td>Source</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>9/20/2015</td>
<td>Otorgan “grants” de investigación para adelantar la agenda científica del país</td>
<td>Diario de Puerto Rico</td>
</tr>
<tr>
<td>9/14/2015</td>
<td>Puerto Rico’s New Promise: Science City</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>7/22/2015</td>
<td>Puerto Rico: Investigadores diseñan microchip capaz de detectar cáncer de manera rápida y económica</td>
<td>Nodal</td>
</tr>
<tr>
<td>7/8/2015</td>
<td>Puerto Rican researchers get grant for cancer-detecting microchip</td>
<td>Agencia EFE</td>
</tr>
<tr>
<td>7/8/2015</td>
<td>Científicos de Puerto Rico avanzan en un microchip para detectar el cáncer</td>
<td>Agencia EFE</td>
</tr>
<tr>
<td>7/7/2015</td>
<td>Crean un microchip que permite detectar el cáncer</td>
<td>IM Medico</td>
</tr>
<tr>
<td>7/7/2015</td>
<td>Científicos de la Universidad de Puerto Rico crean un microchip que permite detectar el cáncer</td>
<td>El Economista</td>
</tr>
<tr>
<td>7/7/2015</td>
<td>Científicos de la Universidad de Puerto Rico crean un microchip que permite detectar el cáncer</td>
<td>Saludemia</td>
</tr>
<tr>
<td>7/2/2015</td>
<td>Crean un microchip que permite detectar el cáncer</td>
<td>El Nacional</td>
</tr>
<tr>
<td>7/2/2015</td>
<td>Científicos de la Universidad de Puerto Rico crean un microchip que permite detectar el cáncer</td>
<td>Hoy Digital</td>
</tr>
<tr>
<td>5/27/2015</td>
<td>Microbióloga ambiental boricua recorre el mundo gracias a la ciencia</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>5/25/2015</td>
<td>Microchip boricua para detectar el cáncer</td>
<td>El Vocero</td>
</tr>
<tr>
<td>5/24/2015</td>
<td>Científicos de la UPR crean microchip para detectar cáncer</td>
<td>Indice</td>
</tr>
<tr>
<td>5/22/2015</td>
<td>Cáncer: científicos de UPR crean microchip para detectar la enfermedad</td>
<td>Universia</td>
</tr>
<tr>
<td>5/22/2015</td>
<td>Puerto Rico: investigadores desarrollan microchip capaz de detectar cáncer</td>
<td>NodalTec</td>
</tr>
<tr>
<td>5/21/2015</td>
<td>Diseñan microchip en UPR Rio Piedras para detectar cáncer</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>5/21/2015</td>
<td>Diseñan microchip en UPR Rio Piedras para detectar cáncer</td>
<td>Diario Dom Digital</td>
</tr>
<tr>
<td>5/20/2015</td>
<td>Investigadores de la UPRRP diseñan microchip para detectar cáncer</td>
<td>UPRRP</td>
</tr>
<tr>
<td>5/20/2015</td>
<td>Investigadores de la UPRRP diseñan microchip para detectar cáncer</td>
<td>UPRRP</td>
</tr>
<tr>
<td>5/6/2015</td>
<td>Profesor de Ciencias Naturales recibe importante “Grant del Fideicomiso para Ciencias, Tecnologías e Investigación”</td>
<td>UPRRP</td>
</tr>
<tr>
<td>4/30/2015</td>
<td>Puerto Rico Science &amp; Technology Trust grants groundbreaking funding as it ushers in new leadership</td>
<td>Black Engineer (blog)</td>
</tr>
<tr>
<td>4/27/2015</td>
<td>Duo boricua abren campaña en Kickstarter con el fin de lanzar un dron híbrido, el Vertex Hybrid UAV</td>
<td>Digitalika</td>
</tr>
<tr>
<td>4/22/2015</td>
<td>Paso al frente en la investigación científica</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>4/22/2015</td>
<td>Science Trust grants $1.8M to 12 local scientific projects</td>
<td>News is my Business</td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
<td>Source</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------</td>
</tr>
<tr>
<td>4/22/2015</td>
<td>Impulso a la Investigación</td>
<td>Indice</td>
</tr>
<tr>
<td>4/21/2015</td>
<td>Primera entrega de fondos del FCTI para el desarrollo de proyectos científicos</td>
<td>Noticel</td>
</tr>
<tr>
<td></td>
<td>(documento)</td>
<td></td>
</tr>
<tr>
<td>4/21/2015</td>
<td>Primera entrega en Puerto Rico de fondos a investigadores para el desarrollo de</td>
<td>People Music La Revista</td>
</tr>
<tr>
<td></td>
<td>12 proyectos científicos <a href="http://www.peoplemusic.com/primera-entrega-en-puerto-ri-co-de-fondos-a-investigadores-para-el-desarrollo-de-12-proyectos-cientificos/">Link</a></td>
<td></td>
</tr>
<tr>
<td>3/20/2015</td>
<td>Former HP exec Crespo to lead P.R. Science &amp; Tech Trust</td>
<td>News is my Business</td>
</tr>
<tr>
<td>3/20/2015</td>
<td>Empresaria dirigirá Fideicomiso Ciencia-Tecnología</td>
<td>Wapa TV</td>
</tr>
<tr>
<td>3/7/2015</td>
<td>En su fase final la evaluación de propuestas de “grants” para la investigación</td>
<td>N-punto</td>
</tr>
<tr>
<td></td>
<td>científica</td>
<td></td>
</tr>
<tr>
<td>2/23/2015</td>
<td>Crean beca para científicos en Puerto Rico</td>
<td>holaciudad!</td>
</tr>
<tr>
<td>2/23/2015</td>
<td>Science Trust poised to grant $2.2M for R&amp;D projects</td>
<td>News is my Business</td>
</tr>
<tr>
<td>1/26/2015</td>
<td>Fideicomiso destinará un millón de dólares para fomentar el desarrollo científico</td>
<td>Universia</td>
</tr>
<tr>
<td></td>
<td>en Puerto Rico</td>
<td></td>
</tr>
<tr>
<td>1/23/2015</td>
<td>Fideicomiso de Ciencias ofrece becas para investigación y atraer científicos</td>
<td>Noticel</td>
</tr>
<tr>
<td>1/22/2015</td>
<td>Science Trust announces availability of $1.4M in grants</td>
<td>News is my Business</td>
</tr>
<tr>
<td>1/21/2015</td>
<td>Fideicomiso de Ciencias, Tecnología e Investigación da impulso a investigadores</td>
<td>Foro Noticioso</td>
</tr>
<tr>
<td>8/21/2014</td>
<td>Anuncian $5 millones para proyectos de ciencias e investigación</td>
<td>Periódico Visión</td>
</tr>
<tr>
<td>8/19/2014</td>
<td>Science Trust opens RFP for $5M innovation grant cycle</td>
<td>News is my Business</td>
</tr>
<tr>
<td>8/14/2014</td>
<td>Abre convocatoria competitiva para propuestas de innovación</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>7/8/2014</td>
<td>Convocatoria para investigadores y científicos locales</td>
<td>El Nuevo Día</td>
</tr>
<tr>
<td>7/8/2014</td>
<td>Fondos para investigadores y científicos</td>
<td>Noticel</td>
</tr>
<tr>
<td>7/8/2014</td>
<td>Fideicomiso de Ciencias, Tecnología e Innovación anuncia programa</td>
<td>Microjuris [blog]</td>
</tr>
<tr>
<td></td>
<td>de subvenciones</td>
<td></td>
</tr>
</tbody>
</table>
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)
Participant's Position

- Researcher (PI, Technician, Postdoc): 17%
- R&D administrator: 16%
- Entrepreneur: 8%
- Student: 59%

Do you know about the Grants Program at PRSTRT?

- Yes: 23%
- No: 77%
How did you find out about the Program?

- 27% Media (Press, TV)
- 19% Email
- 18% Colleague or Student
- 11% Trust’s Website
- 4% Orientation given by Trust
- 4% N/A (If "No" in #2)
- 3% Social media
- 18% Other

Have you applied for a grant through this program before?

- 38% yes
- 47% no
- 15% N/A
Whether you received the funding or not, would you consider reapplying to the Grants Program?

- Yes: 53%
- No: 33%
- Maybe: 13%
- N/A: 1%

Would you recommend the Program to your colleagues?

- Yes: 65%
- No: 24%
- Not sure: 8%
- N/A: 3%
Do you consider that it is important for Puerto Rico to have a local Grants Program?

- 100% Yes
- 0% No

Why do you think it is important to have a local Grants Program? (Check all that apply).

- Helps to stimulate more research in the private sector: 72
- Helps the PI to obtain external funding: 95
- Provides help for the advancement and development of a research project: 119
- Allows the prioritization of most relevant research topics for PR: 77
- Helps to strengthen research ecosystem in PR: 130

Other: 12
N/A (If "No" in #7): 0
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

“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”.

Norman Ortiz  
Founder/CEO iGenApps™ Inc.  
Project Wearables

“...Promotion of 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 trails 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

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. Almodóvar-Montañez, PhD  
University of Puerto Rico – Mayagüez

Osteoinductive integrin-containing biomaterials for bone repair
“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”.

Pablo Vivas-Mejías, PhD  
University of Puerto Rico- Medical Sciences Campus  
Targeting Integrin Linked Kinase in Ovarian Cancer with Liposomal-Gold-Small Interference RNA

“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
“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”.

Antonio Alegría, PhD
University of Puerto Rico–Humacao
Photosensitized generation of nitric oxide

“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

“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”.

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
“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”.

Carla Restrepo, PhD
University of Puerto Rico - Rio Piedras
Robustness of developmental trajectories to varying temperatures in a tropical vertebrate

“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 Rodriguez-Abudo, PhD
University of Puerto Rico - Mayaguez
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 it 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 - Rio 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 Rio 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
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)
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.
What is Colmena66?

Colmena66 is your link with the services and assistance needed to help your business grow and prosper.
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.
OUR BEEHIVE!
The entrepreneurial ecosystem

Access to Capital
StartUps
Aspiring Entrepreneurs
Give us a brief background of who you are and what your idea or business is all about.

We refer you to the Resource Partners that specialize in providing the service and support you need.

We log in the interaction and the referral in our CRM, to track the entrepreneur’s progress.

Identify nonprofit organizations, academia and public sector entities that provide entrepreneurial support.
Once a member, we start referring entrepreneurs that contact us in need of your services!

We work together to continuously improve and strengthen your programs.

Contact us via our Hotline, Email or Live Chat.

This is how we work

Entrepreneurs
Team
All the help you need to start or grow your business in one place

Denisse Rodríguez Colón
Director of Colmena66

Desirée Rodríguez Cáez
Network Navigator
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 though 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, Sofía 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.
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!
KPI’s

- 205+ Resource Partners
- 370+ Events in calendar
- 1,250 Resource Navigator inquiries
- 415 Hotline calls
- 15,632 Online referrals

ADDENDUM
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

14 out of 29

Total searches through the Resource Navigator

9 out of 29

Organizations using the Resource Navigator

7 out of 28

Counseling Hours Provided

15 out of 32
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.
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
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

30% RETAIL*

17% OTHER SERVICES*

14% PROFESSIONAL SERVICES*

*of the 34 participating industries
FINDINGS

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
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
ADDENDUM

FISCAL YEAR 2016 - 2017 ANNUAL REPORT
Huge thanks to the Levanta tu Negocio PR Partners who made it all possible!
JUNTE PARA AYUDAR A EMPRESAS A REABRIR

Iniciativa “Levanta tu Negocio PR” arrancó ayer con sus visitas a varios municipios

ORGANIZACIONES EMPRESARIALES SE UNEN PARA AYUDAR A LEVANTAR LOS NEGOCIOS

Visitarán diferentes regiones de la Isla para evaluar las necesidades de las empresas y orientar sobre alternativas en el proceso de recuperación tras el paso del huracán María

Por redacción de Sin Comillas

Un grupo de organizaciones unieron fuerzas para lanzar la campaña “Levanta tu Negocio PR”, y con la participación de distintos sectores económicos, en Puerto Rico, ConPRmetidos, Semilleros Venue PR, Desarrollo Económico PR, entre otros.
In the news!
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 SourceLink to launch Shop+Hire PR.

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.
How is our website doing?

PAGEVIEWS
62,788

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 Maria was communicating our crowdlending 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 Maria, 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
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 website 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
- Inversión Cultural
- Kingbird 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 (Agrolinova)
- 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
- ConPRmetaídos
- Corporación Juvenil para el Desarrollo de Comunidades Sostenibles (AgrolInnova)
- 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
- ConPRmetaídos
- Corporación Juvenil para el Desarrollo de Comunidades Sostenibles (AgrolInnova)
- 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
Management Issues:

- Animus Women’s Innovation Journey
- Apoyo Empresarial Península de Cantera
- Cámaras de Comercio de Puerto Rico
- Casa Sin Fronteras
- Centro para Puerto Rico, Fundación Sila María Calderón
- Centro para Puerto Rico, Fundación Sila María Calderón
- Co.co.haus
- ConPRmetidos
- Founder Institute - Pilot 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 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

Libraries and Research Organizations:

- Apoyo Empresarial Península de Cantera
- Cámaras 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
- Promociones Comunitarias Surcos
- PR-SBTDC, San Germán
- Oficina para la Promoción y el Desarrollo Humano, Inc.
- U.S. Export Assistance Center of San Juan
- UPRM E-Ship Network
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 Peninsula 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
Nonprofit Development:
- ACT Global Technology Accelerator
- Casa Sin Fronteras
- Centro de Acción Urbana, Comunitaria y Empresarial de Rio 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

Office, Incubator, Laboratory, Kitchen and Meeting Space:
- Bioprocess Development & Training Complex
- ACT Global Technology Accelerator
- Apoyo Empresarial Península de Cantera
- ARODEC Inc.
- Cámaras de Comercio de Puerto Rico
- 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

Operations and Logistics:
- Ausubo Ventures
- PRIMEX (Puerto Rico Manufacturing Extension)
- Puerto Rico District Export Council
- U.S. Export Assistance Center of San Juan
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 Techno Economic Corridor, Inc. (PRTEC)
- U.S. Export Assistance Center of San Juan
- U.S. Small Business Administration
- UPRM E-Ship Network
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
- ConPRnetidos
- Corporación Juvenil para el Desarrollo de Comunidades Sostenibles (AgroInnova)
- 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
- ConPRnetidos
- 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 Península 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 (Agroínnova)
- 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 Io 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 Rio 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

If you want to join our Resource Network contact carolina@colmena66.com

If you want your event featured in our calendar contact desiree@colmena66.com

Want more info?
Call 787-525-4111
CONSOLIDATED FINANCIAL STATEMENTS

Growing through Innovation and Commercialization
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
PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST

Program-Specific Audit Report
June 30, 2017

Table of Contents

<table>
<thead>
<tr>
<th>Description</th>
<th>Page/Exhibit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Auditors’ Report on the Financial Statement of a Federal Program When Using the Program-Specific Audit Option to Satisfy the Uniform Guidance Audit Requirements</td>
<td>1-2</td>
</tr>
<tr>
<td>Schedule of Expenditures of Federal Awards</td>
<td>3</td>
</tr>
<tr>
<td>Notes to Schedule of Expenditures of Federal Awards</td>
<td>4</td>
</tr>
<tr>
<td>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</td>
<td>5-6</td>
</tr>
<tr>
<td>Schedule of Findings and Questioned Costs</td>
<td>7</td>
</tr>
</tbody>
</table>
INDEPENDENT AUDITORS’ REPORT ON THE FINANCIAL STATEMENT OF A FEDERAL PROGRAM 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 the Schedule of Expenditures of Federal Awards

We have audited the accompanying schedule of 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, a Puerto Rico not-for-profit corporation, under its Puerto Rico Vector Control Unit Project for the year ended June 30, 2017, and the related notes.

Management’s Responsibility for the Schedule of Expenditures of Federal Awards

Management is responsible for the preparation and fair presentation of this financial statement in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of a financial statement that is free from material misstatement, whether due to fraud or error.

Auditors’ Responsibility

Our responsibility is to express an opinion on this financial statement based on our audit.

We conducted our audit 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 the financial statement is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statement. The procedures selected depend on the auditors’ judgment, including the assessment of the risks of material misstatement of the financial statement, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity’s preparation and fair presentation of the financial statement in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity’s internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statement.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.
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.

[Signature]

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

<table>
<thead>
<tr>
<th>Federal Grantor/Program Pass-Through</th>
<th>Federal CFDA Number</th>
<th>Pass-Through Entity Identifying Number</th>
<th>Total Federal Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Department of Health and Human Services: Pass-Through</td>
<td>Prevent</td>
<td>93.084</td>
<td>Not available</td>
</tr>
</tbody>
</table>

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 minim indirect cost rate allowed under the Uniform Guidance.
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 OMB 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.
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 29, 2017.

Stamp No. E300059 was affixed to the original of this report.

RSM Puerto Rico
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
  - Material weakness (es) identified?
    - Yes
  - Significant deficiency (es) identified?
    - Yes
  - Noncompliance material to financial statements noted?
    - Yes

Federal Awards

- Internal control over financial reporting:
  - Material weakness (es) identified
    - Yes
  - Significant deficiency (es) identified
    - Yes
  - Noncompliance material to financial statements noted
    - Yes

- Internal control over program:
  - Material weakness (es) identified
    - Yes
  - Significant deficiency (es) identified
    - Yes

- Type of auditors’ report issued on compliance for its program:
  - Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516 (a)?
    - Yes

Identification of federal program

- CFDA Number
  - 93.084

Auditee qualified as low-risk auditee?

- Yes

Unmodified Opinion

X no

X none reported

X no

X no

Prevention of Disease, Disability and Death by Infectious Diseases

Page 7
PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARY

Consolidated Financial Statements
June 30, 2017 and 2016
INDEPENDENT AUDITORS’ REPORT

To: The Board of Trustees of
Puerto Rico Science, Technology and Research Trust and its Subsidiary

We have audited the accompanying consolidated financial statements of Puerto Rico Science, Technology and Research Trust, a Puerto Rico not-for-profit corporation, and its Subsidiary, which comprise the consolidated balance sheets as of June 30, 2017 and 2016, and the related consolidated statements of activities and changes in net assets, functional expenses, and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management’s Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors’ Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors’ judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity’s preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity’s internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our qualified audit opinion.
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 $83,489,000, respectively. As described in Note 16, on April 6, 2010, 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 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 on deposit at GDB. Later, on October 18, 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, 2049. 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 restructing of deposits held at GDB, the Trust recognized an approximately $42,200,000 equivalent to 45% of deposits at GDB as of June 30, 2017. We were unable to obtain sufficient appropriate audit evidence about the realizable value 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 those 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.
# PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST
AND ITS SUBSIDIARY

## CONSOLIDATED BALANCE SHEETS
As of June 30, 2017 and 2016

<table>
<thead>
<tr>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS:</strong></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>$11,314,385</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>474,607</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>77,202</td>
</tr>
<tr>
<td>Due from governmental entities, net of allowance for doubtful accounts of $3,483,782 and $4,465,782, respectively</td>
<td>3,373,455</td>
</tr>
<tr>
<td>Unrestricted investments</td>
<td>44,819,874</td>
</tr>
<tr>
<td>Investment, including restricted portion of $3,036,801 and $5,690,758, respectively</td>
<td>3,199,726</td>
</tr>
<tr>
<td>Other assets</td>
<td>12,533</td>
</tr>
<tr>
<td>Convertible promissory notes receivable</td>
<td>300,000</td>
</tr>
<tr>
<td>Equity investments</td>
<td>1,017,292</td>
</tr>
<tr>
<td>Property and equipment, net</td>
<td>442,649</td>
</tr>
<tr>
<td>Equipment under capital leases, net of accumulated depreciation of $22,341 and $17,283, respectively</td>
<td>2,951</td>
</tr>
<tr>
<td>Building, net</td>
<td>5,774,446</td>
</tr>
<tr>
<td>Restricted land and property for research, development and infrastructure project related to science and technology</td>
<td>18,000,000</td>
</tr>
<tr>
<td>Land development costs</td>
<td>11,329,395</td>
</tr>
<tr>
<td>Construction in progress – Science City</td>
<td>11,018,924</td>
</tr>
<tr>
<td><strong>LIABILITIES AND NET ASSETS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>LIABILITIES:</strong></td>
<td></td>
</tr>
<tr>
<td>Program service payable</td>
<td>$456,227</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>5,350,752</td>
</tr>
<tr>
<td>Due to related parties</td>
<td>3,864</td>
</tr>
<tr>
<td>Accrued expenses</td>
<td>118,310</td>
</tr>
<tr>
<td>Obligations under capital lease</td>
<td>3,212</td>
</tr>
<tr>
<td>Other liabilities</td>
<td>9,158</td>
</tr>
<tr>
<td><strong>NET ASSETS:</strong></td>
<td></td>
</tr>
<tr>
<td>Unrestricted</td>
<td>84,423,115</td>
</tr>
<tr>
<td>Temporarily restricted</td>
<td>2,992,801</td>
</tr>
<tr>
<td>Permanently restricted</td>
<td>18,000,000</td>
</tr>
<tr>
<td><strong>Total Liabilities and Net Assets</strong></td>
<td>$111,357,440</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>2017</th>
<th>Unrestricted</th>
<th>Temporarily Restricted</th>
<th>Permanently Restricted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHANGES IN NET ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REVENUES AND SUPPORT:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grants and assessments</td>
<td>$8,902,715</td>
<td>-</td>
<td>-</td>
<td>$8,902,715</td>
</tr>
<tr>
<td>Federal sponsor program</td>
<td>1,024,118</td>
<td>-</td>
<td>-</td>
<td>1,024,118</td>
</tr>
<tr>
<td>Clinical trials</td>
<td>9,550</td>
<td>-</td>
<td>-</td>
<td>9,550</td>
</tr>
<tr>
<td>Rental income</td>
<td>76,400</td>
<td>-</td>
<td>-</td>
<td>76,400</td>
</tr>
<tr>
<td>Interest income</td>
<td>3,870,098</td>
<td>-</td>
<td>-</td>
<td>3,870,098</td>
</tr>
<tr>
<td>Other income</td>
<td>502,152</td>
<td>-</td>
<td>-</td>
<td>502,152</td>
</tr>
<tr>
<td><strong>14,435,031</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td><strong>14,435,031</strong></td>
</tr>
<tr>
<td><strong>OPERATING EXPENSES:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program and services:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research and data</td>
<td>3,790,504</td>
<td>-</td>
<td>-</td>
<td>3,790,504</td>
</tr>
<tr>
<td>Technology transfer and commercialization</td>
<td>5,651,504</td>
<td>-</td>
<td>-</td>
<td>5,651,504</td>
</tr>
<tr>
<td>Science City development</td>
<td>390,034</td>
<td>-</td>
<td>-</td>
<td>390,034</td>
</tr>
<tr>
<td>Supporting services:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General and administrative</td>
<td>9,832,072</td>
<td>-</td>
<td>-</td>
<td>9,832,072</td>
</tr>
<tr>
<td>Total expenses from operations</td>
<td>12,564,305</td>
<td>-</td>
<td>-</td>
<td>12,564,305</td>
</tr>
<tr>
<td><strong>CHANGES IN NET ASSETS FROM OPERATIONS</strong></td>
<td>1,870,729</td>
<td>-</td>
<td>-</td>
<td>1,870,729</td>
</tr>
<tr>
<td><strong>LOSS ON IMPAIRMENT OF CASH AND INVESTMENTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(39,544,215)</td>
<td>(2,653,967)</td>
<td>-</td>
<td>-</td>
<td>(42,198,182)</td>
</tr>
<tr>
<td><strong>CHANGES IN NET ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(37,673,489)</td>
<td>(2,653,967)</td>
<td>-</td>
<td>-</td>
<td>(40,327,446)</td>
</tr>
<tr>
<td><strong>NET ASSETS, beginning of year</strong></td>
<td>122,096,605</td>
<td>5,846,758</td>
<td>18,000,000</td>
<td>145,743,363</td>
</tr>
<tr>
<td><strong>NET ASSETS, end of year</strong></td>
<td>$54,423,116</td>
<td>$2,092,001</td>
<td>$18,000,000</td>
<td>$54,423,116</td>
</tr>
</tbody>
</table>

*Continue...*
# CONSOLIDATED STATEMENTS OF ACTIVITIES AND CHANGES IN NET ASSETS

For the years ended June 30, 2017 and 2016

...Continued...

<table>
<thead>
<tr>
<th>CHANGES IN NET ASSETS</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unrestricted</td>
</tr>
<tr>
<td>REVENUES AND SUPPORT:</td>
<td></td>
</tr>
<tr>
<td>Grants and assessments:</td>
<td>$6,567,442</td>
</tr>
<tr>
<td>Clinical trials:</td>
<td>6,894</td>
</tr>
<tr>
<td>Rentsal income:</td>
<td>41,853</td>
</tr>
<tr>
<td>Interest income:</td>
<td>4,052,468</td>
</tr>
<tr>
<td>Other income:</td>
<td>132,446</td>
</tr>
<tr>
<td>Total revenues:</td>
<td>10,801,133</td>
</tr>
<tr>
<td>Net assets released from restrictions:</td>
<td>233,000</td>
</tr>
<tr>
<td>Total:</td>
<td>11,034,133</td>
</tr>
</tbody>
</table>

OPERATING EXPENSES:

<table>
<thead>
<tr>
<th>Program and services:</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unrestricted</td>
</tr>
<tr>
<td>Research and data:</td>
<td>$5,724,805</td>
</tr>
<tr>
<td>Technology transfer and commercialization:</td>
<td>$4,839,524</td>
</tr>
<tr>
<td>Science City development:</td>
<td>533,646</td>
</tr>
<tr>
<td>Total operating expenses:</td>
<td>11,097,975</td>
</tr>
</tbody>
</table>

Supporting services:

<table>
<thead>
<tr>
<th>General and administrative:</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unrestricted</td>
</tr>
<tr>
<td>Bad debt expense:</td>
<td>$4,463,762</td>
</tr>
<tr>
<td>Total expenses from operations:</td>
<td>6,002,545</td>
</tr>
<tr>
<td>Total:</td>
<td>17,700,520</td>
</tr>
</tbody>
</table>

CHANGES IN NET ASSETS FROM OPERATIONS:

| (6,881,387) | (233,000) | - | (6,890,387) |

NON-OPERATING EXPENSE:

<table>
<thead>
<tr>
<th>Loss on conversion of note receivable:</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unrestricted</td>
</tr>
<tr>
<td></td>
<td>(22,403)</td>
</tr>
</tbody>
</table>

CHANGES IN NET ASSETS:

| (6,883,790) | (233,000) | - | (6,892,390) |

NET ASSETS, beginning of year:

| 128,780,395 | 5,864,758 | 18,000,000 | 152,645,153 |

NET ASSETS, end of year:

| $122,066,605 | $6,646,758 | $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

<table>
<thead>
<tr>
<th>Program and activity</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Technology transfer and</td>
</tr>
<tr>
<td></td>
<td>commercialization</td>
</tr>
<tr>
<td></td>
<td>Science City</td>
</tr>
<tr>
<td></td>
<td>development</td>
</tr>
<tr>
<td></td>
<td>General and</td>
</tr>
<tr>
<td></td>
<td>administrative</td>
</tr>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Capacity building and</td>
<td>59,275</td>
</tr>
<tr>
<td>representation</td>
<td>$341,340</td>
</tr>
<tr>
<td>Innovation support</td>
<td>200,000</td>
</tr>
<tr>
<td>Research and commercialization grants</td>
<td>369,000</td>
</tr>
<tr>
<td>Research grants</td>
<td>430,000</td>
</tr>
<tr>
<td>Clinical trial</td>
<td>1,201,803</td>
</tr>
<tr>
<td>Reimbursement</td>
<td>43,287</td>
</tr>
<tr>
<td>Small mission grants</td>
<td>450,000</td>
</tr>
<tr>
<td>Researcher startup program</td>
<td>350,000</td>
</tr>
<tr>
<td>Parallel to grants</td>
<td>3,983,956</td>
</tr>
<tr>
<td>Other program initiatives</td>
<td>169,714</td>
</tr>
<tr>
<td></td>
<td>2,473,486</td>
</tr>
<tr>
<td></td>
<td>3,983,956</td>
</tr>
<tr>
<td></td>
<td>21,705</td>
</tr>
<tr>
<td></td>
<td>8,564,856</td>
</tr>
<tr>
<td>Personnel costs</td>
<td>437,940</td>
</tr>
<tr>
<td>Salaries and wages</td>
<td>473,030</td>
</tr>
<tr>
<td>Benefits and payroll expenses</td>
<td>611,550</td>
</tr>
<tr>
<td></td>
<td>1,951,564</td>
</tr>
<tr>
<td>Professional services</td>
<td>535,442</td>
</tr>
<tr>
<td>Occupancy expenses</td>
<td>417,221</td>
</tr>
<tr>
<td>Organization and amortization</td>
<td>205,892</td>
</tr>
<tr>
<td>Rent</td>
<td>323,354</td>
</tr>
<tr>
<td>Repairs and maintenance</td>
<td>273,131</td>
</tr>
<tr>
<td>Security</td>
<td>189,336</td>
</tr>
<tr>
<td>Other</td>
<td>55,572</td>
</tr>
<tr>
<td>Total</td>
<td>2,372,202</td>
</tr>
<tr>
<td>Other operating expenses</td>
<td>332,490</td>
</tr>
<tr>
<td></td>
<td>18,042</td>
</tr>
<tr>
<td></td>
<td>2,732,202</td>
</tr>
</tbody>
</table>

Continues...
### CONSOLIDATED STATEMENTS OF FUNCTIONAL EXPENSES

For the years ended June 30, 2017 and 2016

<table>
<thead>
<tr>
<th></th>
<th>Research and development</th>
<th>Technology transfer and commercialization</th>
<th>Science City development</th>
<th>General and administrative</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program and services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program support:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity building and assistance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International support</td>
<td>$103,000</td>
<td>$589,205</td>
<td>$0</td>
<td></td>
<td>$692,208</td>
</tr>
<tr>
<td>Innovation support</td>
<td>$385,000</td>
<td>-</td>
<td>$0</td>
<td></td>
<td>$385,000</td>
</tr>
<tr>
<td>Century fund grants</td>
<td>$228,000</td>
<td>-</td>
<td>$0</td>
<td></td>
<td>$228,000</td>
</tr>
<tr>
<td>Research and commercialization grants</td>
<td>$2,550,534</td>
<td>$2,550,534</td>
<td>$0</td>
<td></td>
<td>$2,550,534</td>
</tr>
<tr>
<td>Clinical trials</td>
<td>-</td>
<td>-</td>
<td>$0</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Parallel 10 grants</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Other program initiatives</td>
<td>$1,214,900</td>
<td>$1,214,900</td>
<td>$0</td>
<td></td>
<td>$1,214,900</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$4,878,534</td>
<td>$3,229,205</td>
<td>$0</td>
<td></td>
<td>$8,107,739</td>
</tr>
<tr>
<td><strong>Personnel costs:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries and wages</td>
<td>$126,100</td>
<td>$250,000</td>
<td>$0</td>
<td></td>
<td>$376,100</td>
</tr>
<tr>
<td>Benefits and payroll taxes</td>
<td>$24,375</td>
<td>$81,300</td>
<td>$0</td>
<td></td>
<td>$106,075</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$150,475</td>
<td>$331,300</td>
<td>$0</td>
<td></td>
<td>$482,075</td>
</tr>
<tr>
<td><strong>Professional services:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disclosures expenses:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>-</td>
<td>-</td>
<td>$0</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Rent</td>
<td>-</td>
<td>-</td>
<td>$0</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Repairs and maintenance</td>
<td>-</td>
<td>-</td>
<td>$0</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Security</td>
<td>-</td>
<td>-</td>
<td>$0</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Other</td>
<td>$30,139</td>
<td>$30,139</td>
<td>$0</td>
<td></td>
<td>$30,139</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$30,139</td>
<td>$30,139</td>
<td>$0</td>
<td></td>
<td>$30,139</td>
</tr>
<tr>
<td><strong>Travel:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel</td>
<td>$98,183</td>
<td>-</td>
<td>$745</td>
<td></td>
<td>$108,928</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$98,183</td>
<td>-</td>
<td>$745</td>
<td></td>
<td>$108,928</td>
</tr>
<tr>
<td><strong>Bad debt expense:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bad debt expense</td>
<td>-</td>
<td>-</td>
<td>$0</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>-</td>
<td>-</td>
<td>$0</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td><strong>Other operating expenses:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other operating expenses</td>
<td>$122,133</td>
<td>$268,140</td>
<td>$17,218</td>
<td></td>
<td>$507,491</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$122,133</td>
<td>$268,140</td>
<td>$17,218</td>
<td></td>
<td>$507,491</td>
</tr>
<tr>
<td><strong>Total program and support expenses:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total program and support expenses</td>
<td>$5,724,805</td>
<td>$4,839,354</td>
<td>$753,646</td>
<td></td>
<td>$17,170,729</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CASH FLOWS FROM OPERATING ACTIVITIES:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decrease in net assets</td>
<td>$(40,327,446)</td>
<td>$(5,921,790)</td>
</tr>
<tr>
<td>Adjustments to reconcile decrease in net assets to net cash provided by (used in) operating activities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>182,942</td>
<td>90,844</td>
</tr>
<tr>
<td>Loss on conversion of note receivable</td>
<td>-</td>
<td>22,405</td>
</tr>
<tr>
<td>Loss on impairment of investments</td>
<td>39,324,783</td>
<td></td>
</tr>
<tr>
<td>Bad debts (recoveries)</td>
<td>(980,000)</td>
<td>4,463,782</td>
</tr>
<tr>
<td>Changes in assets and liabilities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decrease (increase) in assets:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>(385,488)</td>
<td>(88,473)</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>(35,652)</td>
<td>-</td>
</tr>
<tr>
<td>Due from governmental entities</td>
<td>6,355,771</td>
<td>(1,235,404)</td>
</tr>
<tr>
<td>Other assets</td>
<td>-</td>
<td>(5,936)</td>
</tr>
<tr>
<td>Increase (decrease) in liabilities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program service payable</td>
<td>(1,327,610)</td>
<td>992,587</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>3,012,390</td>
<td>(449,264)</td>
</tr>
<tr>
<td>Due to related parties</td>
<td>2,864</td>
<td>-</td>
</tr>
<tr>
<td>Accrued expenses</td>
<td>22,796</td>
<td>75,806</td>
</tr>
<tr>
<td>Other liabilities</td>
<td>3,723</td>
<td>197</td>
</tr>
<tr>
<td><strong>Net cash provided by (used in) operating activities</strong></td>
<td>6,250,056</td>
<td>(3,050,549)</td>
</tr>
</tbody>
</table>

| **CASH FLOWS FROM INVESTING ACTIVITIES:** |             |             |
| Reinvestment of interest earned      | (3,058,647) | (4,033,000) |
| Purchase of equity investments       | (150,000)   | -           |
| Proceeds from investments            | -           | 238,000     |
| Advances under promissory notes receivable | -           | -           |
| Purchase of property and equipment   | (73,629)    | (474,725)   |
| Additions to construction in progress - building | (1,681,158) | (1,737,854) |
| Additions to construction in progress - Science City | (6,835,453) | (4,130,211) |
| **Net cash used in investing activities** | (12,878,844) | (10,135,396) |

| **CASH USED IN FINANCING ACTIVITIES:** |             |             |
| Principal payment of obligations under capital leases | (5,926)     | (5,301)     |

| **NET DECREASE IN CASH** |             |             |
| (6,634,756)             | (13,191,306) |

| **CASH, beginning of year** | 18,149,142 | 31,340,447 |

| **CASH, end of year** | $11,514,386 | $18,149,142 |

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 to as the Trust and its Subsidiary) as of and for the years ended June 30, 2017 and 2016.
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 these 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.
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 6.75%, 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:

<table>
<thead>
<tr>
<th>Description</th>
<th>Estimated Useful Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furniture and fixtures</td>
<td>5 years</td>
</tr>
<tr>
<td>Computer and laboratory equipment</td>
<td>3 to 6 years</td>
</tr>
<tr>
<td>Leasehold improvements</td>
<td>Lease term</td>
</tr>
<tr>
<td>Equipment under capital leases</td>
<td>Lease term</td>
</tr>
</tbody>
</table>

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.

Page 3
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 periods 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.
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 38 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.
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 89% of total revenues and the balance due from governmental entities represents 86% 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:

<table>
<thead>
<tr>
<th>Description</th>
<th>June 30, 2017</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CD, 1.64% rate yield, maturing in December 2017</td>
<td>$14,409,932</td>
<td>$3,199,726</td>
<td></td>
</tr>
<tr>
<td>CD, 1.5% rate yield, maturing in November 2017</td>
<td>$30,490,942</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD, 6.75% rate yield, maturing in March 2020</td>
<td>$44,819,874</td>
<td></td>
<td>$3,199,726</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>June 30, 2016</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CD, 1.5% rate yield, maturing in December 2016</td>
<td>$25,783,881</td>
<td></td>
<td>$5,767,875</td>
</tr>
<tr>
<td>CD, 2% rate yield, maturing in November 2016</td>
<td>$51,933,960</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD, 6.75% rate yield, maturing in March 2020</td>
<td>$77,717,841</td>
<td></td>
<td>$5,767,875</td>
</tr>
</tbody>
</table>

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.
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 entered into 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 85% 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.
5) Equity investments:

As of June 30, 2017 and 2016, the equity investments consist of the following:

<table>
<thead>
<tr>
<th>Description</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>$867,292</td>
<td>$867,292</td>
</tr>
<tr>
<td>312,500 shares of Series Seed preferred stock of Tirokids, 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.</td>
<td>75,000</td>
<td>-</td>
</tr>
<tr>
<td>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.</td>
<td>75,000</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td><strong>$1,017,292</strong></td>
<td><strong>$867,292</strong></td>
</tr>
</tbody>
</table>

6) Property and equipment:

As of June 30, 2017 and 2016, property and equipment consist of the following:

<table>
<thead>
<tr>
<th>Description</th>
<th>June 30, 2017</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost</td>
<td>Accumulated depreciation and amortization</td>
<td>Book value</td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>$100,727</td>
<td>$98,742</td>
<td>$1,985</td>
</tr>
<tr>
<td>Computer and laboratory equipment</td>
<td>95,131</td>
<td>26,335</td>
<td>68,796</td>
</tr>
<tr>
<td>Leasehold improvements</td>
<td>474,725</td>
<td>102,857</td>
<td>371,868</td>
</tr>
<tr>
<td></td>
<td><strong>$870,683</strong></td>
<td><strong>$227,934</strong></td>
<td><strong>$442,649</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>June 30, 2016</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost</td>
<td>Accumulated depreciation and amortization</td>
<td>Book value</td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>$100,727</td>
<td>$96,468</td>
<td>$4,259</td>
</tr>
<tr>
<td>Computer equipment</td>
<td>21,502</td>
<td>21,502</td>
<td>-</td>
</tr>
<tr>
<td>Leasehold improvements</td>
<td>474,725</td>
<td>7,912</td>
<td>466,813</td>
</tr>
<tr>
<td></td>
<td><strong>$598,954</strong></td>
<td><strong>$125,882</strong></td>
<td><strong>$471,072</strong></td>
</tr>
</tbody>
</table>
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 $1,933,000 and $911,000, respectively, and 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:

<table>
<thead>
<tr>
<th>Description</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>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 synergetic effect to accelerate the commercialization of technologies.</td>
<td>$2,654,131</td>
<td>$2,638,949</td>
</tr>
<tr>
<td>Less: Accumulated depreciation</td>
<td>(339,728)</td>
<td>(263,958)</td>
</tr>
<tr>
<td></td>
<td>2,314,403</td>
<td>2,374,983</td>
</tr>
<tr>
<td>Construction in progress</td>
<td>3,460,043</td>
<td>1,814,120</td>
</tr>
<tr>
<td></td>
<td><strong>5,774,446</strong></td>
<td><strong>4,189,173</strong></td>
</tr>
</tbody>
</table>

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 Rio 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.
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:

<table>
<thead>
<tr>
<th>Description</th>
<th>2017</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program support grants payable—unrestricted funds</td>
<td>$412,227</td>
<td>$1,982,225</td>
</tr>
<tr>
<td>Program support grants payable—restricted funds</td>
<td>$44,000</td>
<td>$44,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$456,227</strong></td>
<td><strong>$2,006,225</strong></td>
</tr>
</tbody>
</table>

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, approximate $3,200.

11) Designated unrestricted net assets:

On June 30, 2017, the Board of Trustees designated approximately $800,000 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 18. 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:

<table>
<thead>
<tr>
<th>Year ending June 30</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>$151,656</td>
</tr>
<tr>
<td>2019</td>
<td>$158,574</td>
</tr>
<tr>
<td>2020</td>
<td>$162,125</td>
</tr>
<tr>
<td>2021</td>
<td>$81,063</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$553,418</strong></td>
</tr>
</tbody>
</table>

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.
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 flow 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 tranches 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.
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 $365,000, for the purchase of diesel, debris removal and disposal, property damage and for payment of salaries to employees. Management expect to recover approximately 90% 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 is a global innovation hub.

Innovation fuels the economy.

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.

Science creates the future.

Technology enables change.
Puerto Rico Science, Technology & Research Trust

www.prsciencetrust.org
Email: info@prsciencetrust.org
Phone: 787-523-1592  Fax: 787-523-5610
Postal Address: PO Box 363475, San Juan, Puerto Rico 00936-3475
Physical Address: 105, Carr. #21 Km. 0.8, Bo. Monacillos, San Juan, Puerto Rico 00927