

MID-ATLANTIC AWARDS

NOVEMBER 15, 2017

The Universities at Shady Grove Rockville, MD "These awards honor the individuals who work hard to push innovation forward through technology transfer, effecting positive change on the Mid-Atlantic region and beyond. The FLC is excited to award their dedication and hard work."

Dr. Robert Griesbach
 Mid-Atlantic Regional Coordinator

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Welcome to the 2017 FLC Mid-Atlantic Regional Awards

Hello and welcome to this year's presentation of the Federal Laboratory Consortium for Technology Transfer (FLC) Mid-Atlantic regional awards. With the heart of the federal government located on our doorstep, the Mid-Atlantic Region is home to dozens of laboratories and facilities that create innovative technologies and find imaginative ways to make them easily accessible. The winners you will meet today are at the forefront of these efforts, and through their knowledge, hard work, and dedication have moved their inventions far beyond laboratory walls to where they can benefit people the most.

This year, the Mid-Atlantic Region is pleased to honor individuals and organizations in the following categories:

Award for Excellence in Technology Transfer – recognizes laboratory employees, and their partners, who have accomplished outstanding work in the process of transferring federally developed technology to the marketplace.

Educational Institution and Federal Laboratory Partnership Award – recognizes the efforts of federal science and technology employees and educational institutions in the Region who have collaboratively accomplished outstanding work in the process of transferring a technology.

Interagency Partnership Award – recognizes the efforts of agency and/or laboratory employees from at least two different agencies who have collaboratively accomplished outstanding work in the process of transferring a technology.

Rookie of the Year Award –recognizes the efforts of an FLC laboratory technology transfer professional who has demonstrated outstanding work in the field of technology transfer in a manner significantly over and above what was called for in the normal course of their work during the past year. The nominee must be new to technology transfer, with three years (or less) experience in a technology transfer position.

We congratulate the winners on their well-deserved success.



Dr. Robert Griesbach Mid-Atlantic Regional Coordinator U.S. Department of Agriculture, Agricultural Research Service



Dr. Jack Pevenstein Mid-Atlantic Deputy Regional Coordinator National Institute of Standards and Technology

EXCELLENCE IN TECHNOLOGY TRANSFER AWARDS



Transition of Automated Early Warning Sensor for Harmful Algal Blooms

Department of Commerce National Oceanic and Atmospheric Administration, National Centers for Coastal and Ocean Science

The health of our coastal communities, economy, and ecosystems depends on our understanding of complex and constantly changing conditions. Hazards such as harmful algae and pollution are realities for the growing number of Americans who live in U.S. coastal shoreline counties. Harmful algal blooms (HABs), for example, have caused a cumulative economic loss exceeding \$1 billion over the last two decades. HABs along our coasts can cause illness and death in humans, fish, and marine mammals.

Accurately observing and forecasting HABs can dramatically reduce their impacts on marine ecosystems, public health and our economy.



Pictured: Imaging Flow Cytobot (IFCB)

National Oceanic and Atmospheric Administration (NOAA) programs are providing the scientific foundation and supporting technological advances that are leading to new, more accurate, and cost-effective HAB observing technologies. A new generation of HAB sensors can autonomously collect high-frequency HAB and environmental data, minimizing the need for expensive survey vessels and human sampling and analysis.

Automated submersible microscopes such as the Imaging Flow Cytobot (IFCB) uses a combination of flow cytometric and video technology to capture high-resolution images of suspended particles, and machine learning technology can also identify potentially toxic species from the images. The Woods Hole Oceanographic Institution (WHOI) was awarded a three-year grant by NOAA's Integrated Ocean Observing Systems Ocean Technology Transition Project to expand the IFCB's potential operational use by deploying it on autonomous vehicles in the Gulf of Maine and the Gulf of Mexico to enable high-resolution plankton studies with both long duration and spatial coverage.

In 2008, the IFCB detected a new, highly toxic HAB species previously undetected in U.S. coastal waters off the coast of Port Aransas, Texas. The early warning enabled Texas state managers to act proactively with targeted monitoring of shellfish harvested in advance of a popular seafood festival, thereby enabling actions that prevented a significant public health crisis. A Texas Department of Health manager responsible for monitoring biotoxins levels in shellfish likened the IFCB to having three technicians on location collecting and counting samples every 20 minutes. The event garnered extensive press coverage, highlighting the value of HAB-observing sensors in protecting public health. Since then, the IFCB has been helpful in predicting or mitigating at least eight HAB events involving multiple HAB species. These include blooms of the infamous Florida red tide species detected in 2009, which led to fisheries closures. Early warnings of blooms, based on IFCB detection, also were reported to state officials in 2010-2012. NOAA also routinely includes IFCB data in HAB forecasts issued for Texas.

Winners not pictured:

Quay Dortch, Rick Stumpf, Marc Suddleson, Dwight Trueblood, Jenifer Rhoades





Low-Volatility Agent Permeation Verification and Validation Program

Department of Defense – U.S. Army U.S. Army Edgewood Chemical Biological Center

Soldiers and civilians, including scientists, law enforcement, first responders, and agricultural and industrial workers, rely on personal protective equipment (PPE) to protect them from dangerous chemicals. It is impossible to fully evaluate the suitability and safety of any clothing or PPE without reliable data to describe how well the item excludes chemical contaminants. Accurate permeation testing is an essential component of any comprehensive safety assessment of clothing and PPE. Traditional test methods for PPE are vaporbased, and yet many contaminants-including the nerve agent VX and some pesticides-have low volatility and do not readily emit vapor. The hazard from such agents arises from human contact with liquid. Dr. Terrence D'Onofrio, a research chemist at the U.S. Army Edgewood Chemical Biological Center (ECBC), discovered that traditional, vaporbased methods for testing permeation were not suitable for such low-volatility contaminants, and could yield unreliable and dangerously misleading results. To solve this problem, he invented and patented the low-volatility agent permeation (LVAP) test method and apparatus. LVAP is the first contact-based method capable of accurately quantifying the permeation hazard of low-volatility contaminants through clothing and protective equipment. The potential contact hazard is measured under rigorous environmental control and standardized contact pressure.

The standardized contact pressure enables test data comparison to operational scenarios, such as a person grasping a contaminated item. In order to effectively transfer this technology, Dr. D'Onofrio initiated a verification and validation (V&V) process within the test and evaluation (T&E) community. He served as the technical lead and the main driving force behind the technology transfer, leading the V&V effort to document the precision and accuracy of the LVAP test method standard. During this standardization and transfer process. Dr. D'Onofrio initiated discussions with representatives from all four service branches, joint offices, and the Deputy Under Secretary of the Army for Test and Evaluation (DUSA-TE) to ensure that their needs were incorporated. Approval of the test apparatus and method by the DUSA-TE was essential for the technology to be adopted by the T&E community; this ensures that the technology transfer benefits can flow to all users of PPE-military and civilian alike. The transition of this method to an official T&E standard closed a significant, longstanding gap in protection research and testing efforts. LVAP provides additional confidence for laboratory results and standardized the methodology for low-volatility threats. Ultimately, this capability will benefit protection programs for the warfighter that rely on T&E data to make programmatic and milestone decisions.

Currently, the LVAP system is in use at several DoD-associated facilities in support of Programs of Record (POR). The technology is also broadly applicable to protection efforts in law enforcement, industrial and agricultural fields. LVAP also has won several awards for transition, innovation, and standardization.



Pictured: Dr. Terrence D'Onofrio

EXCELLENCE IN TECHNOLOGY TRANSFER AWARD

Avelumab, New Therapy for Metastatic Merkel Cell and Urothelial Carcinomas

Department of Health and Human Services National Institutes of Health, National Cancer Institute

Immunotherapy uses substances to stimulate or suppress the immune system to help the body fight cancer, infection, and other diseases. One kind of immunotherapy uses monoclonal antibodiesdrugs designed to bind to specific targets in the body that can cause an immune response that destroys cancer cells.

The National Cancer Institute (NCI) played an instrumental role in developing and expediting the FDA's approval of EMD Serono's checkpoint inhibitor avelumab (Bavencio®) through NCI's **Cooperative Research and Development** Agreement (CRADA) with EMD Serono. EMD Serono is the biopharmaceutical business of Merck KGaA, Darmstadt, Germany, in the U.S. and Canada. Avelumab is a human monoclonal antibody that targets the PD-L1 checkpoint protein. Through this CRADA, NCI performed early preclinical studies of avelumab that evaluated its efficacy and produced promising results, and NCI published data showing avelumab's ability to mediate antibody-dependent, cell-mediated cytotoxicity (ADCC). NCI conducted several critical studies that led to FDA approval.

Once these studies were performed, the clinical trial was open to multiple patient groups. To date, over 1700 patients have been enrolled in this study and received treatment with investigational avelumab. Results from the study directly led to the FDA's accelerated approval of avelumab for the treatment of previously treated, locally advanced or metastatic urothelial carcinoma. This accelerated approval was the second approval of avelumab within two months.

Bladder cancer makes up approximately 90% of urothelial carcinomas, and is the sixth most common cancer in the U.S. When the disease

has metastasized, the 5-year survival rate is approximately 5%. Avelumab's accelerated approval provides patients with an important treatment option that will hopefully improve outcomes for these patients. Also, the safety data of the study supported the FDA's accelerated approval of avelumab for the treatment of metastatic Merkel cell carcinoma (MCC), a rare and aggressive skin cancer with fewer than half of patients surviving more than one year and fewer than 20% surviving beyond 5 years, representing a significant unmet need. NCI participated in a phase II MCC study conducted at multiple centers, including NCI. Avelumab is now the first FDAapproved drug for the treatment of metastatic MCC. Currently, multiple clinical studies of avelumab are being conducted for other types of cancer under this CRADA.





National Institutes of Health



National Cancer Institute



EXCELLENCE IN TECHNOLOGY **TRANSFER AWARD**





Institutes



National Cancer Institute

Development of Large-Scale Production, Anti-HIV Microbicide in Soya Beans

Department of Health and Human Services National Institutes of Health, National Cancer Institute

According to the Joint United Nations Program on HIV/AIDS, more than 36 million people worldwide are living with HIV. While the number of AIDSrelated deaths is decreasing, infection rates are still increasing-specifically in eastern and southern Africa. HIV microbicides are not currently sold commercially, and many other HIV prevention techniques remain unavailable or implausible in developing countries where the disease is most prevalent.

Those living in resource-poor areas would benefit from a low-cost, effective method of protecting HIV microbicides. Microbicides offer HIV prevention, whereas therapeutic vaccines are administered only following infection. Microbicides also have highefficacy, provide quick protection, and require no treatment preparation.

The National Cancer Institute's (NCI) Molecular Targets Laboratory partnered with the Frederick



National Laboratory and the Brazilian Agricultural **Research Corporation** (EMBRAPA) to develop a low-cost method for producing an effective and safe HIV infection treatment. The researchers demonstrated that soya bean seeds can produce cyanovirin-N (CV-N), a protein capable of permanently inactivating

HIV strains and preventing infection. Historically, scientists produced the CV-N protein in a bacterial (Escherichia coli) expression system. However, due to a high cost, this method is not a viable option for large-scale production of the protein.

Genetically modified soya beans provide a scalable, low-cost method of producing microbicides that protect against the transmission of HIV and prevent AIDS. The soybean-produced CV-N is now being developed into a microbicide gel in a collaboration between NCI, the University of London, the Council for Scientific and Industrial Research (CSIR Biosciences) in South Africa, and EMBRAPA, a technological innovation enterprise focused on generating knowledge and technology for Brazilian agriculture. The groups hope to provide the microbicide gel to Africa, Brazil, and other developing countries where HIV transmission is a public health priority. The soya bean production method could allow for a low-cost, effective method for preventing HIV. The production technique is sustainable for resource-poor countries where HIV and AIDS are rapidly spreading.

The importance of NCI's collaborative strategy was highlighted by the journal Science, which featured the production of CV-N in soy in the "Editor's Choice" section of the February 13, 2015, issue. In this report, the achievement of the NCI/EMBRAPA/ CSIR collaboration was singled out as a significant advance in the production of biopharmaceuticals in plants.



Left to right: Barry O'Keefe, Melissa Maderia

Winners not pictured: Dr. Michael Boyd, Dr. Michael Currens, Dr. Bjarne Gabrielsen, Dr. James McMahon, Dr. Rachel Chikwamba, Dr. Elibio Rech

DHS CSAC Transition of the Intentional Adulteration Assessment Tool

Department of Homeland Security

Science and Technology Chemical Security Analysis Center

The Intentional Adulteration Assessment Tool (IAAT) is a food defense software product that enables food companies to model their processes so vulnerabilities can be identified and the public health risk of an intentional poisoning by a chemical, toxin, or pathogen can be assessed. IAAT is timely in that the Food and Drug Administration (FDA) recently promulgated the Intentional Adulteration (IA) Rule under the Food Safety Modernization Act (FSMA). The IA Rule requires food processors to examine their processes for vulnerability to a food contamination attack. The IAAT enables the examination in a thorough. regulatorily acceptable manner, providing a critical resource for food processing plant managers and food safety and defense specialists.

The IAAT software utilizes Department of Homeland Security (DHS)-validated data on chemical and biological adulterants that are appropriate concerns for food terrorism. It enables food companies to enter specific details of the various process steps in their manufacturing operation, and then utilizes the physical properties and toxicological database contained in the IAAT to model the effect the process has on the adulterant. The tool further includes probabilistic methodology, which assesses the chances of terrorists and disgruntled individuals acquiring specific adulterants, and the chances of accessing each of the steps in a food processor's manufacturing process.

The IAAT story began in September 2014 with the signing of a Cooperative Research and Development Agreement (CRADA) between the Chemical Security Analysis Center (CSAC) and Archer Daniels Midland (ADM). Under the CRADA, a food defense modeling technology developed by DHS for government use was integrated with the food defense model that ADM had developed for its

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internal use. This "best of both worlds" approach resulted in a modeling tool very much in line with industry needs.

In April 2016, CSAC took the additional step to contract with the Food Protection and Defense Institute (FPDI) to be the technology recipient and intermediary, with the requirement to receive and enhance the technology, and place it on

a downloadable platform for industrywide use. FPDI transformed the CRADA work product (the IAAT) into a convenient format for industry use. After completing beta testing with members of the food industry, FPDI is making the IAAT available to the entire food processing industry

via its FOODShield website.

The ultimate recipients of this technology are the thousands of food processors, including very large companies such as Cargill, PepsiCo, Con-Agra, ADM, General Mills, Kellogg, and McCormick; as well as very small "mom and pop" food processors and all of the processors in between. These

processors provide the majority of the food Americans consume every day.







INDIVIDUAL AND TEAM AWARD WINNERS



ECBC – ATF Partnership

Department of Defense – U.S. Army U.S. Army Edgewood Chemical Biological Center

Department of Justice

Bureau of Alcohol, Tobacco, Firearms and Explosives

A fortuitous meeting between Mark Schlein of the Army Edgewood Chemical Biological Center (ECBC) and Douglas Brunelle of the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) turned into a rewarding partnership between two federal agencies that resulted in costeffective safety improvements to specialized ATF equipment and enhanced capabilities at ECBC. The opportunity and partnership evolved at a symposium hosted by the Regional Additive Manufacturing Partnership of Maryland (RAMP MD), which works to build the additive manufacturing industry in that state. Schlein, Associate Director of the ECBC Advanced Design and Manufacturing Division (ADM), and Brunelle, of the Digital Media Division, ATF Office of Public and Governmental Affairs, met at the symposium and discussed ECBC's design, build and support capabilities and their application to an ATF test project.

Following the symposium, ECBC hosted Brunelle at the ADM facility, where he shared the test project specifications: ATF needed a carbon fire bushing, not commercially available, designed for use in scopes and photography equipment carried by field agents. During this initial site visit, ADM designed, developed, and fabricated a low-cost device using additive manufacturing capabilities (3D printing) to resolve an immediate ATF need. The rapid design, prototyping, and delivery of the part highlighted ECBC's technical expertise and capabilities, which ultimately led to the formation of an Interagency Agreement (IAA) whereby ECBC ADM would provide services (i.e., 3D printing, 3D scanning, interactive 3D models, virtual interactive environments, additive manufacturing design, traditional manufacturing, concept service, and packaging and product development) to the ATF.

Based on this initial success, ECBC has supported other ATF groups, including the National Center for Explosives Training and Research (NCETR) in Huntsville, Alabama, which needed training devices replicated to support its training programs. An ECBC engineer was sent to the site with laser scanning equipment, and he effectively replicated the training items using 3D printing techniques. The final products were put on display at the NCETR facility, used in training sessions, and shown to all students attending courses dealing with those types of explosives. In addition, ECBC has also developed a fuse removal tool to support the ATF's dismantle and detonation capabilities. The tool combined traditional and additive manufacturing capabilities to develop a robust tool that could be used in extreme conditions.

ECBC also supported the ATF Certified Explosives Specialist (CES) program by developing and assembling glass impregnated nylon disassembly tools. ECBC has supported the development of other tools for various groups within the ATF. The ATF Firearms and Ammunition Technology Division (FATD) has partnered with the ECBC team to test the ability of creating or recreating firearm components for testing and possible use in legal matters. The ECBC-ATF partnership combines engineers and 3D technicians with agents and laboratory minds to provide essential services to the ATF mission, which has allowed the ATF to adopt low-cost solutions quickly. The benefit to ECBC, from a practical application perspective, is meeting the project challenges and applying knowledge gained to the ECBC mission: protection of the warfighter and the homeland.

Winners not pictured:

Mark Schlein, Ryan Gilley, Nathaniel Hubbard, Richard Kreis, Richard Moore, Bradley Ruprecht, Rashad Scott, Kevin Wallace, Douglas Brunelle, Roger Beasley, Brian Nickey, Christopher Schaefer, Phil Whitley

Promoting, Educating, and Facilitating Technology Transfer







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EDUCATIONAL INSTITUTION AND FEDERAL LABORATORY PARTNERSHIP AWARD



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Specialty Crop Initiative Coordinated Agriculture Project: The BMSB

U.S. Department of Agriculture

USDA-ARS Appalachian Fruit Research Station, USDA-ARS Beneficial Insects Introduction Research Laboratory, Cornell University, North Carolina State University, Oregon State University, Pennsylvania State University, Rutgers University, University of Delaware, University of Maryland, Virginia Polytechnic Institute and State University, Washington State University









This multiparty, joint effort that includes multiple and coordinated research projects culminating in research results has led to patents, products, and strategies for combating the invasive Brown Marmorated Stink Bug (BMSB). An invasive stink bug native to China, Japan, Korea and Taiwan, the BMSB is now reported to be present in over 40 states. In 2010, BMSB feeding caused injury to greater than 50% of the stone and pome fruit crops in the Mid-Atlantic region (\$37 million loss to apple alone). In that year, many vegetables in areas with high BMSB infestation were rendered unmarketable or downgraded for processing, and commercial and subsistence farms reported instances of total crop losses. The

value of at-risk specialty crops in states where the BMSB has been detected is well over \$20 billion. Without immediate intervention, the BMSB could have put many farmers out of business and dismantled sustainable integrated pest management and organic programs.

To combat this huge economic threat to valued food supplies, a nationwide effort was needed to pool and coordinate research and to develop a sustainable, long-term BMSB management program for specialty crop growers. Enter the USDA-NIFA Specialty Crop Research Initiative Coordinated Agriculture Project entitled "Biology, Ecology, and Management of Brown Marmorated Stink Bug (BMSB) in Orchard Crops, Small Fruit, Grapes, Vegetables, and Ornamentals," led and coordinated by Dr. Tracy Leskey of the USDA-ARS Appalachian Fruit Research Station in Kearneysville, West Virginia. Significant strides in combating these invasive pests have been made by a consortium of over 50 researchers from the ARS at Kearneysville; Beltsville, Maryland; Newark, Delaware; and Corvallis, Oregon; and from land grant institutions across the country, including Cornell University, Penn State University, Rutgers University, University of Maryland, Virginia Tech,



EDUCATIONAL INSTITUTION AND FEDERAL LABORATORY PARTNERSHIP AWARD

North Carolina State University, Oregon State University and Washington State University.

The team identified specialty crops at the greatest risk of BMSB injury, as well as those that are not, and created a comprehensive host plant list for BMSB in North America found on a dedicated website. The team identified the BMSB pheromone and synergist, and developed a prototype trap and trapping systems for monitoring and surveillance of BMSB presence, abundance, and seasonal activity worldwide. Traps deployed strategically by ARS, with the assistance of partnering land grant institutions and growers, successfully detected the BMSB in apple orchards, allowing growers to make informed management decisions and reduce the use of insecticide sprays against this pest by greater than 40%.

The team's work immediately mitigated catastrophic injury, saving tens of millions of dollars annually, with the information generated being applied to more than 96,000 acres of specialty crops to date.











WASHINGTON STATE



Pictured (right): Dr. Tracy Leskey

Winners not pictured: Dr. Kim Hoelmer, Dr. Art Agnello, Dr. Steve Young, Dr. Jim Walgenbach, Dr. Nik Wiman, Dr. Greg Krawczyk, Dr. George Hamilton, Dr. Anne Nielsen, Dr. Cesar Rodriguez-Saona, Dr. Joanne Whalen, Dr. Ceruti Hooks, Dr. Paula Shrewsbury, Dr. Chris Bergh, Dr. Tom Kuhar, Dr. Elizabeth Beers

Contact: Dr. Tracy Leskey, (304) 725-3451, x329, Tracy.Leskey@ars.usda.gov



Establishment of the First Federal Technology Transfer Ambassadors Program

Department of Health and Human Services National Institutes of Health, National Cancer Institute

The team of Drs. Laura Prestia, Alan Alfano, and Robert Sons, all junior technology transfer (T2) professionals, developed the National Cancer Institute's (NCI) – and National Institute of Health's (NIH) – first Technology Transfer Ambassadors Program (TTAP). The TTAP is a year-long hybrid training/mentoring immersion for NCI postdoctoral scientists seeking professional development about invention development, commercialization, and entrepreneurship they could not otherwise achieve. It is the first TTAP ever implanted in a federal lab.

The NCI team observed that postdocs were underserved by the T2 community, with engagement focused on primary investigators. They utilized lean start-up customer discovery methodology to determine that postdoctoral awareness of T2 was limited—despite key research contributions. Limited awareness decreased that laboratory's benefit to the taxpayer in many ways: weaker patents due to rushed filings, loss of valuable patent claims due to the absence of enabling data, and damage to potential patent protection due to premature public disclosure.

Along with increasing T2 awareness, the nominees sought to create a culture with broadened incentives prioritizing further commercial development and characterization of technologies-not just publication as the traditional scientific measure of success. This further characterization allowed for technology de-risking, making it easier for industry partners to ultimately market a technology. Once due diligence to properly define the problem was completed, the nominees developed solutions to combat weaknesses. This solution, which became the TTAP, resulted in buy-in from multiple senior members of NCI and the Technology Transfer Center (TTC), who saw the potential for enhanced licensing and agreement activity. The team subsequently recruited postdoctoral participants (Ambassadors),

designed and launched the program, and managed and coached Ambassadors through targeted marketing, commercial analyses, and several other projects on individual and team levels.

The team leveraged a complementary offering from Johns Hopkins University (JHU), as well as NCI TTC's inaugural 2017 Technology Showcase. Successful outcomes were achieved, including completion of the program by all Ambassadors, multiple invention disclosures and transactional agreements initiated by the Ambassadors, dozens of analyses and presentations informing and supporting NCI patent investment decisions, and improved marketing campaigns for selected NCI technologies.

The impact of the TTAP in its inaugural year, as well as the future, directly stems from the efforts of these three technology transfer professionals in developing and continuing its management. Gearing up for the second year, the team is already handling numerous requests for more information from postdocs across the NIH, including requests from the 2016-2017 class of Ambassadors who are interested in working with the program again. The TTAP has and continues to strive toward creating a lab-to-market mindset across the NCI—fostering entrepreneurial culture change, better connections between T2 and new generations of scientists, and enhancing the efficiency of the NCI TTC's marketing efforts for technology commercialization.



Left to right: Alan Alfano, Laura Prestia, Robert Sons

ACKNOWLEDGMENTS



Representing several federal laboratories, the members of the judging panel enthusiastically devoted their time and efforts to judging the nominations submitted for this year's awards. Selecting the winners was a difficult task, but these evaluators admirably rose to the challenge. The FLC Mid-Atlantic Region recognizes their tireless efforts and expresses its gratitude.

Donna Bialozor National Cancer Institute National Institutes of Health

Annie Bullock Naval Surface Warfare Center Crane Division

Dr. Suzanne Frisbie National Institute of Allergies and Infectious Diseases National Institutes of Health

Alexis Henderson National Security Agency

Gail Poulos U.S. Department of Agriculture Agricultural Research Service

Dr. Courtney Silverthorn National Institute of Standards and Technology Minority Business Development Agency Special thanks to the following individuals for their contributions in making this year's regional meeting a great success.

Tawanda Abdelmouti National Cancer Institute

Anna Amar National Cancer Institute National Institutes of Health

Mojdeh Bahar, JD, MA, CLP U.S. Department of Agriculture

Sarah Bauer Environmental Protection Agency

Donna Bialozor National Cancer Institute, National Institutes of Health

Thomas Brown Total Technology, Inc.

Kevin Chang Office of Technology Transfer, National Institutes of Health

Cathleen Cohn U.S. Department of Agriculture

Barry Datlof U.S. Army Medical Research and Materiel Command John Emond National Aeronautics and Space Administration (retired)

Steve Ferguson Office of Technology Transfer, National Institutes of Health

Dr. Rob Griesbach U.S. Department of Agriculture

Fizie Haleem Montgomery County Economic Development Corporation (retired)

Gary Jones Federal Laboratory Consortium for Technology Transfer

Samantha Kilgore NASA Goddard Space Flight Center

Sara Langdon U.S. Army Medical Research and Materiel Command

Sarah Miller Montgomery County Economic Development Corporation **Derek Parks** National Oceanic and Atmospheric Administration

Dr. Jack Pevenstein National Institutes of Health

Gail Poulos U.S. Department of Agriculture

Michael Shmilovich National Institutes of Health

Dr. Courtney Silverthorn National Institute of Standards and Technology

Kalimah Sims U.S. Army Medical Research and Materiel Command

Alexandra Springer Talley Management Group, Inc.

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