



# Annual Report

FISCAL  
YEAR

2017-  
2018



Puerto Rico  
Science, Technology  
& Research Trust



# Puerto Rico is a global innovation hub

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





Puerto Rico  
Science, Technology  
& Research Trust

ANNUAL REPORT  
FISCAL YEAR 2017-2018



Puerto Rico  
Science, Technology  
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# ANNUAL REPORT

## FISCAL YEAR 2017-2018

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# LETTER TO OUR STAKEHOLDERS



“Our Board, our management team, our associates, and partners are now, more than ever, creative, innovative, thoughtful and committed, and striving to achieve the vision for Puerto Rico to be recognized as a global innovation hub”.

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

## Thank you!

My heart and mind are full with gratitude, and there is no better way to start this letter to our stakeholder in this 2018 annual report than to say thank you to the many organizations, partners, people and associates that support us in the relief and recovery efforts of Puerto Rico after the impact of Hurricane Maria.

I want to share the wonderful support that in alliance with key partners we have provided to communities we serve.

Our first note of appreciation goes to the American Association for the Advancement of Sciences (AAAS), the Society for Neuroscience, and American Chemical Society that working with the PRSTRT Research Grant program provided over \$100K in grants to 50 awardees in three tracks: Restoration, Thesis and Continuity.

Unidos por Puerto Rico joined the Puerto Ricans in Action Group, Puerto Rico Department of Public Health, MCS Foundation, the Puerto Rico's Federally Qualified Community Health Centers, and H2O World Wide to deliver thru the PRSTRT Agua Limpia program. The program delivered KOHLER Clarity water filters to homes in Puerto Rico. More than 22,000 filters already distributed and over XX water sources were tested for biological quality. Unidos por Puerto Rico also provided funding to The Puerto Rico Consortium for Clinical Research (PRCCI), to set up a biorepository site at the Environmental Laboratories of Puerto Rico located in Science City, and to fund ten (10) Pre18 startup companies.

Medical Relief provided funding and logistic distribution with medications for patients in PR. Consumer Associations also performed a contribution that was used to provide virtual reality summer camps.

The Puerto Rico Consortium for Clinical Research (PRCCI) increased its membership to 29 entities including the Manatí & the Mayaguez Medical Centers and the Instituto Dominicano de Estudios Viroológicos, given the PRCCI access to a higher number of patients specially outside the metropolitan area. Over 324 studies opportunities were received, and 17 contracts were signed, and clinical trials are in process or completed. 31 of the studies opportunities were received after Maria. One of the most important contributions of PRCCI facilitated the certification by the Yale Center for Clinical Research (YCCI) that the Clinical Trial Units were ready to continue their activities. The design and construction of the new biorepository facility to be available to all PRCCI members is in process, and it's expected to be completed during the next month. PRCCI celebrated its second anniversary with The Puerto Rico Clinical Research Summit that was held on May 9th., at the Sheraton Hotel & Convention Center. It turned out to be a very successful, sold-out event with over 220 attendees and with 50 "last-minute" requests for registration being denied as we were at full capacity for the venue. One of the key speakers and partner for this event was CAPT Richard Araujo, Associate Commissioner for Minority Health/ FDA. The FDA will sponsor and finance, the next edition of this summit in 2019.

We completed Parallel18 Gen 4 after the Hurricane with outstanding results: 118 jobs created, revenues during P18 of \$8.5M with Puerto Rico based revenues of \$3.9M. 46% of the companies established or have operations at Puerto Rico. They achieved over \$265K investment in Puerto Rico. Other achievements: (a) 570 companies applied to the generation 5 of the program. (New record for Parallel18); (b) BrainHi got selected in to Y Combinator, the most prestigious accelerator in the world (Dropbox, Airbnb, etc); (c) Gen 4 Companies received the biggest amount of funding from local investors (500K) BrainHi, Workep, Stageboom, Wisboo (d) A group of Diaspora made their first investments in two Puerto Rican companies (BrainHi and StageBoom. Abarthys Health raised \$1.4M first local company to achieve this milestone since program started. We completed Pre18: 307 companies applied; 40 were selected, and 50% of them have a product in the market. 16 companies from PRE-18 are part of P18 Gen 5.

Colmena 66 led the Levanta Tu NegocioPR Campaign that surveyed over 1132 small businesses with entrepreneurs from 76 municipalities to understand their needs after hurricane Maria, and channel those needs to different entities. They set up Shop and Hire Puerto Rico a new sales channel, and the first digital platform stores directory

[Go to next page >](#)



# LETTER TO OUR STAKEHOLDERS

for local companies. Today there are 211 stores and 280 freelancers in the directory. For capacity building they provided eight (8) “Monta tu Tienda Online” workshops around all Puerto Rico covering over 723 participants with a waiting list of over 500 people. In recognition of their accomplishments and relevance in Puerto Rico entrepreneurial ecosystem, Colmena66 was one of the 2018 SBA PR President awards recipients. Colmena also was invited to share their experiences and learning to: Forward Together New Orleans, Growing Entrepreneurial Communities Summit by SourceLink & Federal Reserve Bank of Kansas City, Startup Societies Summit, Washington, DC, and EShip Summit by Kaufman Foundation. Colmena currently have over 170 partners in the network, has connected over 3300 and managed over 450 events in the community calendar. Just days before completing this annual report Colmena 66 launched Tu Camino Empresarial, a map where you can easily identify the resources available to start or grow your business, according to the type of company and stage of business in which you are. The online application as well as the printed map was available at launch.

MBQ Pharma Launch was a key milestone for the Trust, and for our research grant program. The intellectual property that is the foundation of the product being developed by this biotechnology company was funded in part with our research grant. We are currently managing 31 open grants from the RFP and Small Grant Program. We established a collaboration agreement with Spain’s Agency for Technology and Innovation (CDTI), and we have the first winner of our joint grant call, OMICs Global Solutions. We are working with Dr. Daniel Colon we are putting together the Grant Program Advisory Board to be the trusted body regarding Grant program strategic direction. We just opened the Foundation center to provide access to research grants around the nation from government and private sources. The new Funds to Grow campaign with a budget of \$2.5M is open for researchers and small companies to apply for new grants opportunities.

The Puerto Rico Vector Control Unit (PRVCU) is now performing surveillance and community mobilization, and control activities. Major communication campaign is taking place in the media right now: Páralos en Secos. In terms of Community mobilization we have impacted over 44 municipalities with Educational booths (37), Talks (62), Community visits (56), Distribution of repellents (25K), larvicides (738) and educational material (88K). We impacted over one thousand students in 6 schools with the Timokid application and book, impacted 3000 students with the 1 day lesson and doing the June summer camps for 480 students. Surveillance in San Juan, Carolina, Bayamon, Caguas and Ponce is taking place with over 1000 adult traps and ovitraps. Also doing sourcing and larvicide control in over 550 houses in San Juan. We delivered Novel Technologies for Vector Control workshop with over 150 participants and 30 external speakers. We assessed the participant perceptions about novel methods to control Aedes Aegypti population. It seems participant will be willing to consider the SIT Wolbachia suppression technology with the proper levels of education, community engagement and outreach activities. Dr. Grayson Brown as distinguished entomologist will PRVCU new executive director starting January 2019. Our PRVCU Technology Platform just received an ESRI SAG (Special Achievement in GIS) Award 2018. The recognition included, in addition to the award, presentations by our technology team in at the global conference, and interview in their magazine.

The Puerto Rico Public Health Trust became an associate member of the National Network of Public Health Institutes last June. The PRPHT’s vision is to “Achieve sustainable health equity in Puerto Rican communities and improve their quality of life through innovation, collaboration and community engagement.” As per the Vision and Mission Workshop carried out with local stakeholders, the PRPHT’s priorities include efforts to “improve public health capacity systems and outcomes by fostering innovation, leveraging resources and building partnerships to improve the public’s health.” PRPHT priorities include: Emergency preparedness, mental wellness, health equity, health information, aging population and chronic health issues, value-based healthcare, environmental considerations, education and training. We already obtained our first major contract with Association of State and Territorial Health Officials (ASTHO) to support the Puerto Rico Health Department.





# LETTER TO OUR STAKEHOLDERS

We are working with Dr. Jim James from Disaster Medicine Society in the preparation of the Summit Caribbean Strong: Building Resilience with Equity from Feb 27 and Mar 1, 2019. This will be a regional summit to share findings post serial hurricanes Irma and Maria on topics of disaster medicine and public health preparedness.

During the month September 2018 we received the notification that EDA will finance 80% of the Forward Building. We expect to start construction before the end of the calendar year. We are very proud that our Innovation Center was recognized with two energy savings awards at 'La Batalla de los Edificios Contest', a primary educational and recognition program promoting Energy Efficiency & Sustainability in commercial buildings within our region

To address the emergent technologies, we delivered 5 Virtual Reality free summer camp training in San Juan and Mayaguez that impacted over 75 students with the experience of developing their own VR project. 56% of the students were from public schools. We also established a strategic relationship as the Innovation and local partner with the Puerto Rico Responsive Innovation Laboratory (RIL). RIL is founded by three of the world's largest NGOs (Save the Children, Oxfam, and World Vision International), together with academic and innovation partners with a network of 150 supporting organizations. The RIL goal is to substantially improve the lives of affected populations, by ensuring good, new and innovative ideas are tested and shared across the sector.

To enhance our relationships with the different partner in the research, technology and entrepreneurial ecosystems, we signed MOU's with the following organizations:

1. Universidad de Puerto Rico (manage IP and TTO activities)
2. Universidad del Sagrado Corazón (general collaboration)
3. Universidad Central del Caribe
4. Asociación de Salud Primaria de Puerto Rico
5. Wovenware (AI for mosquito recognition)
6. Sistema Universitario Ana G. Méndez (SUAGM - TTO)
7. EVERTEC
8. ACDET
9. Centro Unido de Detallistas
10. Chamber of Commerce, Industry, Services and Tourism Brasil&PuertoRico
11. Spain's Center for the Development of Industrial Technology (CDTI)
12. Society for Neuroscience (funding support for Neuroscience event)
13. Centro para el Desarrollo del Voluntariado (develop PRVCU voluntary work program)
14. Valent BioSciences LLC (PRVCU – evaluation of WALs tech)
15. PathStone Corp. (Collaboration with Colmena66)
16. Environmental Quality Board (collaboration for tire shop geographical data)
17. Juntos y Unidos por Puerto Rico (ESRI GIS Mapping Software)
18. Instituto de Ciencias para la Conservación de Puerto Rico (collaboration with PRVCU)

I'm excited with the opportunities ahead of us. The new agricultural initiative "Recuperacion Agricola" in partnership with the American Red Cross will help to transform our small farmers businesses in Puerto Rico as well as to improve our food security as a jurisdiction. The acceptance by the Treasury department of our application to become a Community Development Financial Institution (CDFI) is another big step moving forward. Now the Trust will enjoy new financial capabilities that will enable our startup and small business companies to achieve their full potential. We are also breaking new ground with Xlecrator, an NIH program grant to develop new medical devices startups.

I want to close this message by reaffirming to all our stakeholder that our Board, our management team, our associates, and partners now more than ever are creative, innovative, thoughtful and committed, and striving to achieve the vision for Puerto Rico to be recognized as a global innovation hub that develops, attracts, and retains scientists, technology entrepreneurs, and enterprises to unlock world class creativity and competitiveness.

**Lucy Crespo**

CEO Puerto Rico Science, Technology And Research Trust.

# ABOUT THE TRUST



Science City





## Mission

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

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## Vision

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

# OUR TRUSTEES

Growing through Innovation  
and Commercialization



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



**Esteban Santos**

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



**Daniel Colón Ramos**

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



**Gualberto Medina**

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



**OUR TRUSTEES** (Continued)





### Salvador Moncada

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



### Alfredo Casta

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



### Manuel Laboy

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



### Glorimar Ripoll

Glorimar Ripoll Balet is the Chief Innovation Officer of the Government of Puerto Rico and Executive Director of the Puerto Rico Innovation and Technology Service office in La Fortaleza.

Mrs. Ripoll Balet holds Bachelor of Science and Master of Engineering degrees from the Massachusetts Institute of Technology (MIT). Her focus is to enable the transformation of Puerto Rico through an innovative approach that focuses on collaboration and leverages the use of modern technology and design. She envisions Puerto Rico evolving into a world-class innovation ecosystem that optimizes the development of human capital and results in economic growth.





# RESEARCH GRANTS P R O G R A M

*FUNDS TO GROW*

The Trust's Research Grants Program empowers scientists and researchers to take Puerto Rico's knowledge economy to a higher level of excellence. The initiatives seek to impact researchers in the academia, non profit research organizations and at the private sector.

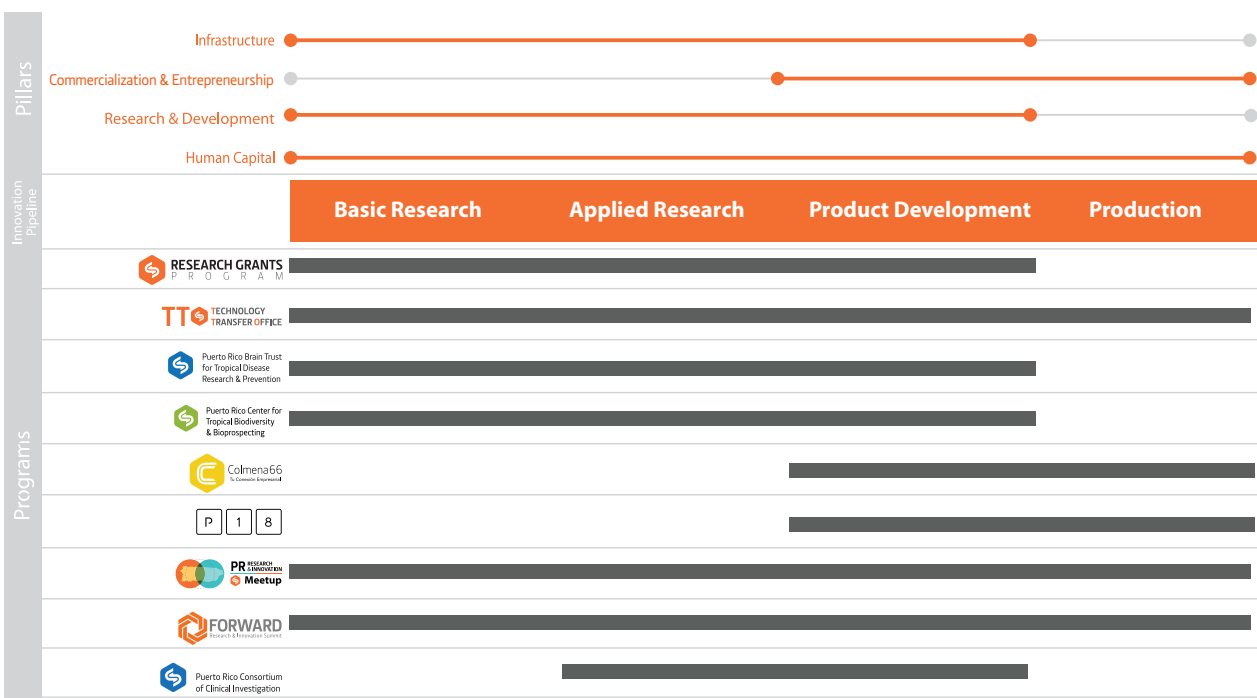


Mission and Vision

Our mission is to provide incentives for R&D activity to further the Trust’s overall mission of promoting a knowledge-based economy in Puerto Rico.

We provide proof-of-concept funding to advance locally developed science and technology projects to a point where they can obtain alternative sources of funding or be commercialized.

A.



B.

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



Since its inception (2014), **the Research Grants Program** has awarded more than \$6.3M USD in grant for science and technology research topics. More than 460 researchers and entrepreneurs have applied to the program. This without counting the funds given after Hurricane Maria under the Post Hurricane Maria Aid for Researchers.

**The Puerto Rico Science, Technology and Research Trust (PRSTRT)**, the Caribbean Division of the American Association for the Advancement of Science (AAAS), the Society for Neuroscience (SfN), Ciencia Puerto Rico, and the American Chemical Society - Puerto Rico Local Section (ACS), have formed a partnership to offer an assistance program to support researchers, professors, science teachers and students following the emergency of Hurricanes Irma and Maria. Financial assistance grants were awarded in three categories: Continuity, Restoration, and Thesis Grants.

Under the Continuity category, the program supported researchers who wished to relocate temporarily to continue research projects with collaborators outside the Caribbean region. The Restoration category offered help in restocking materials, repairing damaged equipment and / or rehabilitating teaching or research facilities. Thesis Grants were also offered as supplemental funds for graduate students who were within a year of completing their degree and intended to complete a teaching and research career in the Caribbean region.

**The Research Grants Program** Team conducted a survey asking the recipients how the funds helped them. Below are some of the answers of the participants.



**69 AWARDEES  
IN 3 TRACKS**

RESTORATION - 35 AWARDEES

THESIS - 23 AWARDEES

CONTINUITY - 11 AWARDEES



**TOTAL AWARDED  
\$103,363**

“Thanks to the funds received, I was able to replace some of the items that were damaged due to the hurricane. This allowed me to resume experiments and continue with my research whose main purpose is to study new strategies to combat metastatic breast cancer. Thank you so much!”

- Researcher at Universidad Central del Caribe

“First of all, thank you very much for this help you have given me. The hurricane implied a delay in my thesis and additional expenses that I did not contemplate. Thanks to your help I have been able to correct part of these expenses which will give me more peace of mind to finish my thesis. Again, thank you and I applaud your beautiful work.” - Student at University of Puerto Rico, Mayaguez Campus

“Having received this grant has allowed me to continue with my doctoral work, which had been severely impacted by the loss of microbial strains due to the lack of electrical power during Hurricane Maria. If I had not received this money to obtain the strains, my work, and consequently my doctorate, would have been delayed for about 6 months. Thanks to this, I have been able to complete the experiments necessary to write a scientific article.” - Graduate Student at University of Puerto Rico, Mayaguez Campus

“This fund helped me a lot in completing my master’s research, in addition with it I paid to print the theses and bound them, I also submitted the abstract to be presented in November at SFN in San Diego and finally I plan to travel to present my research work , once again many thanks.”

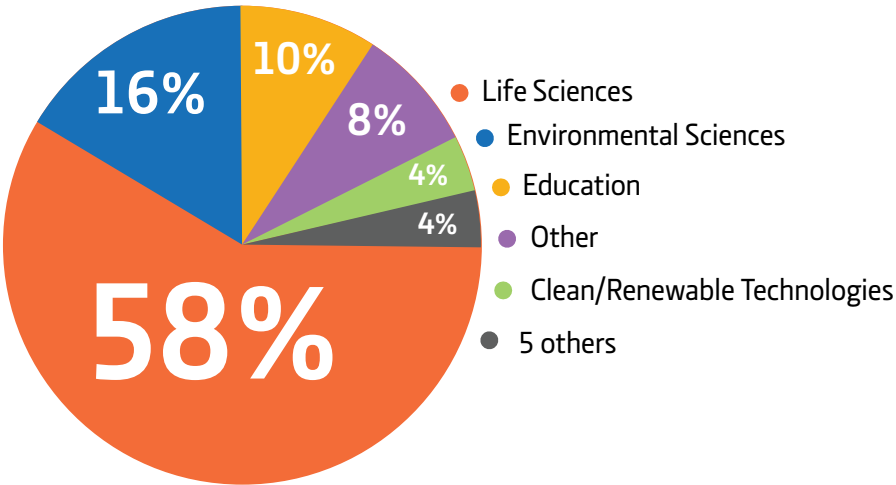
- Graduate Student at University of Puerto Rico, Río Piedras Campus

“The funds provided by the Trust have been of tremendous help for my thesis project. In particular, during the hurricane a pre-clinical study was being run on rats injected with a drug, so with the donated money these experiments are currently running again.” - Graduate Student at Ponce Health Sciences University





# Sectors IMPACTED by the grant:



Collaborative Agreement with the Center for Technological and Industrial Development of Spain



On February 2018, The Puerto Rico Science, Technology, and Research Trust and the Center for Technological and Industrial Development of Spain launched the “First joint call Puerto Rico - Spain for collaborative projects in research and technological innovation”. This call will allow the selection and financing of R&D projects in effective collaboration between a Puerto Rican entity (Research Center, University or Company) and a Spanish company.

The results of the projects must have a civil end. The budget must be coherent with the developments to be carried out and the technical/financial capacity of the participants, who must sign a consortium agreement that specifies the rights and obligations of the parties with respect to the development carried out and the possible intellectual property rights, exploitation and commercialization of the results.

The call is addressed mainly to the sectors of Biotechnology, ICT, Aerospace Industry, Health, Environment, Clean Technologies and/or Renewable Energy and Agriculture. Independent, any other sector could be considered as long as the project has an innovative character.

In Spain, the financing of these projects will be done through the CDTI applying the conditions and procedures of the International Technological Cooperation Projects with unilateral certification and monitoring, and in Puerto Rico, PRSTRT will finance projects under the terms, conditions and funding limits of the Research Grants Program. For the first call, the Trust Fund will provide a maximum grant of \$50,000.



During 2017, the Research Grants Program did not have an open call. On December 2017, Ms. Andreica Maldonado joined the program as Grants Program Manager and Ms. Grace Rendón as Grants Program Specialist.

It was a year of transition especially after Hurricane María. Even though we did not awarded grants, our active grantees, kept working hard and delivering results. The grants impacted, more than 50 students, 21 additional papers were published, 114 abstracts were presented, 4 additional patents were created, capturing as a result 2.8M USD in external funding. Furthermore, 1 additional company was established and 24 site visit were conducted.

Plans for 2018-2019:

177 Students	44 Peer Reviewed Publications	207 Abstracts/ Presentations	11 Patents	\$7,000,793 Additional Funding (awarded)	7 Companies
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Forward Summit

In order to accelerate the scientific and technological activity on the Island, the Forward Research and Innovation Summit returns. The event will be held on Saturday, November 10, 2018, at the Sheraton Convention Center.



Dr. Manu Prakash, born in India and professor of Bioengineering at Stanford University and with a PhD in Applied Physics from MIT, will be the keynote speaker at this conference. Prakash is well known for its Paper Microscope (Foldscope), a microscope that any individual can assemble. His work focuses on frugal innovation that makes medicine, computer science and microscopy accessible to more people around the world. He and his team are also working on a computer based on water droplets at Stanford University. “Our mission is to produce low-cost scientific tools that expand global access to science. Our goal is to break the price barrier between people and the curiosity and excitement of scientific exploration,” reads the objective of Prakash Lab.

Along with Prakash, a selection of more than 30 renowned speakers and panelists, local and international, including: meteorologist Ada Monzón; Shayna Skolnik, from NASA and co-founder of Navteca; Robert Cloutier, from Digital History Studios and Juan Pablo Dulanto, from 500 LaTam Startups, among others. These experts will offer lectures and educational panels with current issues in their various areas of expertise in order to encourage members of the scientific and business ecosystems to identify new opportunities that bring growth and development on the Island.

During the Forward Summit the Bajarí Prize will be presented for the first time, institutional recognition by nomination given by the PRSTRT to recognize exceptional scientists on the island.



Bajarí



# BAJARÍ

## Outstanding Researcher Award

Bajarí, a word from the Taíno dialect, means high distinction and represents the path that researchers follow to innovate and achieve high distinctions in their fields.

The prize was designed by a student from the Escuela de Artes Plásticas y Diseño de Puerto Rico. Bajarí was manufactured in México by the sculptor Luz Badillo.

New Call

Under the motto: “Funds to grow”, the Puerto Rico Science, Technology and Research Trust will launch two innovative grants: Advanced Research Grant and Catalyzer Research Grant with \$ 2.5 million to boost the economy of Puerto Rico based on innovation, science and technology. This amount adds to the more than \$6 million that it has awarded in the last 3 years for projects in science and technology impacting more than 100 local researchers. The Program will have a new brand and logos.



**RESEARCH GRANTS**  
P R O G R A M  
*FUNDS TO GROW*



**ADVANCED RESEARCH**  
GRANTS PROGRAM



**CATALYZER RESEARCH**  
GRANTS PROGRAM

The Advanced Research Grant fund (formerly RFP Grant) awards \$150,000 and promotes cutting-edge research for various areas of science and technology. The Catalyzer Research Grant fund (formerly Small Research Grant) awards \$70,000 to provide a first boost to scientists and help local researchers increase their chances of obtaining federal or private funds for their R&D (Research and Development) proposals. Each proposal is meticulously evaluated by experts who have academic, scientific and technological expertise.



# Unidad de Control de Vectores de Puerto Rico

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



## Mission and Vision

**Mission:** The mission of the PRVCU 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.

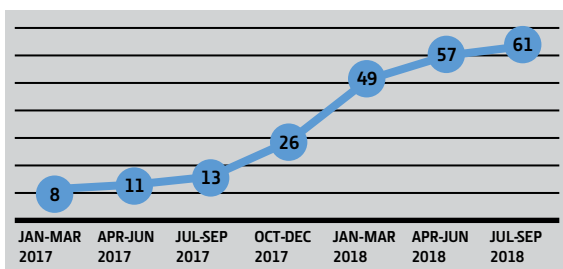
**Vision:** Striving together for a Puerto Rico free from mosquito-borne disease.



**Figure 1:** Representation of the three core pillars established by the Unit to implement an Integrated Vector Management model for Puerto Rico.

## Achievements

**Workforce recruitment and development** | Up to date, PRVCU has recruited 61 full time employees and has provided more than 35 opportunities for professional development to its employees. These opportunities include professional conferences and workshops, safety training, site visits to vector control programs, among others. In addition, this year PRVCU implemented a safety program in order to support field, laboratory and office operations. Sixteen protocols related to field, laboratory and other safety issues were developed and more than 240 online trainings has been delivered among employees.



**Figure 2:** Cumulative number of PRVCU full-time employees over time

## Modern Laboratory Facilities

A fully functional entomological and surveillance laboratory was established at the PRSTRT's Laboratory for Environmental Research, located at PRSTRT's Science City Research Park. The PRVCU laboratory has been set up following the OSHA guidelines, Biosafety in Microbiology and Biomedical Laboratory and Arthropod Containment Guidelines. At this moment, the PRVCU laboratory facilities have in place a fully operational insecticide resistance assay laboratory, mosquito extraction and identification laboratory, and insectary.

Given the modern facilities, more than 15 requests have been received to visit the facilities, with more than 120 visitors received.

**PRVCU Laboratory Open House:** On March 7, 2018 the PRVCU celebrated a Laboratory Open House in San Juan to showcase the facilities and the work the Unit is doing. More than 60 people participated of the event, including members of the community, media and partners. Local media such as Vocero, Primera Hora, Metro, Noticias 24/7 among others covered the event and highlighted our work in the News. Some of the news can be found at the links below. The strategy was to create awareness about the problem of vector control in Puerto Rico and the role the VCU is taking to reduce arboviral diseases in Puerto Rico.





- El Vocero - Latente la amenaza del mosquito Aedes aegypti - March 9, 2018
- CB español - Presentan estrategia para el manejo integrado del mosquito Aedes aegypti en PR - March 8, 2018
- El Vocero - Prosigue la lucha contra el Aedes aegypti - March 8, 2018
- Es Noticia - Informan esfuerzos para reducir la población del Aedes aegypti - March 8, 2018
- Primera Hora - Mosquito del dengue sigue entre nosotros
- News is my business – P.R. Vector Control Unit unveils mosquito-control strategy - March 9, 2018
- Noticias 24/7

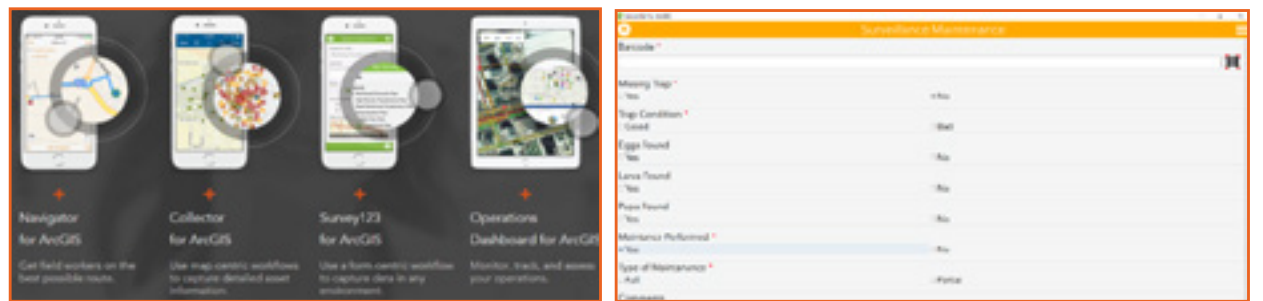
**Expansion to the South:** Facilities in Ponce have been secured in the annex to the Department of Labor offices in this municipality. Currently, the facilities are being remodeled to meet the needs of the PRVCU. A temporary space within the building was habilitated to run operations while the full facilities are completed.

### Technology Platforms

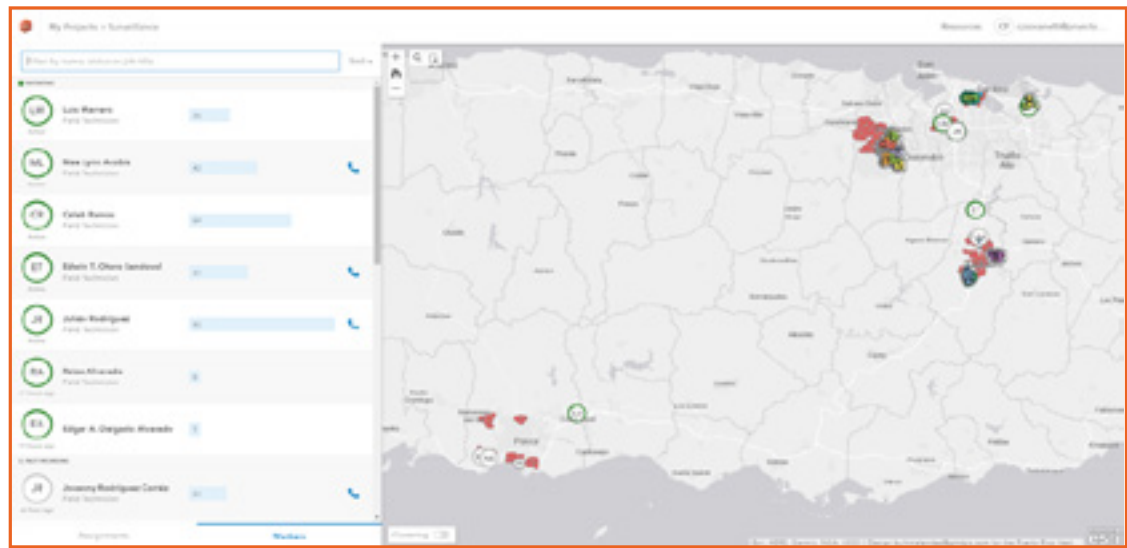
Agreements with ESRI and Microsoft were reached to license their state of the art ArcGIS software and Cloud space. Using ArcGIS software, an electronic platform has been developed which goes through the entire process of data capture and reporting. The platform includes a Workforce management application 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, lab and community operations was developed and incorporated in this system. The development of the ArcGIS platform for vector control activities was recognized by ESRI and the PRVCU GIS team was awarded the Special Achievement in GIS 2018, an award that is granted to 150 companies from a pool of 300,000.



**Figure 3:** Summary of the ArcGIS components that are used for the PRVCU operation (left). Screenshot of the Survey 123 Trap maintenance and data collection tool used for field operations (right).



**Figure 4:** Workforce view of areas and tasks assigned per field technician. This tool is used to assign routes to the field employees and keep track of the operations in the field.

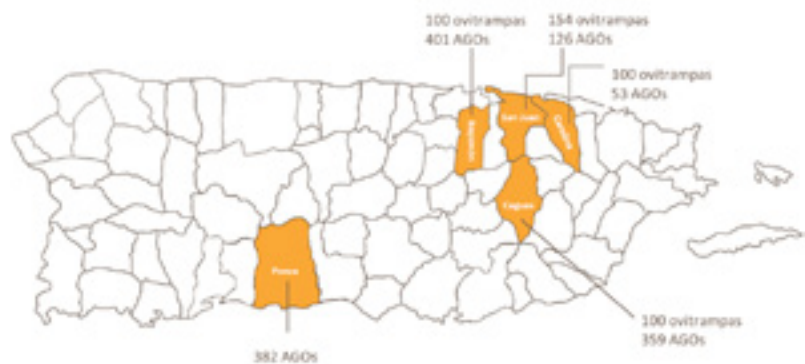


## Vector Surveillance

Adult Mosquito Surveillance: The vector surveillance program was first implemented in January 2018 in Reparto Metropolitano, San Juan. **Figure 5** summarize the areas and number of traps deployed to date. The deployment of the traps was preceded by a community approach by the community mobilization team, who identified and contacted community leaders and developed a community landscape. The information collected included data about safety, community practices, availability of residents and contacts.

From January to September 2018, a total of **1,321 Aedes Gravid Ovitrap (AGO)** have been deployed in San Juan, Caguas, Bayamón, Carolina and Ponce, Puerto Rico. The PRVCU Laboratory has been able to process more than 30,000 AGO capture chambers (part of the trap that collects the mosquitoes) during a seven month period. Up to September 2018, our AGOs have captured **315,610 Ae. aegypti female** mosquitoes from our areas under surveillance. The municipality of Caguas has the highest amount of captured Ae. aegypti female mosquitoes (123,915 mosquitoes; 359 AGO), followed by Bayamón (84,096 mosquitoes; 401 AGO), San Juan (44,267 mosquitoes; 126 AGO), Ponce (57,008 mosquitoes; 382 AGO) and Carolina (6,324 mosquitoes; 53 AGO). It is important to notice that these numbers are influenced by the amount of traps per area and the amount of time the traps have been out in the field.

**Figure 5:** Map of Puerto Rico showing the municipalities impacted by the PRVCU surveillance program and the number of traps deployed in each area.





**Ovitrap Surveillance:** In addition to the adult mosquito surveillance using AGOs, 454 mosquito ovitraps are being used as a surveillance tool to examine the presence or absence of *Ae. aegypti* eggs in seed germination papers collected from areas in San Juan, Carolina, Bayamón and Caguas. Since February 2018, a total of **13,632 seed germination papers from ovitraps have been processed, from which 9,966 (have been positive for *Ae. aegypti* eggs).**

**Figure 6:** Surveillance traps used by PRVCU. The figure in the left shows the ovitrap used to collect *Ae. aegypti* eggs, which the female mosquito deposits on the walls of the brown seed germination paper showed in the picture. This paper is collected and examined in the laboratory for the presence of mosquito eggs. The picture in the right shows the AGO which is used to capture adult mosquitoes. The trap has a capture chamber that contains a sticky paper where adult mosquitoes are stuck when looking for a place to lay their eggs. Both traps simulate a breeding site that attracts the female mosquito when ready to lay her eggs.

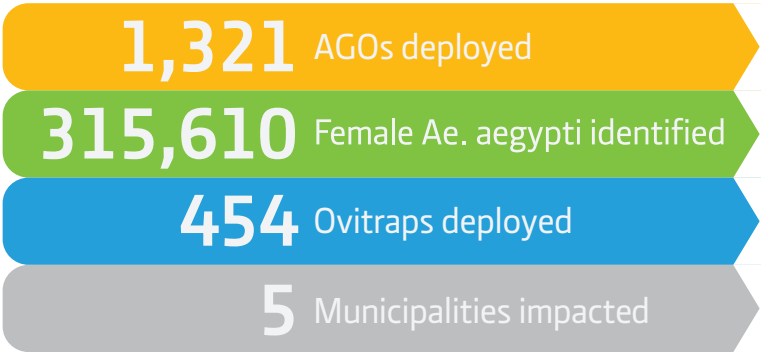


**Insecticide Resistance Monitoring:** Using eggs collected through our ovitrap surveillance, insecticide resistance testing is being conducted in the PRVCU laboratory to determine the efficacy of the commonly used insecticides. Preliminary results show that local mosquitoes are resistant to the active ingredient of all insecticides tested. Field cage bioassays to test the efficacy of different formulations are also being conducted to further evaluate insecticide resistance and determine the best products to be used as part of the vector control strategies.

**Figure 7:** Surveillance maps for San Juan I and Bayamón I. The maps show the AGOs deployed in each area. Traps denoted by a blue circle are those that did not catch any female *Ae. aegypti* mosquitoes, those traps denoted by a yellow circle are more than 1 but less than 3 and those traps denoted by a red circle are those traps with greater than three female *Ae. aegypti* mosquitoes caught during the course of the week i.e. those traps in locations we might consider to be at risk from transmission of arboviral disease should it exist in the human population.



**Figure 8:** Key impact measures for the vector surveillance program





## Community Mobilization

PRVCU community mobilization team has implemented a proactive outreach approach that aims to increase the visibility of the program and the awareness of the *Ae. aegypti* mosquito around Puerto Rico. Utilizing a multi-pronged approach we are communicating and engaging school districts, municipalities, academia, strategic cultural events, non-profit organizations, and corporate entities, conventions, government agencies, media platforms, grassroots influencers, and others. More than 70 meetings have been conducted with key stakeholders from different sectors and some of these meetings have resulted in strong partnerships and collaborations with several entities. In addition, a strong education program has been developed that includes one-day lessons and readings of the book “Aventuras contra los mosquitos” in schools around the Island.

All the community activities conducted by the PRVCU are supported by educational material developed in-house. This includes flyers, hand fans, activity books, and others that contain information about PRVCU programs, larvicides, repellents, breeding sites, AGO, and other related information.

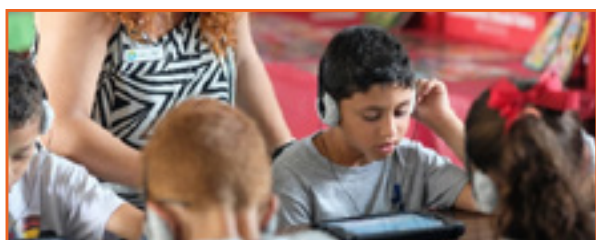
## Partnerships

Partnerships with key entities have been developed to increase awareness among local citizens by leveraging well recognized and respected programs in Puerto Rico. All of them are supporting the objective of educating the communities and creating awareness about mosquito breeding site reduction and personal protection.

- **“Las Tres Mosquiteras”** – Fernando Silva: This project originated due to the need of mosquito nets after hurricane María. Community leaders got together and developed hand-made mosquito nets that were distributed among the community. PRVCU and the PRSTRT joined efforts and provided cloth and a space for the community members to work. An agreement was formalized on July 2018 and establishes that both parties will continue working together through direct interaction with the local leadership and residents in the community for the prevention of diseases caused by the *Ae. aegypti* mosquito. This collaboration has resulted in the distribution of more than 800 repellents and 552 informational material in 8 municipalities.
- **Puerto Rico Primary Care Association:** This collaboration aims to integrate strategies of education, mobilization and empowerment in the communities fostering the community’s proactive participation in identifying, eliminating and monitoring mosquito breeding areas. The agreement between both programs was signed on July 23rd, 2018. On August 20, 2018 they collaborated with PRVCU in the World Mosquito Day.
- **Scuba Dogs Society:** As part of the PRSTRT social responsibility, the PRVCU collaborated with Scuba Dogs Society in the International Coastal Cleanup (ICC). We provided them with 20 boxes of gloves, 3,000 pencils, and 600 repellents. As part of the collaboration, we participated in 3 talks in Plaza del Caribe in Ponce and Plaza Las Américas in San Juan. Our logo was included in the educational material, promotional flyer, presentations, and t-shirts of the ICC. Our support helped to provide supplies to 8,357 volunteers in 104 coasts in Puerto Rico.
- **Collaborations with CDC Dengue Branch:** PRVCU is collaborating with the CDC Dengue Branch and the Ponce Health Sciences University in the Communities Organized to Prevent Arboviruses (COPA) project. As part of the collaboration, PRVCU has developed and printed 2,000 educational flyers and provided 1,500 repellents for community interventions. In addition, PRVCU Community Mobilization team is participating in the community visits, health fairs, booths, talks, and other outreach activity to introduce the project and continue the mission of the PRVCU. In addition, PRVCU and PRSTRT personnel are working with the CDC Entomology and Epidemiology groups to develop educational videos about vector control tools and activities.
- **Volunteer Development Center** – Sacred Heart University: This collaboration establishes a mutually beneficial agreement between PRVCU and the Volunteer Center. The Center will offer advice to develop the PRVCU Volunteer Program, and PRVCU will be helping the Center to expand services and encourage voluntary movement in Puerto Rico. The agreement between both programs was signed on April 2018.



- **Brigadas Salubristas:** In collaboration with the University of Puerto Rico, Medical Sciences Campus, the Community Mobilization team has participated in house to house brigades denominated as Brigadas Salubristas in at least 8 municipalities. Our participation includes distribution of educational material, larvicides, and mosquito repellents.
- **TimoKids:** This collaboration was established to develop a short story about the mosquito *Ae. aegypti* and create awareness among children of the steps that the family can take to reduce breeding sites. The company developed a children story titled “La aventura contra los mosquitos”. This collaboration included three delivery methods of the story: a school module, a digital app, and a printed book. The school module impacted 1,330 students in 6 elementary schools located in San Juan and Bayamón. During the school module data was collected from a pre and post quiz to see if students understood and learn from the story. An average increase of 21% in knowledge was determined.



Picture 3: Students using the TimoKids School Module

A total of 1,374 printed books have been delivered in schools, community educational talks, and educational booths in four municipalities (San Juan, Lares, Caguas, Carolina). The digital story available free in the TimoKids app have been downloaded and read by more than 800 users.

- **Para La Naturaleza (PLN) Partnership:** This partnership was established to carry out a citizen science ovitrapping and data reporting project for volunteers to learn about the mosquito while also providing valuable information to the PRVCU. The overarching project objective is to support an island wide mapping of the population dynamics of the vector *Ae. aegypti* in time and space. The immature mosquito surveillance started in June 2018 in rural communities of Caguas and San Juan. A total of 3,600 ovitraps were placed resulting in the participation of more than 280 volunteers and nine (9) communities impacted.

As part of the partnership PRVCU participated in the annual Para la Naturaleza Fair in San Juan with an educational booth (Picture 4). During the event, we distributed TimoKids books, repellent, and educational materials. A total of 4,000 people participated in this event.

- **Casa Grande Partnership:** This partnership was established in May 2018 for the development of science curriculums about the biology of the mosquito *Ae. aegypti*. Casa Grande aligned the content with the Science Core Standards for the Department of Education. The curriculums were delivered in September 2018 and are planned to be implemented in schools next year. The partnership with Casa Grande was announced in the press on May 21st, 2018. Different media outlets published the news like Metro Newspaper, CienciaPR Blog, and on WIPR- Noticias 24/7.



Picture 4: Educational Booth at Para la Naturaleza Fair 2018, San Juan.

- **Lee County Partnership:** The Lee County Education Program team is partnering with PRVCU Education Team to develop a story book about the *Ae. aegypti* for Kindergarten in English and Spanish.

**The Mosquito lesson:** The PRVCU education team developed a one-day lesson about the mosquito to be offered at local schools. During this lesson, a pre- and post-quiz is provided to measure the increase in knowledge of the students impacted. Increase in knowledge varies from 2% to 91% increase. The Educators have also visited more than 200 schools to provide information about our education program offerings.

By September 28th, 2018, the Education Program reached a total of 6,194 students in 16 municipalities across the Island.

**Project Based Learning (PBL):** Several schools in the San Juan area selected the mosquito *Ae. aegypti* as the topic for the Project-based learning activity. The Education Team trained and assisted the teachers of two schools about the *Ae. aegypti* and how to incorporate it in their PBL.

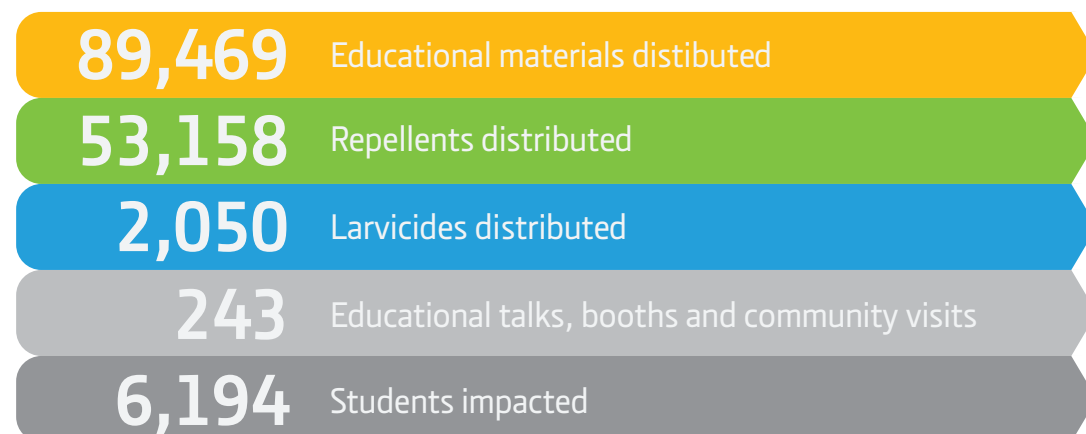
**Picture 5-6:** Final presentation of the PBL at the República de Brasil school. Our staff visited the school to see the project.



Since PBL is a new requirement for schools in the Department of Education, we partnered with **Ciencia Puerto Rico** (CienciaPR), a non-profit organization that promotes science communication, education and science-based careers. CienciaPR developed and launched a PBL training for teachers across the Island. **A total of 8 schools participated with us developing the PBL about the mosquito *Ae. aegypti* (Ponce, Vega Alta, Naranjito, Ciales, San Juan, Carolina).** Our staff is visiting these schools to help with the implementation of the mosquito PBL.

**Summer Offerings:** The Education Team visited summer camps delivering educational and hands-on activities during the month of June and July of 2018. During the summer we impacted a total of **2,214 participants in 11 municipalities.**

**Figure 9:** Key impact measures for the community and education programs





## Branding, Website and Social Media

An official PRVCU brand and logo were created by our graphic designer as well as a website ([www.prvectorcontrol.org](http://www.prvectorcontrol.org)) which provides basic information about the PRVCU and educational material about the mosquito *Ae. aegypti*. Social media channels were setup through Facebook and Instagram as PRVectorControl. PRVCU has been consistently posting relevant and interesting material for the public about the mosquito life cycle, personal protection, breeding site reduction and PRVCU activities. **Our Facebook page currently has more than 5,000 likes and a weekly reach of more than 100,000 people.**

The media team also developed an informational video published in YouTube about the PRVCU and its activities. This was done as part of our public relations strategy to educate and gain the trust of the communities.



Figure 10: Key impact measures for Social Media and Website



Figure 11: PRVCU Facebook post about personal protection and breeding sites

5,400 Likes in Facebook

100,000 Reach in Facebook

75,925 Visits to the website

## “Páralos en Seco”

Campaign: In May 2018, PRVCU launched a media campaign under the slogan Páralos en Seco to advise the public to drain, brush, cover or throw away all containers that can accumulate water. The creative concept was developed by the public relations agency Burston-Marsteller to increase knowledge among the Puerto Rican public on measures that can be implemented 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. This campaign includes a 1 minute and 30 seconds jingle and video, billboards, flyers, Facebook ads, newspapers, and others.

**Figure 12:** Sample of the arts generated as part of the media campaign and that were used for billboards and other media ads.



**Table 1:** shows the media outlets that were used and the amount of ads that were acquired. The TV interviews included programs such as Noticentro and Telenoticias, the two main TV news in Puerto Rico. The Radio interviews included one with Rubén Sanchez, one of the most important radio influencers in Puerto Rico.

Communication Outlets	Quantity (May – August 2018)
Radio spots	864
Television spots	135
Movie theaters advertising	140
Billboards advertising	13
Digital news advertising (impressions & clicks)	6,498,551 27,244
Newspaper advertising	10
TV and Radio Interviews	16

**Pictures 7-10:** Some of the TV, radio interviews and newspaper add generated from the Páralos en Seco Campaign



A collaboration was also established with the TV show “Borinqueando” and PRVCU has recorded four (4) programs with them that highlighted the laboratory, community activities, the COPA collaboration in Ponce and source reduction activities. Two of our interviews have already being broadcasted.





**Pictures 11-12:** Activities conducted during the Mosquito Day in various municipalities; source reduction in Loiza (left) and Orocovis (right).

**Mosquito Day Cleanup Activity:** The PRVCU objective, through its Cleanup Campaign on World Mosquito Day, is to increase citizens' participation in activities related to the prevention of diseases transmitted by the mosquito *Ae. aegypti*. The Federally Qualified Health Centers (330 Centers) and Puerto Rico Primary Care Association led cleanups of breeding sites near their locations. Prior to the activity, 17 leaders of 330 Centers were oriented and trained about identification of breeding sites and mosquito biology. The World Mosquito Day resulted in the participation of 17

municipalities, eight (8) breeding site reduction activities, 10 educational booths, and three (3) educational talks. We registered a total of 619 potential volunteers from the community and schools, and 477 breeding sites were found and eliminated, they were reported using our in-house digital platform. On this day, seven schools were impacted in different points of the Island. A governor proclamation was granted establishing August 20 as the Awareness day against the mosquito *Aedes aegypti* in Puerto Rico.

## Vector Control Activities

**Source Reduction:** In response to the mosquito surveillance data collected, a pilot program for source reduction and larviciding was launched in Reparto Metropolitano, San Juan. Field technicians are visiting homes around the traps that have reported the highest number of mosquito counts. The PRVCU team visits the community and homes, inspect the patios to identify mosquito breeding sites, eliminate the breeding sites and treat them when necessary. Likewise, cemeteries in Bayamón are been inspected from breeding sites and treated in collaboration with the Municipality.

**Figure 13:** Key impact measures for vector control activities

### Larvae and breeding containers identification

8,342 Homes visited

1,205 Homes inspected & intervined

6,674 Breeding sites treated

On August 2018 the laboratory started identifying mosquito larvae samples collected from breeding sites found by the field team during house inspections. On July 2018, the laboratory team received an intense one week training on larvae identification from Dr. Derrick Mathias from the University of Florida.

Initial results indicate that *Ae. aegypti*, *Culex quinquefasciatus* and *Culex nigripalpus* are the predominant species found in artificial breeding sites (containers). The five most common containers containing *Ae. aegypti* larvae are plant pots, 5-gallon buckets, buckets, lids and 32-gallon trash can.

**Municipality Needs Assessment:** This assessment is a data collection activity to understand the efforts that are currently being made to control *Ae. aegypti* in each of the 78 municipalities of the Island. The PRVCU seeks to collect detailed information regarding the vector control programs in each municipality, the tools and activities being used and the resources available to carry out those activities. At the same time, this activity aims to engage and build collaborative relationships with the main stakeholders managing these programs.

Representatives from nine municipalities have been interviewed (Manatí, Toa Baja, Isabela, Carolina, Caguas, Bayamón, Ponce, Cataño and Mayaguez). Data is currently under analysis and interviews with additional municipalities are being scheduled.

### Vector Control Symposium

On August 9 and 10 of 2018, the Puerto Rico Vector Control Unit held a Symposium titled “Challenges and Solutions for the control of *Aedes aegypti*”. The event broad together experts from Puerto Rico, United States, Central and South America, Asia and Europe to share their knowledge and experience about strategies for the control of *Ae. aegypti* the vector in Puerto Rico of Dengue, Zika and Chikungunya. More than a 140 attendees participated each day of the Symposium, with representation from Academia, the local government and the health sector.

One of the highlights of the event was a panel of experts that included entomologist Manuel Lluberas, former state epidemiologist José Rigau and the president of the Puerto Rico Hotel Association, Clarisa Jimenez. During the panel, it was presented that by the year 2018 there have been reported in Puerto Rico 41,000 confirmed cases of ZIKA, 4,000 pregnancies, 7 deaths, 72 cases of Guillain-Barré and 50 births with congenital malformations. On the other hand 45 tour groups canceled their visits to the Island, resulting in 67,840 hotel nights cancelled, equivalent to 59.2 million dollars. Given the impact of this vector in Puerto Rico, new strategies need to be considered to implement an integrated vector management system that can control the mosquito in Puerto Rico.

The panel was followed by a series of presentations on diverse technologies, including Genetically Modified Mosquitoes, Male and Female Mosquitoes with Wolbachia, Male Mosquitoes with Wolbachia, Wide Area Larvicide Spray (WALS), Drones and Toxic Sugar Baits. The first day included presentations about each technology, while the second day focused on programs that have implemented one or more of these technologies in their countries.

By the end of each day, round table discussions with selected members of the audience, that excluded speakers and staff, were conducted to explore the opinions of the participants about the technologies presented. Overall, the audience was able to gain a general understanding of the techniques presented, as supported by the results of a post-test that showed that for the majority of the questions, more than 70% of the participants were able to respond correctly.

In general, participants were satisfied with the event organization and information provided, and were open to learn more about each technology. They also saw themselves and their entities as possible collaborators and advocates of the implementation of novel strategies in Puerto Rico, given that more information and data is provided.

Picture 13: Panel discussion during the Symposium “Challenges and Solutions for the control *Aedes aegypti*”

### Response to hurricane María

Hurricane María hit Puerto Rico on September 21st, 2017. After this event, the PRVCU was able to start operations on October 5, 2017. Immediately, the team developed a strategy to support Puerto Rico in its recovery, focusing on the control of the mosquito *Ae. aegypti*. It is known that after a natural disaster, the insect and pest population's increases and with them, the probabilities of the diseases that they might transmit. For that reason the focus of the PRVCU for the months following the storm was on providing the communities with the tools to control and prevent the spread of the mosquito and protect themselves from bites.

The strategy consisted of three main areas (1) developing a media campaign, (2) conducting house to house interventions and (3) participating in educational activities. All strategies had the goal to encourage the public to identify and reduce breeding sites and to use protective measures against mosquitoes.



The campaign titled #LeySecaAlMosquito ran from October 12 to November 10, 2017 and consisted of three main messages: (1) management of accumulated water, (2) management of water reserves and (3) use of repellents. The messages were heard in six of the main local radio stations (KQ-580, KQ-FM, Notiuno 630, Mega Estación, Salsoul, and Wapa Radio) and published in the main national newspapers (El Nuevo Día, Primera Hora, Metro, and El Vocero). A media tour was conducted parallel to the campaign and the PRCVU staff had the opportunity to reinforce the campaign message through 4 local television interviews and 5 radio interviews.

Figure 14: #LeySecaAlMosquito full page newspaper ad.



The media campaign was supported by distribution of educational materials and repellents, community interventions and educational activities. Up to December 20, 2017, PRCVU distributed over 60,000 flyers across 68 municipalities. The material was distributed with the support of the 330 Centers, the Department of Health, UPR Medical Sciences Campus and other volunteers. In addition, PRCVU staff participated in 40 health fair/information distribution events and distributed more than 4,000 repellents across 28 municipalities. See Table 2 for a summary of activities and Figures 16-18 for maps showing the distribution of materials and activities throughout the Island.

Figure 15: Educational material developed and distributed by the PRCVU team in the communities across the Island.

Table 2: Summary of PRCVU activities in response to hurricane María crisis.

Item	Dates	Number	Municipalities
Flyers	10/12 – 12/20	60,981	68
Events (Community Visits, Educational Booths, and Educational Talks)	10/12 – 12/20	46	24
Repellents	11/2 – 12/20	5,772	28
Radio Spots	10/16 – 10/31	272	
Full/Half page Newspaper ads (incl. internet news providers)	10/16 – 10/31	14	
Radio Spots	11/6 - 11/22	288	
Half Page Newspapers ads	11/6 – 11/22	10	
TV + Radio Interviews	10/12 – 12/15	4 + 6	

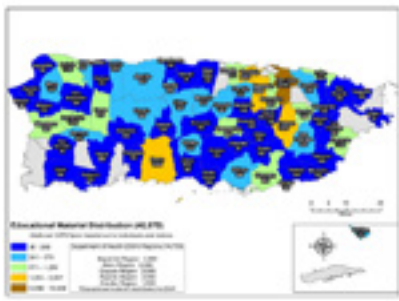


Figure 16: Distribution of Educational material across the Island up to December 20, 2017.



Figure 17: Distribution of educational activities and community visits performed by PRCVU staff. Activities include educational fairs, booths in hospitals, house to house interventions and clean-up activities.

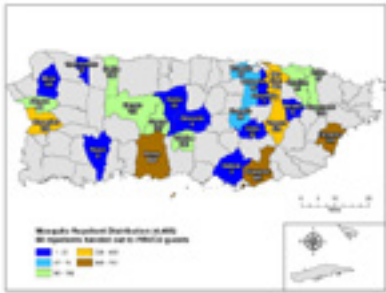


Figure 18: Distribution of repellents across 28 municipalities.



**One of the most significant community** interventions performed by the PRVCU community mobilization team was in the community of Punta Santiago, Humacao (Picture 7). This community was highly impacted by hurricane María, there were several homes without roofs, weeks after the hurricane has past. There were many debris that was still lying around the streets and homes. PRVCU adopted this community, did community visits and orientations as well as clean-up activities within the homes and streets. Similar activities were conducted in other municipalities.

**Picture 14-15:** PRVCU team in Punta Santiago, Humacao during one of their community visits.



Another important aspect of the PRVCU response, was a collaboration with the Department of Defense and CDC in mosquito surveillance activities carried out as part of the hurricane María emergency response. Field and Lab techs were deployed to CDC facilities to support mosquito traps deployment and mosquito identification. This collaboration supported vector control activities carried out by the Puerto Rico Department of Health and served to guide decision making about priority areas for fumigation. See Figure 19 for a sample map with the number of mosquitoes captured in the Puerto Rico Metro Region.

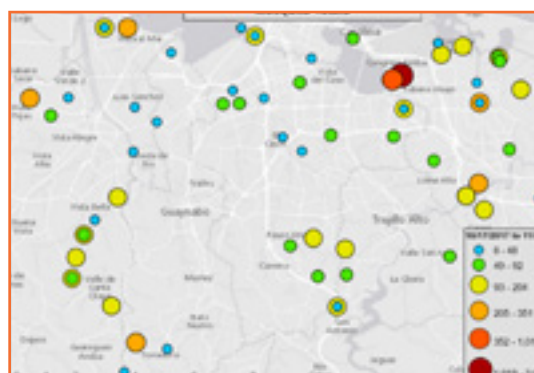
## Future Plans

For next year PRVCU plans to continue improving the with mosquito surveillance program to gain a better understanding of the biology, behaviour and seasonality of the mosquito populations in Puerto Rico. Monitoring of insecticide resistance will also continue to identify the best practices for Puerto Rico, information that will be shared with key stakeholders to be implemented throughout the Island.

In addition to the current community outreach and education efforts, PRVCU plans to focus next year in the development of a Volunteer Program. The PRVCU aspires to have all kinds of volunteers around the Island as advocates of the Unit's mission and whose function is to educate, develop activities in their communities and promote practices to reduce mosquito breeding sites on the Island. At this moment, we are developing a volunteer's manual and volunteer management manual. The community mobilization is being trained about the management and development of volunteer programs.

In order to keep diversifying the ways education is provided to the communities and schools, a Mobile Vector Education Unit (MVEU) was designed. PRVCU hopes to start building this unit next year and having it soon implemented as part of our education program.

In terms of vector control efforts, PRVCU was able to establish a collaboration with the Municipality of Bayamón and Valent Biosystems to implement and evaluate the application of larvicides using the Wide area larvicide spray (WALS) approach for use in Puerto Rico. The first phase of the project is scheduled to start on November 2018 and will continue until February 2019. Interventions will be performed for 12 weeks and an evaluation will be conducted to determine if the larvicide is reaching key areas in the patios where breeding sites are typically found.



**Figure 19:** Distribution of mosquito counts captured using BG Sentinel traps. The map include 58 sites sample across the Puerto Rico Metro Region.



# Puerto Rico Consortium for Clinical Investigation



Established in April 2016, PRCCI is a 501 c3, 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.

## Mission

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

## Vision

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

## Achievements

The Puerto Rico Consortium for Clinical Investigation (PRCCI) successfully completed its second year of operations on June 30th, 2018. During this year the consortium grew to 26 members/clinical research sites in Puerto Rico with more than 65 on boarded physicians/investigators at three Universities, hospitals, family practices and specialized research centers across the island, covering more than twenty therapeutic areas. PRCCI brought to the island more than 300 clinical trial opportunities and as capacity is being built executed 17 clinical trial agreements on oncology, infectious diseases, pulmonology, cardiovascular, and dermatology. Combined, these trials could bring to Puerto Rico up to \$2.5M USD in revenues. PRCCI has also created seven PR-based highly-skilled positions in addition to any jobs created within our members due to increased research activity.

After Hurricane Maria in September 2017, PRCCI along with its partner, Yale Center for Clinical Investigation (YCCI) re validated 75% of the active sites in the PRCCI quality indicators enabling them to conduct clinical trials. In the month of February 2018, PRCCI received a \$99k grant from Juntos and Unidos por Puerto Rico, a non-for-profit organization created to help in the rebuilding of the island after Hurricane Maria, to create a Samples and Investigational Product (IP) storage facility at the PR Science Trust location.

During this year PRCCI established a world-class event called the 2018 Puerto Rico Clinical Research Summit, held on May 2018 bringing together over 220 attendees. There was representation from 11 pharmaceutical and medical devices companies, information booths with PRCCI members, pharmaceutical sponsors, the FDA, YCCI and patient advocacy groups. The activity provided accreditation to 78 healthcare professionals. The agenda included 24 speakers coming from 3 continents sharing their expert knowledge on Quality/Compliance, Diversity in Clinical Trials and Emergency Preparedness.



Key Performance Indicators (KPI's) for 2018-2019

Area	Description	Target
Business Development and Financial Performance	Number of study awards	22 new studies
Quality assurance and recruitment	Total gross revenues to Puerto Rico	\$2.1 M
	Trial opportunity conversion rate	25%
	Number of studies completed	8
	Collective strength of Consortium members	18 active sites; 100% quality validated by YCCI.
	Yale Clinical Center for Investigation (YCCI) contract compliance  Recruitment targets	90% adherence to visits schedule; reports on time and follow ups as per contract.  Time from green light to first patient consent: <30 days. 90% recruitment target met by study
Patient interaction and engagement	Clinical Research community training events run through PRCCI	4 training events; >200 health care professionals participants and a satisfaction score of over 9 (out of 10)
	Patient education- Pilot program	Reach 90% of oncologists in selected areas in Puerto Rico; over 300 people reached as part of the program.
	Patient engagement	Over 100 patients enrolled in studies; over 120 people impacted through initiatives

## 2019 Objectives

As we enter the third year of operations there are 4 major strategic objectives:

### Patient interaction and engagement

We will focus on patient advocacy and engagement. Educating patients about clinical research and its benefits is crucial to raise awareness of clinical study and will increase study participation. We will engage with selected organizations and explore new needs, and opportunities. We will partner with the pharmaceutical sector and Advocacy groups to continue with initiatives to reach more patients and sponsor events that address patient needs. We will launch a Patient educational pilot program for oncologists and evaluate expanding to the rest of the specialties.

### Quality Assurance

We will continue the valuable partnership with Yale Clinical Center for Investigation (YCCI), add one more FTE in the Quality area to increase capacity. We plan to engage and complete the on boarding process of 5-8 new experienced members. We will closely monitor each study recruitment target; stellar recruitment in every study is the most important key performance indicator in PRCCI. In addition, focus on overall internal monitoring through our Clinical Trial Management System, training, publications, sharing of tools on best practices. We plan to establish a scorecard of new services for the members.

### Business development through quality and diversity

We will focus on expanding the customer base and target new sponsors: pharmaceuticals, biotechnology and medical devices. Meet the established target of 22 new trials and recruitment goals for the executed contracts. We will participate in 3-6 Key Conventions: Forward Summit, American College of Physicians, Cardiologists, Endocrinologists, OB-GYN with proactive participation. We will conduct the 2019 PR Clinical Research Summit: Connecting the World, in May 2019; two days; over 400 participants.

### Capacitation and improve access to resources

Clinical Coordinators are critical for the implementation of clinical trials and for the performance of the sites affecting PRCCI business development. PRCCI has a unique opportunity to close this gap by implementing a Clinical Coordinator Training program. We will continue offering selected trainings to increase capacities in clinical research in the island. We will continue engaging with Medical Schools that are part of the consortium and develop plan to expose students to the clinical investigation field.





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## Description of the Program

Parallel18 is an acceleration program for globally-focused startups that come from different parts of the world to scale their businesses from Puerto Rico. The program, which has a duration of five (5) months, offers world-class entrepreneurship mentorship, weekly workshops that provide business training on exporting and scaling internationally, a free coworking space in San Juan, and direct access to clients and talent, among other valuable perks. Up to eighty (80) companies per year -- up to forty (40) per cohort -- 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.

Additionally, this year Parallel18 launched Pre18, a new preaccelerator program as a special edition in response to Hurricane Maria to support Puerto Rican entrepreneurs from forty (40) emerging local startups to reach the market and become Parallel18 ready. After the hurricane devastated Puerto Rico, the island faced many challenges that could only be solved by its own people, so we created a program to promote entrepreneurship and innovation as the path to normality. Pre18 offered a twenty thousand dollar (\$20,000) grant and an intensive three (3) month pre-acceleration experience, which included workshops and relevant mentorship to help local businesses achieve sustainability and get ready for exponential growth.

## Mission and Vision

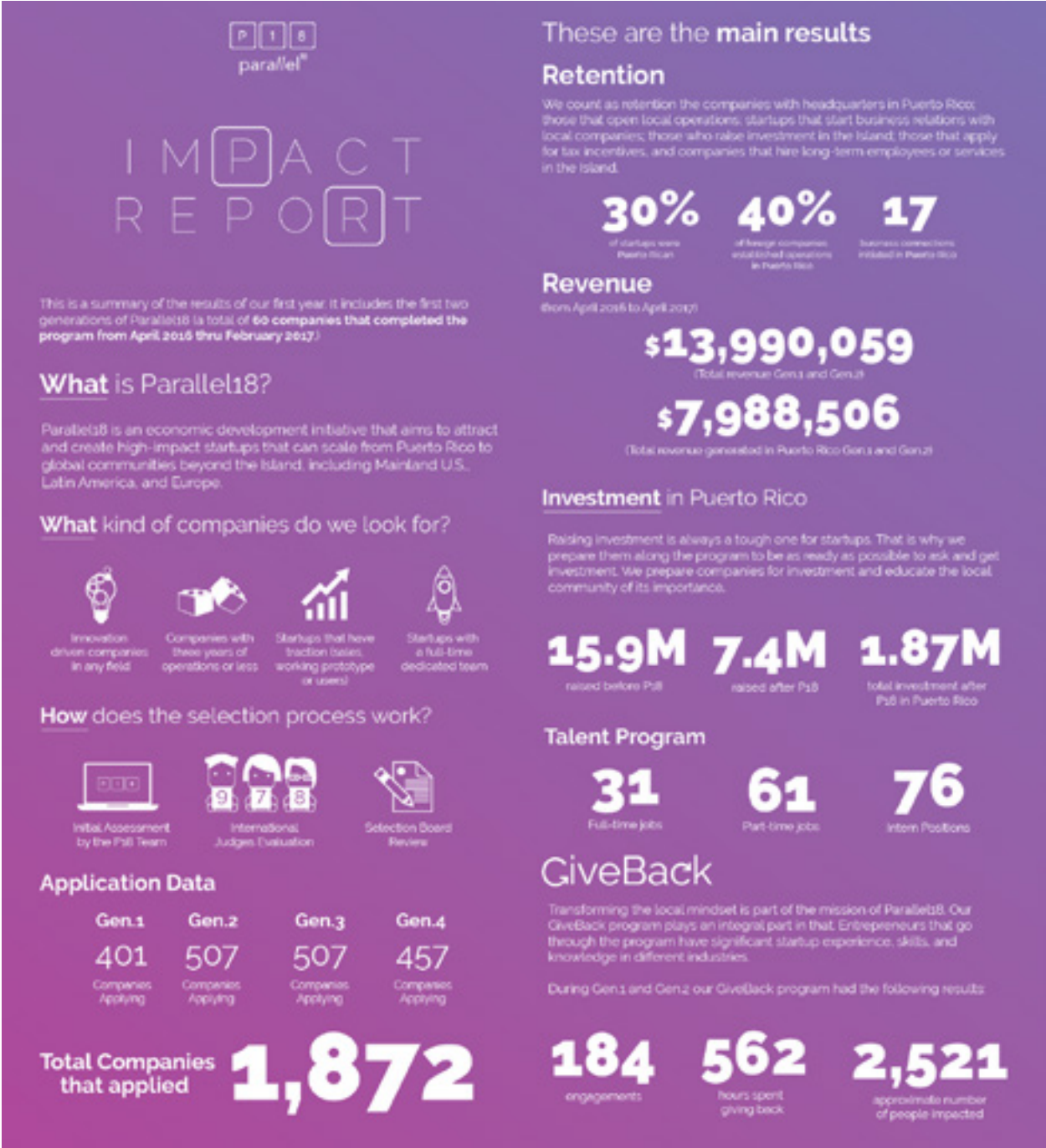
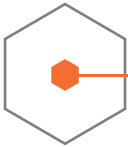
Parallel18 welcomes innovators from around the globe to help them scale from Puerto Rico to global communities beyond the Island. Supporting successful startups that can have significant local impact is our motivation. This is why we build initiatives within the program that lead to growth and help foster 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 the first two (2) years and five (5) generations of the program, Parallel18 has received **two thousand four hundred and thirty four (2,434) applicant companies** from over **seventy (70) countries**, with one hundred sixty one (161) companies being admitted into the program, a very competitive acceptance rate of only seven percent (7%). Among these, fifty (50) have Puerto Rican founders and one hundred eleven (111) are foreign, a local representation of thirty one percent (31%) from the overall companies that have participated.

For Pre18, **three hundred seven (307) applications** from Puerto Rican entrepreneurs with developed concepts or prototypes were received, an unprecedented number for the local ecosystem, especially when taking into consideration the state of communications and infrastructure after the hurricane, and that the outreach of the program was done door to door without internet. We are also proud that these efforts led to **sixteen (16) Puerto Rican companies** being selected for Parallel18, a record number that shows Pre18 enabled these companies not only to reach the market in three (3) months, but to be competitive enough to be part of our international accelerator.





Additionally, **forty two point five percent (42.5%)** of companies in the program had a female as their team lead, a metric that is way above the industry standard of fifteen percent (15%) for comparable business incubation and acceleration programs. In just three (3) months, Pre18 companies hired one **hundred thirty nine (139) Puerto Ricans** and achieved **five hundred forty one thousand dollars (\$541,000) in revenue**. Originally, Pre18 was designed as a special edition, and the selected founders worked hard to show us that we have to keep it as a regular program. The previously reported numbers are impressive considering they were

generated just from the twelve (12) weeks of the program, and that most of these companies were a little more than an idea when they started in Pre18.

All of the Parallel18 program structure pursues the mission of positioning Puerto Rico as an international hub for innovation and entrepreneurship, and to provide local startups a global mindset and opportunities for exporting to international markets. Specifically, the economic development of Puerto Rico is the driver and main goal of Parallel18, so we are proud to inform that for generations three (3) and four (4) of the program combined, the total revenues generated by our companies during and after their participation in the program were **twenty four million four hundred forty eight thousand nine hundred sixty five (\$24,448,965)**, for a total combined revenue for the first four (4) cohorts of fifty five million five hundred seventy seven thousand and two (\$55,577,002). Puerto Rico revenues for generations (3) and four (4) combined was eight million one hundred forty thousand seven hundred sixty four (\$8,140,764), for a total combined local revenue for the first four (4) cohorts of seventeen million forty three thousand two hundred twenty two (\$17,043,222). At the same time, **one hundred sixty (160) job positions were created** by the companies in our generations three (3) and four (4), including full time, part time, and internships, for a combined total for the first four (4) cohorts of three hundred twenty eight (328) job positions.

Also, the program has continued executing an even more aggressive initiative to foster local economic development, P18 Ventures. This initiative comprises an investment fund that selects a target 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 for a target investment 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. From the beginning of the program until the end of 2018, investments in twelve (12) startups graduated from Parallel18 have been made for a total of nine hundred thousand dollars (\$900,000). Additionally, Parallel18 companies for the first four (4) cohorts have raised a total of twenty nine million six hundred four thousand (\$29,604,000), including three million seven hundred nine thousand (\$3,709,000) raised from Puerto Rico based investors, an unprecedented amount for local startup investment. Investment sources for this funding include angel investors based in Puerto Rico, local corporations, and investment funds from the United States and Latin America.

In order 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 its first four (4) cohorts, the program facilitated three hundred seventy three engagements (373) by our entrepreneurs, and an impact in eight thousand seven hundred seventy five (8,775) total lives around Puerto Rico.

## Achievements

In the last year, Parallel18 has seen a significant accomplishment for the history of the local ecosystem from generation four (4) company BrainHi, the first Puerto Rican company to get selected in to Y Combinator, one of the most prestigious startup accelerators in the world. This milestone gave BrainHi relevant tools to enter the United States market, where today they already have more than ten (10) clients.



We have also seen two (2) companies from generation two (2) continue growing and recently closing a combined **two million two hundred forty five thousand (\$2,245,000) of capital** from private investors in follow up rounds, after previous seed investment rounds in which P18 Ventures also participated for both. This milestone represents the first times a Puerto Rican startup raises more than one million (\$1,000,000), with the great majority of the investment capital coming from Puerto Rico based investors, which shows the maturity of the entrepreneurship and investment ecosystem of the island.

Parallel18 has recently launched development efforts, with its network of local and international supporters providing **three hundred forty thousand (\$340,000) in donations to the program**. These generous and committed partners include Techstars Foundation, AirBnB, MCS Health, T-Mobile, Puma Energy, among others.

The emerging investment ecosystem is another significant Parallel18 accomplishment. When the program began, the startup ecosystem was small and local investors were not looking to fund startups. The program has been hosting investor education events and engaged in community efforts to build awareness and engagement among potential investors. This work has proven to be effective, motivating local angel investors and enabling our companies to raise three million seven hundred nine thousand (\$3,709,000) just from Puerto Rico.

Last year, P18 Ventures executed six (6) new investments for a total of four hundred fifty thousand dollars (\$450,000), in the following companies: Quiena, Abartys Health, Wisboo, Workep, BrainHi, and Stageboom. Currently, Parallel18 is supporting thirty (30) startups that comprise generation five (5) of the program, of which seventeen (17) are from Puerto Rico, with the rest from United States, Canada, and Latin America, all seeing Puerto Rico as 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 the Pre18 preaccelerator program to Parallel18 to sources of investment funding for startups. An important goal is to continue offering Pre18 approximately once a year to continue supporting local innovators and to nurture the Parallel18 pipeline with high potential Puerto Rican companies. We plan to keep growing the local and international network of investors able to invest in our companies, and to continue motivating them to consider the Puerto Rican deal flow. We will keep polishing our value proposition to attract startups that are a good fit with our program, including using Puerto Rico strategically as a platform to grow. We will also work to strengthen our P18 Connect corporate innovation program in Puerto Rico and will pursue business development efforts in the United States. We plan to increase the work we do empowering young Puerto Rican talent to start thinking in entrepreneurship as a valid option to grow as a professional, engaging them with job opportunities and entrepreneurial programs that motivate them to achieve their full potential and do so from the island. The ultimate goal is to continue positioning Parallel18 and Puerto Rico as a hub for global collaboration and innovation.







# Puerto Rico Brain Trust for Tropical Diseases Research & Prevention



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



The Brain Trust for Tropical Diseases Research and Prevention was developed by an initiative of the Puerto Rico Science and Technology to explore opportunities for research and development in the area of tropical diseases. At the time of the Brain Trust creation in 2014, Puerto Rico was the only jurisdiction in the United States with endemic transmission of all four types of dengue fever and chikungunya and in early 2016, the introduction of Zika added urgency for research and development in tropical diseases including control of the vector for these diseases, all transmitted by the same mosquito, *Aedes aegypti*. In its initial plan, the Brain Trust identified three areas of priority: (1) development of rapid tests to identify tropical diseases circulating in Puerto Rico and the world's tropical belt, (2) develop integrated vector control in Puerto Rico with a platform to examine novel approaches for controlling and eventually eliminating vectors, and (3) developing a biorepository of samples required for development of diagnostics, drugs, and vaccines for tropical diseases. The initial expert meeting on diagnostic testing was held at the Trust in February 2016. As a result of that meeting, several initiatives were launched, including a local group that has developed a promising diagnostic test for Zika. This meeting, held on the initial weeks of the first ever Zika epidemic in Puerto Rico led to the second meeting focused on vector control held in May 2016. This meeting led to the development of a plan for integrated vector control and the development of the Puerto Rico Vector Control Unit at the Trust, funded by a CDC.

### The 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
- **Promote** Puerto Rico as a hub for tropical disease research and prevention initiatives.

### Mission

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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

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





## I. Continued work towards the 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 like the development of the first dengue vaccine, 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 leptospirosis. 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.

In collaboration with Dr. Pino and his team, the Brain Trust hosted an event to discuss the first Dengue Vaccine, which included updates on the status of the CYD-TDV based upon results of a new supplemental analysis of the phase IIb/III study to discuss the vaccine's performance in people without prior dengue infection.



## II. Continued work on Creating Capacity for Clinical Reference Laboratories 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 needed 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.

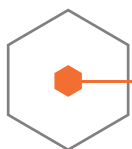
In addition, there are several routes for test developers to bring a test to market. One route is to develop a laboratory-developed test (LDT) and sell it as an in house performance of the test as a service. These “in-house” developed diagnostics are regulated by CLIA (Clinical Laboratory Improvement 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.

It is important for Puerto Rico to participate in the regional Caribbean Lab Network and continue to work towards achieving the requirements to establish a national laboratory policy for Puerto Rico. This is summarized in Table 1.

**Table 1:** Components Required to Establish a National Laboratory Policy for Puerto Rico.

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





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. 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:

- 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.
- 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.
- 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.
- 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.
- 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. Proyecto Agua Limpia

The Brain Trust for Tropical Disease Research and Prevention (Brain Trust), since its inception has been dedicated to the vision of a world free from tropical diseases. Water-borne bacterial diseases like Leptospirosis has been a focus, especially because there are challenges in Puerto Rico to correctly diagnose this disease as it mimics other common mosquito transmitted febrile illnesses like dengue fever, chikungunya and Zika. Post Hurricane Maria, water quality issues in Puerto Rico have remained a concern, especially for people living in remote areas that are not served by the government water utility. It should be stated that when the primary source of water is not available due to lack of electricity and fuel for water pumps, people resort to secondary sources of water like streams and rivers for drinking and bathing water; thus, these populations are being exposed to a variety of microorganisms.

Unidos por Puerto Rico has granted Proyecto Agua Limpia approximately \$2,000,000 to accomplish the Phase II Expansion of Proyecto Agua Limpia. In addition, Proyecto Agua Limpia has received small grants from the MCS Foundation of Puerto Rico. Other collaborators of Proyecto Agua Limpia include: 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, the Environmental Protection Agency (EPA), Federal Emergency Management Administration (FEMA), H2O World Wide and KOHLER among others. PAL has been working in collaboration to deliver KOHLER Clarity water filters to homes primarily in communities that are not served by the government water utility and in other vulnerable communities throughout Puerto Rico. General health and environmental screens are being conducted along with a survey regarding water sources pre and post Hurricane Maria. The location of homes receiving filters is being geo-coded and will be displayed on a map and an informational dashboard. In addition, water samples will be taken at strategic points based upon sources of consumption in the barrios and results on water quality will be placed on a dashboard.

More than 20,000 filters have been delivered to rural communities throughout Puerto Rico providing water for up to 120,000 citizens. 20,000 surveys on water sources and health have been completed and preliminary data analysis will be included in a publication on drinking water sources and their relationship to endocrine disruption and diabetes. Results are updated daily in real time using ARC GIS technology. More than 20,000 people have received community-based education on water filter use and prevention of diseases that are passed through contaminated water. PAL has begun to focus on sanitation efforts as well, incorporating more questions on topic of solid and water waste disposal as it is directly related to water quality. This effort directly impacts Puerto Rico's citizens on a daily basis as it continues to visit communities in need around the island.

### **Pilot Project: MIT Collaboration on Metals Testing in Drinking Water**

A pilot project in collaboration with Massachusetts Institute of Technology (MIT) has been conducted on topic of bacteriologic and metals testing of water. Preliminary results are available and PAL is in the process of preparing results for publication.

### **Project Brief**

In order to quantify the levels of metals in drinking water in Puerto Rico, household drinking water from communities in nine municipalities were tested for a suite of metals. One community was selected from each of the following municipalities: Aguado, Anasco, Barranquitas, Caguas, Corozal, Las Piedras, Peñuelas, San Lorenzo, and Yabucoa. In each community, drinking water was collected from four homes of a variety of ages.

### **Methods**

Two samples were collected per house: a running and a standing sample. For the standing sample, water was collected from a tap that was unused for at least six hours. For the running sample, the same tap was flushed for two minutes before sample collection. Approximately 2 liters were collected per sample. Indoor taps were used when possible. Samples were also collected from the source water of each community's water system if feasible. Samples were analyzed on an Inductively-Coupled Plasma Mass Spectrometer (ICP-MS) at the Massachusetts Institute of Technology for a suite of metals: lead, arsenic, aluminum, chromium, manganese, iron, cobalt, nickel, copper, zinc, and cadmium.

### **Results**

In total, 75 samples from homes, community storage tanks, and community wells were collected and analyzed. Thirty-six homes were represented in the study. Of these, nine homes exceeded the EPA action levels for both lead and copper, in their standing samples only. Five homes exceeded the EPA guideline of 10 parts per billion for arsenic, four of which are from Anasco. Nearly all homes exceeded the EPA guideline of 5 parts per billion for selenium.

- Key Takeaways
- Lead was present above the EPA action level only in standing samples; flushing the water in these homes will reduce lead levels.
- Elevated lead levels are not unique to any region or municipality of Puerto Rico
- Arsenic was near or above the EPA guideline in some municipalities: Anasco, Palmarito, and Oquendo. In addition, every sample we collected from Anasco exceeded the EPA guideline for arsenic.
- Nearly all houses with high lead also had high copper and zinc. Copper may cause adverse health impacts at the levels we found, while zinc may cause an unwanted metallic taste in the water.
- You will see very high levels in Sample No. 68, labeled as the church in Penuelas. This water was visibly turbid/red. The community member told us that water was not used for drinking and the tap we collected our sample from had not been used in at least 2 months.



## Impact Metrics

1. 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.
2. 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.
3. Puerto Ricans in Action donated to the Brain Trust to create Proyecto Agua Limpia for Puerto Rico.
4. Proposal funded by Unidos Por Puerto Rico to expand the Archipelago Clean Water for Puerto Rico Project, approximately **\$2,000,000**.
5. Article in process to Journal of American Medical Association (JAMA) on association of diabetes and bottled water.
6. Organizing international summit, Caribbean Strong, Building Resilience with Equity to be held Feb. 27-Mar 1, 2018 in San Juan, Puerto Rico with key-note speakers Dr. Richard Besser and Dr. Georges Benjamin.
7. Heart to Heart International and Oxfam International are financial supporters of the Caribbean Strong Summit.



## Testimonials of Impacted Participant

*"This collaboration/paper, which we bootstrapped, would not have happened without the catalysis by the Brain Trust for Tropical Disease. The collaboration continues and we hope to find funding for it to take it rapidly where it should go. Thanks for your support."*

**Ignacio Pino, CEO**  
CDi Laboratories

## Future Plans

Future work plan for 2019, 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 five core areas:

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

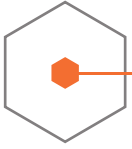
1. Support local rapid diagnostic test development efforts for febrile illnesses specific for endemic areas like Puerto Rico.
2. Promote public-private partnerships that can enhance the opportunities to move forward with additional testing platforms that will increase testing capacity, reduce turn-around 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: Water Coalition and Proyecto Agua Limpia

1. Complete project with Unidos por Puerto Rico to deliver 30,000 filters to citizens in areas not served by government water utility by December 2018.
2. Secure funding to expand the water filter distribution and to deliver filter replacement cartridges for the 130,000 KOHLER Clarity water filters in Puerto Rico through the federally qualified health centers.
3. Collaborate on water quality testing with Massachusetts Institute of Technology, UPR Investigators, 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. Formation of the Water Coalition, a group of agencies, non-governmental organizations and academics working together to most efficiently meet needs for water and sanitation in communities in vulnerable situations in Puerto Rico.



## Core 4: SUMMIT - Caribbean Strong: Building Resilience with Equity

This summit will focus on lessons learned following the two devastating hurricanes that hit Puerto Rico and the Caribbean Region in 2017. We invite you to join us in this important event to share your experiences, lessons learned and recommendations for enhanced resilience in health care systems and public health. An emphasis will be placed on the critical need for collaboration and integration across all sectors to improve and strengthen the health and resilience of the Caribbean's citizens and communities during this important recovery and rebuilding phase. The Caribbean Region is in a unique time in history to "Build Back Better," and this will require a new level of leadership focused on following innovative strategies that are founded upon evidence-based approaches and lessons learned to maximize the opportunities available.



# Caribbean Strong: Building Resilience with Equity

We recognize that in Puerto Rico and the Caribbean Region, most systems, both private and public were impacted by the hurricanes. An integrated examination of the resilient capacity of all sectors and their interdependencies is essential to develop evidence-based best practices for the future. Sectors identified as: Independent and Community Resilience, Infrastructure (water, energy, fuel and transportation), Communications, Housing, Essential Services, PHARMA and Pharmacy Services, Morbidity and Mortality Management and Reporting, Hospital and Clinics, Vulnerable Populations and others will be addressed by local and national speakers and presenters in panel discussion and breakout sessions.

Summit will be held on February 27 through March 1, 2018 in San Juan at the Sheraton Hotel near the convention center. Two key note speakers have confirmed their attendance, Dr. Richard Besser, CEO of the Robert Wood Johnson Foundation and Dr. Georges Benjamin Executive Director of the American Public Health Association.





**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**

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.





# CENTER FOR TROPICAL BIODIVERSITY

A program of Puerto Rico Science, Technology & Research Trust



The Center for Tropical Biodiversity (CTB) 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.

**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.

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**Chemical exploration in novel ecosystems.** Most of the current efforts by the CTB consist in the identification of new microbial species that have only been found in Puerto Rico, which could be the source of the next generation of antimicrobial therapies. We have centered our search for new species in two rare and underexplored environments: the nests of mangrove termites from Cabo Rojo (a collaboration with Dr. Matías Cafaro) and the habitat of the autochthonous amphibian Coquí Llanero in Toa Baja (in collaboration with Drs. Neftalí Ríos and Ileana Rodríguez). The current efforts are aimed at: 1) identifying new species of microorganisms associated with each habitat and 2) screening new microorganisms for the production of active chemical compounds. The nests of termites are naturally fungus free. Much like humans do, termites “fumigate” their home using a collection of microorganisms that kill fungus by making toxic chemical compounds. A joint effort between the CTB and UPR Mayagüez has uncovered the presence of 272 microbial species in a termite. Of these, a total of 180 species are entirely new and not simply been previously described. The CTB will search for new chemical compounds







In the past few decades, one particular type of the fungus, *Batrachochytrium dendrobatidis*, or Bd, has killed off so many frogs in Australia, Europe, and the Americas that scientists have warned of an impending mass extinction.

The Puerto Rican Coquí Llanero is under a similar threat, since this “killer fungus” has been detected in the Toa Baja wetlands, where the Llanero lives. However, the Coquí Llanero seems to be immune to Bd by an unknown mechanism of tolerance. One hypothesis is that microorganisms that coexist with the Llanero, produce potent anti-fungal compounds, generating a protective environment.

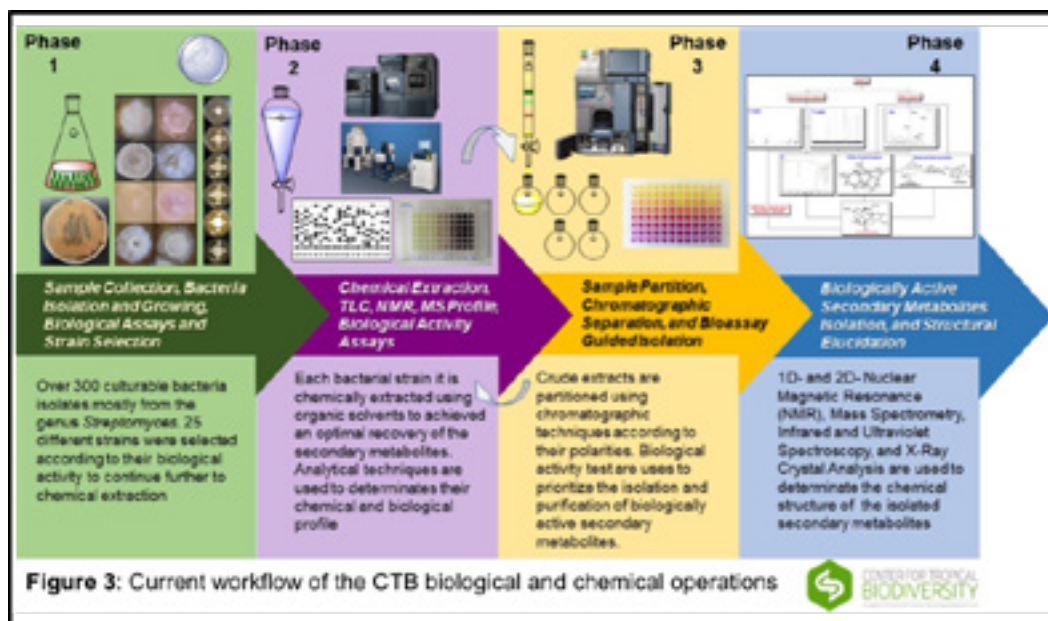
To test this hypothesis, the CTB has taken to the Toa Baja wetlands together with herpetologist Neftalí Ríos and microbiologist Ileana Rodríguez, to try to identify microbial species that could be helping to control the growth and pathogenicity of Bd in the wetlands. So far we have collected 286 isolates and are in the process of identifying them by DNA sequencing.

### An NSF-funded Center for Chemical Innovation.

To further the goals of this exploratory work and to leverage PRSTRT funds, we have submitted a pre-proposal to the NSF for the establishment of a Caribbean Center for Chemodiversity aimed at elucidating the chemical basis of function, communication, competition, defense and depredation in tropical ecosystems. The proposed Center will take advantage of PRSTRT-initiated efforts aimed at observing and cataloging biological phenomena unique to the Caribbean, by forming teams composed on research chemists paired with field biologists. The Center will also take advantage of the recent investment in facilities and infrastructure for the Chemical Sciences in Puerto Rico. Among the projects that will be tackled by the Center:



**Figure 2:** The CTB brings together scientists from the environmental, biological and chemical sciences. The research effort is complemented with an intensive training exercise for students, thus increasing the impact for the student population



1. How do termites keep their nests fungus-free?
2. How do small amphibians protect their eggs?
3. How do fungal species control insects that damage coffee?
4. How is snail behavior chemically controlled by neuropeptides?

Behind each of these questions there is an attempt to uncover the chemical basis of unique biological phenomena. We expect to be invited to submit a full proposal to this exclusive NSF-funded program.

**An online catalog of unique species.** All the data and information generated through the exploratory collaborations in Cabo Rojo and Toa Baja (as well as other future projects) will be made available to the general public and to potential business partners through an online repository. The repository will contain a list of species with links to microscope images and chemical structures associated to each species. The repository will be initially built by PRSTRT personnel and infrastructure, and will be populated by student and volunteers from the community. The proposed repository could be a valuable tool for educational or even for business purposes. The preliminary design elements for this online repository have already been discussed and agreed with PRSTRT programmers and designers.

**A workshop for intellectual property for natural products.** Together with the Technology Transfer Office (TTO), the CTB co-sponsored a workshop for scientist in the areas of natural products and biodiversity research on the IP status of products derived from biodiversity and the patentability of compounds and samples directly obtained from nature. The workshop was offered by IP attorneys Jolene Fernandes and Jim Ewing from the Boston office of Foley & Lardner, LLP and covered issues related to patentability and prior art related to the development of products based on natural chemical and extracts. Over 30 researchers from the areas of biodiversity and natural products participated in the workshop.



**Puerto Rico as a source of valuable samples.** One of the original purposes of the CTB was to maintain a record and to monitor the use of biological samples obtained from Puerto Rico territory, particularly those samples that were eventually further developed for commercial puposes. The idea was to ensure that any benefits derived from Puerto Rico's rich biodiversity would be shared according to intenation access and benefit sharing principles of the Nagoya protocol.

Of particular concern is the discovery of the "viequeamides" and subsequent patent award to a research group from a US-based university with no ties to Puerto Rico-based researchers. The viequeamides are a family of cyclic depsipeptides isolated from the shallows near the island of Vieques, Puerto Rico. The viequeamides were evaluated for their cytotoxic properties against human lung cancer cell line and some were observed to be potently cytotoxic with an  $LD50 = 60 \pm 10$  nM.

The CTB has a clear mandate to elucidate whether there are any legal claims that could be raised under federal law or international law to ensure that the commercial benefits from the viequeamides are shared with the island municipality of Vieques, a jurisdiction that has been plagued by poverty and other social issues. A benefit-sharing scheme could provide an important incentive for local communities, including Vieques, to protect their valuable natural ecosystem.



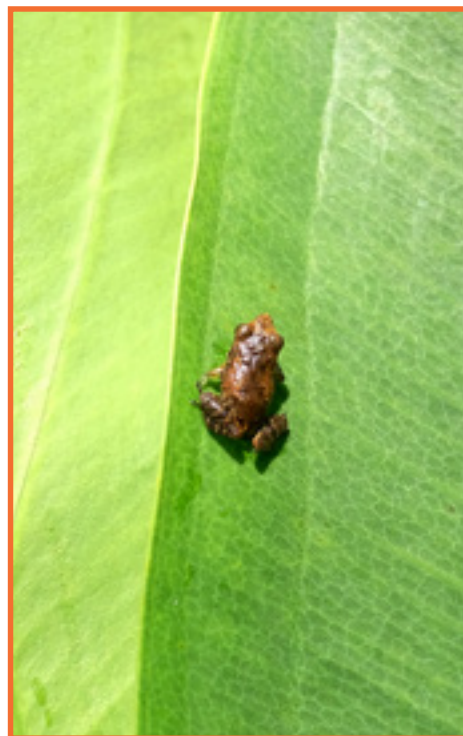


**Increasing our international presence and leadership in biodiversity research.** During the previous funding period, the CTB participated in the 9th Congress for Caribbean Biodiversity held every two years in Santo Domingo. This year CTB director Dr. Abel Baerga visited the University of Cambridge in the United Kingdom and made valuable contacts with institutions whose name is associated with the development of natural products as antimicrobials and immune suppressants. Specifically, the CTB has made contact with Dr. Barrie Wilkinson, a leading scientist John Innes Centre (JIC), an independent center for research and training in plant and microbial science. The research at the John Innes Centre is divided into 4 Institute Strategic Programs funded by the Biotechnology and Biological Sciences Research Council (BBSRC): 1) Genes in the Environment, 2) Molecules from Nature 3) Plant Health and 4) Designing Future Wheat.

Also this year, the CTB was represented at the BIO International Conference in Boston, MA, as part of the Puerto Rico business development delegation. The BIO conference is the largest gathering for the biotechnology industry worldwide. Numerous partnering sessions were undertaken with key people from Novozymes and from the Novartis Biomedical Research Institute, both companies heavily invested in the market for antimicrobials and products from biodiversity.

## Impact Metrics

- **180** new microbial species not described previously
- **286** bacterial species isolated from the habitat of Coquí Llanero
- **12** publications from outside institutions citing Puerto Rico as the source of biological materials
- **35** Puerto Rico-based investigators in the areas of biodiversity
- **25** biological collections in Puerto Rico



## Future Plans

**Online repository.** For year 2019, we are working closely with PRSTRT personnel to develop our online repository of biodiversity information for the unique species described previously. A special effort will be placed on the publication of information that could be used to evaluate the commercial potential or readiness of specific strains or products derived from biodiversity.

**Business Development Pipeline.** The online repository described above will be the cornerstone of a business development effort that will establish links with potentially interested parties for the development of products. This past year, the CTB was represented at BIO International Conference. We expect to participate in BIO 2019 which will be in Philadelphia, PA during the month of June. We expect to have a beta version of the online sample repository that we can share with potential strategic partners during the activities of the BIO 2019 (Philadelphia) or at the World Congress on Antibiotics 2019 (London).

**Identification of Grant Opportunities.** This year we submitted a pre-proposal for the creation of an NSF-funded center to further the goals of the CTB. Similar efforts will be carried out in 2019. The National Science Foundation has specific programs for innovation in chemistry and in the creation of online repositories of biological data. An additional funding source will be the US Department of Defense, which has specific programs for the discovery of new antibiotics that could be used in biodefense.

**Coordination of efforts with the Puerto Rico Department of Natural Resources.** The protection of Puerto Rico's ecosystems and the monitoring of bioprospecting exploration are activities currently overseen by Puerto Rico's Department of Natural Resources. Outside researchers wishing to obtain samples from Puerto Rico's ecosystems must fill out some forms and submit them to DRNA prior to bioprospecting activities. This year the CTB will make an effort to coordinate activities with DRNA.

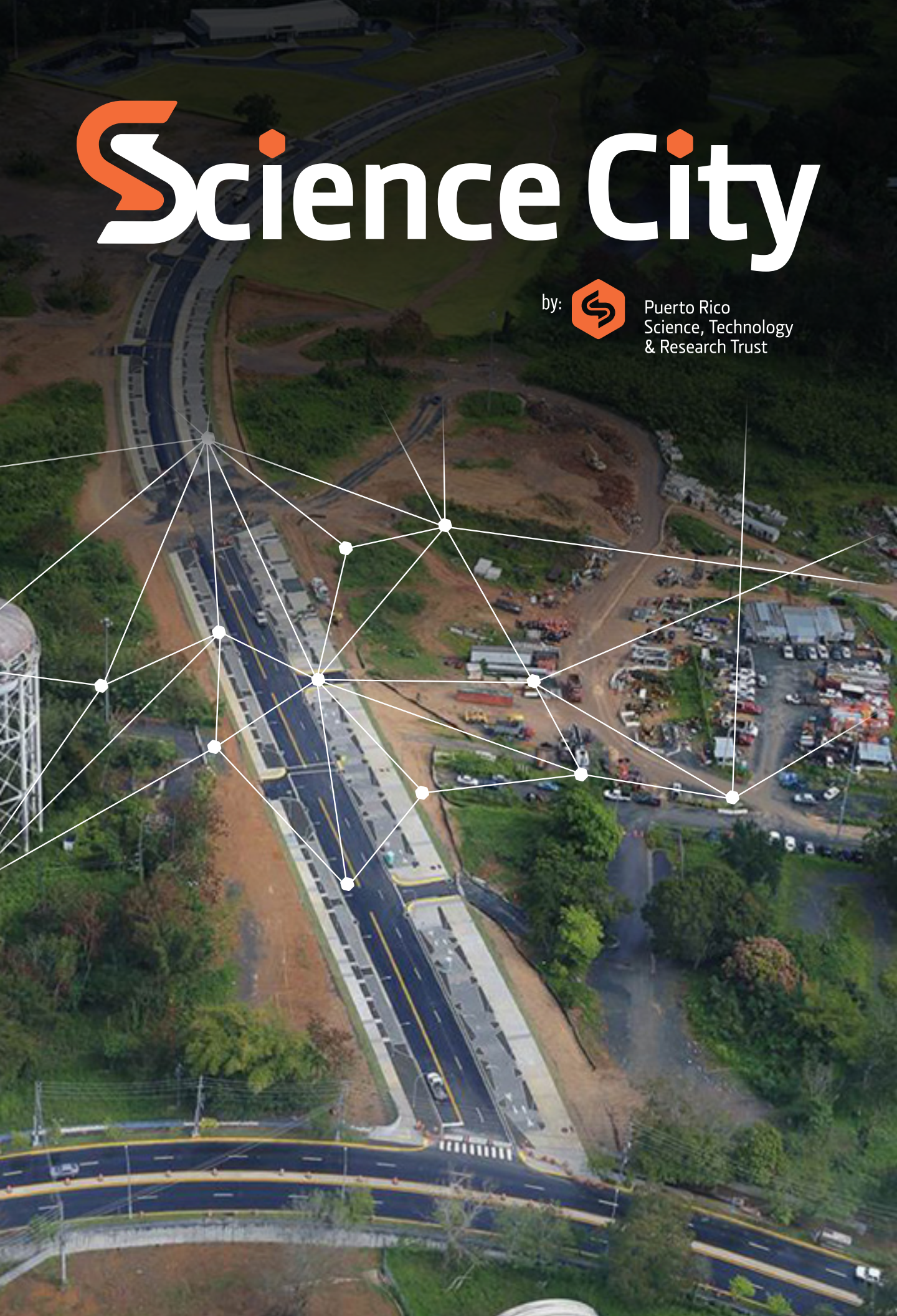


# Science City

by:



Puerto Rico  
Science, Technology  
& Research Trust





## Mission and Vision

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

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

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

## Achievements

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

## Future Plans

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











# TECHNOLOGY TRANSFER OFFICE



The Technology Transfer Office (TTO) was designed to improve Puerto Rico's innovation ecosystem by supporting and improving technology transfer and commercialization of research discoveries. The TTO was formally launched in early 2016 and has implemented partnerships with local universities as well as small technology companies. The TTO uses best practices and highly specialized resources to identify, protect, market, and license intellectual property.

## Mission

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

## Vision

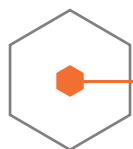
The TTO's vision is to work collaboratively with its partner institutions to build a robust portfolio of research discoveries and high value intellectual property; and provide deal-making services to move those discoveries into businesses through industry partnerships, licensing agreements, and start-up companies.

The aspiration goal is to perform at the peer average of North American public & private universities with similar R&D expenditures and medical schools.

## Achievements

The TTO has implemented its operational plan goals to secure key resources, train staff, educate researchers and partner staff, and deploy tools and methods aligned with its mission. This includes:

- **Portfolio Management.** Inteum, a tech transfer management platform, is used by TTO staff to track and manage inventions, IP assets, marketing, agreements, and a cloud-based inventor portal was deployed to provide a facile method for researchers to file new disclosures.
- **Screening and Assessment.** TTO staff use complex analytical platforms such as PatSnap and Invention Evaluator to assess new disclosures, provide feedback to inventors, and support decision-making.
- **IP Protection and Legal Services.** Patent prosecution and related commercialization services are delivered through formal engagements with firms such as Barnes & Thornburg, Foley & Lardner, K&L Gates, and McDonnell Boehnen which represent nearly 3,500 professionals and 86 locations around the world. TTO staff secure IP counsel, oversee patent prosecution and budgets, and provide support for ensuring compliance with U.S. and international patent laws.
- **Marketing and Industry Collaborations.** The TTO subscribes to IN-PART, a matchmaking platform that provides access to a global network of corporate decision-makers seeking to license early stage discoveries or support research collaborations. The TTO provides non-confidential materials for technologies and engages with an industry liaison to target interested companies.
- **Professional Development.** TTO staff are active members of the Association of University Technology



Managers (AUTM), a global professional association of over 3,000 individuals from universities, research centers, hospitals, businesses, and government organizations. This year staff participated in the AUTM Annual Meeting, three professional development courses, and the Licensing Academy at UC Davis.

- **Networking and Support.** TTO staff participated on various committees that included BIO's Technology Transfer Committee, UPRM Chancellor's Task Force on Corporate Engagement, Alliance for Technology Transfer Professionals Peer Review Panel, Certified Licensing Professional's Standards, Admission, and Recertification Committee, and AUTM's International Strategy Committee.
- **Education and Outreach.** In June, the TTO and the Trust's Center for Tropical Biodiversity and Bioprospecting co-sponsored a workshop by Foley & Lardner: "Bio-based Compounds, Natural Products, and Chemical Sciences". TTO staff conducted 18 visits to its partner campuses to participate in events, present workshops, and meet with researchers. In addition, TTO staff participated as invited speakers to several conferences including the Licensing Executives' Society 2017 Annual Meeting, the University/Industry/Investor COvergence Conference, the American Chemical Society Seminar, and the International Conference on Electron, Ion, and Photo Beam Technology and Nanofabrication.
- **University Partnerships.** The partnerships with UPR campuses and Ponce Health Sciences University/Ponce School of Medicine continue to provide opportunities for new disclosures, new patent filings, and new agreements. This year, SUAGM's campuses also entered into an MOU and agreements with the Trust to allow the TTO to work with its leadership and researches. In addition, the Trust TTO conducted several meetings with leadership and researchers from the Universidad Central del Caribe and Universidad del Sagrado Corazón.
- **Special Efforts.** In response to María's aftermath, the TTO worked with BEI, a provider of advanced WiFi networks, to plan and deploy APIs at three UPR campuses and their surrounding communities.

## Future Plans

- **Southeast XLerator Network.** The Trust's TTO took the lead in organizing its university partners in responding to an opportunity to securing funding to address gaps in the commercialization of life and bioscience discoveries. A proposal was submitted to the NIH NIGMS that included 24 collaborating institutions from 6 Southeastern States and Puerto Rico. XLerateHealth, a U.S.-based healthcare accelerator, was the lead applicant and the 3-year, \$3.5 million grant was awarded in September 2018.
- **Inventor Incentive Plan.** University policies provide for license revenue sharing with inventors. The TTO and its university partners have proposed a revenue distribution plan to ensure that the inventor share will be prioritized and not be diluted. With this, the TTO and university hopes to encourage more disclosures.
- **BIOVentures for Global Health.** The BVGH is a non-profit organization that originated with the BIO organization and represents a global consortium that includes WIPO (World Intellectual Property Organization) and leading pharmaceutical companies. The TTO plans to secure membership and encourage its university partners to participate with the goal of connecting researchers to industry to advance R&D and accelerate the development of new drugs, vaccines, and diagnostics for neglected tropical diseases through the sharing of intellectual property.
- **Formalize New University Partnerships.** The Universidad del Caribe, Universidad del Sagrado Corazón, and the Universidad Interamericana de Puerto Rico represent unique strengths and research capabilities. The TTO will continue discussions and present the opportunity to partner in order to integrate technology transfer and commercialization practices.

Impact Metrics

**Technology Status:** The TTO supported an active technology portfolio comprising 13 different technologies, 3 licensed technologies, and closed 13 cases.

The TTO tracks Key Performance Indicators standard for technology transfer and commercialization.

Key Performance Indicator (KPI)	Categories and Types		Number	Portfolio	
				FY2018	TOTAL
INVENTION DISCLOSURES	Therapeutics	Anti-cancer Drug	2	8	33
		Anti-malarial Drug	1		
	Imaging	Hyperspectral	1		
		Metrology	1		
	Analytical Chemistry	Spectroscopy	1		
	Biotechnology	Biofuels	1		
	Nanotechnology	Drug Delivery	1		
INTELLECTUAL PROPERTY	New Patents Filed	U.S. Provisional	3	7	
		U.S. Nonprovisional	3		
		International PCT	1		
	Patents Issued	U.S. Nonprovisional	1	1	
	Total IP Portfolio	U.S. Provisional	10		30
		U.S. Utility	13		
		Continuation/ Continuation in Part	4		
		International PCT	3		
AGREEMENTS	New Agreements	Engagement	4	17	
		CDA/NDA	1		
		MOU	2		
		Invention Management	2		
		Option	7		
		Inter-Institutional	1		





Colmena66  
Tu Conexión Empresarial



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

## Mission and Vision

Colmena66 (C66) is a regional referral network which links Puerto Rico area entrepreneurs and business owners to local and regional resource partners who provide services to help businesses grow and prosper.

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

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

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

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

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

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

## Accomplishments of January 2017 - present

### Ecosystem Building

In the last year, the C66 team has doubled down on its role as lead Ecosystem Builder of the local entrepreneurial ecosystem. The program is uniquely positioned to work as master network weaver between resources, entrepreneurs, public institutions, corporations as well as national and international networks and entrepreneurial ecosystems. The team has been successful in growing the Resource Network, not only in the amount of members that have joined, but in the quality of the relationships that have been developed between C66 and the Resource Partners. The initiatives designed and executed by the team in this last year have significantly increased the level of trust within the network, enabling critical connections to happen between resources.

#### The Resource Network

After Hurricane Maria and the initiatives designed and implemented by the C66 team (Levanta tu Negocio and Shop+Hire Puerto Rico), the team carried out a thorough process of contacting all members of the Resource Network to check-in and update their status, services and capacity. By contacting each organization, C66 was able to identify the organizations that weren't operational anymore, and cleanup SourceLink PRO, the program's customer relationship manager (CRM).

The C66 team continued to carry out the regional meetings (Juntas de organizaciones que proveen apoyo empresarial) held with current and potential Resource Partners. These meetings began last year, where the team visited Mayaguez and Ponce, and continued this year when the team visited Caguas, Barceloneta and Ceiba, to cover the remaining regions of the Island. The main objectives of these meetings were to:

- Continue to generate awareness about C66's mission.
- Co-design C66's version of KC SourceLink's Resource Railway, Tu Camino Empresarial.
- Provide a space for organizations to meet and engage with each other, to generate trust and potentiate collaborations between them.





Having finished the first round of Juntas, the team has identified the need to continue these meetings to discuss specific topics related to regional gaps and needs of their respective communities. We plan to continue these meetings in a quarterly basis.

**Defining the Pillars of the Entrepreneurial Ecosystem**  
C66's efforts and activities in the past three years have focused on identifying and mapping on-the-ground resources for entrepreneurs and business owners that want to start or grow their businesses. Nevertheless, C66 adopted Babson Global's Domains of the Entrepreneurship Ecosystem, created by Daniel Isenberg, as part of his Entrepreneurship Ecosystem Strategy as a New Paradigm for Economic Development: Principles of Cultivating Entrepreneurship theory. This valuable recommendation made by C66's Advisory Board, has enabled the team to start categorizing Resource Partners by Ecosystem Pillar, which facilitates identifying high level gaps and areas of opportunities in the local entrepreneurial ecosystem. According to this model, there are six (6) main pillars:

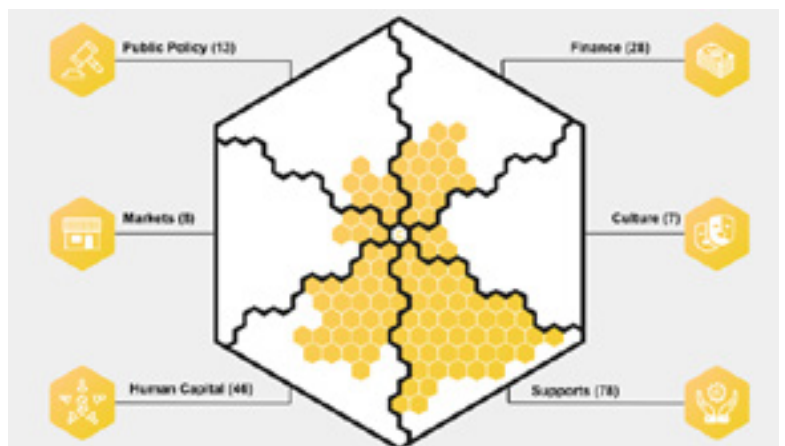
1. **Public Policy:** Refers to government institutions, resources, legislation, regulatory framework and incentives.
2. **Finance:** Refers to financial capital available in the forms of micro-loans, angel investing, venture capital, private equity , and public capital markets.
3. **Culture:** Refers to societal norms that relate to tolerance of risk and failure, innovation, creativity and experimentation, as well as wealth creation and societal status of entrepreneurs.
4. **Supports:** Refers to three main areas - Infrastructure Support professions, and Non-Government Institutions.
5. **Human Capital:** Refers to educational institutions, like universities and specific entrepreneurship training, as well as resources related to skilled and unskilled labor.
6. **Markets:** Refers entrepreneurial, diaspora and multinational corporations networks, as well as early customers and distribution channels.

The C66 team categorized the Resource Partners by pillar to see how they are distributed, and the team was able to confirm significant gaps and an uneven distribution of resources. Out of 180 Resource Partners, mostly are found in Supports and Human Capital pillars.

The team has identified, alongside the Advisory Board, different opportunities to share this information with the Resource Partners, as well as the possibility of doing deeper dive reports on each pillar to assess existing resources and identify specific opportunities to fill existing gaps.

### Accessing National and International Networks

Members of the C66 team have participated in different conferences throughout the



United States and abroad in order gain knowledge of what other entrepreneurial systems and ecosystem builders are doing in their communities, in order to identify opportunities for Puerto Rico. These learning trips have enabled the team to access important entrepreneurial networks and resources that have already begun to help address important gaps in the local entrepreneurial ecosystem.

### New Orleans - NOLA 4 PR, ConPRmetidos

The objective of this trip was to learn from New Orleans' leaders about their experience going through and recovering from the impact of Hurricane Katrina, back in 2005. The trip was organized by one of Colmena66's Resource Partners, ConPRmetidos, and included representatives from the Island's nonprofit and private sectors, primarily. The delegation that visited New Orleans was comprised of 24 representatives of various key organizations in Puerto Rico:

**ConPRmetidos** - Isabel Rullán and Mili Landrón

**BOD ConPRmetidos** - Miguel Ferrer, Carmen Muñoz, Pilar Avila

**Foundation for Puerto Rico** - Annie Mayol

**Morro Ventures** - Allison Kern

**Espacios Abiertos** - Natalia Ramírez

**Hunter College, Center for Puerto Rican Studies** - Rosa Cruz

**Center for Entrepreneurs** - Nerma Albertorio and Fernando García

**Animus & AccessLatina** - Lucienne Gigante

**Banco Popular Foundation** - Ana María Vidal and Joanna Pérez Doble

**Universidad del Sagrado Corazón** - Gilberto Marxuach

**Health Information Technology Regional Extension Center, Ponce Health Sciences University** - Antonio Fernández

**Birling Capital Advisors** - Francisco Rodríguez Castro

**HIMA Group** - Heidi Rodríguez

**National University College** - Dr. Gloria Baquero

**Unidos por Puerto Rico** - Mariely Rivera

**Basura Cero PR** - Jessica Seiglie

**Proyecto Apoyo Mutuo**, Mariana - Christine Nieves and Luis Rodríguez Sánchez

**Museo de arte Contemporáneo** - Ellen Seidman

**Institute of Sustainable Biotechnology**,

**Interamerican University** - Dr. Juan Negrón

**Innovation Center, UPR Río Piedras** - Paola Soto

**Puerto Rico Science, Technology & Research**

**Trust** - Cristina Salazar (Colmena66), Cristina Tamayo & Lucas Arzola (Parallel18)

The group visited various organizations related to the entrepreneurial and innovation ecosystems, of which one in particular stood out: The Idea Village, a globally-recognized leader in developing place-based entrepreneurial ecosystems and the organization that made it their priority to stop the brain drain after Katrina. The organization has three main components: Entrepreneurial Services, where they help entrepreneurs launch and grow their businesses; New Orleans Entrepreneurship Week (NOEW), a week long series of events to infuel the entrepreneurial community with new resources, networks and people; and Mentoring Program, to mentor, support and engage entrepreneurs. The Idea Village knew that New Orleans had always been a wealthy city in culture and ideas, and they decided to assertively empower entrepreneurs to create great leaders, give them the support they needed and keep them in the city. To this day, they have served 8,000 entrepreneurs, 70% of them still have their businesses and 90% of those companies are still in New Orleans.

*"The Idea Village is committed to sustaining the local entrepreneurial movement by providing direct services to entrepreneurs, engaging the community, and supporting initiatives that leverage entrepreneurship to catalyze change." - Tim Williamson, founder of The Idea Village in 2000.*



This organization was particularly interesting due to its similarities to the PRST's mission through programs like Colmena66 and Parallel18, which is why one of their programs seemed like a low hanging fruit that could be tackled by C66: New Orleans Entrepreneurship Week, or NOEW. This is a weeklong series of events that celebrates business, innovation and entrepreneurship in the city. NOEW was designed to take place during Spring Break in order to leverage the influx of people that visited the city during that time, and it's structure intends to spread entrepreneurial activity across the region. During the first three days of the week, the ESO's hold events and pitching competitions in their particular locations to make sure that the Greater New Orleans Area is impacted, and The Idea Village's summit takes place on the last two days of the week.

Colmena66 has already convened key players of the local entrepreneurial ecosystem to begin organizing Puerto Rico's first edition of Boricua Entrepreneur Fest, which will take place in February 2019.

### **Kansas City - Growing Entrepreneurial Communities Summit, KC SourceLink & Federal Reserve Bank of Kansas City**

The C66 team was invited to participate and present Colmena66 and its efforts to support businesses after Hurricane Maria at the Growing Entrepreneurial Communities Summit in Kansas City on April 24-27, 2018. This opportunity was essential to shed light on Puerto Rico's struggles and efforts to rebuild after a natural disaster. The audience was composed of leaders from diverse sectors including nonprofit, public sector, academia and private sector from all over the United States.

The members of the team that participated (Denisse Rodríguez and Cristina Salazar) were able to develop relationships with other SourceLink affiliates so that they could share best practices and lessons learned with the local ecosystem. In addition, they were able to strengthen the team's relationship with KC SourceLink's team, which has been essential to continue to build trust as well as carry out important projects with their support. For example, C66 received a significantly discounted rate to develop Tu Camino Empresarial (Resource Railway). They are also supporting the team in redesigning the Colmena66 website, continuously helping the team improve internal processes and tools, as well as guiding the team in the process of designing and collecting the essential information for C66's Annual Report.

The team's participation in this event opened important doors that are already reaping results in the local entrepreneurial ecosystem:

- By participating in the Senior Entrepreneurship breakout session, the team acquired a great deal of knowledge and understanding of the topic. This led to C66's Director, Denisse Rodríguez, to be named as a member of the Puerto Rico AARP Executive Committee to advise the Director on entrepreneurship.
- The team also learned about an economic development approach that seeks to grow local economies from within called Economic Gardening. This approach is built on the premise that local entrepreneurs create companies that bring new wealth and economic growth to a region in the form of jobs, increased revenues, and a vibrant economic sector. The organizations that the team connected with are GrowFL and the Edward Lowe Foundation, which focus on supporting second-stage companies through this approach. The team continued the conversations with these organizations after the Summit and connected them to one of C66's Resource Partners, Grupo Guayacán, to explore opportunities to implement GrowFL's program in Puerto Rico. Grupo Guayacán has continued collaborating with them and has begun the process of identifying potential local companies to be a part of this program.
- The team was also able to develop a relationship with the Federal Reserve Bank of Kansas City. Dell Gines, Senior Community Development Advisor, has continued to stay in touch and continuously shares grant opportunities for Puerto Rico's disaster recovery.



- Finally, the C66 team was able to meet Andy Stoll, Senior Program Officer of the Kauffman Foundation, a grantmaking organization based in Kansas City and the lead funder of entrepreneurial programs across the United States. He invited C66 to participate in the Kauffman Foundation's ESHIP Summit, to take place in July.

C66's Director, Denisse Rodríguez, was invited by the Startup Societies Foundation to present Colmena66's efforts to support businesses after Hurricane María at the Startup Societies Summit celebrated on May 9-10, 2018 in Washington, DC. The audience of this event was mainly composed of leaders in the special economic zones and blockchain areas, from diverse sectors including nonprofit, public sector, academia and private sector. This was a key event for the team to learn about the blockchain community in Puerto Rico and to strengthen relationships with key local partners like Annie Mayol, from Foundation for Puerto Rico, Isabel Fernández from Centro Unido de Detallistas, and Jaime Yordán-Frau of El Nodo.

C66 was also able to identify new Resource Partners such as the National Puerto Rican Chamber of Commerce and Link Puerto Rico. In addition, C66 was able to successfully recruit Annie Mayol, Jaime Yordán-Frau and Gustavo Díaz to be a part of the Boricua Entrepreneur Fest (BE Fest), during this event.

### Israel & Germany - American Competitiveness Exchange



On June 24-28, 2018 Denisse Rodríguez, Director of C66, participated in the 9th Americas Competitiveness Exchange on Innovation and Entrepreneurship. It was held in Israel (Tel-Aviv and Jerusalem) and Germany (Berlin and Dresden). The Organization of American States headquartered in Washington, DC leads a project named the Inter-American Competitiveness Network (RIAC). One of the initiatives is the Americas Competitiveness Exchange on Innovation and Entrepreneurship, which brings together senior leaders from the

Americas to visit a particular city and learn how it is boosting entrepreneurship and innovation. It is an event designed in a way that it facilitates collaborations among delegates and between delegates and host cities/countries.

Several opportunities arose for C66 and the PRSTRT in both Israel and Germany. For example, in Israel, multiple potential collaborations like bilateral cooperation in R&D to scale up startups, or potential partnerships with the Volcani Agricultural Center of Excellence and the Israel Innovation Authority for academic-level collaborations were discussed. C66 also learned about the importance of facilitating close cooperation between SME's (small and medium sized enterprises) and research institutions by promoting networking events between established companies and startup companies, as well as universities. Also, C66 identified the opportunity to share the Volkswagen Future Mobility Incubator program structure with the Startup.pr Technology Accelerator so that it increases its ROI. For example, both are six month programs but Startup.pr would greatly benefit from instituting the 3 month Demo Day milestone model.

### Kansas City - ESHIP Summit, Kauffman Foundation

C66 followed through on Andy Stoll's invitation to be a part of the Kauffman Foundation's second annual ESHIP Summit celebrated in Kansas City, Missouri from July 11th to 13th 2018. The purpose of this event was to bring together ecosystem builders from all over the United States who seek to grow entrepreneurship in their communities to co-create a framework that provides specific ideas, guidance, insights on how to create a more inclusive, dynamic and diverse ecosystem.



These conversations reaffirmed C66's commitment to advancing entrepreneurial ecosystems as a model for economic development. That model focuses on how the whole of a community is far greater than the sum of its parts. It means starting with what the community has and connecting the pieces, which is exactly C66's mission. The team was able to strengthen the ties with two other local members of the entrepreneurial ecosystem, Carlos Jiménez of YEES and Alejandro Manzanares of Endeavor Puerto Rico. The team also took part in the co-creation of the ESHIP Summit Playbook draft. This book is the first few chapters in what will become a more comprehensive playbook for the emerging field of entrepreneurial ecosystem building.



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An essential part of the ESHIP Summit agenda was to actively participate in the development of the ESHIP goals, which are a proposed set of collective objectives to further strengthen the entrepreneurial ecosystem building field. These goals serve as a checklist to help ecosystem builders prioritize, organize, and collaborate to improve the effectiveness of their respective ecosystems. The Kauffman Foundation believes that mass collaboration on the ESHIP Goals will allow participants, the innovators and early adopters of entrepreneurial ecosystem building, to co-create: an inclusive field with a collaborative culture, shared vision, connected networks, quantified methods, universal support and sustainable work.

C66 volunteered to take a leading role in developing the quantified methods goal, since it's one of the team's main objectives locally. C66 will co-create the guidelines for this goal with other ecosystem builders as well as Kauffman Foundation, and will stay in the loop on the rest of the goals as they are equally important for C66 to adopt new tools and practices. The C66 team believes it is essential to connect to national and international networks that can facilitate leveraging resources, learnings, tools and best practices to further improve the local entrepreneurial ecosystem.

The C66 team was also able to strengthen the relationship with the SourceLink team and discuss next steps related to the Colmena66 website, Tu Camino Empresarial and the Annual Report. In the photo, from left to right: Maria Meyers, founder of SourceLink and Executive Director for KC SourceLink; Sarah Mote, Marketing Director for KC

*This goal aims to collect a shared system of metrics and measurement, coupled with new collaborative research agendas focused on developing evidence-based ecosystem building methodologies, that can allow ecosystem builders to determine the most impactful principles and practices to enable entrepreneurship at scale.*



SourceLink; Rob Williams, Director for SourceLink; Cristina Salazar, Business Development Specialist for Colmena66; Dara Macan, Director of Global Business Development for SourceLink; Kate Pope Hodel, Special Projects for KC SourceLink; Pola Firestone, Relationship Manager and Affiliate Liaison for SourceLink; and Denisse Rodríguez, Director of Colmena66.

## Washington DC - Policy Academy on Strengthening your State's Manufacturers

C66's Director, Denisse Rodríguez, was invited to be part of the core team representing Puerto Rico at the "Policy Academy on Strengthening your State's Manufacturers" of the "National Institute of Standards and Technology's Manufacturing Extension Partnership". The group is focused on identifying what should be done to encourage growth in manufacturing through Innovation, Entrepreneurship, and Investment. This was the 4th Policy Academy, and Puerto Rico is one of four selected states, alongside Utah, Kentucky and New Jersey.

In order to have a sustainable innovation ecosystem, you need a strong manufacturing base, which is why the Policy Academy aims to:

- Create a catalyst for states to focus on the topic of manufacturing.
- Collaborate with colleagues from other states facing similar challenges or opportunities.
- Provide access to national subject matter experts.
- Guide states through a customized planning and implementation process.
- Offer ideas about how to improve performance of your existing approaches.
- Make states aware of relevant manufacturing-related partnerships and policies that help move economic development strategies forward.

The Policy Academy also developed a set of goals to guide the working groups' process in their respective jurisdictions, such as: provide the latest thinking around manufacturing competitiveness strategies via thematic sessions with experts; work through state action plans in preparing for home-team meetings and implementation; and foster relationships and identify commonalities among states.

## Filling the Gaps

### Critical Support for Second Stage Companies

One of the opportunities that arose while visiting Kansas City back in April was meeting key staff members of organizations like GrowFL and the Edward Lowe Foundation, leaders in the field of Economic Gardening. This strategy is focused on supporting second stage companies, providing CEO's with tools, best practices and data to gain the knowledge and power to grow, strengthen and impact their local economy. The goals of economic gardening focus on expanding homegrown companies, improving job growth, diversifying economies, and promoting an entrepreneurial culture.

The C66 team continued conversations with both GrowFL and the Edward Lowe Foundation, since that type of support for local second stage companies in Puerto Rico doesn't exist, and there was an interest to replicate a similar program locally. C66's mission was to identify a local service provider, whose mission aligned with the economic gardening strategy, to adopt and pilot the project. The team reached out to Grupo Guayacán, who was very interested and the team connected them to GrowFL and the Edward Lowe Foundation, to continue exploring the opportunity to develop a local program, or to include a set of Puerto Rican entrepreneurs in GrowFL's next cohort of companies.

Grupo Guayacán has moved forward alongside GrowFL, and carried out an informative webinar for entrepreneurs that could potentially be a part of GrowFL's next cohort. The companies that are selected will have the opportunity to have support in addressing strategic issues that are key for their growth, such as: strategic planning, market development, relationship management, cost optimization, capital management, people and workforce development, and scaling operations.

## Developing a Collaborative Support Structure for SBIR/STTR Applicants

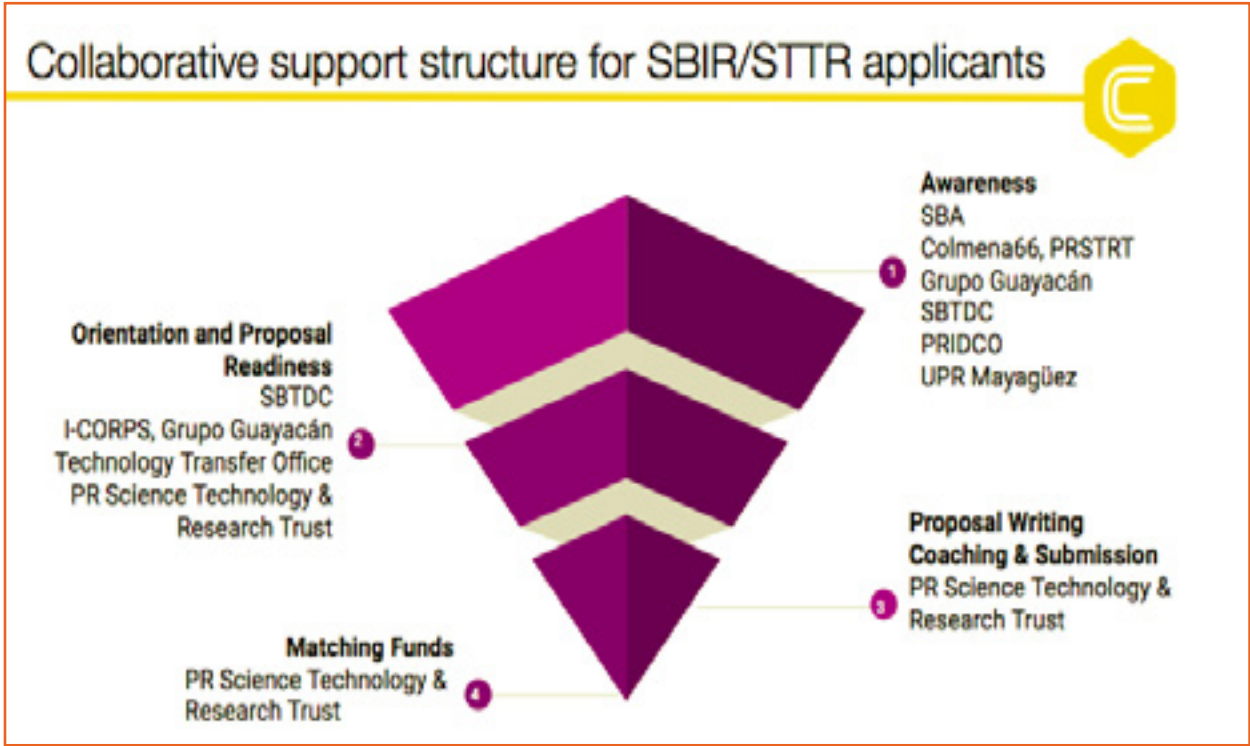
An important goal for the PRST is to significantly increase the number of successful local SBIR/STTR applications. In order to support this goal, C66 strategically joined the group of organizations that work on the SBIR/STTR applicant



pipeline, to coordinate resources and help make them visible and accessible to potential applicants. The organizations that are meeting monthly to share and discuss updates, needs and opportunities are:



In order to better coordinate efforts and opportunities for collaborations between these organizations, C66 took on its natural role of ecosystem builder, this time specifically in this spectrum of the local entrepreneurial ecosystem. The team mapped the available resources focused on four (4) main stages of the applicants’ process: Awareness, Orientation and Proposal Readiness, Proposal Writing Coaching and Submission, and PRST’s Matching Funds. This has helped to better refer potential applicants to the right resource at the right time, and also help the organizations identify partners in their efforts to support the applicant’s journey.



Colmena66’s role going forward is to continue connecting entrepreneurs, small businesses and researchers with the organizations that can support them in their application process; create public awareness about R&D funding opportunities, targeting universities, regional entrepreneurial and innovation ecosystems, as well as the general public through the use of C66’s calendar, social media and newsletters; and continue identifying opportunities to attract resources and opportunities for the local ecosystem.

**Shop & Hire Puerto Rico**

As part of its strategy to support and strengthen entrepreneurship in Puerto Rico, particularly after Hurricane Maria, C66 launched Shop & Hire Puerto Rico. Shop & Hire Puerto Rico is an online directory of stores through which users can browse and make purchases among a wide variety of products. In addition, on this platform you can find freelancers and Puerto Rican professionals working remotely from Puerto Rico.



This tool was developed by the C66 team with the support of Parallel18 and SourceLink, and in collaboration with the Puerto Rico Trade and Export Company. In addition, this initiative was supported by key collaborators such as Brands of Puerto Rico, San Juan Freelance, Bien Cool, Clickup, among others. It was launched on November 20, 2017, and was strategically promoted in the markets where there is a high concentration of the Boricua diaspora, who were looking to support the Island's economic recovery.

In Shop + Hire Puerto Rico, users have the opportunity to choose the categories of shops to buy (shops) or to contract remotely (hires). Among them are:

After launching the Shop + Hire Puerto Rico platform, the team identified a great interest from the public in eCommerce, and decided to plan and execute, alongside the Puerto Rico Trade and Export Company, a series of workshops that would help Puerto Rican entrepreneurs create their online stores and learn the best marketing and sales strategies to help them reach their target audiences. The team carried out 11 events all over the Island called 'Monta tu Tienda Online'. Over 750 people participated in these events and over 500 were left on the waiting lists, which proved the amount of interest in the content of these events.

The C66 team knew that the Shop + Hire Puerto Rico efforts needed to continue, but they didn't fit into the program's core strategic objectives, therefore, the team set out to identify an organization that would take on the project and provide continuity to the ongoing efforts. At C66's Advisory Board meeting in June, Nerma Albertorio from the Centro Para Emprendedores, came forward to take on the initiative, since it aligned with her organization's strategic plans for the upcoming year. The initiative's transitioned took place in October 2018.

### Impact Metrics

During the past year, C66 has continued to grow exponentially. The Resource Network has now grown to 187 organizations all over the Island, and the team has published over 1,339 events in the Central Calendar. In addition, the C66 team has made over 1,200 referrals to organizations in the Resource Network. The top five (5) reasons why entrepreneurs and business owners reach out to C66 are: startup assistance, business plan assistance, mentoring, access to capital/loans, and marketing & sales.

The C66 team has been able to see a clear difference in terms of awareness and requests for assistance before and after Hurricane Maria. There has been significant growth due to the initiatives the team led after the hurricane, such as Levanta tu Negocio PR and Shop+Hire Puerto Rico, alongside the eCommerce workshops, Monta tu Tienda Online.

For example, the number of entrepreneurs and business owners seeking assistance after the Hurricane grew 1,107%, the number of interactions between C66 staff and clients after the Hurricane increased 1,273%, and online searches for assistance using the Resource Navigator increased 327%. The team saw the same behavior when it came to social media and website metrics. Facebook followers increased by 306%, Twitter impressions increased 64%, and website pageviews increased by 139%.





In terms of how Colmena66 is doing compared to other SourceLink affiliates all over the United States, C66 continues to be on the top 10 percentile:



### Tu Camino Empresarial

Tu Camino Empresarial is Puerto Rico's version of KC SourceLink Resource Rail, a visual tool (physical and virtual, [www.tucaminoempresarial.com](http://www.tucaminoempresarial.com)) that serves as a map for entrepreneurs and business owners, where they will find the resources they need according to the type of company and the stage of business development. When the entrepreneur is ready to connect with any of the resources on the map, he or she will contact the C66 team through the Hotline and will be connected with the appropriate resource at the right time. Similarly, the entrepreneur can find the resource in our 'Resource Navigator' at [www.colmena66.com](http://www.colmena66.com) and contact them directly.

The C66 team co-created this map alongside the Resource Network. During the last year, the C66 team held five (5) regional meetings, called Juntas, to locate the Resource Partners on the map. Also, before launching the map and the platform, the team held pre-launch meetings with the organizations to show them the finalized product and receive feedback for the future versions of Tu Camino Empresarial.

Before Tu Camino Empresarial, local entrepreneurs and business owners didn't have a visual tool to guide them through the process of developing their business, showing them the different organizations and resources that specialize in providing support according to their stage and type of company. This is why C66 created this tool, believing that:

- Its a visual tool that will allow entrepreneurs and business owners to easily identify the resources available to meet their needs or realize their business idea.
- The distribution and use of Tu Camino Empresarial will generate important data of what the most frequent needs of a wide range of entrepreneurs and business owners on the Island are, their stages of development and types of companies.
- This information will also enable the C66 team to identify gaps or areas of need that are not being addressed by the entrepreneurial ecosystem.

The C66 is already working on a second version of Tu Camino Empresarial that will be sent to print before the end of the year.

### How does Tu Camino Empresarial work?

For the entrepreneurs and business owners to navigate Tu Camino Empresarial, they must first identify what type of company they have and what stage of development their business is in. To guide the users through the process, the C66 team provided them with definitions of these two elements.

The first step is to identify what type of company the entrepreneur or business owner has or wants to have. The types of companies in the legend are described below:

#### Red Line - Microenterprise

Entrepreneurs will follow this line if they start with a small business, but have big dreams. Companies in this category require little capital to launch. Most focus on the owner's personal experience (consulting, design, lawn care) and may not require a physical location. Online businesses and solopreneurs are also included in this group.

#### Blue Line - Brick and Mortar

Entrepreneurs will follow this line if they have a traditional trade (what they call "brick and mortar"), for example, restaurants, coffee shops, dry cleaners, and retail stores. These companies have employees, they need support in the areas of operations and they generally focus on sales, on getting customers to come closer and get them to come back. Other challenges include cash flow and financing.

#### Orange Line - Innovation-based

Entrepreneurs will follow this line if it is a technological company or with high growth potential. These companies are formed around a new technology or innovative process that has the potential for a very large market, and probably beyond the immediate region. These companies go through the same stages as other startups, but often at a faster pace. And sometimes they need help with a proof of concept, receiving capital investments and building leadership teams.

#### Violet Line - Second Stage

Entrepreneurs will follow this line if they pass the start-up phase and are ready to scale their business. Established and growing companies have enough employees to exceed the owner's comfortable control capacity and benefit from adding professional managers. A company usually enters the second stage when it approaches \$1 million in annual revenue and can be in any industry.

#### Green Line - Access to capital

Entrepreneurs will follow this line if their main objective is to access capital. From the beginning to the expansion, this line takes them through the resources in Puerto Rico that can help finance their businesses.

Once entrepreneurs and business owners identify what line (type of company) they're going to follow, they have to identify the stage of development their business is in:

1. Concept or Idea: At this moment, the business is just a dream, an idea.
2. Proof of Concept / Prototype / Market Intro: In this stage, the product must be developed, as well as selling and increasing the flow of customers.
3. Launch/Rollout: At this time the company must have traction, that is, sales and fixed customers.
4. Growth / Expansion: In this stage, the business has a sustained and professionalized development, its revenues increase, the products or services are improved, and the customer base is strengthened. Also entrepreneurs are looking for their next market, either local or global.



### Printed Version

The team created a printed version of the map that contains all the information entrepreneurs and business owners need to navigate Tu Camino Empresarial:



### Website

The team also created a website to provide users with a more interactive experience. The online version includes a glossary of key terms and a set of Frequently Asked Questions (FAQs) that can help entrepreneurs and business owners navigate the map more easily. The user has the option to see the map in its entirety, but is able to see only the line pertaining to their type of business. By answering a set of basic questions, the map will filter the information and the user will only see the resources related to his or her type of business.



In order to promote this tool, the C66 team is hosting a set of events called the TCE Tour, alongside the New York Federal Reserve Bank, in different locations. The events that are taking place in 2018 are in Mayagüez, Ponce and Gurabo, and in 2019 the team will continue to host these events in other parts of the Island. The events have three (3) main components: Resource Partners give a five (5) minute pitch of the services they offer, then the entrepreneurs and business owners have the chance to approach them personally in the Expo, and they also have the opportunity to have one-on-one mentoring sessions with other entrepreneurs, presented by Parallel18 and Animus Women's Innovation Journey. In addition, the team is executing an exhaustive media tour to help create awareness about the tool and the events.

### What's next for Colmena66?

#### Boricua Entrepreneurship Fest | BE Fest

The Boricua Entrepreneurship Fest will be the manifestation of what the team learned in New Orleans and their New Orleans Entrepreneur Week. The BE Fest will be an annual festival that celebrates innovation and entrepreneurship on the Island, connecting an extensive network of entrepreneurs, investors, corporations, NGOs, students, professors and professionals to support emerging and experienced companies, provoke important conversations and celebrate the Puerto Rican entrepreneurial spirit. The event will last one day and will be held at the Convention Center of Puerto Rico during the penultimate week of February 2019. It will have panel sessions, conferences, pitch competitions, and markets by industry.







Key players in the local entrepreneurial ecosystem were successfully convened by the C66 team and have joined the organizing committees:

Marketing & Promotion	Planning & Event Production	Community & Strategic Alliances	Sponsorships
Sofia Stolberg Marie Custodio Fernando García Nelimar Muñoz Colmena66	Ana María Cintrón Katerina Sánchez Emil Medina Jaime Yordán-Frau Gustavo Díaz Valerie Montañez Colmena66	Marie Custodio Erika Medina Luis Torres Nerma Albertorio Gustavo Díaz Isabel Rullán Jaime Yordán-Frau Colmena66	Isabel Rullán Annie Mayol Colmena66
<b>Petit Committee</b>			
Annie Mayol • Sebastián Vidal • Carlos Cobián • Jorge González • Sofia Stolberg			

Tu Camino Empresarial Tour | 2019

The TCE Tour is on high demand, therefore, the team will continue to host these events in other locations during the next year. As part of C66’s role as ecosystem builder, the team understands the importance of hosting these events outside of the metropolitan area to make sure the information and resources available reach a broader audience.

The events will continue to have the organizations on Tu Camino Empresarial giving a five (5) minute pitch about their services, and Expo area and mentoring sessions for the participants.



Colmena66 Website

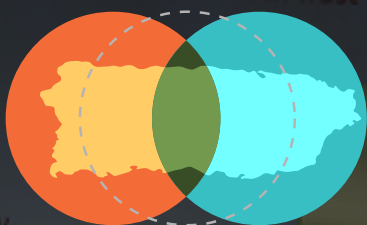
The C66 website will be revamped during the first half of 2019. The The C66 team wants to provide educational content for entrepreneurs and business owners that want to start or grow their businesses. Besides being able to use the Resource Navigator, users will find accessible content that will be helpful in their process of identifying the right resources at the right time.

The C66 team already created the content, picked a template and initiated conversations with SourceLink to begin the design process.

Annual Report 2019

The C66 team will publish the program’s annual report in March 2019, with detailed information about the program’s growth and impact in the local entrepreneurial ecosystem. This report will also contain important data provided by those entrepreneurs and business owners that have been helped by Colmena66.

In addition to C66’s annual report, the team will also be working on identifying collaborators to develop and publish in-depth reports by ecosystem pillar. For example, C66 wants to create an in-depth report about the access to capita landscape in Puerto Rico, to better understand the sources of capital, the level of connectedness between resources, and what are the specific gaps.

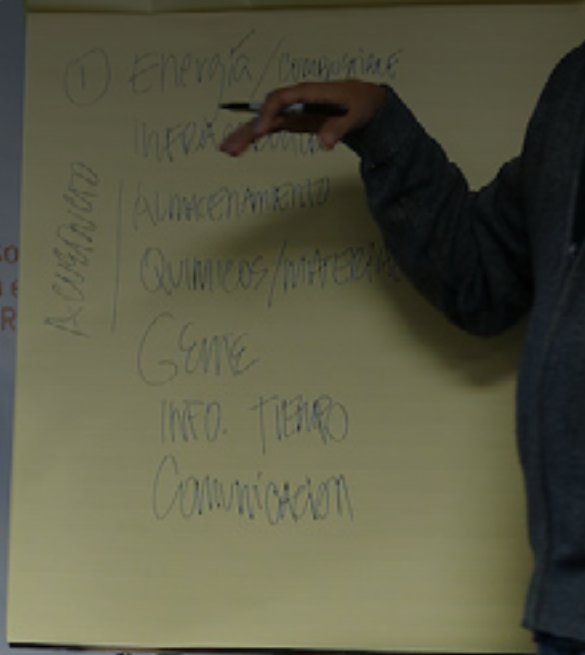


Puerto Rico  
Science, Technology  
& Research Trust

**PR** RESEARCH  
& INNOVATION



**Meet-ups**



## Mission and Vision

The Research and Innovations MeetUps Program aims to establish a point of departure for the ongoing development of the research and innovation ecosystem -locally and internationally- while at the same time tackling, complex problems that impact the wellbeing of our citizens through innovative solutions based on science, research and technology.

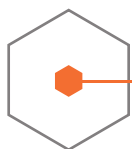
Over time, the program seeks to capitalize on its own spillover effects to help drive a more dynamic atmosphere for commerce, innovation, and social impact from the vantage point of collaboration.

## Achievements

The Research and Innovations MeetUps Program originated as a facilitator of dialogues to support emerging business entrepreneurship, and, under the leadership of our CEO Lucy Crespo, the platform has been instrumental in addressing complex problems that affect the wellbeing of our citizens thus evolving from an initiative for the development of the research and innovation ecosystems in the knowledge economy, ( it seems that the program evolved to something else we need to make clear that in addition to it is also . . . ) to an active convener that addresses and supports our citizen's social and economic well-being from the vantage point of social innovation.

Towards 2017 Q1, the Environmental Protection Agency (EPA) approached the Trust seeking to partner in finding a solution for complex problems faced by citizens operating (non-PRASA) rural aqueducts. The MeetUps Program partnered with the EPA, the PR Department of Health to support the production of (3) Non-PRASA Community MeetUps to understand the context of the problem, the stakeholders involved, and prospective collaborative actions to resolve the problem. To date, the solution approach has scaled to the dialogue for the subscription of a MoU among multiple stakeholders to address the non-PRASA community challenges. This MoU discussion has brought together other signatories, such as: Oxfam, American Red Cross, U.S. EPA, Water Mission, Puerto Rico Community Foundation, Polytechnic University of Puerto Rico, and Por los Nuestros all of whom aim to contribute resources to address these challenges.

This evolution positioned the Program to effectively add value to the process of disaster response and recovery as new citizen needs emerged in the wake of hurricane Maria in 2017 Q4. International humanitarian organizations, more U.S. Federal Agencies, and world-renowned non-for-profit organizations, began to approach the Trust seeking to partner in finding solutions for disaster response and recovery situations. As a result the Trust exercised leadership through the MeetUps platform by supporting the efforts of a group of young doctors from Yale University who had created Puerto Rico Rises - Connecticut Chapter in the distribution of medical supplies and medicines to Puerto Rico's hospitals, Centers for Disease and Treatment (CDT's, in Spanish), and 330 health centers. Our assistance focused specifically in finding solutions to improve the efficiency of their needs assessment and communications through the use of technology. By 2018 Q2 previous MeetUps with the creative community led the team to the identification of opportunities in a publication that visualized creativity and innovation activity throughout the Island. The initiative was then adopted by the Commerce and Export Company of Puerto Rico (CCE, in Spanish), under the name of Puerto Rico Creativo 2018, to continue supporting more targeted efforts in the landscape of opportunity for creative entrepreneurship.



The MeetUps Program is also a creative and production management resource for other units within the Trust, as was evidenced by the team's collaboration in the event design, and the eventual facilitation and reporting of audience inputs for the PRVCU Symposium, an event produced by the Puerto Rico Vector Control Unit to bring together the international entomological community.

In the context of Puerto Rico's road to recovery, we saw a flurry of activity, as the MeetUps Program was tasked to design a partnership with the American Red Cross by putting together Recuperación Agrícola, a comprehensive disaster recovery microgrant program to support the recovery of small and underserved farmers affected by hurricane Maria. It must be noted this is the first time the Red Cross engages an endeavor of this scale and nature. The team's efforts have resulted in the crafting of a solution approach in which the American Red Cross will be providing \$3M to finance the above-mentioned initiative. The project is scheduled to commence operations in October 2018. In addition, the MeetUps team provided comment to the CDBG-DR Plan to be submitted by the PR Government to the US Congress by August 2018.

At the same time, the MeetUps team had facilitated a dialogue to engage collaboration geared at the Trust becoming the host of the Response Innovation Lab in Puerto Rico. The Response Innovation Lab (created by World Vision, George Washington University, and Save the Children) fosters the development of scientific and technological innovation to improve the response to natural disasters and humanitarian problems. Last, but not least, the MeetUps team has also initiated conversation with 100 Resilient Cities, a Rockefeller Foundation initiative for disaster recovery. They have selected Puerto Rico as one of these resilient cities, and their interest lies in a large scale data project to map informal and blighted housing in Puerto Rico, for which the Trust and 100RC have begun conversations directed at the Trust becoming lead partner the rollout and implementation of this initiative.

## Future Plan

The aspiration of the MeetUps Program is to expand outreach activity and continue widening the Trust mission and program goals, specifically for the mapping and support the development of emerging industries and their ecosystems. On a larger scale, the program aims to support leadership that is directed to the development of cluster initiatives for activities show a clear path to economic growth and development. That being said, we are cognizant that the Research and Innovations MeetUps Program has organically evolved as an enabler of social innovation for Puerto Rico, an area of much needed effort and leadership into the future.

Moving forward, the Research and Innovation platform will continue to identify important areas of discussion, such as: disaster recovery (rural aqueduct communities); vertical farming; food security, production, and distribution; housing; Internet of Things (IoT)/ Internet of Nano Things (IoNT), machine learning, and artificial intelligence; telemedicine; resilience to climate change; bioinformatics; human and technological interfaces; Aging 2.0; cybersecurity, blockchain, and cryptocurrency, among other emerging topics. In furthering these discussions, we aim, through the development of cluster initiatives, to foster leadership in sectors that show a clear path to economic development that galvanize the collective spirit of our emerging entrepreneurs.



**3** social innovation initiatives for the Trust  
**30** meeting with key stakeholders  
**73** community stakeholders engaged  
**12** speakers

### Areas of Impact:

- Creative Entrepreneurship
- Public Health
- Disaster Response and Recovery
- Water
- Farm Recovery
- Food Security
- Community Engagement



# EDUCATION and CAPACITY BUILDING



## Mission and Vision

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.

## Impact Metrics

The Trust invested more than \$143,350 in entrepreneurship training initiatives, including the following:

- InPrende
- Smart City IoT Hackaton
- D-Lab Workshops
- Startup Weekends
- Mycological Congress
- CIO & IT Conference
- STempresarial
- Meshing with Data Hackaton
- Animus



### Virtual Reality for students:

In a collaborative effort with Aprende VR, the Trust offered the second edition of VR Summer Camp to make virtual reality visible and accessible, and to teach how to use the appropriate tools which have potential applications towards fields of disciplines to which this technology can be integrated. With this program, Aprende VR’s team enabled the Trust to provide new tools that interlace the possibilities of the virtual world with the physical context relative to the user. The experience and feedback we had from the students while managing this summer course was the exemplary definition of the inclusiveness and creativity we seek to achieve as one of our goals.

### VR Camp Demographics

Demographics based on 75 students from the Camp.



### Key Performance Indicators

- 409%** Increase in Self-Evaluation of VR Development Experience
  - The students were asked to rate their experience in developing VR apps from 0 to 10.
  - In the pre-workshop survey the average rating was 1.64.
  - In the post-workshop survey, the average rating was 8.35.
- 9.61/10.00** overall rating for the workshop
- 9.35/10.00** rating for the usefulness of the content workshop
- 100%** of the students would recommend the workshop to others
- 78%** of the students are interested in an advanced VR Course.

### Future Plans:

- Introduce virtual reality topics to more students compared to last year’s summer workshop
- Make sure more public school students apply and attend the camp
- Make the workshop accessible to students outside the San Juan/ Metro area
- Create and teach a more robust curriculum backed by professional equipment
- Include an augmented reality component in the curriculum
- Build a team of talented teachers, mentors and collaborators that help implement logistics and curriculum content
- Help promote and encourage technology engaged students and future leaders of their respective interests

**Scientific Investigators Tax Incentives Act (Law 101) –  
Taxable Year 2017-18**





## Mission and Vision

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.

## Impact Metrics

### The following is a summary of the impact of Law 101 for taxable year 2017:

1. Number of applications processed and approved: **49** (UPR Medical Science Campus: **32**; UPR Rio Piedras: **11**; Ponce Health Science University: **5**; Universidad Central del Caribe: **1**)
2. Number of Researchers Benefited by the Program: **33** (UPR Medical Science Campus: **17**; UPR Rio Piedras: **10**; Ponce Health Science University: **5**; Universidad Central del Caribe: **1**)
3. Total amount of Tax Exemptions Granted: **\$1.111 million**
4. 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.



# HR CONNECTION

PRSTRT's HUMAN RESOURCES DEPARTMENT

The Human Resources Department ("HRD") provides structure and organizes several key functions for managing the most valuable resources, our employees! Through a series of core services, such as recruiting and hiring, employee relations, compensation and benefits, labor law compliance, employee development and activities, the HRD provides an array of supporting services.

Aligned with the Trust's current needs and prospective plans, the HRD support is critical to meet the essential needs of management and their staff to achieve the organizational endeavors.

Recruitment is a key HRD area in developing the workforce. This effort is focused on coordinating the interviews and final hiring process with managers. The job postings, job descriptions and screening of applicants are essential parts of this process.

The Employee Relations area is concerned with strengthening the employer-employee relationship through an effective mechanism to resolve workplace conflicts.

The Compensation and Benefits area is focused on building a competitive pay structure and attractive core of benefits, such as health care, retirement plan, life insurance, and mental wellness. We do this through a market assessment, gathering comparative quotes.

Noncompliance with labor laws may result in unfair and discriminatory practices within the workplace, employee complaints, and employee disengagement, among other undesirable results. Furthermore, acknowledging that this area is fertile ground to trigger legal issues impacting financial stability, strict compliance is a pillar of the HRD's operation.

Finally, the Trust strives to help develop its employees proficiencies. We do this through educational courses, programs and activities aligned with their tasks and responsibilities. We also view employee activities as a conduit to promote employee engagement and cohesiveness in the team.

## Achievements

- Hired a full-time Human Resources Director.
- Established a functional operational structure, policies, and several labor law compliance processes that impacted the quality of the core services.
- Addition of new services, such as the employee wellness program, the employee assistance program, and the life insurance program.
- Deployment of the retirement plan program.
- Update of the actual Employee Manual, according to the current labor law changes.
- Labor law seminar, healthcare benefits orientations to employees.
- Support the Business Continuity Plan data gathering.
- Coordination of several employee activities were coordinated, to wit: December Employee gathering, Thanksgiving Lunch, and Wellness activities.

## Future Plan

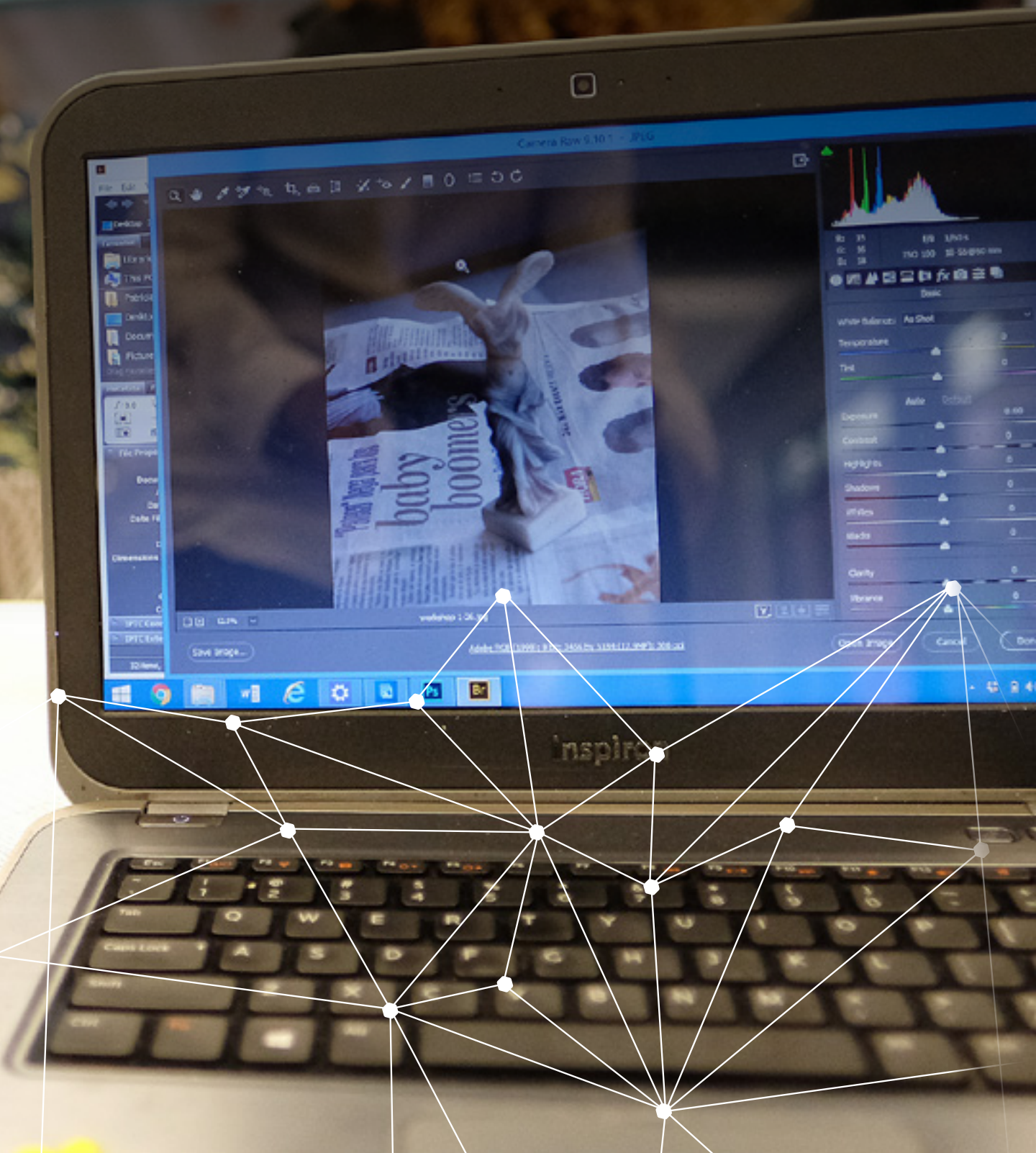
Continue supporting current and new programs through an effective human resources management structure, based on based in the upcoming programmatic areas and balance workforce needs.







# Cultural Heritage Innovation Program





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

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

## Mission and Vision

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

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

## Achievements

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

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



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

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

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

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

## Impact Metrics

- **Created a long-term plan for the architectural objects of the Oso Blanco prison.** This included suggestions for rehousing the collection, as well as developing a collection plan including a scope of collection statement, standardized documents for cataloging and conservation, etc. These actions will aid in both sharing these objects with the present and preserving them for future generations
- **Planned and executed two successful training courses for the cultural heritage community of Puerto Rico.** In April 2017, the Trust offered a multispectral imaging course led by Dr. Antonino Cosentino of Cultural Heritage Science Open Source. In June 2017, the Trust hosted the “Museum Photography and Digitization” workshop, co-led by Dani Tagen of the Horniman Museum and Gardens and Kira Zumkley of the Science Museum Group, both in London.
- **Supported the early development of a plan by Dr. Johnny Lugo Vega and Dr. Antonio Martinez Collazo (both of UPR) to create the Tropical Institute for Sustainable Heritage Conservation and Imaging Science.** The Center will be a place for students and specialized research as well as providing increased capabilities for performing heritage conservation work here in Puerto Rico. This is an extremely exciting initiative, so if you are interested in learning more about it, please do contact me!



## Future Plan

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



# EVENTS and MEDIA COVERAGE

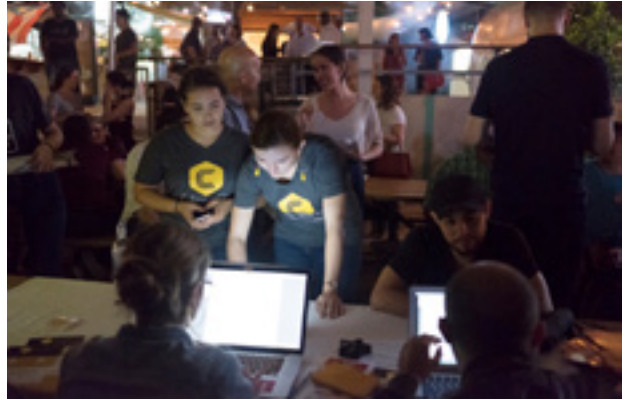
Since 2014, **\$8 million awarded**  
to science and technology research projects







11/16/17| P18 @ Lote23



11/16/17| P18 @ Lote23



11/20/17 | PAL & PRVCU aid in Utuado



11/20/17 | PAL & PRVCU aid in Utuado



1/17/18 | MOU UPR & PRSTRT @  
Fortaleza



1/17/18 | MOU UPR & PRSTRT @  
Fortaleza



1/23/18 | NNIH Visit



1/23/18 | NNIH Visit



1/24/18 | US Chamber of Commerce  
Foundation



1/24/18 | US Chamber of Commerce  
Foundation



1/31/18 | CELABIH Talk



1/31/18 | CELABIH Talk





2/2/18 | Clinical Investigations RoundTable



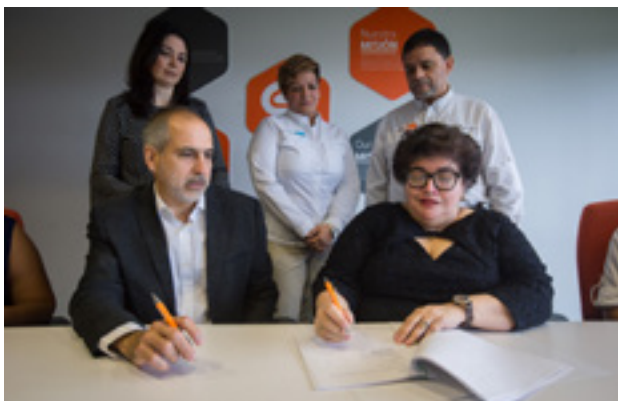
2/2/18 | Clinical Investigations RoundTable



2/26/18 | Timo Kids - PRVCU



2/26/18 | Timo Kids - PRVCU



2/27/18 | Para la Naturaleza



2/27/18 | Para la Naturaleza



3/1/18 | Lucy's Birthday



3/1/18 | Lucy's Birthday



3/1/18 | PRSTRT Management Meeting



3/1/18 | PRSTRT Management Meeting



3/6/18 | Interagencial Water Non PRASA Meetup



3/6/18 | Interagencial Water Non PRASA Meetup





3/8/18 | PRVCU Lab Open House



3/8/18 | PRVCU Lab Open House



3/9/18 | STEM Talk at TURABO



3/9/18 | STEM Talk at TURABO



3/9/18 | MOU & SUAGM Agreement



3/9/18 | MOU & SUAGM Agreement



3/14/18 | Colmena66 Junta de Organizaciones



3/14/18 | Colmena66 Junta de Organizaciones



3/14/18 | USC team Visit



3/14/18 | USC team Visit



3/23/18 | Gen 4 Demo Day de Parallel 18



3/23/18 | Gen 4 Demo Day de Parallel 18





4/2/18 | Dr. Jim James Visit



4/2/18 | Dr. Jim James Visit



4/5/18 | PRVCU at Schools



4/5/18 | PRVCU at Schools



4/6/18 | PRVCU @ FirstBank Presentation



4/6/18 | PRVCU @ FirstBank Presentation



4/7/18 | InPrende Tech Disrupt



4/7/18 | InPrende Tech Disrupt



4/20/18 | Pre18 Welcome



4/20/18 | Pre18 Welcome

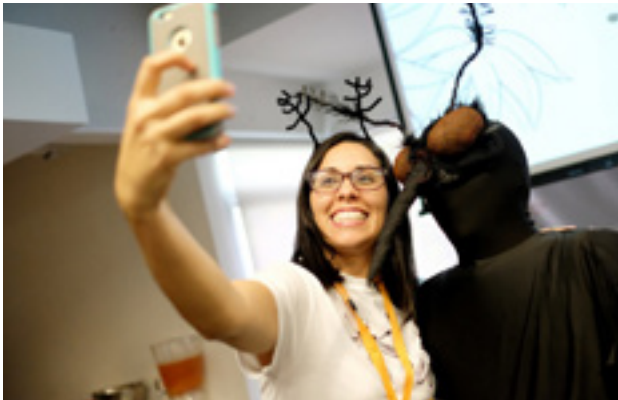


4/27/18 | Meetups NonPRasa



4/27/18 | Meetups NonPRasa





5/7/18 | Paralos en Seco Launch



5/7/18 | Paralos en Seco Launch



5/9/18 | PR Clinical Research Summit



5/9/18 | PR Clinical Research Summit



5/11/18 | CIO & IT Conference



5/11/18 | CIO & IT Conference



5/18/18 | PAL Water Filters Delivery



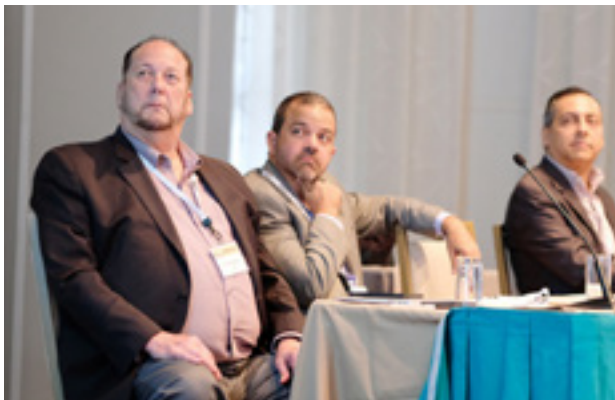
5/18/18 | PAL Water Filters Delivery



5/21/18 | PRVCU & Casa Grande



5/21/18 | PRVCU & Casa Grande



5/29/18 | EIPBN



5/29/18 | EIPBN





5/31/18 | Mujer Industrial



5/31/18 | Mujer Industrial



6/6/18 | Honoris Causa - Lucy Crespo, PRSTRT CEO



6/6/18 | Honoris Causa - Lucy Crespo, PRSTRT CEO



6/11/18 | BIO Products Workshop -TTO & Foley



6/11/18 | BIO Products Workshop -TTO & Foley



**7/18/18 | Response Innovation Lab Reception**



**7/18/18 | Response Innovation Lab Reception**



**7/27/18 | Naguabo Aid by PRVCU**



**7/28/18 | Naguabo Aid by PRVCU**



**8/6/18 | Welcome G5 P18**



**8/6/18 | Welcome G5 P18**





8/9/18 | Simposio Control de Vectores



8/9/18 | Simposio Control de Vectores



8/12/18 | PRVCU Open House at UCC



8/12/18 | PRVCU Open House at UCC



8/15/18 | Agreement UCC and Trust



8/15/18 | Agreement UCC and Trust



8/20/18 | Mosquito Day



8/20/18 | Mosquito Day



8/22/18 | Agreement USC & FCTIPR



8/22/18 | Agreement USC & FCTIPR



8/23/18 | Mujer Innova



8/23/18 | Mujer Innova





8/29/18 | HiveCube Launch



8/29/18 | HiveCube Launch



9/5/18 | Resuelvelo Boricua



9/5/18 | Resuelvelo Boricua



9/8/18 | Coqui Llanero



9/8/18 | Coqui Llanero



9/15/18 | Limpieza Internacional Playas



9/15/18 | Limpieza Internacional Playas



9/21/18 | MBQ Pharma Launch



9/21/18 | MBQ Pharma Launch



9/27/18 | Grants Program New Call



9/27/18 | Grants Program New Call





10/18/18 | Summit Sponsors of PRCCI



10/18/18 | Summit Sponsors of PRCCI



10/24/18 | Recuperación Agrícola



10/24/18 | Recuperación Agrícola



10/25/18 | TCE Tour Ponce



10/26/18 | TCE Tour Ponce



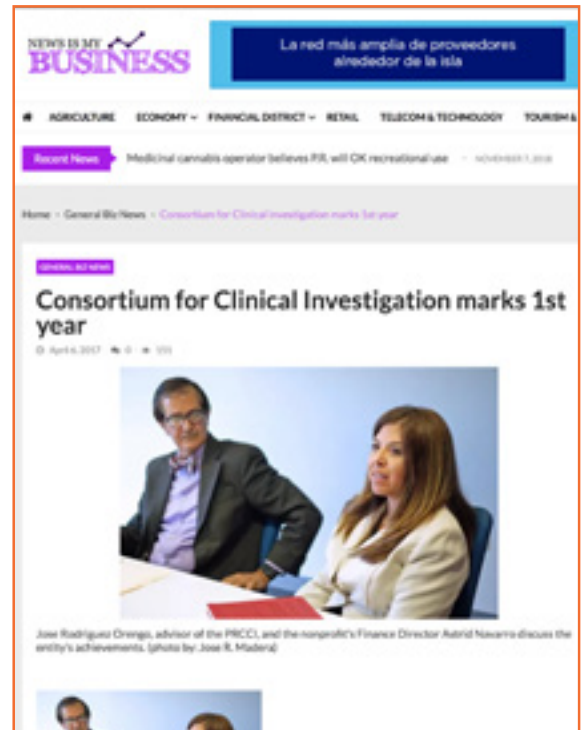
Puerto Rico  
Science, Technology  
& Research Trust

*In the News...*





El Nuevo Día | January 12, 2017



newsismybusiness.com | April 6, 2017



El Nuevo Día | May 8, 2017



El Nuevo Día | April 6, 2017



El Nuevo Día | July 6, 2017





El Nuevo Día | July 15, 2017



El Nuevo Día | July 16, 2017



El Nuevo Día | July 19, 2017



Wapa TV | October 17, 2017



Wapa TV | October 19, 2017





### Ayudas para investigadores luego del huracán

Para que puedan continuar sus trabajos

Por: NotiCar

Publicado: Oct 19, 2017 04:45 PM AST

Actualizado: Oct 19, 2017 04:45 PM AST





Se presentamos algunas alternativas de ayudas para investigadores luego de María. (Archivo / NotiCar)

Investigadores, profesores, maestros y estudiantes de ciencias podrán recibir ayudas económicas que les permita continuar sus investigaciones tras el paso de los huracanes Irma y María.

Noticel | October 19, 2017

### Cinco claves para combatir el desarrollo de mosquitos

Una nueva campaña de la Unidad de Control de Vectores de Puerto Rico busca evitar los casos de zika, dengue y chikunguña

Por: David Cardón

El mosquito que transmite el virus del Zika.



La Unidad de Control de Vectores de Puerto Rico (PRVCU) dio inicio esta semana a una campaña para combatir el desarrollo de mosquitos en la isla, dentro del contexto de la crisis que vive el país luego del paso del huracán María.

Dicha Unidad es un programa del Fideicomiso de Ciencias y Tecnología de Puerto Rico, formado en colaboración con los Centros para el Control y Prevención de Enfermedades (CDC, por sus siglas en inglés).

En 2016, Puerto Rico registró 38,658 casos confirmados de zika, dengue y chikunguña, según el portal de la Unidad. La forma más fácil de reducir las enfermedades transmitidas por el *Aedes aegypti* es reduciendo los criaderos de mosquitos. Por eso, la doctora Marianny Ortiz, directora asociada del PRVCU, comparte los siguientes consejos:

1. Cubre con tapa, screen, toldo o cortina los envases que estás utilizando para almacenar agua.
2. Verifica los escombros aún sin recoger alrededor de tu casa o lugar de trabajo y saca el agua de los recipientes.
3. Protégete con repelentes aprobados por la EPA, utiliza mosquiteros y, dentro de lo posible, screens en las ventanas.
4. No almacenar el agua por más de siete días y utiliza ropa cubridora.
5. Los niños también deben vestir ropa cubridora y repelente en las áreas descubiertas.

COMUNIDAD MEDICINA


Metro | October 31, 2017



WIPR TV | November 2, 2017

# 5

## claves para combatir el desarrollo de mosquitos



El *Aedes aegypti* necesita de 7 a 10 días para completar su ciclo de vida en recipientes con agua acumulada.

La Unidad de Control de Vectores de Puerto Rico (PRVCU) dio inicio esta semana a una campaña para combatir el desarrollo de mosquitos en la isla, dentro del contexto de la crisis que vive el país luego del paso del huracán María.

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COMUNIDAD MEDICINA

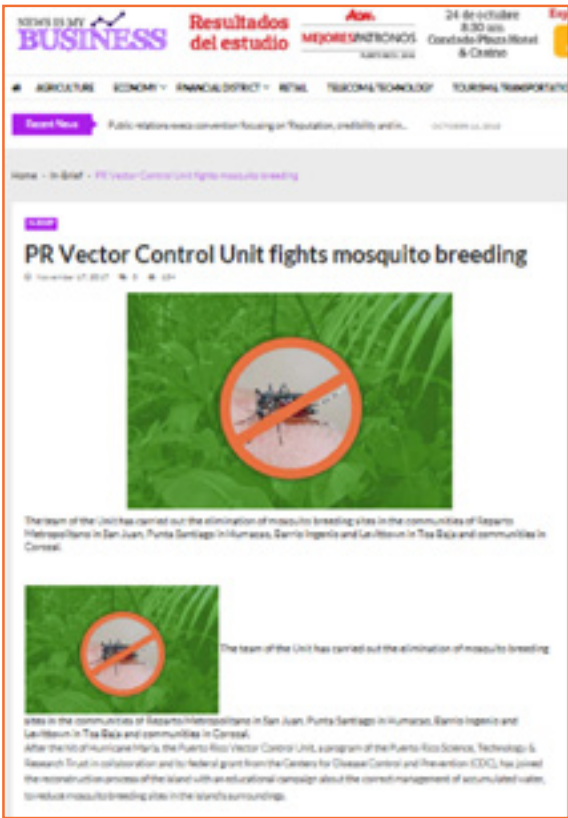
Metro | October 31, 2017



WIPR AM | November 2, 2017



La Isla Oeste | November 7, 2017



News is My Business | November 17, 2017



El Nuevo Día | November 17, 2017





El Oriental | November 22, 2017



El Nuevo Día | December 22, 2017



Metro | December 4, 2017



Voces del Sur | December 4, 2017







UPR Diálogo | January 15, 2018



CB en español | January 17, 2018



El Nuevo Día | January 17, 2018



El Nuevo Día | January 19, 2018



### Más de 300 proyectos de startups solicitan ayuda en programa pre18

El programa preparatorio otorgará \$20,000 de capital para desarrollo de negocios

Por Metro Puerto Rico

18 febrero 24 de enero de 2018, a las 10:26

Podrás documentar y ignorar los correos electrónicos con algunas de las prácticas de seguridad llevadas a cabo por los empleados. Crédito: Getty Images



A solo días del cierre de la convocatoria de la pre-aceleradora pre18, el equipo de trabajo de parallel18 (P18), la aceleradora de negocios global que opera desde el 2015 como parte del Fideicomiso de Ciencia, Tecnología e

Metro | January 24, 2018

### El Nuevo Día | 24 enero 2018

# NEGOCIOS

## Validan la inventiva del puertorriqueño

Parallel18 recibió 307 solicitudes de emprendedores que quieren crecer sus negocios con el programa

**Emprendedores interesados en pre18**

- 76% de emprendedores interesados en el programa pre18
- 203 personas
- 80% de emprendedores interesados en el programa pre18



El programa pre18 es una iniciativa del Fideicomiso de Ciencia, Tecnología e Innovación que busca apoyar a emprendedores locales y globales. El programa ofrece un capital de \$20,000 para el desarrollo de negocios. El equipo de trabajo de parallel18 (P18) ha recibido 307 solicitudes de emprendedores interesados en el programa. El 76% de los emprendedores interesados en el programa pre18 son hombres y el 24% son mujeres. El 80% de los emprendedores interesados en el programa pre18 son de nacionalidad puertorriqueña y el 20% son de nacionalidad extranjera.

El Nuevo Día | January 24, 2018

### Orientan y reparten filtros en comunidades de Utuado

Por Primera Hora

19 febrero 13:45 p.m.



El lunes, 20 de enero, de 9:00 a.m. a 4:00 p.m., en la plaza de recreo de Utuado se entregó un filtro por familia. (Sumariada)

Proyecto Agua Limpia, que estudia contaminantes, lleva meses visitando hogares por distintos municipios.

Con el propósito de brindar acceso a agua potable en comunidades donde la necesitan y entender una mejor calidad de dicho recurso a sus habitantes se creó el Proyecto Agua Limpia (PAL).

El Fideicomiso para Ciencia, Tecnología e Investigación de Puerto Rico, a través de su programa Brain Trust for Tropical Disease Research Prevention y en colaboración con los Centros Promotores de Salud (CPS), Corporación de Servicios Médicos CSM IPA-19 y las organizaciones H2O Worldwide, KOHLER, Puerto Rico en Acción y Unidos por Puerto Rico, aunarán esfuerzos para distribuir filtros de agua de forma gratuita.

Primera Hora | January 25, 2018

### ¡Ahora es más fácil y rápida que nunca!

## Cara a cara los empresarios con las startups

Encuentro del capítulo de Puerto Rico de CEAL junto a compañías innovadoras con firmas establecidas, para explorar inversión o relaciones de negocio



El encuentro se desarrolló en un ambiente de networking. Cada startup tiene una invitación para presentar su negocio. La audiencia de estas las personas, a su vez, tiene una invitación para una sesión de preguntas y respuestas. Después de recibir a cada compañía, los emprendedores innovadores debieron contestar a una o tres preguntas en un folio: ¿Puede invertir en esta startup? ¿Puede convertirse en un socio? ¿Puede trabajar con esta startup? Después de recibir las respuestas, se entregó un folio con los datos de la audiencia P18 para el debido seguimiento.

El Nuevo Día | January 25, 2018





El Nuevo Día | February 11, 2018



El Nuevo Día | March 9, 2018



El Vocero | March 4, 2018



Lente Viral | March 9, 2018



Primera Hora | March 9, 2018



Metro | March 29, 2018



El Vocero | March 29, 2018




SinComillas.com | April 8, 2018




### Agile Strategy Lab visits P.R. to contribute to business ecosystem

April 12, 2018






For the first time, the Agile Strategy Lab initiative brings its methodology to organize ideas and create links with Puerto Rico's resources.




newsismybusiness.com | April 12, 2018

### Can Puerto Rico become a hub for clinical research?

By Maria Soteland Olivia Catey on April 16, 2018





**Creating Jobs**  
Can Puerto Rico Become a Hub for Clinical Research?

*Editor's note: This story first appeared in the April 12-18, 2018, issue of Caribbean Business.*

With more than a decade under a recession, as well as severe austerity measures and damages from hurricanes Maria and Irma, the Puerto Rico economy is fighting its way to a path of growth. While there are many areas to consider for possible growth, the Puerto Rico Consortium for Clinical Investigation (PRCCI) is betting that the promotion and expansion of the island as a hub for clinical trials is a positive route for the economy, doctors and patients in Puerto Rico.

To that end, the PRCCI is preparing for the Puerto Rico Clinical Research Summit on May 9. This summit will include "all relevant stakeholders for clinical research—the FDA [Food & Drug Administration], patients, investigators, sponsors and pharmaceutical companies—to showcase our

Noticel | April 16, 2018

### Colmena66 presenta sus proyectos en cumbre en Kansas

La red de apoyo empresarial compartió cómo el ecosistema empresarial en Puerto Rico se unió para ayudar a los empresarios luego del paso del Huracán María

Por Metro Puerto Rico

Publicado 25 de abril de 2018, a las 16:25



Colmena66, la red especializada de apoyo empresarial que opera bajo la dirección del Fideicomiso para Ciencia, Tecnología e Investigación de Puerto Rico, tuvo la oportunidad de compartir con otras 50 comunidades y su afiliada, KC SourceLink, organización establecida en Kansas City dedicada a ayudar a startups y pequeñas empresas a encontrar los recursos adecuados para empezar, escalar o acelerar el impacto que tuvo el Huracán María en Puerto Rico y cómo tomaron acción para apoyar a los negocios en Puerto Rico con dos iniciativas: Levanta tu Negocio PR y Shop+HirePuerto Rico.

El Growing Entrepreneurial Communities Summit, que se llevó a cabo en Kansas City, Missouri el 25 y 26 de abril de 2018, en una conferencia enfocada

Metro | April 29, 2018

### Activo Puerto Rico en la investigación clínica

El PRCCI lidera el esfuerzo

Por: EAC De León Solís

Publicado May 06, 2018 17:45 AM BPT



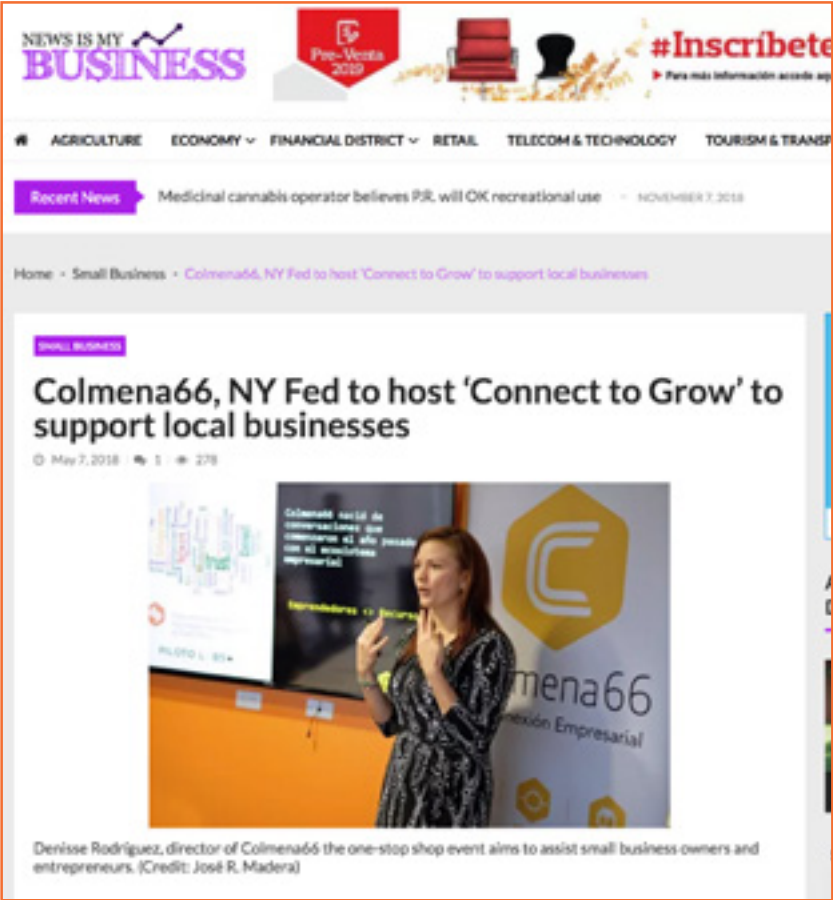


Kenneth Kroschel, director del Fideicomiso de Ciencia y Tecnología de Puerto Rico. (Bañera Morúa/Noticel)

En dos años, el Consorcio de Investigación Clínica de Puerto Rico (PRCCI) por sus siglas en inglés, amasó 26 miembros, 25 áreas de investigación terapéutica y 15 investigaciones clínicas para probar tratamientos de una gama de condiciones.

De esta manera, el PRCCI —dependencia adscrita al Fideicomiso de Ciencia y Tecnología de Puerto Rico— mantiene unos 200 voluntarios puertorriqueños con distintas condiciones médicas que actualmente forman parte de investigación médica. Aunque la

Noticel | May 6, 2018



newsismybusiness.com | May 7, 2018



El Vocero | May 8, 2018

## Parallel18 presenta su Quinto Demo Day

Fri, Jun 15, 2018

Economía

Por redacción de Sin Comillas

Llega el momento de conocer ideas innovadoras, quienes las han trabajado y las empresas que las representan. Ya sea que quieras apoyar a estos puertorriqueños invirtiendo en ellos o que estás buscando fuentes de inspiración para formar tu propio negocio, Parallel18, abre al público, gratis, su quinto Demo Day, "El Boricua se las inventa" a celebrarse el próximo, 26 de junio a partir de las 3:00 PM en el Centro de Convenciones, enfocado en empresas de aquí que nacieron y se destacaron tras el paso del Huracán María.



"Este Demo Day será el más grande que hemos organizado con el objetivo de que sea una demostración de lo que pueden lograr los empresarios locales cuando piensan en grande. En esta edición destacamos a las empresas del patio que sobresalen luego del paso del Huracán María", comentó Sebastián Vidal, director ejecutivo de Parallel18. En el quinto Demo Day las empresas participantes serán las egresadas del programa especial pre18, para el cual seleccionaron 40 proyectos puertorriqueños en etapa temprana para ayudarlos a llegar al mercado.

Los asistentes, no solo tendrán la oportunidad de ver la presentación de las ideas de negocio de 40 empresas locales, sino que podrán escuchar charlas de empresarios puertorriqueños que han tenido éxito en el área de Silicon Valley y regresan como Consejeros de pre18. Estos son el Ingeniero de desarrollo de productos Raúl Molina quien trabajó en Apple y luego en el startup Campaign Living; y el Ingeniero Aldo Briano, quien es graduado del Colegio de Mayagüez, de la Universidad de Puerto Rico, y cofundador de la empresa Yiftee.

Además de presentar sus negocios, los empresarios de pre18 competirán por premios

## Startup.pr presenta su primer DemoDay

Fri, May 18, 2018

Startups, Tecnología

Por redacción de Sin Comillas

Once compañías puertorriqueñas presentaron ante inversionistas y líderes de la industria sus empresas en el primer DemoDay de la aceleradora Startup.pr que pertenece al programa acelerador de tecnología de la Universidad del Turabo. El Demo Day es el resultado del programa de pre-aceleración de negocio en donde las empresas participaron por un periodo de 12 semanas.



a 18 de mayo de 2018 Caguas Puerto Rico. Presentación Demo Day en el Centro C3 Tec de Caguas donde nuevo emprendedores proponen sus proyectos.

(photo by: Jose R. Madera)

Empresas dedicadas a la tecnología, belleza, alimentación, servicios de entrenamiento de liderazgo, e-commerce para venta de libros, programación, aplicaciones móviles desarrolladas para parejas y para hacer turismo interno, productos para surfistas, entre otras, fueron parte de la gama presentada en Caguas.

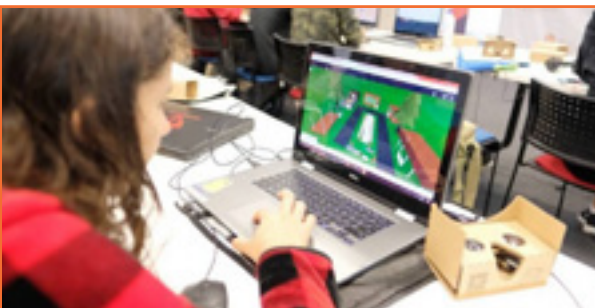
Lucy Crespo, Principal Oficial Ejecutiva del Fideicomiso para Ciencia, Tecnología e Investigación de P.R., entidad que apoya y subvenciona parcialmente la iniciativa de Startup.pr, le dio la bienvenida al grupo de invitados, y resaltó la importancia del desarrollo de empresas en crecimiento.

Entre las empresas que presentaron sus servicios se encontraban:

- o HRTic.com – empresa dedicada a la tecnología celular orientada al servicio al cliente para aumentar ganancias a compañías. Provee soluciones que ayuden a aumentar la

SinComillas.com | June 15, 2018

SinComillas.com | May 18, 2018



## Presentan campamento gratuito de entrenamiento de Realidad Virtual

Jóvenes de 7mo a cuarto año de escuela superior podrán solicitar para participar gratis en un taller gratuito en una de las 4 sesiones que se ofrecerán en San Juan y Mayagüez

Por Metro Puerto Rico  
Martes 08 de mayo de 2018, a las 13:28

Por segundo año consecutivo regresa el "bootcamp" o campamento de entrenamiento de Realidad Virtual (VR), gratis, dirigido a jóvenes que cursen del séptimo grado a cuarto año de escuela superior.

El campamento es presentado por el Fideicomiso para Ciencia, Tecnología e Investigación de Puerto Rico, los talleres ofrecen un currículo desarrollado por **AprendeVR** que incluye aprender a hacer modelos 3D y creaciones en realidad virtual y realidad aumentada, así

Metro | May 8, 2018



## Evento El Boricua se las inventa busca apoyar a startups puertorriqueñas

Además de presentar sus negocios, los dueños de las startups de pre18 competirán por premios especiales

Por Metro Puerto Rico  
Lunes 18 de junio de 2018, a las 12:05

Parallel18 abrirá al público, su quinto Demo Day, "El Boricua se las inventa" a celebrarse el próximo, 26 de junio a partir de las 3:00 p.m. en el Centro de Convenciones de Puerto Rico enfocado en startups de aquí que nacieron y se destacaron tras el paso del Huracán María.

"Este Demo Day será el más grande que hemos organizado con el objetivo de que demostración de lo que pueden lograr los empresarios locales cuando piensan en grande. En esta edición destacamos a las empresas del patio que sobresalen luego del paso del Huracán María."

Metro | June 18, 2018





El Nuevo Día | June 28, 2018



El Vocero | July 6, 2018

IN-BRIEF

## Parallel 18 to host 'El Boricua se las Inventa,' 5th Demo Day

June 22, 2018 0 291



Sebastián Vidal, executive director of Parallel 18. (Credit: Jose R. Madera)

AGRICULTURE ECONOMY FINANCIAL DISTRICT RETAIL

TELECOM & TECHNOLOGY TOURISM & TRANSPORTATION PODCA

newsismybusiness.com | June 22, 2018

## Unen fuerzas para que más mujeres se atrevan a innovar

Mujer Innova es una alianza del Fideicomiso de Ciencia con Inprende



El primer, Alejandro Correa, fundador de Inprende, junto a diversas organizaciones y miembros del nuevo programa Mujer Innova.

Como una poderosa herramienta para ayudar a que más mujeres emprendedoras en ciencia y tecnología se atrevan a innovar, se anunció ayer el nacimiento de Mujer Innova en la sede del Fideicomiso de Ciencia, Investigación y Tecnología (FICIT) en Río Piedras.

La iniciativa es producto de una alianza entre el FICIT y la organización de Emprendimiento Empresarial (Inprende).

Alejandro Correa, fundador de Inprende, aseguró que se trata de una "gran alianza entre la academia y el sector empresarial", que busca promover la innovación y el emprendimiento en el sector científico y tecnológico.

Correa mencionó que la alianza busca crear un espacio donde las mujeres puedan encontrar apoyo y recursos para desarrollar sus proyectos de innovación.

La alianza también incluye a varias organizaciones, como la Asociación de Mujeres Científicas y Tecnológicas (AMCT), la Asociación de Mujeres Ingenieras (AMI), y la Asociación de Mujeres Investigadoras (AMI).

El programa Mujer Innova busca promover la innovación y el emprendimiento en el sector científico y tecnológico, y está dirigido a mujeres que estén interesadas en desarrollar proyectos de innovación.

El programa también incluye talleres, conferencias y otros eventos que ayuden a las mujeres a desarrollar sus proyectos de innovación.

El programa Mujer Innova es una iniciativa de la Fundación de la Ciencia, la Tecnología y la Innovación (FCTI), que busca promover la innovación y el emprendimiento en el sector científico y tecnológico.

El Nuevo Día | June 23, 2018



**CONSUMO**  
Casi 200 inspectores fiscalizarán las ventas sin IVA **Almendra**

**NEGOCIOS**

**Es ley la fusión de diez agencias bajo Desarrollo Económico**

El gobierno espera ahorrar \$10 millones en cinco años con la medida

**Alfredo Rodríguez**  
Ministro de Desarrollo Económico

El ministro de Desarrollo Económico, Alfredo Rodríguez, anunció que el gobierno espera ahorrar \$10 millones en cinco años con la medida de fusión de diez agencias bajo el Ministerio de Desarrollo Económico.

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El Nuevo Día | July 12, 2018

**NEGOCIOS**

**Estudiantes se insertan en la realidad virtual**

El UPR Summer Camp del Fomento de Ciencias y Tecnología les abrió las puertas a nuevos destinos

**Estudiantes se insertan en la realidad virtual**

El UPR Summer Camp del Fomento de Ciencias y Tecnología les abrió las puertas a nuevos destinos.

El UPR Summer Camp del Fomento de Ciencias y Tecnología les abrió las puertas a nuevos destinos.

El UPR Summer Camp del Fomento de Ciencias y Tecnología les abrió las puertas a nuevos destinos.

El Nuevo Día | July 17, 2018

EL VOCERO DE PUERTO RICO • MAYORES, 17 DE JULIO DE 2018 **ECONOMÍA**

# Parallel18 apuesta a la Isla

➤ Propicio para nuevas empresas el entorno local de amplios retos en la economía

**Carlos Andrés Otero**  
carlos@elvocero.com

**Sebastián Vidal**, director ejecutivo de Parallel18, pone su experiencia en el desarrollo de negocios e impulso de startups tecnológicas en diferentes partes del mundo.

Cuando la Junta de Planificación (JP) recomendó al gobierno lanzar el desarrollo de aceleración de negocios para impulsar startups y emprendimientos tecnológicos, Vidal, quien está al frente del programa de negocios Parallel18, que desde la Isla atrae ideas de negocios con sus emprendedores internacionales, dijo a EL VOCERO que los momentos críticos para los países son los más propicios para recomenzar tales iniciativas.

"Normalmente en economías deprimidas, o países post-desastres, los emprendedores tienen más protagonismo porque hacen cosas como motores económicos, y eso se traduce en empleos y actividad económica", comentó Vidal.

En días recientes, la JP sometió al gobernador Ricardo Rosselló el Informe Programático del Buro Demográfico para el año fiscal 2018, dirigido al desarrollo de un Plan Estratégico de Desarrollo Integral y Compromiso de la Representación Demográfica de Puerto Rico, que entre otras recomendaciones menciona el desarrollo de incubadoras de empresas en las instituciones de educación superior, entre una de las estrategias para reducir la migración de jóvenes y la fuga de talentos.

Entre las preocupaciones locales, según la JP, está la reducción en un 16 por ciento de la población de entre 18 a 29 años, y el dato de que el 53 por ciento de los jóvenes que emigró tiene un título universitario, con una gran parte de ellos en áreas de tecnología, ciencias, matemáticas e ingeniería.

Sobre esto, Vidal dijo que en comparación con otros países, la Isla está en un momento todavía inicial para que haya mayor protagonismo de la academia. Recorrió que hay casos positivos y en formación en el Recinto Universitario de Mayagüez de la Universidad de Puerto Rico y en otras universidades, pero se necesitan más y pronto.

"Estamos en Puerto Rico una zona al sur o al norte. Es el norte hay un desarrollo integral del desarrollo empresarial, tenemos todo el potencial empresarial. Al sur lo que tenemos es un desarrollo de talento de las universidades, y eso es algo que la Isla de Puerto Rico hoy en día programas de incubación dentro de las universidades", explicó Vidal.

Indicó que es fácil hablar de crear una incubadora, pero hay que tener en claro que es lo que se va a incubir, cómo se desarrollarán las capacidades y mentes emprendedoras, y que esto permite que haya una entidad importante de proyectos que generen actividad.

"El apoyo en etapas tempranas es fundamental. Normalmente yo le digo que lo ponga en contacto con personas que lo han hecho antes. Tienen experiencias y conocimientos con las organizaciones que están trabajando. La planificación y la estrategia son importantes, y conocer las necesidades y desafíos, y las herramientas que necesitan las empresas aumentan las posibilidades de que existan proyectos", expresó Vidal.

Por lo tanto, las incubadoras deben contar con el privilegio y la estructura adecuada para que el apoyo que se le ofrece al emprendedor emergente sea estático al negocio. "Lo importante es que el apoyo represente la experiencia en el mercado donde se desarrolla (en startups)", añadió Vidal, y puntualizó que en las gestiones que lleva el equipo en Parallel18 "nosotros lo que hacemos es que podamos identificar un mercado en Puerto Rico y que tengan la posibilidad de alcanzar un mercado global".

El Vocero | July 17, 2018







Home / Noticias / Cientos de personas se benefician de entrega de filtros en Arroyo



Cerca de 400 filtros de agua Kohler Clarity fueron entregados en Arroyo. (Suministrada)

### Cientos de personas se benefician de entrega de filtros en Arroyo

Publicado por: Redaccion Voces del Sur en Noticias, Otras, Últimas noticias 5 octubre, 2018 94 Visitas

Cerca de 400 filtros de agua Kohler Clarity fueron entregados el pasado miércoles, 3 de octubre, en el municipio de Arroyo como parte del Proyecto Agua Limpia.

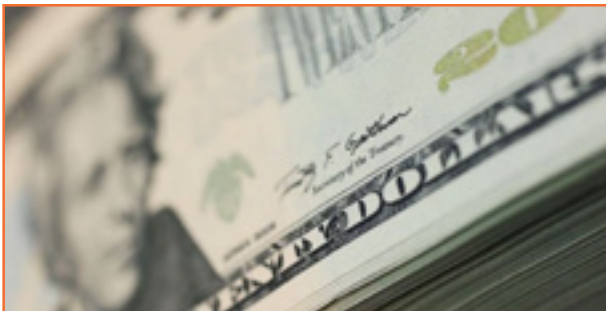
Desde tempranas horas de la mañana, ciudadanos hicieron fila frente a la alcaldía del Pueblo de los Bucaneros para recibir los dispositivos con capacidad de purificar agua sin necesidad de energía eléctrica.

Oferta Académica Programa Graduado

Voces del Sur | October 5, 2018



El Nuevo Día | October 8, 2018



### Anuncian ayuda económica para investigadores

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

Por Metro Puerto Rico  
Jueves 19, octubre 2017 16:18

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

La iniciativa surge a instancias de la división del Caribe de AAAS, entidad que agrupa globalmente a más de 120,000 miembros, y que en el Caribe tiene sobre 500 miembros. Tras los pasados Huracanes Irma y María, los miembros iniciaron una campaña de recaudación

Metro | October 19, 2018

### Colmena66 se valida como red empresarial

El programa del FCTI marca su primer año con la publicación de un informe de impacto

viernes, 22 de diciembre de 2017 - 12:00 AM  
Por Sharon Minelli Pérez



Desde la izquierda, Denise Rodríguez; Desirée Rodríguez, Cristina Salazar, Adriana Cabral y Carolina Martínez, todas de Colmena66. (Suministrada)

El Nuevo Día | December 22, 2018

# ADDENDUM







P

1

8

parallel<sup>18</sup>

EVERY DAY I'M HUSTLING

LeGETSH\*! are

IMPACT REPORT

2017 | 2018

P

1

8

 Puerto Rico  
Science, Technology  
& Research Trust

 PRIDCO  
PRINCIPAL INVESTMENT DEVELOPMENT  
CORPORATION

 PRC  
PRINCIPAL RESEARCH CORPORATION

 DEPARTMENT OF ECONOMIC DEVELOPMENT  
& COMMERCE

About the Report

This report focuses on the results of Gen.3 and Gen.4: a total of 61 companies that completed the program. This document also offers updates on Gen.1 and Gen.2 companies in addition to preliminary results from pre18.







# A Hurricane **Strong Year**

There is no doubt that our program is in a very different place than where it was a year ago when we released our first impact report. No one could have expected Hurricane Maria and its aftermath. At the beginning, everyone was a little afraid, no one knew if all the amazing things that were happening in the entrepreneurial ecosystem in Puerto Rico were going to survive. No one was sure where things were headed.

I am happy to have been a witness and see the entrepreneurial ecosystem in the island thrive. The results in this report prove so. After finishing our fourth cohort, we embarked on an adventure called pre18 that had amazing results and showed us the enormous amount of talent and grit Puerto Rican entrepreneurs have and how international entrepreneurs can enrich an ecosystem.

So get ready to see numbers and events that I feel more than proud of. Data that shows Puerto Rico keeps moving forward to become an entrepreneurship hub.

Sebastian Vidal,  
Executive Director

parallel<sup>18</sup>



## Program's **Summary**

### What is **parallel18**?

*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.*

*P18 is a program of the Puerto Rico Science, Technology, and Research Trust (PRSTRT) in collaboration with (PRIDCO) (Industrial Development Company of Puerto Rico) and the Department of Economic Development and Commerce of Puerto Rico (DDECC).*

## What we **do**



*Attract, create, and retain highly-talented entrepreneurs from all over the globe*



*Integrate and collaborate with the local education system and entrepreneurial community*



*Transform the local mindset of entrepreneurs into a global one*



*Make Puerto Rico a portal for startups that want to scale globally*



*Create a new set of local companies that grow beyond Puerto Rico*



## How we do it



We choose up to 80 companies per year distributed in two cohorts (that we call generations)



We give selected startups a US \$40,000 grant.



They have to take part in a 20-week acceleration curriculum.

## GiveBack

They must engage in our GiveBack program with local universities, college 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.

*Our program gives entrepreneurs the tools to grow and keep our community.*

**Sebastián Vidal,**  
Executive Director

**Cristina Tamayo**  
Business Dev. Manager

**Lucas Arzola,**  
Director of Operations

**Jonathan Ortiz,**  
Lead-Creative Designer

**Eduardo Padial,**  
Startup Executive

**Marie Custodio,**  
Outreach Manager

**Wanda Fraguada**  
Marketing Manager

**Betisa Bermudez,**  
Startup Executive

## Team, advisors, selection committee

*The team is composed by a mix of individuals with diverse professional backgrounds. Their common goal is to promote economic development in the island by working with startups and the local entrepreneurial community. This is the core team.*



*This year would not have been possible without the hard work of **our interns** and additional team members. **Big thanks to:***



André **Lefranc**//  
Office Manager  
and Marketing Intern



JC **Wharton**//  
Operations Intern



Natalia **Bigay**//  
Event Coordinator



Sven Linz//  
Operations Intern



Paola **Maldonado**//  
Marketing and  
Communications Intern



Larissa **Pagán**//  
Marketing and  
Communications Intern



America **Castillo**//  
Business Development  
Intern



## Parallel18 Board of Advisors

*A group of highly qualified and connected individuals who make important contributions to the program.*



Javier **Soltero**



Nancy **Santiago-Negrón**



Giovanni **Rodríguez**



Niel **Robertson**



Nicholas **Shea**



Lisa **Morales**



Cyril **Meduña**

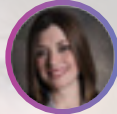


## Parallel18 **Selection Committee** participants

Selecting the right startups is a very important task, that is why we recruit a diverse group of people from the community to chose them.



Manuel **Rosso**



Laura **Cantero**



Lizzie **Rosso**



Angel **Pérez**



Ramphis **Castro**



Allison **Kern**



Ken **Kay**



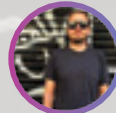
Miguel **Ríos**



Victoria **Fine**



Edward **Betancourt**



Giovanni **Collazo**

*\*Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut*

## Mentorship & Curriculum

With each new batch of startups, our operations team goes over the companies needs and, from that, they contact the mentors that are the best fit for them to reach their goals.

As the program has matured, so has our curriculum. The topics are now focusing more and more on growth and investment. In fact, many of our mentors have grown very successful companies or are investors that have, at some point, invested in some of our startups.

To make sure we are recruiting the best mentors, we ask our startups for their feedback. These are the top mentors according to our Gen.3, Gen.4 and pre18 alumni:

### Top 4 visiting mentors:



Gary **Bonilla**



Niel **Cohen**



Alicia **Syrett**



Devin **Baptiste**

### Top 4 local mentors:



Jonathan **Gonzalez**



Gualberto **Rodriguez**



Will **Rosselini**



Roberto **Gonzalez**



# Application Data

2,741

Total companies that have applied

# Top 6 Countries



1. Puerto Rico



2. United States



3. Colombia



4. Chile



5. Brazil



6. Argentina

Gen.1  
**401**  
Companies Applying  
from  
**31**  
Countries

Gen.2  
**507**  
Companies Applying  
from  
**44**  
Countries

Gen.3  
**507**  
Companies Applying  
from  
**48**  
Countries

Gen.4  
**457**  
Companies Applying  
from  
**48**  
Countries

Gen.5  
**562**  
Companies Applying  
from  
**67**  
Countries

pre18  
**307**  
Companies Applying



# Our Startups

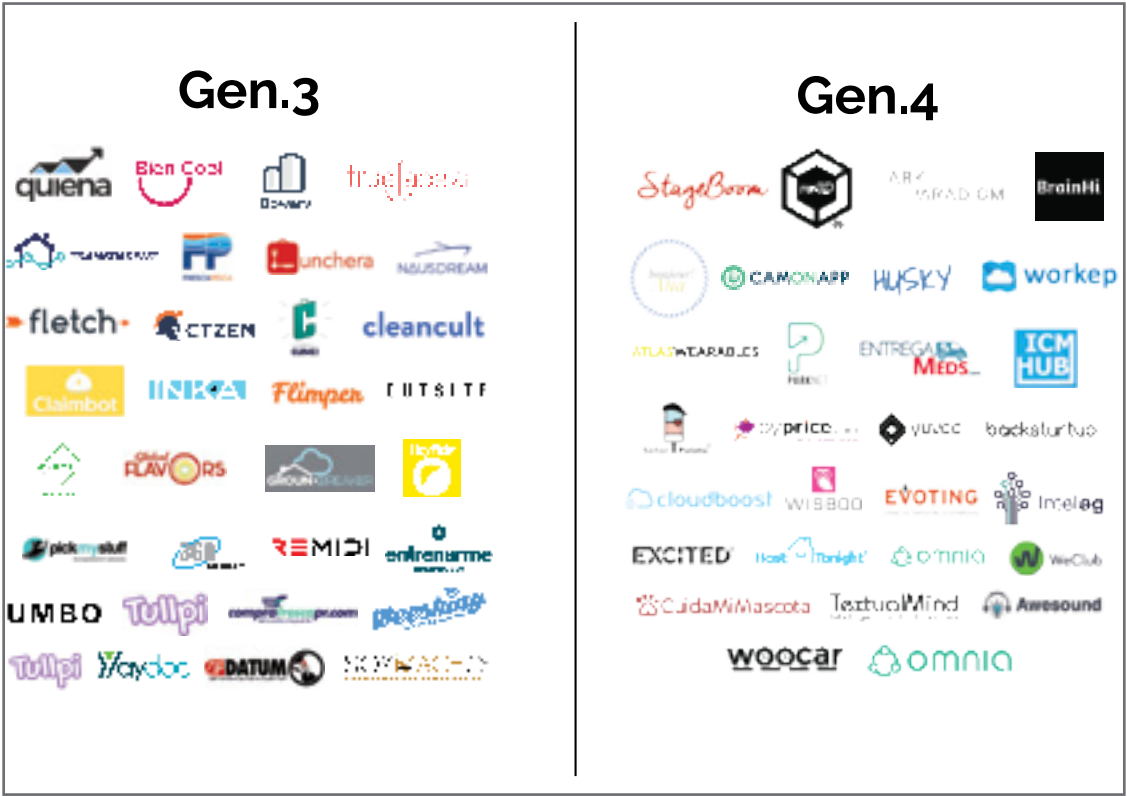
These are the 118 companies that have completed parallel18.

## Gen.1



## Gen.2

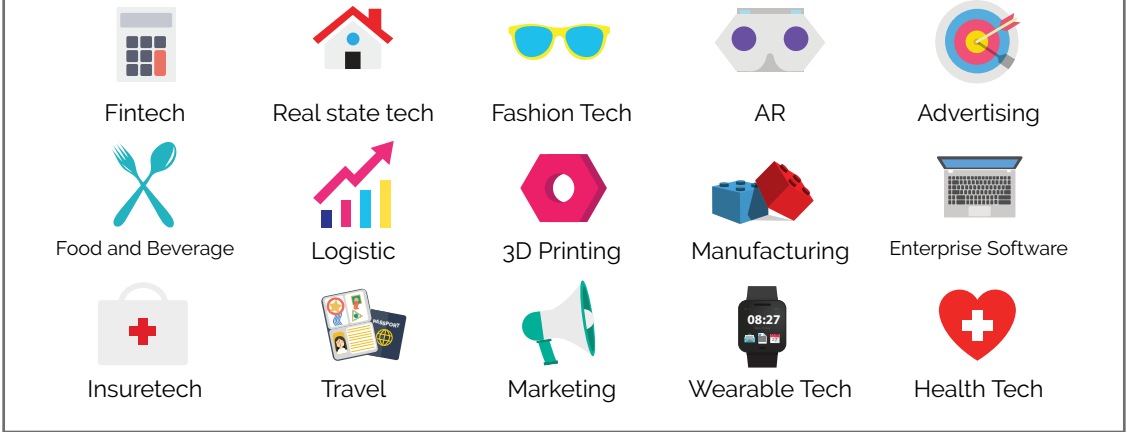


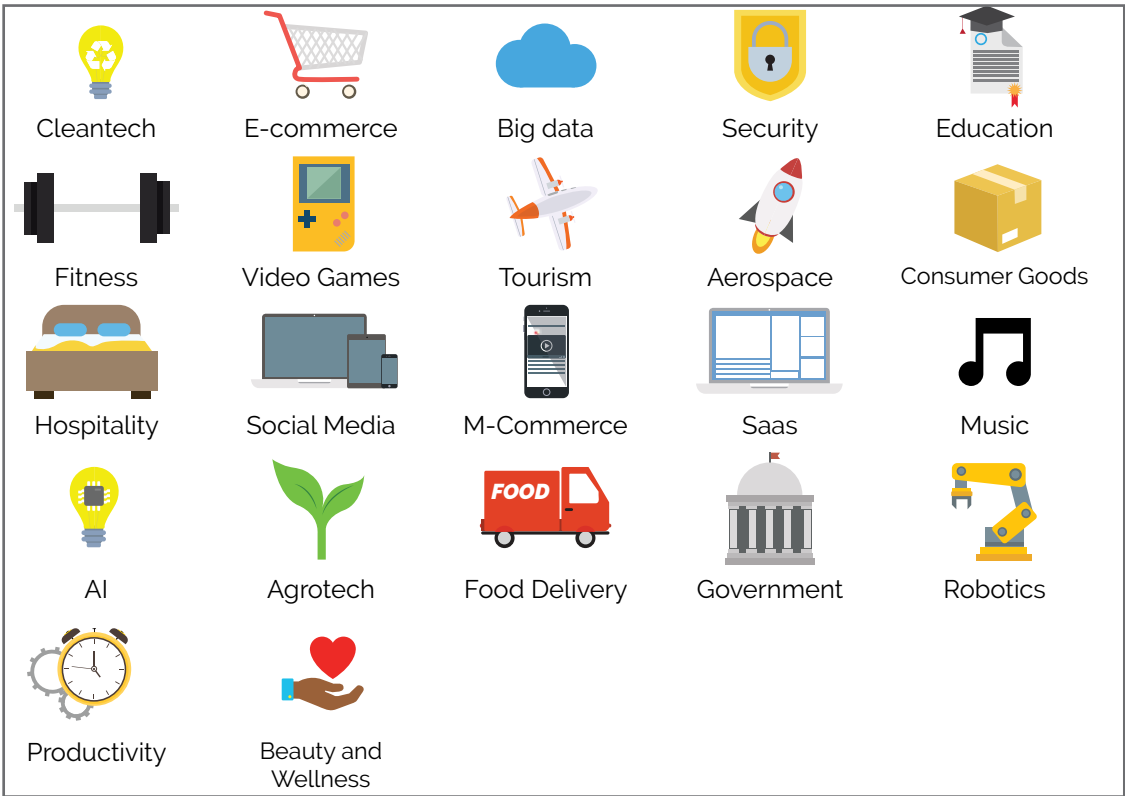


Industries

Along our four generations we've had it all, from edible coffee bars, to water heaters, A.I. chatbots and more.

94% of the companies that have been through parallel18 are still in operations!





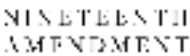
# Our startups **say:** Gen.1



What were your expectations from parallel18?

For us it was an opportunity to open a new market in a easy and fast way. To be parallel also meant to have open doors with investors also. At the same time, it was sort of a bridge between us and the United States.

We learned about parallel because we were part of some accelerators before, and we learned about the program from them.



Where do you think Nineteenth Amendment would be if you wouldn't have participated in parallel18?

I think if we hadn't have participated in P18 we would not have been able to pivot to a sustainable SaaS model. P18 gave us a new way of looking at the opportunity in the market.



What results did these changes have in Burea?

Definitely. First, the contacts that parallel has and put to our disposition are awesome. Most of our investors have been mentors or speakers that have gone to parallel. Even with the clients, some clients have come here directly from parallel.

Furthermore, when we say we're parallel 18 alumni people trust us more. Now that we're trying to expand to Mexico and Colombia, mentioning the program has helped.



## Our startups **say:** Gen.2



Prior to coming to parallel18, how was Abartys doing?

Prior to parallel our message and our communication was definitely a bit of a disaster, we didn't have a real concept of exporting as a global company. I don't think we fully understood the possibilities as a technology company.

We learned here about net-working and funding. We were focused on our market and our clients, but I don't think we fully understood like the magnitude and the impact that the technology could have.



Did parallel have any impact in the way your company does things?

Yes, from measuring everything that we do, to start working with objectives based on data and metrics. This is the most important thing a startup can have.

And the second is that in parallel we discovered the importance of data and how our company had to start moving to become a data company more than a sales one. It gave us a north and organized us. It also made us think global.



What are your thoughts on the working space and the working environment here?

It's very unique, you can't replicate this. We've been able to talk to people from all over the world and when we mention Parallel they know what they are.

The office, the location and the operations environment and their direction have done an excellent job. They understand what kind of space startups need and what kind of environment promotes creativity.

## Our startups **say:** Gen.3



How essential was P18 Connect to the relationship you established with ItalBank, who ended up investing in your company?

I think that this investment was the most valuable result I got from the program. Not only because of the investment, but because now we are ready to launch a product with the bank, a product that was impossible to launch any other way. Creating an alliance with a bank takes a long time and it's very hard, and achieving it in such a short time was a surprise. It was, without a doubt, the most valuable thing we got from the program.



What impact did the program have on your way of doing business?

The global mentality shifted a little bit our focus. We started considering doing business-to-business deals, which was something we hadn't even considered.

We're doing collaboration with brands, now we have a collaboration with big companies for branded products. We're doing a line of socks with Eleven Eleven, which is set to launch in April of next year. That was a niche that we hadn't thought about.



Where do you think True Face would be if you hadn't participated in parallel18?

That's very difficult to say. I don't think I'm sure, I think the program really helped us in terms of the capital infusion and advisory.

And also to get an understanding of where we should go. Without that, we've probably be moving a lot slower than what we are now.



# Our startups **say:** Gen.4



What impact did parallel18 had on your way of doing business?

We've been through a lot of programs and it wasn't until Parallel that we re-did a pitch deck. Even though we've won competitions, their feedback helped us.

Also, parallel is smaller, so they get more invested in the companies. Their feedback then becomes more insightful. They've helped us think about our conversations with strategic partners. We've had a hard time closing deals with strategics and doing bigger bids, and the staff here really gave us a lot of the feedback so that now a lot of those conversations are more efficient.



What impact did parallel18 have in your way of doing things?

The program gave us a roadmap on how to make your business global. The diversity in the parallel community helped us a lot.

The accessibility to investors was another key thing. Our first small investment round was thanks to parallel. The mentors, the weekly conversations with them helped us make better decisions. Parallel helped us prepare to get in Y-Combinator, they helped us survive [hurricane] Maria, and they helped us focus, to define what's important and what's not.



What surprised you most from parallel18?

I was surprised by the level of mentors parallel has. From sales to marketing, they had an exponential effect in our startup's growth. It has impacted us in sales, we didn't have any sales before the program and they have helped us grow month after month.

In terms of marketing we started to understand how to manage inbound marketing. And the access to the Us market has helped us in terms of connections that have helped us understand how to get in without spending too much money.

# Beyond **Parallel18**

Several of our alumni have moved on to other acceleration programs or have participated in reknown pitch competitions. One of our biggest highlights is the acceptance of BrainHi in Y-Combinator and the WeWork Creators Award won by Re:3D.



## Results

From March 2017 to May 2018.

**401**

Grants Distributed

**24,448,965**

Total Revenue

**\$8,140,764**

Total Revenue in Puerto Rico

**50%**

Retention of foreign companies

**\$17,794,000**

Investment

**\$1,039,000**

Investment in P.R.

**23%**

Of Gen.3 and Gen.4 companies were Puerto Rican

**\$244,215,000**

Portfolio Valuation

**#WorkHard  
KEEPMOVING**

This Group doubled their revenue after P18. (Total revenue for Gen.3 was 13,990,059). However, their revenue in P.R. was affected by Hurricane María.

## Results: Gen.1 and Gen.2 Update

Gen.1 finished P18 on August, 2016 and Gen.2 finished P18 on February 2017.

**23,718,571**

Revenue until May 2018

**\$5,725,496**

Revenue in Puerto Rico until May 2018

**\$10,960,000**

Raised after P18

**\$2,670,000**

Raised in Puerto Rico from local investors

**\$181,500,000**

Portfolio Valuation

## Unicorn in the making

Gen.2 startups, Abartys Health raised 1.4 M from local investors including P18 Ventures.

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# Development of an Investment Ecosystem

Back when parallel18 began, there were only a brave handful of angel investors in Puerto Rico. However, there was no ecosystem and many investors did not see the value of putting money in early stage startups. We saw the need to educate the community, so we began hosting events in which angel investors from the U.S. taught the local community about the benefits and risks of investing in these ventures. We want to thank Alicia Syrett and Beto Pallares for taking the time to do this.

In addition through our P18 Connect program, we have linked startups with business partners that have ended up investing in some of them. This is how the investment ecosystem looks like today:



## P18 Ventures



This follow-up fund was designed to co-invest in promising startups fresh out of P18. With the fund, the Puerto Rico Science, Technology, and Research Trust matches private capital raised by the entrepreneurs up to US \$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.

P18 Ventures has become a player in the local investment scene

In our second year, 39 companies applied for the fund. So far, P18 Ventures has invested US \$900,000 in 12 parallel18 alumni. Only one of those companies is not in operations, and others have gone on to raise additional investment to boost their continuous growth.





# P18 Connect

Parallel18 looks for ways to find deals or investment opportunities for our startups. With that in mind, we created a subprogram that aims to create connections in the US and LATAM by facilitating that first introduction through group meetings, conferences and pitching events.

**58**  
P18 Connect Meetings

**34**  
Partners

**5**  
MOUs<sup>1</sup>

**68.8%**  
Of companies stayed in contact with leads<sup>2</sup>

**3%**  
Investment deals closed<sup>2</sup>

After Just  
**1 Year**

In just one year, P18 Connect doubled the amount of partners, meetings an overall.

1. The 5 organizations with whom we have memorandum of understanding are Asociación de Constructores de Puerto Rico, Asociación de Bancos Internacionales de Puerto Rico, Puerto Rico Hotel and Tourism Association, Asociación de Comercio al Detall de Puerto Rico Centro Unido de Detallistas de Puerto Rico.  
2. According to our alumni.

These are our amazing partners.

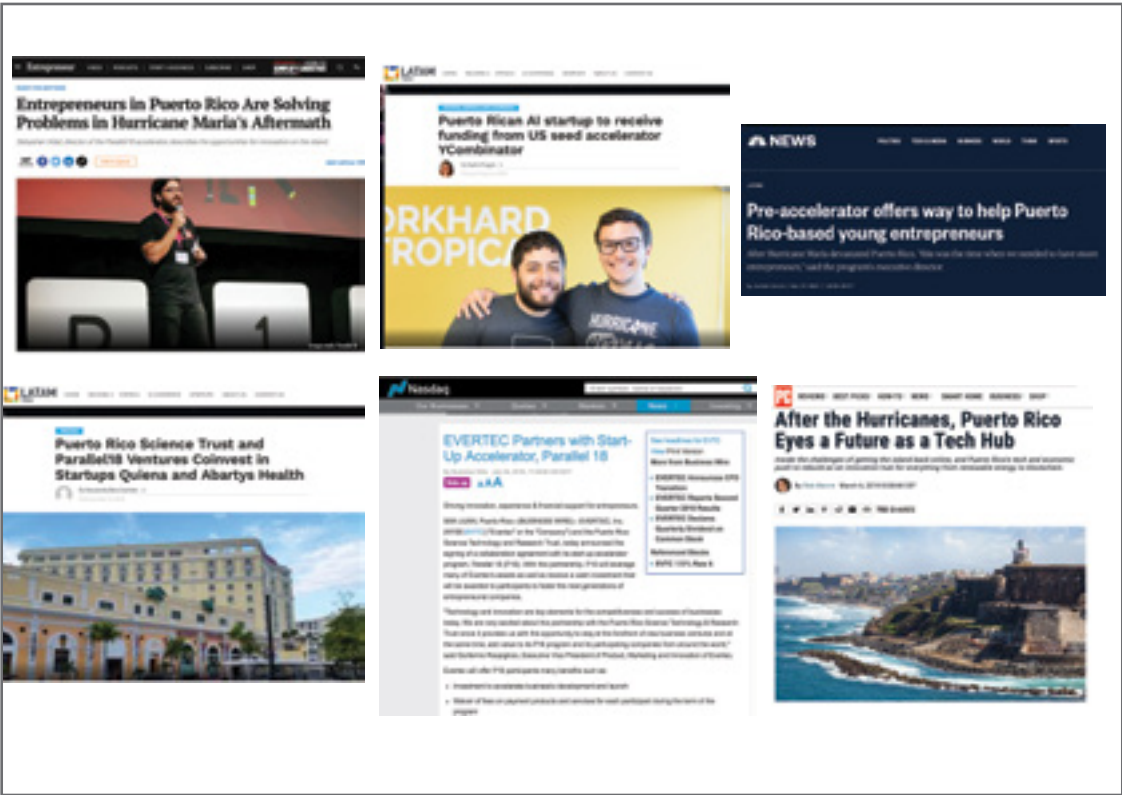




# Positioning & International Recognition

Our marketing and communications team has worked hard to put our program in the eyes of the world. So far, we have led two panels at South by Southwest (SXSW). In addition, we have presented our program in front of the most prestigious government, investment, and entrepreneurial institutions in the world. Aside from being featured in the most recognized media in the U.S.

In the last year, especially after Hurricane Maria, parallel18 and our alumni were featured in a variety of international news outlets. In addition, our Business Development Manager led a panel about How to Stay an Innovation Hub When You're in the Dark in SXSW 2018.



# GiveBack

Impacting young talent is essential to unleash the change we want to see in Puerto Rico. That is why we work hand in hand with universities all over the Island to reach as much college students as possible. We have signed 5 amount of MOUs to closely collaborate with higher education institutions in Puerto Rico.

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. Our GiveBack program has supported several initiatives in Puerto Rico, including giving mentorship to local entrepreneurs in the workshops organized by Shop and Hire Puerto Rico after Hurricane Maria; organizing the Challenge to Innovate at UPRM and INprende Ideation, Bootcamps, and University Campus talks.


















189 Engagements      6,254 People impacted      5 MOUs

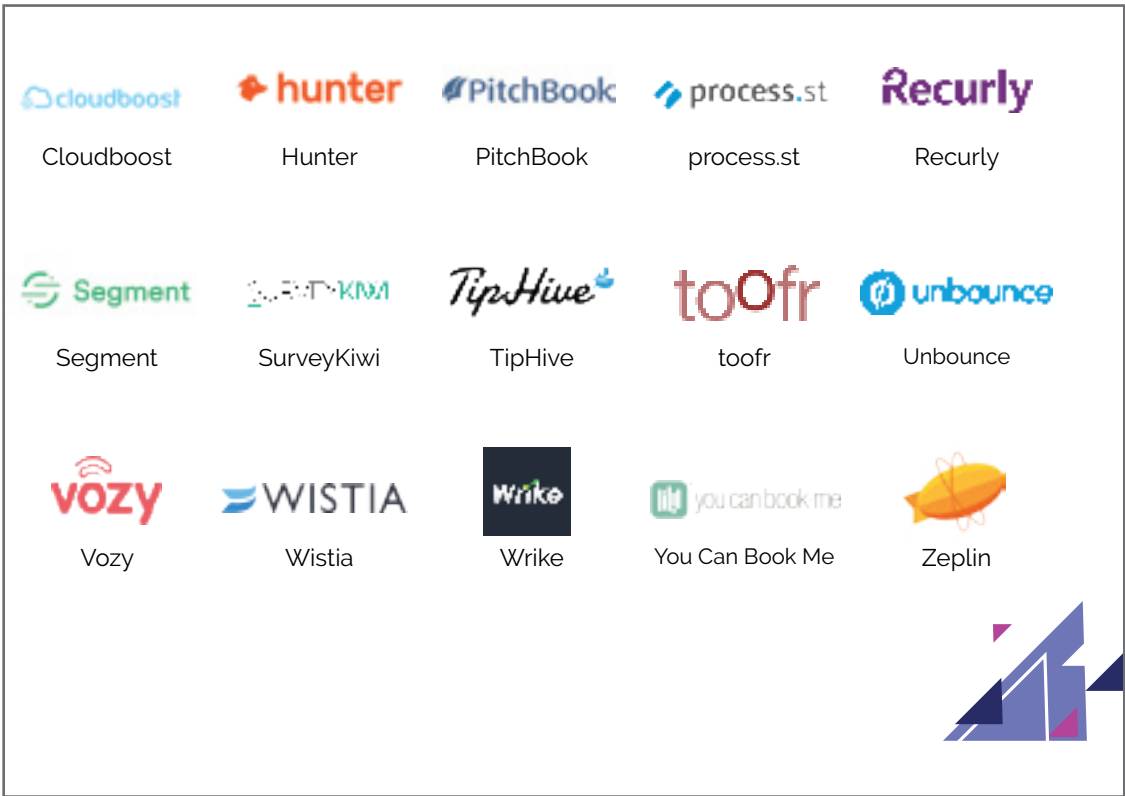


If you are a university or educational organization that wants to be impacted by our GiveBack program, contact [belisa@parallel18.com](mailto:belisa@parallel18.com)

# Perks

Recognizing that startups are always looking for a way to maximize resources and, in order to provide them with the tools they need to keep their businesses growing. Today, our perks program represents savings of more than US \$200,000 for our startups.

 Assembla	 Autodesk	 Clerky	 Cloud Flare	 Digifanz
 Digital Ocean	 FindThatLead	 Front App	 Fyipe	 Hacker Bay
 invision	 Just Works	 Keen IO	 Kixie	 Klenty



# Talent Program

There's no better way to retain or inspire talent to become entrepreneurs than to give them first-hand experience with startups. This has been proven with a group of entrepreneurs that were interns or fellows and later became founders that participated in pre18 and, eventually, parallel18.

To keep increasing our data base and interaction with students, we have hosted two speed dating events in which potential interns have quick interviews with our startups to see if they are a fit for what they're looking for.

**105**  
People have participated in our speed dating events to match them with startups

**160**  
Puerto Ricans were hired by Gen.3 and Gen.4 companies

**69**  
were intern hires

**369**  
entries in our intern/freelance data base

**48**  
were part-time hires

**43**  
were full-time hires

**12**  
**Yay! 12 more fulltime hires than year one.**

Looking to **work** in a startup?

*If you want to work for a P18 Startup, complete the form:*  
**[bit.ly/P18Jobs](http://bit.ly/P18Jobs)**

This data was collected from Gen.3 and Gen.4 exit and alumni surveys.



## Community

*We love to find ways to collaborate and help potential entrepreneurs find the right resources and tools to become founders or to boost their businesses. This is why we share many of our mentor sessions on Facebook Live and generate events to promote networking and education. These are some of the events we organized or contributed in in the last year.*

### Community Pitch Night

February 22/17: Entrepreneurial organizations in the San Juan area presented their programs to each other. Grupo Guayacán, Centro para Emprendedores, StartUp Popular, Seriously Creative, INprende, Neeuko



Ellevate Puerto Rico Women Founders Pitch Night  
- April 25/18

### Storytelling & Finding Your Message

Storytelling Workshop with Gary Bonilla - January 10/18 at Universidad Sagrado Corazón

### WOMEN Entrepreneur Sessions

Women Entrepreneurs Speaker Series with Alicia Syrett - February 7/18



May 25/17  
Mentes Puertorriqueñas en Acción GovTech Event

### How to Grow & Scale on: HubSpot

How to Grow your Business with Hubspot - May 17, 2018 at Neeuko in Universidad Sagrado Corazón

## A natural transition

*Seeing former interns and fellows become entrepreneurs is a confirmation that exposing young talent to entrepreneurship can create a change in the mindset.*



*I was **building** and **being part** of a very valuable network.*

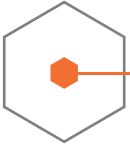


*"The opportunity to join the program as a fellow<sup>18</sup> during the first cohort, to work with companies in their early days and to be immersed in different marketplaces taught me a lot about the startup ecosystem here on the island and globally.*

*Little did I know I was building and being part of a very valuable network that not only supported me through the application process for pre18 two years after being a fellow<sup>18</sup>, but has also been present since then, serving as a powerful resource in different stages of my professional career. I can only aspire to be able to impact and give back to the community in the same way so that more local talent can get to feel as supported as I feel."*

**Xiomara Figueroa**

BookSloth  
former Gen.1 fellow



***This environment**  
showed me the  
struggles and the  
**rewards** that can be  
attained when you  
**work hard***



*"When I first joined parallel18 as a fellow I was a freelance translator hoping to build my own business. Being exposed to this environment showed me the struggle and the rewards that can be attained when you work hard to turn an idea into an action.*

*The program's seminars helped me understand the business world and build the foundations of what later became OGMA Language Studio. After being accepted into pre18 we were able to give the company more structure, organize its internal administration and learn how to face the future with more confidence."*

**Carla Bauzá**

Ogma Language Studio  
*former Gen.1 fellow*



*Lorem **ipsum**  
dolor sit amet,  
**consectetur**  
**adipiscing** elit,  
sed do eius*



*"At vero eos et accusamus et iusto odio dignissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupiditate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio.*

*Nam libero tempore, cum soluta nobis est eligendi optio cumque nihil impedit quo minus id quod maxime placeat facere possimus, omnis voluptas assumenda est, omnis dolor repellendus. Nam libero tempore, cum soluta nobis est eligendi optio cumque nihil impedit quo minus id quod maxime placeat facere possimus, omnis voluptas assumenda est, omnis dolor repellendus."*

**Samara Bigay**

Banquetealo

## Hurricane Maria and its effects

In September 2018 we were almost halfway through our fourth cohort. We had published our first impact report two months before. The numbers looked good, the program was performing, and Gen.4 was proving to be our best group yet. Hurricane Maria put a halt to all that. It made us rethink the direction the program was going. However, we still needed to find a way to have directed impact and after several brainstorming sessions in the dark, we came up with a pre acceleration program that would focus in Puerto Rican companies alone. And that is how pre18 came to life.

We had to adapt. Once we found out we had internet and generator powered electricity, we opened our office to some of the alumni. And while (rightly so) many efforts were oriented to immediate disaster relief, we were working for ways to have immediate impact in the entrepreneurial community. We also became involved with the efforts led by the entrepreneurial community to assess the damage business suffered during and after Maria. With Levanta tú Negocio, our team went throughout the island to get crucial data that would allow Colmena66 to help local entrepreneurs.

## What: How:

pre18 is a pre acceleration program dedicated to help early stage Puerto Rican companies to get from concept to market.

pre18 offers a US\$20,000 grant for up to 40 Puerto Rican companies. The purpose of the program is to help them turn their MVP into a business with globalization possibilities. The selected companies received an intensive pre-acceleration program that offered workshops, talks, and mentorship in topics that helped them determine the future of their business.



## Why:

After Hurricane Maria devastated Puerto Rico, the island faced many challenges that could only be solved by its own people. With this in mind, and with the intention of motivating entrepreneurship and innovation as the path to normality we launched pre18, to help local entrepreneurs to go from concept to market.



## Local and International **support**

When we announced that we were launching this program we received an outpour of support. Foundations, companies, and people from all sorts of organizations offered their support. One of those was the Techstars Foundation donated US\$ 325,000 to be used in the program.

Since the right mentor can make a real difference in the success of a company we went on the lookout for two Entrepreneurs in Residence (EIR). Aldo Brianno, founder of Yiftee, and Raúl Molina,

COO of Campaign, are two Boricuas from the diaspora who served as EIRs for our pre18ners. They met with our companies for a month and a half to discuss a variety of topics focused on their growth.

Airbnb and Unidos por Puerto Rico also made financial contributions that helped pre18 companies grow faster and showcase their services. Unidos por Puerto Rico awarded 10 companies with a US\$20,000 grant.

## HURRICANE STRONG

*Pre18 gave many companies and organizations the **chance to contribute** to Puerto Rico's economic recovery after Hurricane Maria.*

## “El Boricua se las Inventa” Looking for startups

Since pre18 was a pre-acceleration program focused on Puerto Rican companies, we focused our recruiting campaign in the Puerto Rican inventive. We wanted to support entrepreneurs that were already trying to make a difference and give opportunities to those that came up with ideas inspired by the hurricane.

When we launched pre18 back in November 2017, communications in the Island were still pretty unstable. To reach the biggest amount of entrepreneurs possible we went on a tour and visited six municipalities in different corners of Puerto Rico. Close to 300 entrepreneurs participated in our info sessions in San Juan, Ponce, Humacao, Mayagüez, Bayamón and Caguas from November 2017 to January 2018.

Puerto Rico  
is all about  
**business**

*Never have we seen so many Puerto Rican companies apply to the program.*

**307**

applications received

**40**

companies were  
accepted

**100%**

of the cohort completed  
the program

**15**

companies were accepted to  
parallel18 Gen.5



## Adapting p18

Finding ways to adapt the parallel18 structure to pre18 was not an easy task. However, our team managed to create programs that emulated those that we have for P18.

For example, our GiveBack program was adapted to the PayItForward initiative, where startups had to make significant connections to one another. P18 Connect turned into pre18 connect, where companies were connected with partners for advice and support.



These connections helped foster **collaboration** and growth among our startups.

# 377

pay it  forward  
connections

# 11

Corporate partners  
contributed

# 6

Companies are  
doing deals

## Gender Diversity:

# 42.5%

**female** founders

pre18 was a successful experiment all around. But one of the things that made us feel the proudest was that the cohort was composed of 42.5% female founders. This number is way above the industry standard (around 20%) and way above parallel18 standards (between 18 and 20% per cohort).

## How many moved to parallel18:

One of the perks of being a pre18 startup was the opportunity of being one of the 20 companies that were going to have a direct pass to the Selection Committee of our fifth cohort.

Thirty-four pre18ners applied for a spot in Gen.5. 20 of them were evaluated by the selection committee and 15 were accepted in parallel18.



## “El Boricua se las Inventa” Demo Event

Pre18 companies were not ready for investment yet, but they were open for business and needed an event to showcase their achievements and solutions. The result was “El Boricua se las Inventa” DemoEvent. An occasion celebrated in the Puerto Rico Convention Center on June 26th, 2018. Thirty-seven startups went up to the stage in an event hosted by Cristina Salazar, from Colmena66, and Carlos Cobián, founder of Cobián Media. EIRs Raúl Molina and Aldo Briano gave keynotes about how to take a hardware product to market and how to create the perfect team, respectively.

This great occasion was possible thanks to our sponsors T-Mobile, MCS, MCS Foundation, Evertec, Puma Energy, Supermercados Econo, Merck, Compañía de Comercio y Exportación, Cube Group Events, International Printing, and Piloto151.

**556**

people attended the event

**\$10k**

Grant awarded to Hive Cube  
by **MCS** Foundation

**\$319k**

in donations received  
for pre18

## pre18 companies **results**

Even though the purpose of pre18 was to take concepts to market, our startups surprised everyone with these amazing results:

**jobs**

**139**

Puerto Rican hires

**38**

full-time employees added

**Revenue**

**\$541,000**

total revenue during pre18  
(April thru late June 2018)

**\$639,713**

total revenue before pre18  
(companies had an average of 6  
to 12 months in operations)

**Portfolio  
Valuation**

**3,360,000**

# Thanks.

Parallel18 would not be possible without the unwavering support of the Puerto Rico Science Technology and Research Trust. We are more than proud to be a program of this great institution. In addition, we'd like to thank the Department of Economic Development and the Puerto Rico Industrial Development Company for always believing in our mission.

We want to thank every startup that has ever submitted an application to parallel18. It honors us that you trust that our program has what it takes to take you to the next level.

Thanks to our mentors, who dedicate their time to our startups and give them valuable advice. We are very grateful to the Puerto Rican entrepreneurial community for opening their doors to our companies.

Finally, we want to extend our gratitude to everyone who sent an email, called or looked for ways to support the program, Gen.4, pre18 and Puerto Rico after Hurricane Maria. We'll never be able to thank you enough.

**-The p18 team**



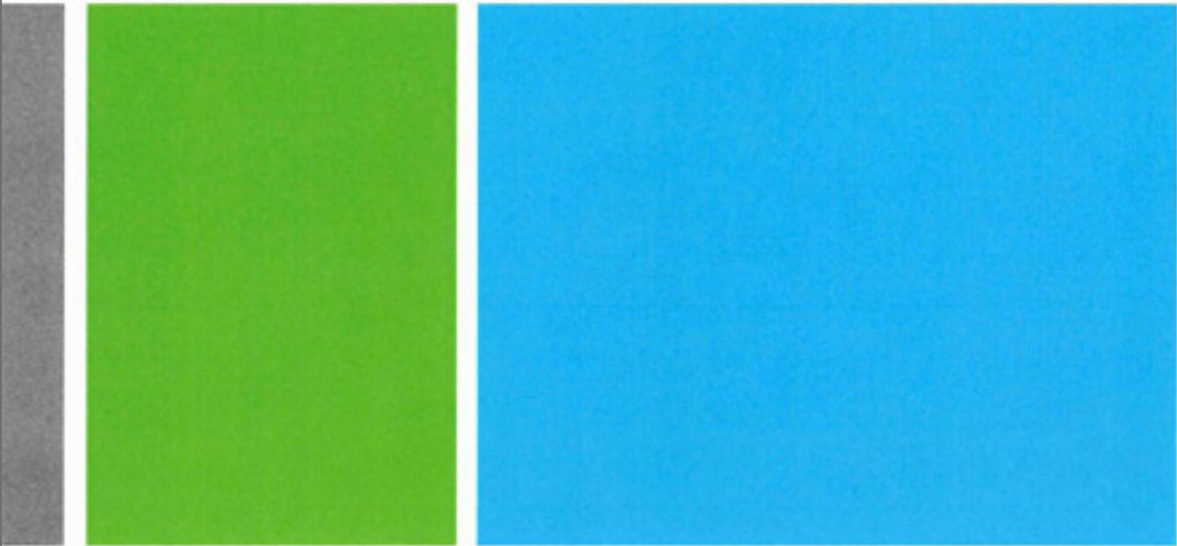
# CONSOLIDATED FINANCIAL STATEMENTS

Growing through Innovation  
and Commercialization





RSM Puerto Rico



**PUERTO RICO SCIENCE, TECHNOLOGY AND  
RESEARCH TRUST AND ITS SUBSIDIARIES**

**Consolidated Financial Statements  
June 30, 2018 and 2017**

THE POWER OF BEING UNDERSTOOD  
AUDIT | TAX | CONSULTING





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## INDEPENDENT AUDITORS' REPORT

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

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 Subsidiaries, which comprise the consolidated statements of financial position as of June 30, 2018 and 2017, and the related consolidated statements of activities, 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.

### THE POWER OF BEING UNDERSTOOD AUDIT | TAX | CONSULTING

RSM Puerto Rico is a member of the RSM network and trades as RSM RSM is the trading name used by the members of the RSM network. Each member of the RSM network is an independent accounting and consulting firm which practices in its own right. The RSM network is not itself a separate legal entity in any jurisdiction.

**PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST  
AND ITS SUBSIDIARIES**



**CONSOLIDATED STATEMENTS OF ACTIVITIES**  
For the years ended June 30, 2018 and 2017

	2018			
	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
<b>REVENUES AND SUPPORT:</b>				
State grants and assessments	\$ 15,495,239	\$ -	\$ -	\$ 15,495,239
Federal grants	4,162,870	-	-	4,162,870
Private grants	125,949	2,545,886	-	2,671,835
Donations and contributions	295,620	-	-	295,620
Clinical trials	129,059	-	-	129,059
Rental income	314,845	-	-	314,845
Interest income	21,240	-	-	21,240
Other income	178,959	-	-	178,959
Net assets released from restrictions	1,475,549	(1,476,549)	-	-
	<u>22,200,330</u>	<u>1,069,337</u>	<u>-</u>	<u>23,269,667</u>
<b>OPERATING EXPENSES:</b>				
Research and data	1,188,443	-	-	1,188,443
Public health initiative	4,810,022	-	-	4,810,022
Technology transfer and commercialization	5,108,387	-	-	5,108,387
Science City development	274,688	-	-	274,688
Education and training	20,640	-	-	20,640
Promotion and awareness	113,417	-	-	113,417
General and administrative	3,229,708	-	-	3,229,708
Bad debt expense	1,204,170	-	-	1,204,170
	<u>15,949,475</u>	<u>-</u>	<u>-</u>	<u>15,949,475</u>
	6,250,855	1,069,337	-	7,320,192
<b>DONATION OF LAND</b>	-	-	(1,899,693)	(1,899,693)
<b>CHANGE IN NET ASSETS</b>	<u>6,250,855</u>	<u>1,069,337</u>	<u>(1,899,693)</u>	<u>5,420,499</u>
<b>NET ASSETS, beginning of year</b>	<u>84,423,116</u>	<u>2,992,801</u>	<u>18,000,000</u>	<u>105,415,917</u>
<b>NET ASSETS, end of year</b>	<u>\$ 90,673,971</u>	<u>\$ 4,062,138</u>	<u>\$ 16,100,307</u>	<u>\$ 110,836,416</u>

Continues . . .



**PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST  
AND ITS SUBSIDIARIES**



**CONSOLIDATED STATEMENTS OF ACTIVITIES**  
**For the years ended June 30, 2018 and 2017**

Continued . . .

	2017			
	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
<b>REVENUES AND SUPPORT:</b>				
State grants and assessments	\$ 8,902,715	\$ -	\$ -	\$ 8,902,715
Federal grants	1,024,116	-	-	1,024,116
Clinical trials	9,550	-	-	9,550
Rental income	78,400	-	-	78,400
Interest income	3,870,098	-	-	3,870,098
Other income	552,152	-	-	552,152
	<u>14,435,031</u>	<u>-</u>	<u>-</u>	<u>14,435,031</u>
<b>OPERATING EXPENSES:</b>				
Research and data	3,148,226	-	-	3,148,226
Public health initiative	594,236	-	-	594,236
Technology transfer and commercialization	5,651,534	-	-	5,651,534
Science City development	390,034	-	-	390,034
Education and training	26,867	-	-	26,867
Promotion and awareness	21,176	-	-	21,176
General and administrative	2,732,233	-	-	2,732,233
	<u>12,584,305</u>	<u>-</u>	<u>-</u>	<u>12,584,305</u>
	1,870,728	-	-	1,870,728
<b>LOSS ON IMPAIRMENT OF CASH AND INVESTMENTS</b>	<u>(30,544,215)</u>	<u>(2,653,957)</u>	<u>-</u>	<u>(42,198,172)</u>
<b>CHANGE IN NET ASSETS</b>	<u>(37,673,468)</u>	<u>(2,653,957)</u>	<u>-</u>	<u>(40,327,446)</u>
<b>NET ASSETS, beginning of year</b>	<u>122,098,605</u>	<u>5,648,758</u>	<u>18,000,000</u>	<u>145,747,363</u>
<b>NET ASSETS, end of year</b>	<u>\$ 84,423,116</u>	<u>\$ 2,992,801</u>	<u>\$ 18,000,000</u>	<u>\$ 105,415,917</u>

The accompanying notes are an integral part of these consolidated statements.





**PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST  
AND ITS SUBSIDIARIES**



**CONSOLIDATED STATEMENTS OF FUNCTIONAL EXPENSES**  
**For the years ended June 30, 2018 and 2017**

	2018								Total
	Research and data	Public health initiative	Technology transfer and commercialization	Science City development	Education and training	Promotion and awareness	General and administrative	Bad debt expense	
Program support:									
Capacity building and sponsorships	\$ 36,900	\$ -	\$ 106,434	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 143,334
Research and commercialization grants	426,631	-	-	-	-	-	-	-	426,631
Matching grants	-	-	836,900	-	-	-	-	-	836,900
Clinical trials	64,296	-	-	-	-	-	-	-	64,296
Parallel 18 grants	-	-	2,690,900	-	-	-	-	-	2,690,900
Other program initiatives	65,365	1,718,546	-	-	-	-	-	-	1,783,911
	592,992	1,718,546	3,636,834	-	-	-	-	-	5,948,372
Personnel costs:									
Salaries and wages	169,074	1,232,612	679,262	92,197	-	-	1,118,097	-	3,291,232
Benefits and payroll taxes	76,452	465,616	237,836	17,668	-	-	370,876	-	1,168,452
	234,486	1,698,228	917,098	109,865	-	-	1,488,973	-	4,450,672
Professional services	284,677	6,866	347,514	187,154	1,366	52,349	692,328	-	1,476,694
Occupancy expenses:									
Depreciation and amortization	31,098	-	94,946	-	-	-	92,761	-	218,805
Rent	-	-	163,518	-	-	-	-	-	163,518
Repairs and maintenance	-	-	1,235	12,363	-	-	236,348	-	249,946
Security	-	-	-	-	-	-	166,077	-	166,077
Other	-	30	864	-	-	-	180,092	-	181,186
	31,098	30	260,563	12,363	-	-	565,278	-	1,009,694
Travel	16,919	66,801	175,723	679	6,787	2,691	41,146	-	261,436
Other operating expenses	29,821	1,347,166	495,341	6,746	63,487	66,666	361,356	1,304,179	3,466,542
Total operating expenses	\$ 1,196,612	\$ 4,819,532	\$ 6,196,387	\$ 274,638	\$ 20,640	\$ 119,417	\$ 3,229,769	\$ 1,304,179	\$ 16,949,476

Continues ...



**PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST  
AND ITS SUBSIDIARIES**



CONSOLIDATED STATEMENTS OF FUNCTIONAL EXPENSES  
For the years ended June 30, 2018 and 2017

Continued...

	2017							
	Research and data	Public health initiative	Technology transfer and commercialization	Science City development	Education and training	Promotion and outreach	General and administrative	Total
Program support:								
Capacity building and sponsorships	\$ 36,065	\$ -	\$ 341,340	\$ -	\$ 17,369	\$ 2,840	\$ 20,709	\$ 421,324
Incubators support	250,000	-	-	-	-	-	-	250,000
Research and commercialization grants	-	-	840,000	-	-	-	-	840,000
Matching grants	-	-	300,000	-	-	-	-	300,000
Clinical trials	1,201,803	-	-	-	-	-	-	1,201,803
Bioprospecting	43,297	-	-	-	-	-	-	43,297
Small research grants	450,000	-	-	-	-	-	-	450,000
Researchers startup program	300,000	-	-	-	-	-	-	300,000
Partial 18 grants	-	-	2,368,358	-	-	-	-	2,368,358
Other program initiatives	-	188,114	-	-	-	-	-	188,114
	<u>3,284,166</u>	<u>188,114</u>	<u>3,890,698</u>	<u>-</u>	<u>17,369</u>	<u>2,840</u>	<u>20,709</u>	<u>6,344,896</u>
Personnel costs:								
Salaries and wages	121,853	516,695	473,050	49,954	-	-	990,732	1,951,694
Benefits and payroll taxes	36,600	76,785	130,859	7,612	-	-	238,052	503,028
	<u>158,453</u>	<u>593,481</u>	<u>603,909</u>	<u>57,566</u>	<u>-</u>	<u>-</u>	<u>1,228,784</u>	<u>2,453,688</u>
Professional services	<u>694,815</u>	<u>-</u>	<u>417,223</u>	<u>266,892</u>	<u>1,200</u>	<u>430</u>	<u>535,364</u>	<u>1,902,630</u>
Occupancy expenses:								
Depreciation and amortization	4,832	-	94,945	-	-	-	83,786	182,942
Rent	-	-	128,180	-	-	-	-	128,180
Repairs and maintenance	-	-	1,000	-	-	-	273,131	274,131
Security	-	-	-	-	-	-	193,806	193,806
Other	-	-	1,052	-	-	-	174,340	175,372
	<u>4,832</u>	<u>-</u>	<u>225,157</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>724,441</u>	<u>902,430</u>
Travel	<u>8,075</u>	<u>32,311</u>	<u>211,532</u>	<u>16,380</u>	<u>43</u>	<u>-</u>	<u>34,361</u>	<u>302,732</u>
Other operating expenses	<u>24,680</u>	<u>-</u>	<u>330,255</u>	<u>23,300</u>	<u>8,265</u>	<u>17,906</u>	<u>195,564</u>	<u>907,623</u>
Total operating expenses	<u>\$ 3,148,225</u>	<u>\$ 554,226</u>	<u>\$ 5,651,534</u>	<u>\$ 303,354</u>	<u>\$ 26,667</u>	<u>\$ 21,176</u>	<u>\$ 2,730,223</u>	<u>\$ 12,504,505</u>

The accompanying notes are an integral part of these consolidated statements.

**PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST  
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**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
For the years ended June 30, 2018 and 2017

	2018	2017
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Change in net assets	\$ 6,420,499	\$ (40,327,446)
Adjustments to reconcile change in net assets to net cash provided by operating activities:		
Depreciation and amortization	206,714	182,942
Donation of land	1,899,693	-
Loss on impairment of investments	-	39,324,783
Net recoveries of doubtful accounts	(2,279,612)	(980,000)
Changes in assets and liabilities:		
Decrease (increase) in assets:		
Accounts receivable	(658,138)	(385,485)
Prepaid expenses	(39,939)	(35,662)
Due from governmental entities	2,749,398	6,955,771
Increase (decrease) in liabilities:		
Program service payable	408,762	(1,527,810)
Accounts payable	(103,772)	3,012,380
Due to related parties	(3,864)	3,864
Accrued expenses	100,549	22,786
Other liabilities	1,942	3,723
Net cash provided by operating activities	<u>7,702,144</u>	<u>6,250,058</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Reinvestment of interest earned	-	(3,858,647)
Purchase of equity investments	(150,000)	(150,000)
Advances under promissory notes receivable	(150,000)	(300,000)
Advances under convertible promissory notes receivable	(75,000)	-
Purchase of property and equipment	(18,054)	(73,629)
Additions to construction in progress - building	(93,418)	(1,881,105)
Additions to construction in progress - Science City	(130,933)	(8,835,483)
Net cash used in investing activities	<u>(617,405)</u>	<u>(12,878,844)</u>
<b>CASH USED IN FINANCING ACTIVITIES:</b>		
Principal payment of obligations under capital leases	<u>(3,212)</u>	<u>(5,988)</u>
<b>NET INCREASE (DECREASE) IN CASH</b>	<b>7,081,527</b>	<b>(5,634,756)</b>
<b>CASH, beginning of year</b>	<b>11,514,306</b>	<b>18,149,142</b>
<b>CASH, end of year</b>	<b>\$ 18,595,913</b>	<b>\$ 11,514,386</b>

The accompanying notes are an integral part of these consolidated statements.



## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARIES



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2018 and 2017

#### 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% 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, 2018 and 2017, 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, and (v) private donations, other government funds, and legislative appropriations.

The Act 214, as amended in August 2017, provides that the Board of Trustees is to be composed of eleven (11) trustees, two (2) of whom shall be members *ex officio* including the Secretary of the Economic Development and Commerce Department and other government agency representative to be appointed by the Governor of the Commonwealth; and nine (9) members from the private sector. The amended Act also designates the Trust as a Public Health Institute and as an Educational Organization and allows the Trust to act as fiscal agent to pursue certain federal funding opportunities on behalf of the Commonwealth. The Act also enables the Trust to establish a research institute through which researchers from public and private research institutions might affiliate with, and through which, the Trust may evaluate competitive grant proposals and/or act as fiscal sponsor to pursue funding opportunities on behalf of these institutions.

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). The grant with the CDC is expected to last for a total of five (5) years.

In addition, during the year ended June 30, 2018, the Trust was the primary recipient or acted as fiscal sponsor, for the implementation of privately funded initiatives, related to recovery efforts after the passing of Hurricane Maria in Puerto Rico on September 20, 2017.

**Subsidiaries** – The Trust has established the following subsidiaries by virtue of Article 5(26) of 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 Puerto Rico Consortium for Clinical Investigation, Inc. (PRCCI) - A not-for-profit corporation organized on January 20, 2016. PRCCI 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, PRCCI partners with clinical research sites across Puerto Rico to ensure access to a diverse patient population. PRCCI'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.



## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARIES



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2018 and 2017

- PRST Inc. (PRST) - A not-for-profit corporation organized on December 28, 2016. The purpose of PRST is to act as a Qualified Promoter as defined in Section 2034.01 of the newly enacted Incentives Code of Puerto Rico. A Qualified Promoter is authorized by the Economic Development and Commerce Department to engage in the promotion of new companies established in Puerto Rico and to obtain decrees under Act No. 20 of 2012 (Act 20) to establish and expand their export services businesses.

These consolidated financial statements include the accounts of the Trust and its Subsidiaries (collectively referred as the Trust and its Subsidiaries) as of and for the years ended June 30, 2018 and 2017.

- B) Summary of significant accounting policies – The Trust and its Subsidiaries 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 Subsidiaries are as follows:

Principles of consolidation – The accompanying consolidated financial statements include the accounts of the Trust and its Subsidiaries, 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 statement of financial position, 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 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, 2018 and 2017:

- Temporarily restricted net assets consist of:
  - a. 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.
  - b. Funds received from private sources for the implementation of initiatives related to recovery efforts after the passing of Hurricane Maria in Puerto Rico on September 20, 2017.



**PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH  
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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**June 30, 2018 and 2017**

- Permanently restricted net assets consist of a land, described in Note 9 that was contributed with the restriction of using it for the purpose described in Act 214, as amended, through the implementation of a Master Plan.

Accounting estimates – The preparation of consolidated financial statements in conformity with generally accepted accounting principles in the United States of America requires management to make estimates and assumptions that affect certain reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Accordingly, actual results could differ from those estimates.

Allowance for doubtful accounts – The Trust and its Subsidiaries 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 Subsidiaries invested its cash reserves (restricted and unrestricted) in certificate of deposits held at the former Government Development Bank for Puerto Rico (GDB). These certificate of deposits were 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:

Description	Estimated Useful Life
Furniture and fixtures	5 years
Computer and laboratory equipment	3 to 5 years
Leasehold improvements	Lease term
Equipment under capital leases	Lease term

At the time property and equipment is sold or otherwise disposed of, the cost and related accumulated depreciation or amortization are removed from the books and the resulting gain or loss, if any, is credited or charged to operations.

Accounting for the impairment or disposal of long-lived assets – The Trust and its Subsidiaries 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.

## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARIES



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2018 and 2017

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.

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 Subsidiaries derive its revenues from contributions received from the government, corporations, sponsors and individuals. All contributions are considered to be available for unrestricted use, unless specifically restricted by the donor. Amounts received that are restricted by the donor for specific purposes or future period are reported as temporarily restricted or permanently restricted support that increases the net assets of those net asset classes. When a donor restriction expires, that is, when a stipulated time restriction ends or purpose restriction is accomplished, temporarily restricted net assets are reclassified to unrestricted net assets and reported in the statement of activities as net assets released from restrictions. However, if a restriction is fulfilled in the same time period in which the contribution is received, the Trust and its Subsidiaries 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, 2018 and 2017.



## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARIES



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2018 and 2017

Income taxes – The Trust and its Subsidiaries 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 Subsidiaries follows the guidance for uncertainty in income taxes issued by the Financial Accounting Standards Board. Management evaluated the Trust and its Subsidiaries tax positions and concluded that the Trust and its Subsidiaries had taken no uncertain tax positions that require adjustments or disclosure in the consolidated financial statements.

Functional allocation of operational expenses – The costs of providing the Trust and its Subsidiaries programs and other activities have been summarized on a functional basis in the accompanying consolidated statements of activities. During the years ended June 30, 2018 and 2017, 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.
- **Public Health Initiative:** includes expenses incurred regarding the *Puerto Rico Public Health Trust*, an initiative established by the Trust and its Subsidiaries to act as Public Health Institute (PHI). Acting as a PHI, the Trust implements programs which aim is to improve public health capacity, systems and outcomes by fostering innovation, leveraging resources and building partnerships to improve the public's health. Expenses within this function include: integrated vector management initiatives, health-outcome-and-measures research and studies, 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 Subsidiaries 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, 2018 and 2017, a total of 31 and 59 startups, respectively, were selected and provided each with a \$40,000 grant. The P18 program is financed by the support from the Economic Development and Commerce Department, the Puerto Rico Industrial Development Company, and the Trust.
- **Science City development:** includes non-capitalizable expenses 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.



## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARIES



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2018 and 2017

- *Education and training:* includes costs related to education and training of sites and the clinical research community.
- *Promotion and awareness:* includes expenses related to the promotion of Puerto Rico and the Trust and its Subsidiaries (local and outside of the Island), as a hub for clinical investigation. Example of these expenses includes public relations and conventions.
- *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 Subsidiaries did not engage in any fundraising activity during the years ended June 30, 2018 and 2017.

*Advertising and promotion* – The Trust and its Subsidiaries charge to operations advertising and promotion costs as they are incurred. During the years ended June 30, 2018 and 2017, the Trust and its Subsidiaries incurred in advertising and promotion expenses of approximately \$91,000 and \$82,000, respectively.

#### 2) Concentration of credit risks:

Financial instruments, which potentially subject the Trust and its Subsidiaries to concentration of credit risks, consist of cash deposits and accounts receivable.

The Trust and its Subsidiaries has cash deposits with two financial institutions. As of June 30, 2018 and 2017, part of the Trust and its Subsidiaries cash deposits aggregating approximately \$3,518,000 and \$3,512,000, 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, 2018 and 2017, the Trust and its Subsidiaries cash deposits exceeded the FDIC guarantee of \$250,000 per financial institution by approximately \$14,600,000 and \$7,862,000, respectively.

For the year ended June 30, 2018, grants and contributions from state and federal entities represent approximately 67% and 18%, respectively, of total revenues. The balance due from these state and federal entities represents approximately 72% and 18%, respectively, of total accounts receivable. For the year ended June 30, 2017, grants and contributions from state governmental entities and interest earned on deposits in GDB represented approximately 88% of total revenues and the balance due from these entities represents approximately 88% of total accounts receivable.



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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**June 30, 2018 and 2017**

**3) Investments**

As of June 30, 2018 and 2017, the investments consist of certificates of deposits held at GDB, as follows:

Description	June 30, 2018	
	Unrestricted	Restricted
CD, 1.64% rate yield, maturing in December 2017	\$ -	\$ 3,199,726
CD, 1.5% rate yield, maturing in November 2017	14,409,932	-
CD, 6.75% rate yield, maturing in March 2020	30,409,942	-
	<u>\$ 44,819,874</u>	<u>\$ 3,199,726</u>

Description	June 30, 2017	
	Unrestricted	Restricted
CD, 1.64% rate yield, maturing in December 2017	\$ -	\$ 3,199,726
CD, 1.5% rate yield, maturing in November 2017	14,409,932	-
CD, 6.75% rate yield, maturing in March 2020	30,409,942	-
	<u>\$ 44,819,874</u>	<u>\$ 3,199,726</u>

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.

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 Trust participates in the RSA as a non-public Supporting Deposit Claimant entity. This RSA is enabled by Title VI of the Puerto Rico Oversight, Management and Economic Stability Act (PROMESA).

## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARIES



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2018 and 2017

The Trust holds claims against GDB that constitutes Participating Bond Claims on account of certain deposits held at GDB. As holder of Participating Bond Claims, the Trust was 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 management intention was to convert its deposits and CDs into Tranche A Bonds, which offered a face value of 55% of the value of assets at 7.5% annual coupon interest rate with maturity date on July 1, 2040. 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 \$42,000,000, equivalent to 45% of deposits at GDB as of June 30, 2017.

During the year ended June 30, 2018, the RSA was modified to remove the tranche options and offer only one alternative to pay the face value of 55% of the value of assets as follows: i) 20% in cash, which represents approximately \$18,800,000 and ii) the remaining 35% to be converted in a new bond payable in a period of 30 to 40 years. No additional loss was recognized during the year ended June 30, 2018 related with the deposits held at GDB. No amount has been received by the Trust as of June 30, 2018.

#### 4) Promissory note receivable:

As of June 30, 2018, the Trust and its Subsidiaries is holder of a non-bearing interest note receivable of \$150,000, which is due on September 23, 2018.

#### 5) Convertible promissory notes receivable:

As of June 30, 2018 and 2017, the Trust is the holder of five (5) and four (4), respectively, 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 or preferred 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.

#### 6) Equity investments:

As of June 30, 2018 and 2017, the equity investments consist of the following:

Description	2018	2017
49,222 shares of common stock of CDI Laboratories, Inc. (CDI), a nonaffiliated company, which as of June 30, 2018 and 2017, represent approximately 9.63% and 9.57% of CDI's common stock, respectively.	\$ 867,292	\$ 867,292
312,500 shares of Series Seed preferred stock of Timokids, Inc., a nonaffiliated company. These preferred shares provide its holders voting and liquidation preference rights and the option to convert to shares of common stock.	75,000	75,000
62,500 shares of Series Seed preferred stock of Brands of Holdings Inc., a nonaffiliated company. These preferred shares provide its holders voting and liquidation preference rights and the option to convert to shares of common stock.	75,000	75,000
150,000 shares of Class B Units of Abartys Health, LLC (Abartys), a nonaffiliated company, which as of June 30, 2018 represents approximately 1.5% of Abartys' Class B Units.	150,000	-
	<u>\$ 1,167,292</u>	<u>\$ 1,017,292</u>

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**June 30, 2018 and 2017**

**7) Property and equipment:**

As of June 30, 2018 and 2017, property and equipment consist of the following:

Description	June 30, 2018		
	Cost	Accumulated depreciation and amortization	Book value
Furniture and fixtures	\$ 100,727	\$ 100,727	\$ -
Computer equipment	138,477	82,628	55,849
Leasehold improvements	474,725	197,802	276,923
	<u>\$ 713,929</u>	<u>\$ 381,157</u>	<u>\$ 332,772</u>

Description	June 30, 2017		
	Cost	Accumulated depreciation and amortization	Book value
Furniture and fixtures	\$ 100,727	\$ 98,742	\$ 1,985
Computer and laboratory equipment	95,131	26,335	68,796
Leasehold improvements	474,725	102,857	371,868
	<u>\$ 670,583</u>	<u>\$ 227,934</u>	<u>\$ 442,649</u>

**8) Building:**

As of June 30, 2018 and 2017, the building consists of the following:

Description	2018	2017
Innovation Center Building- a three-story building that houses the Trust's headquarters and provides space for both, the incubation of local hi-tech startups and strategic service providers, creating a synergistic effect to accelerate the commercialization of technologies.	\$ 2,670,131	\$ 2,654,131
Puerto Rico Environmental Quality Board's Laboratory - Building that houses the laboratory facilities of the Puerto Rico Environmental Quality Board and the laboratory facilities of the Puerto Rico Vector Control Unit.	3,537,461	-
	<u>6,207,592</u>	<u>2,654,131</u>
Less: Accumulated depreciation	(415,560)	(339,728)
	<u>5,792,032</u>	<u>2,314,403</u>
Construction in progress	-	3,460,043
	<u>\$ 5,792,032</u>	<u>\$ 5,774,446</u>





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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
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**9) Restricted land and property for research, development and infrastructure project related to science and technology:**

On October 22, 2007, the Trust received 67.95 acres of prime real estate in the metropolitan area of San Juan, which includes the former Río Piedras Correctional Facilities (Oso Blanco State Penitentiary).

The land and property was valued at \$18,000,000, based on a market appraisal opinion report, dated October 20, 2008.

As established by Act 214, as amended, the Trust and its Subsidiaries plan to develop the 67.95 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, 2018, the Trust and its Subsidiaries transferred the ownership of 8.3 acres of the land to the Puerto Rico Department of Transportation and Public Works (DTPW), as a donation. 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 was approved by the FHA and the Federal Transit Administration as part of the Statewide Transportation Improvement Program (STIP) for fiscal years 2017-2020. During the year ended on June 30, 2018, the Trust and its Subsidiaries recognized a donation of land of approximately \$1,900,000 in the accompanying consolidated statements of activities.

**10) Program service payable:**

As of June 30, 2018 and 2017, 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, 2018 and 2017, are as follows:

Description	2018	2017
Program support grants payable – unrestricted funds	\$ 820,989	\$ 412,227
Program support grants payable – restricted funds	44,000	44,000
	<u>\$ 864,989</u>	<u>\$ 456,227</u>

**11) Operating lease agreement:**

The Trust and its Subsidiaries entered into a lease agreement for the use of the facilities for P18, described in Note 1B. The agreement calls for escalating monthly rental payments ranging from \$11,983 to \$13,510 through December 2020. Total rent expense for the years ended June 30, 2018 and 2017, amounted to approximately \$153,000 and \$126,000, respectively.



## PUERTO RICO SCIENCE, TECHNOLOGY AND RESEARCH TRUST AND ITS SUBSIDIARIES



### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS June 30, 2018 and 2017

B) Other cash flows information – During the years ended June 30, 2018 and 2017, the Trust and its Subsidiaries paid approximately \$90 and \$600, respectively, in interest.

#### 15) Contingency:

As described in Note 3, on June 16, 2017, the Trust, as approved by its Board of Trustees, entered into a Restructuring Support Agreement (RSA) with the former GDB and the Puerto Rico Fiscal Agency and Financial Advisory Authority. The Trust participates in the RSA as a non-public Supporting Deposit Claimant entity. This RSA is enabled by Title VI of the Puerto Rico Oversight, Management and Economic Stability Act (PROMESA).

The Trust holds claims against GDB for the collection of moneys deposited at the bank. As of June 30, 2018, the proposed RSA consists in the payment of face value of 55% of the value of assets as follows: i) 20% in cash, which represents approximately \$18,800,000 and ii) the remaining 35% to be converted in a new bond payable in a period of 30 to 40 years. No amount has been received by the Trust as of June 30, 2018.

#### 16) Reclassifications:

Certain prior year amounts have been reclassified for consistency with the current year presentation. These reclassifications had no effect on the reported change in net assets.

#### 17) Subsequent events:

In August 2018, the U.S. Department of Commerce announced that the Economic Development Administration (EDA) awarded a grant of approximately \$4,440,000 to the Trust. The project's aim is the construction of a 30,000 square-foot building called *The Forward Center*, which will house up to sixty (60) technology startups, and a manufacturing company that researches and develops prototype activity of neuro-modulator medical devices.

On September 1, 2018, the National Institutes of Health awarded a grant of \$190,800 to the Trust to support a research project titled *Preterm Births and Other Infant Health Outcomes in Puerto Rico Following Hurricanes Irma and Maria*. This project is a collaboration with the University of Georgia and will expire in March 2020.

On September 19, 2018, the U.S. Treasury Department awarded the Trust a grant of approximately \$125,000, under the program *Community Development Financial Institutions Fund* (CDFI Fund). The aim of this award is to convert the Trust into a Venture Capital CDFI certified entity, to leverage its financing assets to be provided to its target market in Puerto Rico.

During September 2018, the Trust's Board of Trustees filed a ballot for holders of GDB bond claims and/or deposits at GDB. The Board voted to approve the Qualifying Modification of GDB under TITLE VI of PROMESA. This process is part of the RSA to settle claims regarding Trust's assets held at GDB, totaling \$98 million as of August 30, 2018.

On October 18, 2018, the Trust and its Subsidiaries settled a lawsuit in court with the Puerto Rico Infrastructure Authority (AFI). The agreed-upon settlement called for settling the outstanding obligation to AFI, which as of June 30, 2018 amounted to approximately \$3,426,000, for approximately \$2,804,000. This amount was paid during October 2018, as per the settlement terms.



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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**June 30, 2018 and 2017**

During October 2018, the Association of State and Territorial Health Officials (ASTHO), a non-profit organization and primary recipient of funds from the Center for Control and Disease Prevention, awarded approximately \$8,000,000 to the Trust to implement the project *Capacity Building for Jurisdictional Hurricane Recovery Puerto Rico Staffing Capacity Enhancements*. The project will expires in July 2020.

Subsequent events were evaluated through December 28, 2018, the date the basic financial statements were available to be issued.



Puerto Rico  
Science, Technology  
& Research Trust

ANNUAL REPORT  
FISCAL YEAR 2017-2018





## **Innovation**

fuels the economy



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enables change



Puerto Rico  
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