Working with the FLC and Federal Laboratories

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Overview

- Overview of U.S. Federal Technology Transfer
- Role of the Federal Lab Consortium for Tech Transfer (FLC)
- Identifying Potential U.S. Federal Lab Partners
- Selected Examples of Tech Transfer
- Technology Transfer Mechanisms– James Kasischke

Federal Technology Transfer Defined

Technology transfer is the process by which knowledge, facilities, or capabilities developed under federal research and development (R&D) funding are utilized to fulfill public and private needs -- it can occur:

- **Between the government and non-government entities**
- Between government entities (labs/agencies)

…. and designed to:

- enhance **agency mission** capabilities
- increase **return on R&D** investment
- support **economic growth** and **development**
- enhance **U.S. competitiveness**

Results of Legislative History (Current Tech Transfer Environment)

- Technology transfer is a mission of the federal government
- ORTAs (Lab T2 Offices) established
- Small businesses, universities and not-for-profits keep title to inventions made with federal funds
- Federal agencies receive greater, more flexible, patent and licensing authority
- Lab scientists can participate in royalty income
- Mechanisms and incentives to implement technology transfer, including CRADAs, etc.

What is the FLC?

The FLC:

- Formally created by Congress under the Federal Technology Transfer Act (Public Law 99-502)

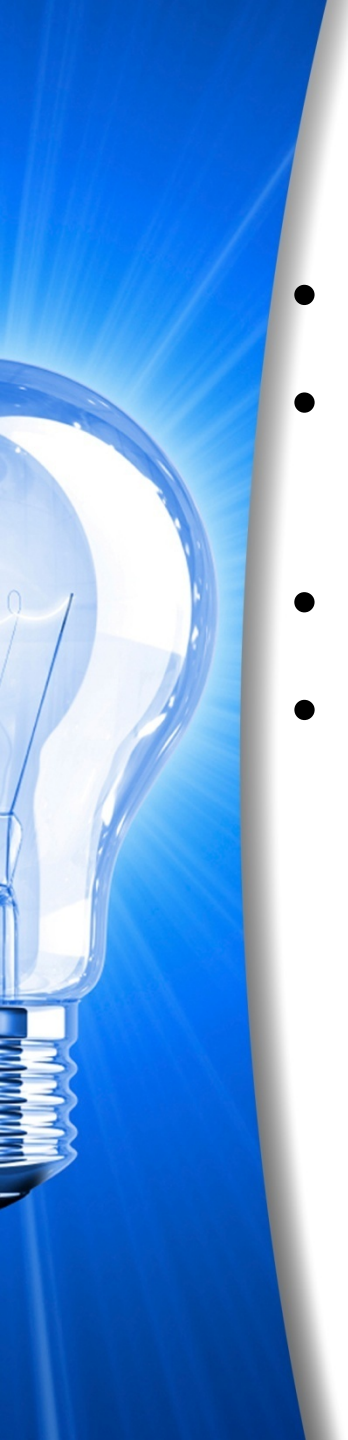
- Composed of tech transfer professionals from the federal laboratories, their respective agencies, and affiliated organizations

- The only government-wide forum for technology transfer

Membership reflects:

18 federal departments and agencies
> Over 250 fed gov't R&D laboratories and centers
> $100 billion annual budget
> 100,000 scientists & engineers

FLC Primary Activities



- Education and Training
- Sharing Best Practices/Networking
  - National and Regional Meetings & Conferences
- Professional Recognition
- Communications and Coordination

"To add value to the federal agencies, laboratories, and their partners to accomplish the rapid integration of research and development resources within the mainstream of the U.S. economy."

Accessing Federal Technology/Capabilities (Entry Points)

- **FLC** (e.g., **Technology Locator Service**)
  - www.federallabs.org
- **Agency** (e.g., T2 Office; Partnership Intermediaries)
  - **Laboratory/Institute** (Lab T2 Office -- ORTA)
    - **Individual** Scientists & Engineers

Tech Locator Service Example
(Ras Labs, LLC)

Interest

Looking for federal lab work on electro-responsive smart materials (to improve its own technology).

"Ras Labs and Princeton Plasma Physics Lab recently formed a CRADA and are actively conducting research with various metals and plasmas to improve the interface between the embedded electrodes and the electro-responsive material of these actuators, which should lead to superior electro-responsive actuators."

Lenore Rasmussen, Ras Labs, LLC

Examples of Federal Tech Transfer

Hybrid Solar Lighting:
(DOE: Oak Ridge National Lab)

- A roof-mounted collector concentrates sunlight into a bundle of plastic optical fibers which are routed to multiple “hybrid” luminaires that blend natural light with artificial light, maintaining a constant level of lighting.
- ORNL **patented** the technology in 2003 and **licensed** it in 2005 to Sunlight Direct, LLC, a local startup company that emerged from ORNL. The principal was granted part-time **entrepreneurial leave** status by UT-Battelle, LLC, the management and operating contractor for ORNL under contract to DOE.

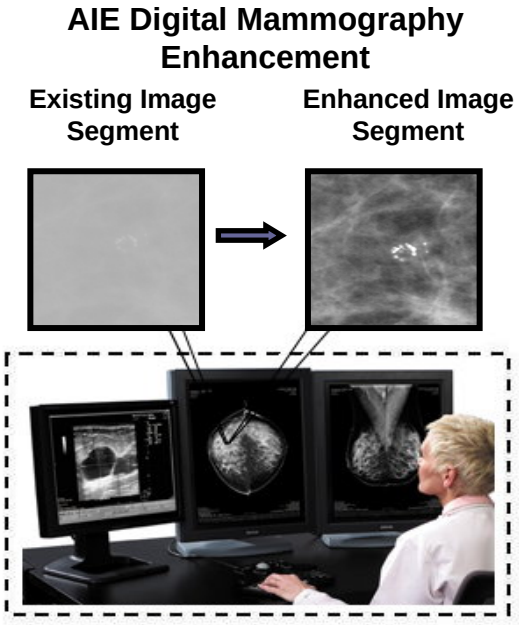
2006 R&D 100 Award winner

Enhanced Digital Imaging

(DoD-Navy: Naval Undersea Warfare Center)

- Enhanced Digital Imaging uses wavelets for multi-resolution analysis, feature enhancement, and noise reduction. The use of wavelet mathematics makes this method more robust than previous enhancement techniques and allows foreign objects to be more readily identified.
- Developed by the Naval Undersea Warfare Center

  Division Newport
- Exclusively licensed to Advanced Image Enhancement (AIE), Inc.
- 3-way CRADA with Rhode Island Slater Fund



2007 IEEE Electro Technology Transfer Award Winner

Portable Chemical Sterilizer (DOD-Army: Natick Soldier System Center)

- The PCS is a portable sterilizing apparatus that functions without electricity – using a **patented** chlorine dioxide combination mixed in simple water and functions in just 30 minutes.
- The Natick Soldier Center **collaborated** with academia and the Medical Research and Materiel Command -Institute of Surgical Research to **invent, patent and transfer this technology to commercial industry via two PLAs** negotiated by DOD Techlink.
- PCS technology won a 2005 Army R&D Achievement Award for Technical Excellence and contributed to Natick Soldier Center winning the 2006 Army Small R&D Lab of the Year Award.

Aerosol Vaccination Device (HHS: Center for Disease Control)

- The CDC and Creare Inc. engineered a handheld, battery operated device (for respiratory administration of vaccines) with disposable patient interfaces.
- Technology was transferred to AerovectRx Corporation through: **Confidential Disclosure Agreement, Material Transfer Agreement, Commercial Evaluation License Agreement, and Exclusive Patent License Agreement**.
- The technology allows large scale sanitary, customizable, and dosage-controlled delivery through the nose or the mouth -has been successful in animal studies of measles vaccination and will be included in human trials later this year.

www.federallabs.org

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