NSF EPSCoR / NII
INSTITUTE FOR FUNCTIONAL NANOMATERIALS
ANNUAL MEETING

April 22, 2016
• UPR leads the R&D effort in Puerto Rico, a recent report by the Instituto de Estadísticas states that UPR is responsible for 84% of R&D expenditures on the island.

• Today UPR looks to take its R&D efforts, its success in publications in peer review-journals and federal funds secured for research to the commercialization phase.
• UPR has a clear vision in terms of its expected role as an innovation and entrepreneurship hub in Puerto Rico through tech transfer and commercialization initiatives.

• Nonetheless, it was only as recently as October 2010 that the legislature approved Act 150, an essential piece of legislation that promotes the participation of academia, professors and UPR researchers in the development of IP and tech transfer to the common marketplace.
Stages of UPR Technology Transfer: From Research Support to Economic Growth

- Multidisciplinary Research Support
  - Corporate
  - Endowment
- Inventions Disclosure
- Patents
- Incubator
  - Startups
  - SBIRs
- New Products
  - Pre-Clinical Trials
  - Higher Standard of Living
- More Tax Revenues
- Economic Growth
- New Jobs
• Located at the MSRC, the TTIO is charged with the mission of stimulating, protecting, marketing and licensing innovations at our campuses across the island.

• Serves the UPR community by facilitating transfer of university innovations to the commercial marketplace.

• Complements the UPR IP Office by nurturing collaboration between academia and industry, supporting sponsored research within the university, licencing UPR intellectual property to sponsors as well as industry partners and supporting the formation of new start-up co’s.
IP Protection and Commercialization

Innovation Process

1. IP/inventions
2. Invention Disclosure
3. IDF evaluation and commercial feasibility (OIP)
   - University chooses not to pursue commercialization on invention (stand aside)
   - UPR assumes jurisdiction over IP
4. USPTO Declares invention as not patentable
5. Patent application submitted to USPTO
   - Patent is awarded
   - OTTI commercialize IP
   - Royalties and/or licenses
6. OTTI begins marketing and commercialization of IP/inventions
   - Licences
• Policy, disclosure procedures (COI Guidelines, Disclosure Forms, etc.) are being discussed, revised and approved by VPIT Ad-Hoc Committee.

• Designation of **Tech Transfer Liaisons**, COI Campus Officers, Monitors, etc. – Campus personnel will be named by Chancellors to fill these roles and work closely with their investigators.

• Training for all COI personnel- Designated personnel will be instructed on how to assess the existence of a COI (financial, commitment, etc.), disclosure of Significant Financial Interests (SFI) related to Institutional Responsibilities (teaching, research, outreach, clinical service, and University and public service on behalf of UPR) and how to draft a management plan in order to keep situation in check.
• Mandatory Investigator training as established by federal agency requirements will be set up at all campuses and made extensive to all investigators.
• Reaching out to other entrepreneurial/incubator organizations (PRSRT, PRIDCO, PIA, Chamber of Commerce, PRTEC, BDTC, PRIMEX, INDUNIV, INTECO, DISUR, INTENE, INTENOR) to leverage available resources, including but not limited to economic development incentives, corporate logo/identity, design, marketing incentives, business plan drafting, exporting incentives, personal income exemption for investigators, etc.
• Become immersed and create presence in academic tech transfer culture/network by obtaining Membership to central organizations (AUTM), attending and offering seminars, conferences, etc.
TTIO has been directly involved in Special Projects and Strategic Research Collaborations.

- HIV Vaccine Development Program,
- MSRDDC (AMGEN/PRIDCO/UPR collaboration for NMR lab at MSRC).
- Nikon Center of Excellence in Microscopy.
- Aerospace and Aeronautical Institute of PR.
- Molecular Sciences Drug Discovery Center
- Cannabis R&D Guidelines
• Will carry out Innovation Thursdays and participate at other entrepreneurial networking activities including PRSRT events (Innovation Blast) to foster relationships, invitation to local as well as US based investors, local co’s, multi-nationals.

• Entrepreneurial Competition: Teams will compete by creating full strategy to create start-up and commercialize existing patents from UPR. Teams will be composed of multidisciplinary expertise. Must have one member of Science or Engineering background, one member of school of business, one member of law school and a mentor. A monetary prize will be awarded to first place as well as a license for commercialization and space in our incubator system.
In-House Mentor Program for Entrepreneurship

- TTIO has added to our team Dr. Juan Figueroa, Ex–Director for NSF SBIR/STTR Program in order to help our researchers obtain proof of concept (stage zero) funding through SBIR/STTR grants.
- At the end of the 1st stage of our program, an SBIR/STTR On-Site Proposal Preparation Workshop was sponsored by the Science Trust 8 proposals were presented to the SBIR/STTR program, 6 of these were submitted by UPR researchers.
- Continuation of last years effort sees our In–house Mentor, following up on last year’s group of researchers as well as identifying and working together with a new group for this year.
- Entrepreneurship training sessions. Recently made a call through our Campuses for an NCATS SBIR/STTR AWIS Webinar on Funding for Women Entrepreneurs. Also, an NBIB Funding Opportunity (Rapid Assessment of Zika Virus (ZIKV) Complications (R21)).
- Private Industry requests for collaborations (Compañía Strategic Allies spectroscopy efficiencies for FT–IR (Fourier Transform Infrared Spectroscopy, 3–D printing technologies, Medtronic).
OTTI ACTIVITIES

- We are currently working on replenishing the Centenary fund in order to carry out our mission.
- Developing Private-Public-Academia partnerships in order to maximize our potential for continued advancement of research and education.
- Currently participating in special projects and providing legal counsel and drafting of licenses, IIA’s, NDA’s, MOU’s and MTA’s.
- Web based tools for our research community.
- Moving UPR as an institution to become a signatory of the Uniform Biological Material Transfer Agreements/IIA.
- UPR Research and Development Trust.