TECHNOLOGY TRANSFER COMMUNITY NEWSLETTER

October 2019

Research Festival 2019

Research Festival 2019: A Celebration of Intramural Science and Technology Transfer!

Steven Ferguson, OTT

The 2019 NIH Research Festival was an extraordinary celebration of the diverse and innovative science conducted in our intramural research program(IRP). Reverting to its original one-day format this year on September 11, the program still featured events that included or highlighted the efforts and successes in technology transfer for our entire community.

Included in this year's program was a plenary session moderated by Dr. John Gallin entitled "Celebrating Cutting-Edge Technology at the IRP" featuring new work from investigators from NHGRI, NIBIB, NIAID and NHLBI. Another presentation during the research festival also described the NIMH work behind the recently-approved anti-depression drug Spravato®. In addition, the entire intramural technology transfer program was represented with information table as part of the "Special Exhibits on Intramural Resources" portion of the festival in the Building 10 central corridor. All in all, truly a busy T2 day!

Photo 1: Aditi Banerjee and Ajoy Prabhu from the OTT Marketing Unit staff the Special Exhibits Table

Photo 2: Dr. John Gallin moderating plenary session on IRP cutting-edge technology

In This Issue

"Labtech In Your Life" Featured Several NIH/CDC Technologies Designed To Improve Our Way Of Living Everyday Life!

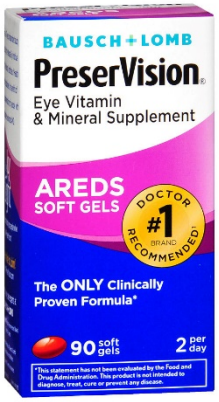
Aditi Sengupta Banerjee, OTT

The Federal Laboratory Consortium for Technology Transfer (FLC) has launched LabTech in Your Life to exhibit the commercialized technologies from federal laboratory research and development (R&D) to our everyday life commodities. It also serves as an essential marketing tool to promote federal-funded technologies to the private sector for licensing opportunity and to educate common people about the impact of technology transfer (T2). Under this umbrella, LabTech at Home showcases the first ever interactive platform where visitors can learn about fifty different federal-funded invention stories from seven federal agencies including U.S. Department of Health and Human Services (HHS) and explore how the research is being translated to our household essentials through the T2 success.

Among the three unique "LabTech at Home" innovations originated at HHS participating agencies, the National Institutes of Health (NIH) had invented squirrel-proof capsaicin-treated birdseeds and eye vitamins for Age-Related Macular Degeneration (AMD). Dr. Peter Blumberg at the National Cancer Institute (NCI), while studying the tumor promotion by resiniferatoxin, had discovered its proinflammatory target to be like that of capsaicin, the hot ingredient in red peppers. Mammals have the receptors for capsaicin, but birds don't. As an owner of a farm, Dr. Blumberg understood the potential spinoff application of his finding and communicated with the Office of Technology Transfer (OTT). His postdoc with entrepreneurial mindset had licensed this technology to produce capsaicin-coated birdseeds as our outdoor essential to enjoy birding.

Squirrel-proof capsaicin-treated birdseeds developed at NCI

On the other hand, the National Eye Institute (NEI) had conducted an Age-Related Eye Disease Study (AREDS) to develop a formula containing vitamin C, vitamin E, copper, lutein, zeaxanthin and a lower amount of zinc. Based on these studies, several manufacturers make nutritional supplements as an essential for many of our everyday life. Eye vitamin and mineral supplement PreserVision® is potentially beneficial to intermediate and advanced AMD patients.



PreserVision® vitamins to benefit AMD patients

Another HHS laboratory, the Centers for Disease Control and Prevention (CDC) had developed the inexpensive and non-toxic Autocidal Gravid Ovitrap (AGO) mosquito trap which attracts and catches female Aedes aegypti mosquitoes looking for a place to lay eggs. CDC distributed AGO traps in many areas of Puerto Rico to keep on the driveways. It has been demonstrated to reduce mosquito population and to control transmission of infectious diseases. CDC is seeking commercial partners to produce and distribute AGO mosquito traps all over the world. Thus, federal technology transfer is continually working to ensure the best return of American taxpayers' investments to R&D conducted at federal labs and to improve public health and quality of daily life!

CDC's AGO mosquito trap

Technology Transfer Training Program for Post-Docs

Laura Prestia, NCI

The National Cancer Institute (NCI) Technology Transfer Center's Technology Transfer Ambassadors Program (TTAP) is now accepting applications for 2020. *TTAP is a year-long training program that started in 2016 as a pilot to train NCI post-doctoral fellows seeking to enhance their current research activities with hands-on training in biomedical invention development and commercialization, and entrepreneurship. An exciting update for 2020: TTAP will now be offered to several other NIH Institutes & Centers (see below).*

For the January-November 2019 TTAP, Program Leads, Drs. Laura Prestia, Abritee Dhal, Taryn Dick, and Rose Freel designed and implemented several improvements to the program including: a brand-new curriculum - "Technology Transfer Boot Camp", intensive hands-on training sessions to kick-start the program. Through this curriculum and other training components, TTAP provides unique value to the NIH TT community by generating increased awareness and education of the scientific community of the benefit of TT activities. TTAP has and continues to strive toward creating a lab-to-market mindset across the NIH, fostering entrepreneurial culture change, stronger connections between TT and the scientific community, and enhancing the efficiency of NIH's TT efforts for commercialization.

TTAP is also highly impactful for post-doctoral career development. Since participating in TTAP, several Ambassadors have transitioned their careers into TT and many other related professions. In fact, two previous Ambassadors have recently joined the NCI TTC Center as TT fellows in 2019!

NEW for TTAP 2020:

The TTAP is currently available to NIH post-doctoral fellows training within the Institutes & Centers listed below *and* from the Frederick National Laboratory for Cancer Research (FNLCR):

- National Cancer Institute (NCI)
- National Eye Institute (NEI)
- National Institute of Minority Health and Disparities (NIMHD)
- *Eunice Kennedy Shriver* National Institute on Child Health & Human Development (NICHD)
- NIH Clinical Center (NIH CC)
- National Center for Complementary and Integrative Health (NCCIH)
- National Institute on Aging (NIA)
- National Institute on Drug Abuse (NIDA)
- National Library of Medicine (NLM)
- Center for Information Technology (NIH CIT)

****NEW ICs for 2020!****

- National Institute of Allergy and Infectious Diseases (NIAID)
- National Center for Advancing Translational Sciences (NCATS)
- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
- National Heart, Lung, and Blood Institute (NHLBI)
- National Institute on Alcohol Abuse and Alcoholism (NIAAA)
- National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
- National Institute of Biomedical Imaging and Bioengineering (NIBIB)

- National Institute on Deafness and Other Communication Disorders (NIDCD)
- National Institute of Environmental Health Sciences (NIEHS)
- National Institute of Nursing Research (NINR)

TTAP Application & Deadline:

If you know a postdoctoral fellow interested in technology transfer, please share this opportunity with them. Applications can be found on the TTAP website and should be sent to TT_Ambassadors@mail.nih.gov by **Monday, December 9, 2019**. The same email may be used for any questions about the program.

It Takes A Community: The HHS Technology Transfer Picnic

Surekha Vathyam, NCI

Our community had a very successful HHS technology transfer picnic on Thursday, September 12th. The picnic committee would especially like to thank the volunteers who helped with the planning, shopping, fund collecting, games organizing, grilling, setting up, cleaning and anything that was needed to make this a fun event for all. Listed below are the folks who formally volunteered and participated in the planning:

Abritee Dhal (NCI), Aditi Sengupta Banerjee (OTT), Bruce Goldstein (OTT), Christopher Dillon (NCATS), Denise Crooks (NHLBI), Haiqing Li (NIAID), Karen Harmon (NCI), Laura Lane-Unsworth (OTT), Michelle Favila (NCI), Ruth Simpkins-Morst (NCI), Smita Sharma (NINDS), Sue Ano (NINDS), Surekha Vathyam (NCI), Vlado Knezevic (NIDDK), Yogikala Prabhu (NIAID).

The group was also very fortunate that NCI funded a photographer to capture the essence and memorialize the spirit of this picnic. Here is a link to the 234 pictures uploaded at the TDTC SharePoint site.

https://spweb.od.nih.gov/OTT/TDTC/Media

Comings and Goings

In August, **Michelle Favila, Ph.D.** accepted a technology transfer manager (TTM) FTE position based out of NCI TTC Frederick. Previously, Favila worked at TTC-Shady Grove as a Cancer Research Training Award (CRTA) fellow where she managed technology transfer agreements for NCI labs in the Center for Cancer Research (CCR) and Division of Cancer Epidemiology & Genetics (DCEG). Prior to joining TTC, she was a technology transfer marketing trainee at the Office of Technology Transfer at Washington University in St. Louis. She earned her bachelor's degree from Emory University and her doctorate degree from the University of Notre Dame. She did a scientific post doc at the Infectious Disease Research Institute in Seattle, WA where she evaluated the protective efficacy and the immunogenicity of Leishmania candidate vaccines.

In August, NCI TTC welcomed new Associate Director, **Suzanne Frisbie, Ph.D.** Frisbie graduated from Mount Holyoke College with a B.A. in Biochemistry and obtained her Ph.D. in Biophysical Chemistry from Georgetown University. Her graduate work at Georgetown focused on the purification and biophysical characterization of human cobalamin binding proteins using laser photolysis, extended X-ray absorption fine structure (EXAFS), and related techniques at Brookhaven National Laboratories' synchrotron facilities.

Prior to joining NCI, she was the deputy director of the Technology Transfer and Intellectual Property Office (TTIPO) at NIAID where she helped define the new role of deputy and served as the TDC representative on the NIH CRADA Subcommittee.

Early in her career, Frisbie was a senior staff fellow at the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) where she studied, via physiology experiments and X-ray diffraction, structure/function relationships in murine soleus muscle (from hypertrophic cardiomyopathic mice) and rabbit psoas muscle. She then started in TTC as a fellow, became an FTE, then a unit coordinator. She worked at NCI for about 13 years before joining NIAID.

Ami Ghadia, JD was elected to the FLC Board. Ami currently serves as a technology transfer and patenting specialist in the NCATS Office of Strategic Alliances, where she facilitates the collaborations of NCATS scientists. She manages an IP docket as well as drafts, negotiates, and executes various agreements. Ami served as the NIH Technology Development and Transfer Committee Vice Chair and Chair in 2018-19, respectively.

Bruce Goldstein, Esq. Bruce Goldstein accepted the position of Director and TDC of the NHLBI Office of Technology Transfer and Development. Bruce joined OTT in 2005, served in the Monitoring & Enforcement Unit since 2011, and ran the MEU since March 2016. Mr. Goldstein previously worked in the National Cancer Institute's Technology Transfer Center where he rose to become Unit Coordinator for the Competitive Service Center.

Mr. Goldstein earned a Master's of Science (biotechnology) from the Johns Hopkins University, a Juris Doctor (JD) from Emory University, and a Bachelor of Arts (chemistry and philosophy, dual major) from the Johns Hopkins University. After receiving his law degree, Mr. Goldstein clerked for a judge for two years, one year in the Circuit Court of Baltimore and the other in the Maryland Court of Special Appeals. He has published several articles and book chapters on intellectual property and technology transfer and is an instructor in the Foundation for Advanced Education in the Sciences graduate program.

Dawn Taylor-Mulneix, Ph.D. joined NCI TTC as a CRTA fellow in September after serving as a post-doc at the University of Georgia. Concurrent with her post-doc, she volunteered in UGA's Strategic Alliances and Business Development for Biomedical Sciences office in order to learn aspects of Technology Transfer, where she worked closely with NCI TTC alumnus, Michelle Booden. Prior to her post-doc, Taylor-Mulneix received her Ph.D. in Molecular Biology and Microbial Genetics from University of Pittsburgh School of Medicine and also did a post-doc at Penn State University. While at TTC, she will support several CCR labs including the Laboratory of Pathology (LP), Laboratory of Cancer Biology & Genetics (LCBG) and the Laboratory of Cell Biology (LCB).

Benfeard Williams, II, Ph.D., a former NCI TTC fellow from 2017-2018, returned to NCI TTC in an FTE capacity in August. Williams received his Ph.D. in Biochemistry and Biophysics from the University of North Carolina at Chapel Hill. Prior to joining TTC, he worked as a patent agent at Wilson, Sonsini, Goodrich & Rosati (WSGR) where he focused on patent applications related to cancer immunotherapy, medical devices, and ocular devices. He also evaluated clients' patent portfolios and performed freedom to operate analyses. Benfeard will support various NCI Center for Cancer Research (CCR) labs and the Clinical Center.