

**NAVIGATING TECHNOLOGY TRANSFER**  
**Federal Lab Consortium Mid-Atlantic Regional Meeting**  
Harbourtowne Resort, St. Michaels, MD, October 22-24, 2007

**MONDAY, OCT 22, 2007 PRE-FLC CONFERENCE TRAINING SESSION**

- 1:00-1:10**      **Welcome**, introductions, goals of training session  
*John Emond*, Collaboration Program Manager, Innovative Partnerships Program, NASA Headquarters & FLC Mid-Atlantic Region Coordinator
- 1:10-2:10**      **E-Tools of the Trade - Technology to Improve Communications**  
Moderator: *Laurie Arrants*, Technology Transfer Coordinator, National Institute of Neurological Disorders and Stroke, NIH and FLC Member-at-Large  
*Tom Moreland*, Program Analyst, Office of Tech Transfer CRADA Program, ARS, USDA  
*Ajoy Prabhu*, Marketing Group Leader, Office of Technology Transfer, NIH
- 2:10-2:50**      **Where the Rubber Meets The Road: Evaluating the value of intellectual property and matching technology to market needs**  
Moderator: *John Emond*, Collaboration Program Manager, Innovative Partnerships Program, NASA Headquarters & FLC Mid-Atlantic Region Coordinator  
*Michael Walker*, CEO, Ocean Tomo Federal Services LLC  
*Joseph Holmes*, CEO, Acuity Edge, Inc. & Adjunct Professor, Duke University
- 2:50-3:00**      **Case Study Team Objectives Overview**  
*John Emond*, Collaboration Program Manager, Innovative Partnerships Program, NASA Headquarters & FLC Mid-Atlantic Region Coordinator
- 3:00-3:15**      **Break**
- 3:15-4:30**      **Two parallel, interactive case study teams**  
- **CRADA and Patent Licensing Scenarios for Discussion**  
*Dr. J. Scott Deiter*, Technology Transfer Director - NSWC Indian Head Division & Chair - Federal Laboratory Consortium  
- **Way Cool Technology Transfer Challenge**  
*Paul Fritz*, Tech Transfer Office, Team Lead and ORTA, NAWC-Patuxent River
- 4:30**            **Training session ends, free time until reception**
- 6:00-8:00**      **Reception**

**TUESDAY, OCTOBER 23, 2007**

- 7:00-8:00**      **Registration and Continental Breakfast**
- 8:00-8:15**      **Conference Opens, welcome, overview of conference**  
*John Emond*, Collaboration Program Manager, Innovative Partnerships Program, NASA Headquarters & FLC Mid-Atlantic Region Coordinator
- 8:15-9:00**      **Keynote Speaker**  
*Dr. Alexander E. "Sandy" MacDonald*, Deputy Assistant Administrator for Laboratories and Cooperative Institutes, Office of Oceanic & Atmospheric Research, National Oceanic & Atmospheric Administration
- 9:00-10:30**      **Patent Panel**  
Moderator: *Rick Brenner*, Assistant Administrator of ARS for Technology Transfer, USDA and FLC Member-at-Large  
*Mojdeh Bahar*, J.D., M.A., Technology Licensing Specialist, Office of Technology Transfer, NIH and FLC Member-at-Large  
*Paul Gottlieb*/Assistant General Counsel for Technology Transfer & Intellectual Property, U.S. Department of Energy  
*Gail Poulos*, Supervisory Patent Advisor, ARS, USDA

- Town Hall open discussion**, led by Rick Brenner, Agricultural Research Service
- 10:30-10:45 Break**
- 10:45-11:15 Bio-Based Polymers and Composites: Tech Transfer Issues**  
*Introduction: Rick Brenner, Technology Licensing Specialist, Office of Technology Transfer, NIH and FLC Member-at-Large*  
*Professor Richard Wool, Professor, Chemical Engineering, University of Delaware*
- 11:15-12:00 International Panel**  
*Introductions: John Emond, NASA & FLC MAR Coordinator*  
**-- U.S./Canadian Partnerships for Technology Development**  
*Jeffrey Matsuura, Technology Partnering Officer, Canadian Embassy*  
**-- U.S. /New Zealand Collaboration in Technology Development**  
*Brian Young, Science and Technology Counselor, New Zealand Embassy*
- 12:15-1:30 Lunch**  
*Introduction: Lorraine Flanders, Naval Surface Warfare Center Dahlgren Division & FLC MAR Deputy Coordinator*  
**Keynote Speaker: Treasures of the Chesapeake: Local Maritime Perspectives**  
*Pete Leshner, Curator of Collections, Chesapeake Bay Maritime Museum*
- 1:30-2:30 Legislative Issues Affecting Tech Transfer: Focus on Bayh-Dole**  
*Moderator and Speaker: Gary K. Jones, FLC Washington DC Representative*  
*John H. Raubitschek, Patent Attorney, Army Night Vision Laboratory, Former Patent Counsel, Department of Commerce*  
*Robert Hardy, Director, Contracts and Intellectual Property, Council on Government Relations*
- 2:30-3:00 Federal Labs and USPTO: Views from Both Worlds**  
*Introduction: John Emond, NASA & FLC MAR Coordinator*  
*Mojdeh Bahar, Technology Licensing Specialist, Office of Technology Transfer, NIH and FLC Member-at-Large*
- 3:00-3:15 Break**
- 3:15-4:00 The Human Element: How tech transfer benefited individuals.**  
*Introduction: Renee Winsky, President & CEO, Maryland Technology Development Corporation (TEDCO)*  
**- From Outer Space to Your Physician's Office: ArterioVision<sup>®</sup> CIMT**  
*Gary F. Thompson, Chairman & CEO, Medical Technologies International, Inc.*  
**- Homeland Security: USFA Research Program for Emergency Responder Operational Safety**  
*William Troup, Fire Protection Specialist, United States Fire Administration, National Fire Data Center*
- 4:00-5:30 Region Network Initiative**  
*Moderator: John Emond, NASA & FLC MAR Coordinator*
- *Sally L. Sternbach, Executive Director, Rockville Economic Development Inc.*
  - *Fizie Haleem, Manager, Strategic Development for Minority and Women Businesses, Montgomery County Department of Economic Development*
  - *Ronald W. Kaese, M.B.A., M.S., M.E., Senior Program Manager, Federal Lab Partnerships, Maryland Technology Development Corporation (TEDCO)*
  - *Jerry Giles, Director of Finance and Leader, Science & Research Team Business Development group Virginia Economic Development Partnership, Navigating the*
  - *Kenneth G. Okrepkie, Vice President, Northeastern Pennsylvania Technology Institute*
- 5:30-5:45 Tomorrow's Highlights, Sponsors Acknowledgement**  
*John Emond, Collaboration Program Manager, Innovative Partnerships Program, NASA Headquarters & FLC Mid-Atlantic Region Coordinator*

**5:45-6:30** **Happy Time/Cash Bar**  
**6:30-8:00** **Dinner/Speakers**  
*Moderator: John Emond, Collaboration Program Manager, Innovative Partnerships Program, NASA Headquarters & FLC Mid-Atlantic Region Coordinator*  
**NASA Centennial Challenges**  
**Global Virtual Collaboratory**  
*Dr. Peter VanVoris, President – Van Voris Consulting*

**WEDNESDAY, OCTOBER 24, 2007**

**7:00-8:00** **Continental Breakfast**  
**8:00-8:05** **Introductory Remarks**  
*Dr. J. Scott Deiter, NSWC Indian Head Office of Technology Transfer and FLC Chair*  
**8:05-8:10** **Tech Transfer Mechanisms Used by Federal Agencies: A Quick Reference Guide**  
*Mary Archuleta, Contr., Technology Transfer Specialist – Marketing Manager, Air Force Research Laboratory, Kirtland AFB and FLC Member-at-Large*  
**8:10-10:10** **Partnering With Federal Labs**  
*Moderator, Dr. Thomas M. Stackhouse, Assistant Director, Technology Transfer Center, National Cancer Institute at Frederick and FLC Member-at-Large*

- *Dr. Paul Mele, Director, Office of Research and Technology Applications, U.S. Army Medical Research and Materiel Command*
- *Dr. Tomas M. Stackhouse, Assistant Director, Technology Transfer Center, National Cancer Institute at Frederick and FLC Member-at-Large*
- *Dr. Rick Brenner, Assistant Administrator for Technology Transfer, Agricultural Research Service, Office of Technology Transfer and FLC Member-at-Large*
- *Ray Turcotte, NASA Langley -*
- *George Arnold, FLC Host Agency Representative, National Institute of Science & Technology*

**10:10-10:25** **Break**  
**10:25-10:50** **Technology Transfer: An Industry Perspective**  
*Dr. Robert Coraor, Manager, Technology Transfer, Air Products & Chemicals, Inc.*  
**10:50-12:30** **Technology Transfer and Economic Development**  
*Moderator: James A. Poulos III, Vice President, Technology Transfer & Commercialization, Maryland Technology Development Corporation (TEDCO)*  
*Joe Zilcosky, Emerging Technology Specialist, Delaware Department of Economic Development*  
*Dr. Anthony Green, VP technology Commercialization: Life Sciences, Ben Franklin Technology Partners, SE PA*  
*Brian Darmody, Associate Vice President of Research and Economic Development at the University of Maryland and Special Assistant Vice Chancellor for the University System of Maryland*  
*Denise Devine, CEO & President, Nutripharm, Inc. & Devine Foods Inc.*  
**12:30-12:40** **Afterthoughts and Forethoughts from the Past FLC Chair**  
*Ed Linsenmeyer, Immediate Past Chair of the FLC, ORTA at NSWC PCD(Naval Surface Warfare Center, Panama City Division)*  
**12:40-1:45** **Luncheon and Awards, Moderator: Lorraine Flanders, Office of Technology Transfer, Naval Surface Warfare Center Dahlgren, FLC MAR Deputy Coordinator & FLC Awards Committee Chair**  
**Hot Technologies/Hot Partnerships Contest**  
**Formal FLC MAR Awards**  
*Reader: Ron Buckhalt, Special Projects Director, Office of Transfer, ARS,*  
**1:45** **Closing Remarks, Looking Ahead, Adjourn**

## NAVIGATING TECHNOLOGY TRANSFER

*Federal Lab Consortium Mid-Atlantic Regional Meeting*  
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- 1:10-2:10**      **E-Tools of the Trade - Technology to Improve Communications**  
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*Tom Moreland*, Program Analyst, Office of Technology Transfer CRADA Program, ARS, USDA  
The Share Point communications software package provides a single point source for individual sites, information, tracking, templates, list, multiple layers (documents, folders, sites, links etc.) document originality and security. Share Point allows control of members, document control (read vs. changes), organization and, most important, simplicity.  
*Ajoy Prabhu*, Marketing Group Leader, Office of Technology Transfer, NIH  
SYNAPSE<sup>SM</sup> a software tool is used by the NIH Office of Technology Transfer (OTT) to perform high powered analyses related to the marketing of NIH and FDA technologies. SYNAPSE<sup>SM</sup> provides an integrated way to mine data from invention portfolios, grant and patent databases, and biomedical research and news databases. The ability to aggregate this information quickly and seamlessly is what makes this tool so unique. SYNAPSE<sup>SM</sup> has made it possible for OTT to reach a wider business market by matching its portfolio to the research interests of biotechnology and pharmaceutical companies. OTT is able to provide individualized and targeted information to companies that previously were unaware of all the scientific possibilities available to them at NIH and the FDA.
- 2:10-2:50**      **Where the Rubber Meets The Road: Evaluating the value of intellectual property and matching technology to market needs**  
Moderator: *John Emond*, Collaboration Program Manager, Innovative Partnerships Program, NASA Headquarters & FLC Mid-Atlantic Region Coordinator  
*Michael Walker*, CEO, Ocean Tomo Federal Services LLC  
This presentation will show ways that an intellectual property merchant banc can assist government entities and prime contractor entities to realize value from their intellectual capital equity, including traditional patents, trade secrets, trademarks, and copyrights. Topics to be covered include IP valuation services, IP asset sales/auctions, financial testimony/surveys, license management and royalty audits.  
*Joseph Holmes*, CEO, Acuity Edge, Inc. & Adjunct Professor, Duke University  
After first assessing the opportunity to extract value from an IP portfolio, marketing and valuation quickly become essential ingredients to any value-extraction initiative. Marketing embodies the strategy and tactics employed to generate demand for the IP destined for sale and/or license. Marketing in action includes phases of preparation (e.g., pitch formulation and target identification) followed by execution (e.g., combining pitch with targets to turn prospects into qualified leads). Valuation encompasses the estimation of asset value, which fuels the perception of fairness during downstream negotiations. Valuation requires a fundamental understanding of the product/market opportunities that

IP can create to enable the estimation of value scenarios. During this talk, a mix of academic fundamentals, practitioner processes, and simple examples will be provided to demystify two topics that are often considered more art than science.

**2:50-3:00 Case Study Team Objectives Overview**

*John Emond, Collaboration Program Manager, Innovative Partnerships Program, NASA Headquarters & FLC Mid-Atlantic Region Coordinator*

**3:00-3:15 Break**

**3:15-4:30 Two parallel, interactive case study teams**

There will be an interactive, small group session where a case study on technology transfer will be presented, assessed, and the outcome discussed. Two case study teams will be formed in parallel each one discussing a case study.

**- CRADA and Patent Licensing Scenarios for Discussion**

*Dr. J. Scott Deiter, Technology Transfer Director - NSWC Indian Head Division & Chair - Federal Laboratory Consortium*

A variety of case studies will be presented on CRADAs, intellectual property issues and patent licensing.

**- Way Cool Technology Transfer Challenge**

*Paul Fritz, Technology Transfer Office, Team Lead and ORTA, NAWC-Patuxent River*

**4:30 Training session ends, free time until reception**

**6:00-8:00 Reception**

**TUESDAY, OCTOBER 23, 2007**

**7:00-8:00 Registration and Continental Breakfast**

**8:00-8:15 Conference Opens**, welcome, overview of conference

*John Emond, Collaboration Program Manager, Innovative Partnerships Program, NASA Headquarters & FLC Mid-Atlantic Region Coordinator*

**8:15-9:00 Keynote Speaker**

*Dr. Alexander E. "Sandy" MacDonald, Deputy Assistant Administrator for Laboratories and Cooperative Institutes, Office of Oceanic & Atmospheric Research, National Oceanic & Atmospheric Administration*

NOAA Research aims to anticipate societal and environmental concerns of the 21st century, providing the timely and accessible delivery of data, knowledge, technology, and products to decrease vulnerability and enhance American competitiveness. Dr. MacDonald will highlight NOAA research and development accomplishments and opportunities that improve our understanding of the Earth system, and the partnerships that ensure success. The presentation will also explore the challenges and opportunities global climate change will create over the coming decades.

**9:00-10:30 Patent Panel**

The Patent Panel will provide a cross-agency look at the patent process including reporting, market analyses, and the commercialization process.

*Moderator: Rick Brenner, Assistant Administrator of ARS for Technology Transfer, USDA and FLC Member-at-Large*

*Mojdeh Bahar, J.D., M.A., Technology Licensing Specialist, Office of Technology Transfer, NIH and FLC Member-at-Large*

*Paul Gottlieb/Assistant General Counsel for Technology Transfer & Intellectual Property, U.S. Department of Energy*

*Gail Poulos, Supervisory Patent Advisor, ARS, USDA*

Partnering and Patents in USDA Agricultural Research Service

**Town Hall open discussion**, led by *Rick Brenner, Agricultural Research Service*

**10:30-10:45 Break**

**10:45-11:15 Bio-Based Polymers and Composites: Tech Transfer Issues**

*Introduction: Rick Brenner, Technology Licensing Specialist, Office of Technology Transfer, NIH and FLC Member-at-Large*

*Professor Richard Wool, Professor, Chemical Engineering, University of Delaware*

The bio-based materials field presents significant opportunities for the development of new intellectual property in this \$100B+ market and the tech transfer issues with this IP are discussed. The conversion of biomass to useful materials such as polymers and composites has considerable economic and environmental value, particularly in times of global warming and diminishing petroleum oil reserves ( $\tau \sim 25$  yrs). This paper provides considerable detail on the technology transfer issues associated with the chemistry, physics and engineering development of plastics, adhesives, composites, foams, elastomers and coatings from plant co-products such as oils, starch, proteins, lignin, and cellulose, as well as animal processing waste such as chicken feathers and many other natural products. Recent advances in genetic engineering, composite science, and natural fiber development offer significant opportunities for new, improved green materials from renewable resources that are optionally recyclable, biocompatible and biodegradable, thereby enhancing global sustainability. By selecting the fatty acid distribution function of plant oils, we show how the molecular connectivity can be controlled through chemical functionalization to produce linear, branched, or cross-linked polymers with useful thermal and mechanical properties. The resulting thermal and mechanical properties are described by new rigidity percolation processes. The chemical pathways used to make polymers and composite resins from plant oils are described. Since all contain high fractions of triglycerides, the resulting polymers are also biocompatible and some biodegradable. These biobased materials can be used as adhesives, foams, films, rigid or flexible plastics, coatings, elastomers, rubbers, composite resins, carbon nanotubes dispersants and nanoclay exfoliants. In addition soft materials such as Pressure Sensitive Adhesives (PSA), foams, coatings and elastomers (crosslinked with intercalated nanoclays), which are derived from genetically engineered high oleic oils, are biocompatible and can be used for tissue scaffolds and wound healing. When such biobased resins are combined with natural fibers (plant and poultry) starch and lignin, new low-cost composites are produced that are economical in many high-volume applications. These high performance composites can be used in construction, furniture, hurricane resistant housing, agricultural equipment, automotive sheet molding compounds, civil and rail infrastructures, marine applications, electronic materials, and sports equipment.

**11:15-12:00 International Panel**

*Introductions: John Emond, NASA & FLC MAR Coordinator*

**-- U.S./Canadian Partnerships for Technology Development**

*Jeffrey Matsuura, Technology Partnering Officer, Canadian Embassy*

This presentation provides an overview of Canadian research and technology commercialization initiatives. It discusses Canadian efforts to promote international technology development. The presentation offers suggestions on how organizations in the U.S. can begin to connect with their counterparts in Canada.

**-- U.S. /New Zealand Collaboration in Technology Development**

*Brian Young, Science and Technology Counselor, New Zealand Embassy*

Like innovators in all countries, people in New Zealand's government laboratories and other technology intensive settings face challenges with commercialization, growing early stage companies, and accessing global markets. However, some of these challenges are relatively unique to New Zealand, reflecting its geographical remoteness and the small size of its domestic market. International technology transfer is one mechanism that can be used to mitigate these obstacles and accelerate innovation. Approaches to international technology transfer by New Zealand's technology-intensive organizations

range from complex government-level agreements through to nimble deal-making with strategic international partners by spin-off and start-up firms. This presentation will briefly outline the challenges for New Zealand, and provide examples of United States-New Zealand collaboration in technology development.

**12:15-1:30**

**Lunch**

*Introduction: Lorraine Flanders, Naval Surface Warfare Center Dahlgren Division & FLC MAR Deputy Coordinator*

**Keynote Speaker: Treasures of the Chesapeake: Local Maritime Perspectives**

*Pete Lesher, Curator of Collections, Chesapeake Bay Maritime Museum*

**1:30-2:30**

**Legislative Issues Affecting Tech Transfer: Focus on Bayh-Dole**

*Moderator and Speaker: Gary K. Jones, FLC Washington DC Representative*

*John H. Raubitschek, Patent Attorney, Army Night Vision Laboratory, Former Patent Counsel, Department of Commerce*

This presentation provides an understanding of the Bayh-Dole Act and associated technology transfer issues including the meaning, procedures and intricacies of DECs – Determination of Exceptional Circumstances

*Robert Hardy, Director, Contracts and Intellectual Property, Council on Government Relations*

An overview of select recent legislative actions having some potential impact on the technology transfer community, with a focused discussion on certain salient aspects under Bayh-Dole and a discussion of recent developments and issues involving the Bayh-Dole Act.

**2:30-3:00**

**Federal Labs and USPTO: Views from Both Worlds**

*Introduction: John Emond, NASA & FLC MAR Coordinator*

*Mojdeh Bahar, Technology Licensing Specialist, Office of Technology Transfer, NIH and FLC Member-at-Large*

The patent process and challenges, from a lawyer who worked in both worlds: the review of patents emerging from federal labs, and now an attorney with NIH submitting patents for USPTO approval.

**3:00-3:15**

**Break**

**3:15-4:00**

**The Human Element: How tech transfer benefited individuals.**

*Introduction: Renee Winsky, President & CEO, Maryland Technology Development Corporation (TEDCO)*

The transfer of technology from government labs to the private sector has the potential to enhance the quality of life, and to save lives. This session will provide a personal account of technology transfer and benefit to life

**- From Outer Space to Your Physician's Office: ArterioVision<sup>®</sup> CIMT**

*Gary F. Thompson, Chairman & CEO, Medical Technologies International, Inc.*

**- Homeland Security: USFA Research Program for Emergency Responder Operational Safety**

*William Troup, Fire Protection Specialist, United States Fire Administration, National Fire Data Center*

**4:00-5:30**

**Region Network Initiative**

Overview of past year's region network initiatives, insights, follow-up plans. Panel will include several individuals from these seminars.

*Moderator: John Emond, NASA & FLC MAR Coordinator*

- *Sally L. Sternbach, Executive Director, Rockville Economic Development Inc.*

Cities: Your Small but Mighty Partner: While cities very likely represent your smallest economic development partners, they offer significant advantages. Their knowledge of the local community and its resources and assets, their ability to move quickly and to embrace good ideas, and their tendency to marshal the resources of others and to work

collaboratively are all hallmarks of economic development organizations at the municipal level.

- Fizie Haleem, *Manager, Strategic Development for Minority and Women Businesses, Montgomery County Department of Economic Development*  
Dynamic Montgomery County, Maryland, is home to many Federal labs and agencies as well as technology-rich academic institutions and high-tech companies. Learn how these organizations are interacting and performing together.
- Ronald W. Kaese, *M.B.A., M.S., M.E., Senior Program Manager, Federal Lab Partnerships, Maryland Technology Development Corporation (TEDCO)*  
TEDCO has many, productive interactions with Federal labs throughout Maryland, facilitated by partnership agreements with over a dozen of the government's major labs. TEDCO – managed showcases at Federal labs are marketing models and other “gateway” services and financing assistance help link businesses to the labs for business growth and technology development.
- Jerry Giles, *Director of Finance and Leader, Science & Research Team Business Development group Virginia Economic Development Partnership, Navigating the Changes in Economic Development- Sighting for the Collaborative Lighthouse: Economic Development at the state and regional levels is rapidly becoming a paradigm in which Technology Based Economic Development is the rule and not the exception. Innovation economy, "grow your own", invest in R & D, are the watchwords of the new TBED paradigm. The realities seem to demand a "bending of silos" and focus on catalyzing collaboration across industry, academia, and federal laboratory infrastructure assets.*
- Kenneth G. Okrepkie, *Vice President, Northeastern Pennsylvania Technology Institute*  
Over the past year, the Federal Lab Consortium Mid-Atlantic Region has expanded its efforts to foster greater links between federal labs, economic development and other organizations across the region. A cross section of representatives from economic development organizations will provide their thoughts on the roles they and the FLC can play to foster economic growth and vitality in this region. Part of the panel will provide an interesting view of economic development interaction from city, county and state perspectives.

**5:30-5:45 Tomorrow's Highlights, Sponsors Acknowledgement**

John Emond, *Collaboration Program Manager, Innovative Partnerships Program, NASA Headquarters & FLC Mid-Atlantic Region Coordinator*

**5:45-6:30 Happy Time/Cash Bar**

**6:30-8:00 Dinner/Speakers**

The dinner keynote presentations will focus on two "out of the box" approaches to solving technology challenges. The Centennial Challenge program seeks technology solutions through prize competitions in the spirit of Charles Lindburgh and his cross-Atlantic flight. Innocentive's approach is to use the Internet to pose technical challenges, and invite global responses to meet the challenge.

*Moderator: John Emond, Collaboration Program Manager, Innovative Partnerships Program, NASA Headquarters & FLC Mid-Atlantic Region Coordinator*

**NASA Centennial Challenges**

How prize competitions can be used to advance “out of the box” innovative approaches to technology development; highlighting recent technology competitions

**Global Virtual Collaboratory**

*Dr. Peter VanVorhis, President – Van Vorhis Consulting*

Use of the internet to pose technical challenges and invite global solutions

## WEDNESDAY, OCTOBER 24, 2007

**7:00-8:00**      **Continental Breakfast**

**8:00-8:05**      **Introductory Remarks**

*Dr. J. Scott Deiter, NSWC Indian Head Office of Technology Transfer and FLC Chair*

**8:05-8:10**      **Tech Transfer Mechanisms Used by Federal Agencies: A Quick Reference Guide**

*Mary Archuleta, Contr., Technology Transfer Specialist – Marketing Manager, Air Force Research Laboratory, Kirtland AFB and FLC Member-at-Large*

**8:10-10:10**    **Partnering With Federal Labs**

*Moderator, Dr. Thomas M. Stackhouse, Assistant Director, Technology Transfer Center, National Cancer Institute at Frederick and FLC Member-at-Large*

A range of federal agency lab technology transfer representatives will provide an overview of their lab's capabilities and tech transfer efforts. This will be followed by a round-robin discussion of roles, challenges and opportunities present in federal labs of the Mid-Atlantic Region. Specific questions to be addressed include:

--What are the challenges and opportunities associated with your lab?

--What do you need from a partner to help fulfill your agency's mission, and what can you provide current and prospective partners to help fulfill their organization's mission?

--How do federal agencies address technology transfer national mandates and yet remain responsive to local/regional interests and requirements for technology development through collaboration and partnerships?

- *Dr. Paul Mele, Director, Office of Research and Technology Applications, U.S. Army Medical Research and Materiel Command*

Transferring Technology with the U.S. Army Medical Research & Materiel Command: The USAMRMC mission is to provide medical materiel to sustain the health, well-being and military readiness of U.S. service men and women. The organization is deeply engaged in R&D and transition of drugs, vaccines, devices and medical information technology.

- *Dr. Tomas M. Stackhouse, Assistant Director, Technology Transfer Center, National Cancer Institute at Frederick and FLC Member-at-Large*

The National Institutes of Health (NIH) is composed of 27 Institutes and Centers (ICs) each with their unique intramural research programs. Each of these ICs has the authority to partner for research and development, including through the use of the CRADA authorities. Licensing of inventions arising from any NIH intramural research program is delegated to the centralized NIH Office of Technology Transfer. This presentation will highlight the various mechanisms to form partnerships with NIH IC with a focus on the largest of the NIH Institutes, the National Cancer Institute (NCI). NCI has developed several unique mechanisms for partnering that reach beyond the standard CDAs, MTAs and CRADAs. Some initiatives and resources will be briefly described that might assist your organization to move a technology into the healthcare market.

- *Dr. Rick Brenner, Assistant Administrator for Technology Transfer, Agricultural Research Service, Office of Technology Transfer and FLC Member-at-Large*

The United States Department of Agriculture consists of 17 Agencies and 12 Offices. Intramural scientific research and development are conducted principally in 3 Agencies: the Agricultural Research Service (ARS), the Wildlife Services of the Animal and Plant Health Inspection Service (APHIS-WS), and the Forest Service (FS). Of these, ARS is the only agency whose mission is entirely research. Each of these agencies has the broad unique authority of USDA to partner for research and development, and each has CRADA authority. Licensing inventions arising from any USDA intramural research program is delegated to the Office of Technology Transfer in ARS. This presentation will highlight the various mechanisms to form partnerships with universities, other

research institutes, and the private sector. New initiatives also will be described that further enhance the capacities of these agencies to transfer technologies to the private sector for commercialization.

- Ray Turcotte, NASA Langley -  
Technology Transfer – Partnering with NASA: The overall NASA technology transfer organization, out-reach strategy and processes are described. The Innovative Partnerships and the Centennial Challenge Programs are discussed.
- George Arnold, FLC Host Agency Representative, National Institute of Science & Technology

**10:10-10:25 Break**

**10:25-10:50 Technology Transfer: An Industry Perspective**

Dr. Robert Coraor, Manager, Technology Transfer, Air Products & Chemicals, Inc.

Dr. Coraor will discuss technology transfer from an industrial viewpoint with emphasis on the value of using external resources to assist in moving from inventions to commercialization more quickly and effectively. Accessing expertise and technology developments from federal laboratories as well as other organizations plays an important role in Air Products' innovation process. Questions, comments and discussion with the audience will help each of us in understanding the needs of the other in technology transfer and collaboration relationships.

**10:50-12:30 Technology Transfer and Economic Development**

Moderator: James A. Poulos III, Vice President, Technology Transfer &

*Commercialization, Maryland Technology Development Corporation (TEDCO)*

Joe Zilcosky, Emerging Technology Specialist, Delaware Department of Economic Development

Dr. Anthony Green, VP technology Commercialization: Life Sciences, Ben Franklin Technology Partners, SE PA

Novel Multi-Institutional Technology Transfer Models as Engines for Economic Growth: Current attitudes towards the technology transfer process vary widely. However, the consensus is the status quo is unacceptable. Institutions—government, academic, research, are perceived as greedy, over-protective and obstructionist. Companies are perceived as parsimonious, over-protective and obstructionist; clearly common ground. Fortunately, attitudes on both sides have started to soften. This is due, in part, to increased pressures by institutional administrators to create value from their IP combined with pressures on companies to develop and commercialize new technology and products rapidly. As a result, both sides are willing to look at new models for technology transfer with decreased skepticism.

In 2000, the Commonwealth of Pennsylvania with its founding partners, the University of Pennsylvania, Drexel University and Ben Franklin Technology Partners/SEP created a new model for accelerating the commercialization of technology through the creation of The Nanotechnology Institute™ (NTI). The partners recognized early that any new model would need to be focused on a single technology base to establish its credibility and chose the newly emerging field of nanotechnology. The resulting product, the NTI, contained a revolutionary structure in which 12 academic research institutions entered into a common framework in Intellectual Property management and Sponsored Research Agreements. The NTI brings the best talent to bear on specific technology areas from multiple institutions coupled with the elimination of traditional barriers between institutions and companies and focusing on technology transfer, licensing and commercial outcomes. The NTI funds both translational research and provides matching funds for sponsored research. The results are now bearing fruit: an increase in intellectual property creation at a higher rate than the federally-funded

research programs of its member institutions, an increased rate of technology licensing and an increase in the number of spin-out companies.

A second novel component of the NTI is the Nanotechnology Commercialization Group (NCG), consisting of three technology transfer experts combing and collating nanotechnology-based IP from among the NTI member institutions. Their role is to determine which IP can be combined into unique packages for “one-stop shopping” for rapid licensing and commercialization. The NCG has its own proof-of-concept funds to provide grants directly to institutional researchers to support projects with a high degree of potential success.

The NTI was the first organization to test this model and has since been emulated elsewhere. The key accomplishment of the NTI is the establishment of an innovative structure within which regional universities collaborate effectively at the faculty and administrative levels to promote a single emerging technology platform with potential payoff in economic development.

*Brian Darmody, Associate Vice President of Research and Economic Development at the University of Maryland and Special Assistant Vice Chancellor for the University System of Maryland*

Academia, Universities As Engines of Technology-Led Economic Development: Beyond Technology Transfer: Universities are principal engines of technology-led economic development for states and regions supplying human capital and technology. This presentation will explore the ways universities are increasingly tied to the economic well-being of their respective states and regions, and will summarize programs at the University of Maryland and ways universities are documenting their economic impact to their stakeholders.

*Denise Devine, CEO & President, Nutripharm, Inc. & Devine Foods Inc.*

This is another view of economic development and the FLC, in this instance evaluating factors that may lead to success or failure of a technology transfer endeavor, and the role these organizations play in helping to bring about technology transfer success. Factors to be considered in these presentations include user acceptance/need, technology jump vs. modification of existing technology, and the extrapolation of cost and performance emerging from prototype development. A general discussion will be part of the session which may also bring forward questions, thoughts and other reflections from the previous conference sessions.

**12:30-12:40 Afterthoughts and Forethoughts from the Past FLC Chair**

*Ed Linsenmeyer, Immediate Past Chair of the FLC, ORTA at NSWC PCD(Naval Surface Warfare Center, Panama City Division)*

A quick tour down memory lane of the past 15 years and comments on possible future paths for the FLC: things that have worked, things that have failed, things that are repeated, and things to be considered for the future by regional offices and the national FLC.

**12:40-1:45 Luncheon and Awards, Moderator: *Lorraine Flanders, Office of Technology Transfer, Naval Surface Warfare Center Dahlgren, FLC MAR Deputy Coordinator & FLC Awards Committee Chair***

**Hot Technologies/Hot Partnerships Contest**

**Formal FLC MAR Awards**

*Reader: Ron Buckhalt, Special Projects Director, Office of Technology Transfer, ARS, USDA*

**1:45 Closing Remarks, Looking Ahead, Adjourn**