2010 Annual Report

Advancing Federal Research and Technology

FEDERAL LABORATORY CONSORTIUM FOR TECHNOLOGY TRANSFER

FLC

“I find out what the world needs.
Then I go ahead and try to invent it.”

THOMAS A. EDISON

Table of Contents

Cover photo courtesy of Argonne National Laboratory

A blue-lit image scale model of a Crew Exploration Vehicle (CEV) at NASA Ames Research Center, Moffett Field, California.

Photo courtesy of NASA

A Letter From the Chair

Every year, our nation makes a significant investment in federal research and development (R&D)[1] to promote science; advance the nation's health, prosperity, and welfare; and improve the security of our borders and interests abroad. To maximize the benefits of that investment, Congress began enacting legislation nearly three decades ago to promote the transfer of federal research results to the private sector, academia, and other nonprofit and government entities, where technologies and products derived from those results can be further developed and put into use.

To ensure the maximum return on the federal R&D dollar, the nation's R&D investment is leveraged via the technology transfer efforts of the federal laboratories. The Federal Laboratory Consortium for Technology Transfer (FLC) aims to increase the value of the R&D dollar by fostering relationships between federal laboratories and potential partners. Through licensing and collaboration opportunities, the return on investment from federal technology transfer increases—with new, innovative technologies being transferred from federal laboratories to meet the needs of American citizens.

The FLC was created to support technology transfer professionals at federal laboratories—those men and women responsible for meeting the goals set by Congress of ensuring the greatest results from the national R&D investment. We work closely with federal laboratory and agency members, along with their primary stakeholders—industry, academia, and state and local governments—to advance technology transfer.

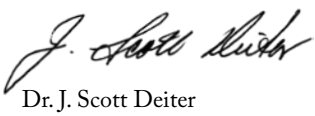
We utilize extensive expertise developed over decades of work in technology transfer to educate and train laboratory personnel and others on all aspects of technology transfer; provide opportunities to share best practices via regional and national meetings; maintain an effective communications program to keep members current on issues and trends; promote our members' capabilities to potential partners via outreach opportunities; facilitate access to federal technologies, facilities, and expertise through our Technology Locator service; support the economic development efforts of state and local governments; and recognize outstanding technology transfer efforts by our members.

The most recent government-wide statistics for federal technology transfer indicate that in 2009 there were over 7,700 active Cooperative Research and Development Agreements in place between federal laboratories and external partners; over 4,400 new inventions disclosed at federal facilities; nearly 11,000 active licenses associated with federal lab technologies; and approximately $150 million in total licensing income associated with federal technology transfer activities.[2] These statistics tell only a small part of the story. The true benefit of technology transfer is reflected in the new jobs created, and the technologies and products put to use supporting the national economy and its citizens. Advancements in medical prosthetics, terrorism detection and prevention, and renewable energy resources are just a few of the federally developed technologies that make an impact on our lives as a result of transferring technology to the private sector.

As Chair of the FLC, I am proud to report that federal technology transfer is accomplishing the goals set forth by Congress—increasing the return on federal R&D investment, and supporting national economic growth and competitiveness while enhancing agency missions—and that the FLC continues to play the vital role envisioned by Congress.

On behalf of the members of the Federal Laboratory Consortium for Technology Transfer, I am pleased to present, in accordance with 15 U.S.C. 3710, the FLC Annual Report for Fiscal Year 2010 (FY 2010) to the President, Congress, and appropriate agencies.

Respectfully,



Dr. J. Scott Deiter
FLC Chair

[1] R&D means research, development, test, and evaluation (RDT&E) throughout the document.
[2] Annual Federal Agency Technology Transfer Reports for FY 2009.

2010 SNAPSHOT

ANNUAL MEETING

530
ATTENDEES

300+
FEDERAL LABORATORY PARTICIPANTS

TECHNOLOGY LOCATOR SERVICES

- MANUFACTURING
- TRANSPORTATION
- ASSISTIVE TECHNOLOGIES
- SENSORS
- SAFETY
- PHARMACEUTICAL/MEDICAL
- ENVIRONMENTAL
- BIOTECHNOLOGY
- FOOD/AGRICULTURE
- MATERIALS
- ENERGY
- COMPUTERS/ELECTRONICS
- FACILITY
- PACKAGING

AWARDS PROGRAM

89 award winners in six regions
were recognized for their accomplishments

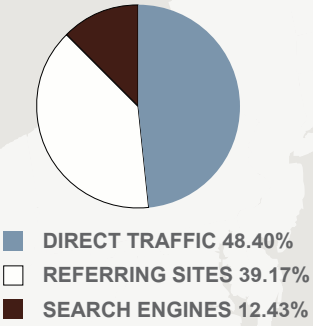
LOOKING INTO THE FUTURE

Benjamin Franklin once said, “Without continual growth and progress, such words as improvement, achievement, and success have no meaning.” Each year the Federal Laboratory Consortium for Technology Transfer (FLC) strives to advance federal technology transfer. With the support of technology transfer professionals at federal laboratories, the FLC not only meets—but surpasses—the goals set by Congress of ensuring the greatest results from our national R&D investment. FY 2010 was a standout year for the FLC.

COMMUNICATIONS

7,000+
subscribers to *FLC NewsLink*

79,265
visits to www.federallabs.org



FLC REGIONS

NORTHEAST

MID-ATLANTIC

SOUTHEAST

MIDWEST

MID-CONTINENT

FAR WEST

EDUCATION & TRAINING

The FLC marketed and distributed 15 boxed sets of its comprehensive training program consisting of presentation booklets, 11 DVDs, and 3 CDs containing 21 hours of video.

159
meeting attendees participated in
AN FLC TRAINING WORKSHOP

78%
of agencies participated in
FLC TRAINING COURSES

550+
training publications
DISTRIBUTED TO FLC MEMBERS

With record attendance at the national meeting, continued interest in Technology Locator services, and ongoing partnerships with state and local governments, we look forward to another great year in 2011.

Throughout its existence, the leadership of the FLC has directed the Consortium's activities to overcome the challenges faced in the technology transfer community. As detailed in this Annual Report, the FLC's programs support the overarching goals and objectives of providing education and training opportunities to technology transfer professionals, an annual meeting and other networking opportunities, communications tools, outreach support, access to federal technologies and facilities for potential partners, coordination with state and local government organizations, and awards for excellence in technology transfer.


– See Federal Register
Number 64, pages 1
– Seek to get a waiver
work starts
– Modify contract to e
for royalties under 1

EDUCATION & TRAINING

One of the FLC's primary mandates is to provide technology transfer education and training opportunities for its members. Education and training are critical aspects of technology transfer—they keep our members up-to-date on the latest techniques, mechanisms, and trends. The training is accomplished by implementing national and regional education and training events, developing technology transfer courses, providing technology transfer resource materials, and developing and maintaining databases of education and training resources and technology transfer procedures.

The FLC recognizes the need to engage the next generation of scientists, engineers, and technology transfer professionals, and in FY 2010 established an ad hoc committee to address science, technology, engineering and math (STEM) education opportunities.

TRAINING EVENTS AND TRAINING COURSES

The major venue for technology transfer training events is the FLC national meeting. In FY 2010, the FLC presented a four-tiered education and training program comprised of Fundamentals Training, two tracks of Intermediate Training, and Advanced Training courses that met the requirements of the International Association for Continuing Education and Training (IACET), the internationally recognized organization for continuing education and training standards. These four full-day courses were attended by 159 students, 24 of whom received continuing education units (CEUs) from Montana State University for the formal training courses and educational sessions. To help the federal laboratories meet their goal of recruiting the next generation, the FLC offered 13 Fundamentals Training scholarships to students from the University of New Mexico's Master in Business Administration in Technology program. The record attendance shows the effectiveness of the FLC's training program in teaching technology transfer-related topics.

Technology Transfer Fundamentals Training

Designed to introduce newcomers to the technology transfer field or as a refresher for T2 veterans, the day-long Fundamentals Training course provided a basic foundation in the background, concepts, and practical knowledge required to transfer federally funded technologies from the laboratory to the marketplace. The course featured an introduction to T2 and the FLC, an in-depth workshop on Cooperative Research and Development Agreements (CRADAs), other technology transfer mechanisms, how to manage a federal technology transfer office, and an introduction to intellectual property issues. The Fundamentals Training course was attended by 58 students.

Technology Transfer Intermediate Training

Track I: Patent and Licensing Workshop—Designed for T2 professionals with a basic foundation in technology transfer or who completed the Fundamentals course, this interactive course focused on the patent process in the federal laboratory, including how to file a patent and how to develop and negotiate a license. It also addressed the licensing process in both government-owned and government-operated (GOGO) and government-owned and contractor-operated (GOCO) laboratories. The Patent and Licensing Workshop was attended by 35 students.

Track II: Technology Marketing and Commercialization Workshop—This day-long, highly interactive workshop offered practical commercialization and marketing tools; approaches T2 professionals can use to engage both internal and external target audiences; and practical marketing and outreach techniques that work even for the smallest offices with few resources. Students explored topics such as conducting an effective market assessment for inventions; using disclosure forms as a marketing tool; how to pitch the technology transfer office (TTO) to both internal audiences and industry; marketing techniques to engage research communities; lessons learned in online marketing; and a roundtable discussion on best practices. The workshop was attended by 33 students.

Technology Transfer Advanced Training Seminar

A panel of seasoned professionals representing technology transfer managers, practitioners, and industry presented a full-day seminar that examined issues of immediate significance to T2 leaders and managers, particularly export control, deemed export control, and new ways of commercializing early-stage technology. Interactive sessions included opportunities for

participants to work through real-life scenarios affected by export control regulations, engage in problem-solving issues that might arise when federal laboratories engage in transfers of material and information with foreign collaborators, and "think outside the box" to find new ways to commercialize technology. The Advanced Training Seminar was attended by 33 students.

EDUCATION AND TRAINING MATERIALS

An integral part of the FLC's education and training program is producing up-to-date T2 education and training materials and publications in a variety of media to serve a geographically diverse membership. In FY 2010, the FLC produced and disseminated training materials in various media to promote "self-learning" and to provide onsite support for training technology transfer professionals. These materials included the Technology Transfer Video Training Program, which enables FLC members and other technology transfer professionals to participate in FLC training activities at the time and place that best fit their needs. In addition, the FLC marketed and distributed boxed sets of this professionally produced and packaged program, which consists of presentation booklets, 11 DVDs, and 3 CDs containing 21 hours of video covering the majority of topics presented in the Fundamentals, Intermediate, and Advanced Training courses at the national meeting.

Also in FY 2010, the FLC distributed more than 550 educational publications to FLC members and other stakeholders in the technology transfer process. These included the *Technology Transfer Desk Reference: A Comprehensive Guide to Technology Transfer,* an in-depth guide that provides an extensive introduction to technology transfer and technology transfer initiatives and mechanisms; the *ORTA Handbook: A Comprehensive Guide for Office of Research and Technology Applications Personnel*, which provides detailed information on the responsibilities of Office of Research and Technology Applications (ORTA) and other federal technology transfer office personnel, the legislative origins and role of the ORTA, and detailed information on technology transfer issues, mechanisms and procedures; *Federal Technology Transfer Legislation and Policy* (known as "The Green Book"), a reference document for policy makers and technology transfer practitioners in the federal government that provides the principal statutes and presidential executive orders that comprise the framework of the federal technology transfer program; and the *T2 Mechanisms Matrix,* an "at-a glance" guide to the wide range of technology transfer mechanisms used at the various federal laboratories, identified by both agency and type of mechanism.

In FY 2010, the FLC began a revision of the current *Technology Transfer Desk Reference* and *ORTA Handbook* for

release in 2011. These two publications will be combined to provide a comprehensive introduction to technology transfer and technology transfer initiatives and mechanisms; detailed information on the responsibilities of ORTAs and other federal technology transfer office personnel, the legislative origins and role of the ORTA, and detailed information on technology transfer issues, mechanisms and procedures; information on marketing and intellectual property; and a primer on patenting.

To support self-learners, the FLC makes most of its education and training materials and publications available on its website, either through direct downloads or via purchase for a nominal charge to cover production and shipping.

In FY 2010, the FLC continued to update, improve, and ensure the currency of its Technology Transfer Training Resources Database (TRDB), a searchable database that resides on the FLC website and identifies current technology transfer training courses and resources within the federal laboratory system, the FLC, academia, and not-for-profit technology transfer organizations. The FLC also maintains online references that help stakeholders identify different ways of working with the federal laboratories: the Federal Technology Transfer Mechanisms Database, a searchable electronic database that identifies the most common technology transfer mechanisms used by each federal agency, the authority that authorizes the use of the mechanism, the features and characteristics of the mechanism, a summary of how it is used, and links to agency websites for information about and samples/templates of the mechanisms; and an online, printable version of the *T2 Mechanisms Matrix* publication, which summarizes these mechanisms in brief.

"The Green Book" and the Technology Transfer Desk Reference *are two educational tools used in T2 training.*

Additional Education and Training Resources

Technology Transfer Training Resources Database

The revised and updated Technology Transfer Training Resources Database (T2 TRDB) provides current information about a wide variety of education and training resources that are available to federal laboratory personnel and other practitioners of technology transfer. These resources include formal and informal training, conferences and meetings, workshops and seminars, classroom and online courses, undergraduate and graduate programs, and many other education and training venues offered by federal laboratories and agencies, technology transfer organizations, nonprofits, and colleges and universities.

Federal Technology Transfer Mechanisms Database

In order to facilitate the technology transfer efforts of the various federal laboratories, the FLC Education and Training Committee has developed this reference tool, which identifies a cross-section of technology transfer mechanisms used by federal agencies. The database identifies a wide variety of mechanisms, the agencies that use them, and links to agency websites where information about each agency's use of the mechanism and samples of mechanisms can be found.

Federal Technology Transfer Mechanisms Matrix

This matrix serves as an "at-a-glance" guide to the wide range of technology transfer mechanisms used at various federal laboratories. It provides a cross-section of these mechanisms identified by both agency and mechanism. The matrix is a reference tool that covers a variety of mechanisms, the agencies that use them, and Internet links to websites where more information can be found, including sample mechanisms.

FLC NATIONAL MEETING

The FLC holds an annual national meeting to: 1) foster outreach and communication among its members and potential technology partners from state and local governments, industry and academia; 2) stimulate interest in technology transfer; and 3) provide education and training about technology transfer issues and procedures.

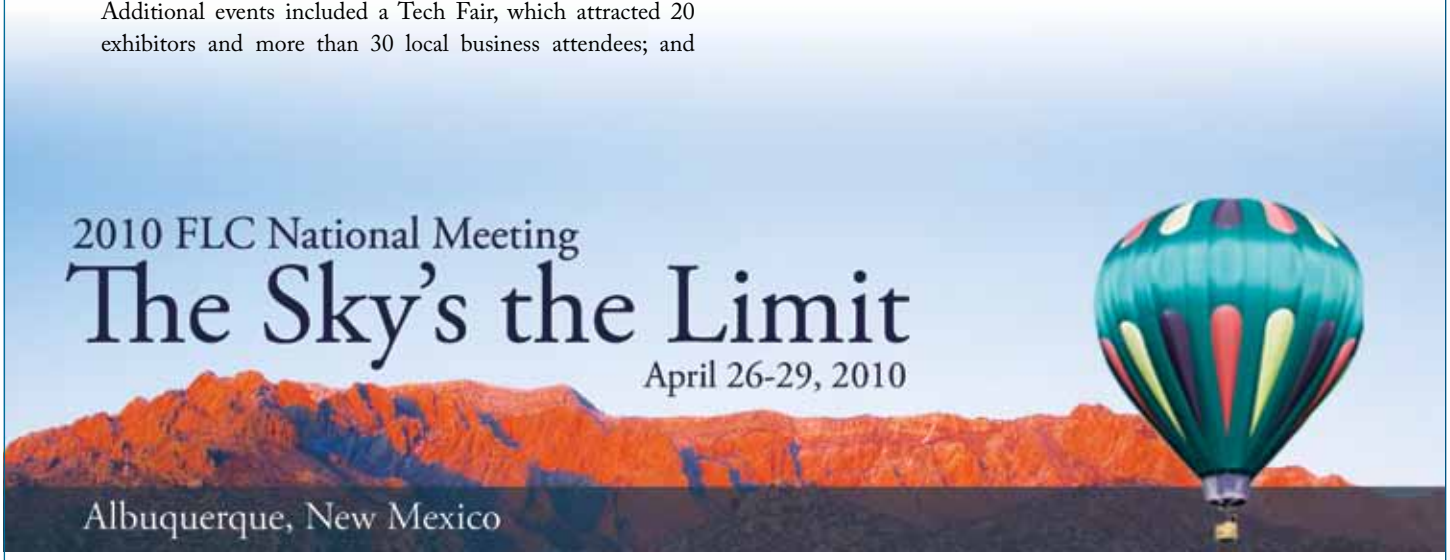
The 2010 national meeting, *The Sky's the Limit*, was held in Albuquerque, N.M. The record-setting 530 registered attendees and exhibitors were primarily federal laboratory employees and members of industry and academia. Organizations included the Technology Transfer Working Group (TTWG), 17 federal agencies, and local businesses.

The national meeting offers an agenda focused on providing the tools and information required by technology transfer professionals to work with potential partners to facilitate the transfer of innovative federal technologies and capabilities to the marketplace. The meeting included a full day of formal training courses, including Fundamentals, Intermediate, and Advanced Training.

The meeting also provided a showcase for the FLC's prestigious technology transfer awards program, including an interactive exhibit session, as well as an awards ceremony and formal banquet that highlighted the R&D achievements of FLC laboratories and researchers, and honored the winners. The keynote address was given by Anousheh Ansari**,** who captured headlines worldwide as the first female private space explorer staying onboard the International Space Station for 10 days. Afterward, Anousheh returned to her job as co-founder and chair of her latest technology company, Prodea Systems.

Additional events included a Tech Fair, which attracted 20 exhibitors and more than 30 local business attendees; and sessions on topics such as new patent rules, assistive technology, innovative partnerships between federal laboratories and industry, venture capital funding, managing technology sales activities, leveraging federal laboratories to enhance economic success, intellectual property rights in technology partnerships, industry perspectives on technology transfer, and industry-federal R&D collaborations.

The FLC also celebrated World Intellectual Property Day, which was established by the World Intellectual Property Organization, a specialized agency of the United Nations. The welcome reception was dedicated to developing a balanced and accessible international intellectual property system that rewards creativity, stimulates innovation, and contributes to economic development while safeguarding the public interest. Opportunities were also provided for agency and service meetings, committee and regional meetings, and agency representative and laboratory director meetings.



COMMUNICATIONS

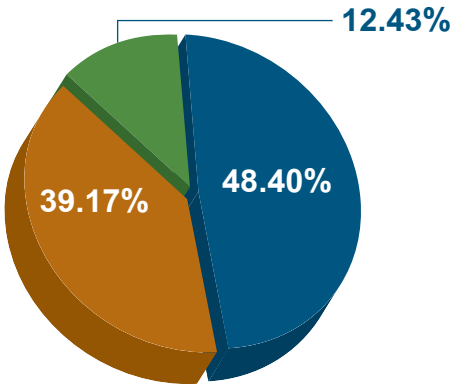
Effective and efficient communication among the wide variety of FLC stakeholders is vital to the success of the federal technology transfer program. As technology rapidly advances, so does the world of communication. The FLC adapts to and implements all of the new and popular communication channels. In its efforts to connect federal laboratories, agencies and potential partners, the FLC's goal is to remain at the forefront of evolving trends in communication.

The FLC utilizes a variety of innovative tools to facilitate such communication, including a user-friendly, easily accessible website; a state-of-the-art electronic communications system; and a wide variety of publications and public affairs activities.

FLC WEBSITE

The FLC website serves as a technology transfer portal for member laboratories, agencies, and potential partners. In FY 2010, there were over 79,000 visits to the site, including 41,234 unique visitors who accessed the site with more than 269,000 page views—an increase from 220,000 in 2009. With visitors from 157 countries, the website attracts a wide variety of users from government, academia and industry, with a visitor return rate of over 50%.

The website provides FLC members and potential partners with information about technology transfer in the laboratories and serves as a launching pad to hundreds of federal laboratory and technology transfer websites. One of the FLC's most versatile means of internal and external communication, the website is a key tool in the FLC's efforts to enhance communication with external participants. In addition, since the website is often used by FLC members and affiliates, it facilitates communication within the federal laboratory community. The website also provides FLC contact information, extensive search capabilities, highlights of individual laboratories, links to a continually updated inventory of technologies available for transfer, federal legislation and policy related to technology transfer, FLC regional websites, an archive of FLC newsletters from 1996 to the present, news stories about the FLC and technology transfer, federal technology transfer success stories, information concerning and access to the Technology Locator, available publications, information on FLC awards, and a calendar of upcoming technology transfer events and FLC exhibits.



FY 2010 FLC Website Statistics

How do people find the FLC website?

- **Direct Traffic 38,361 (48.40%)**
- **Search Engines 31,051 (39.17%)**
- **Referring Sites 9,850 (12.43%)**

Total Visits: 79,265 Page Views: 269,418

ELECTRONIC COMMUNICATIONS

The FLC provides a state-of-the-art electronic communications system that links FLC representatives from member laboratories, facilities, and agencies throughout the country. This system provides a work group environment for email and file transfer for all FLC members—as well as specific FLC member interest groups such as agency representative, laboratory director, and news roundtables.

The service enhances agencies' and laboratories' ability to share information on such topics as cooperative R&D, licensing, and partnership opportunities; legislative and policy developments from Washington, D.C.; upcoming meetings and trade shows; regional and national initiatives; and public relations opportunities. The FLC's electronic communications system comprises 48 focus groups, including those for FLC regions, committees, individual departments and agencies, and FLC partnership initiatives.

Social media are transforming the way we communicate. The emergence and popularity of social networking websites has enabled the FLC to communicate in real-time and broaden its reach to members. This gives the Consortium an opportunity to connect, share, and promote services, products, and events.

The FLC broadens its reach to members by participating in social media communications such as Facebook and Twitter.

PUBLICATIONS AND PUBLIC AFFAIRS ACTIVITIES

Each year the FLC publishes visually stunning and informative publications, bringing a high level of publicity to programs, laboratories, and award winners in an effort to share the stories of technologies emerging from federal laboratories. The FLC develops and distributes a wide variety of communication materials, including its national newsletter, *FLC NewsLink*; regional newsletters; the FLC brochure; *Technology for Today*; the FLC Planner; the FLC State and Local Government success story publication; and education and training materials.

- *FLC NewsLink* is one of the FLC's key vehicles for communicating with its member agencies, laboratories, and external partners. The newsletter enables the FLC to keep members and external partners informed about federal technology transfer news, technologies, research, success stories, websites, and events. In FY 2010, ten regular issues and one special awards issue were published—with an average monthly distribution of 7,000. The subscriber list includes members of industry, academia, state and local governments, media representatives, professional associations, and federal laboratories and agencies. *FLC NewsLink* is also available electronically on the FLC website and is distributed via an electronic roundtable. Each issue of *FLC NewsLink* highlights one or two specific technology areas. In FY 2010, issues focused on agriculture, photonics, sensors, computers, automotive, transportation, biotechnology, food processing, manufacturing, assistive technology, law enforcement, electronics, materials, composites, energy, firefighting, environmental, medicine, and education and training. A portion of each *FLC NewsLink* is dedicated to expanding communication and dialogue.

  In addition, to facilitate communication between FLC laboratories and educational institutions at all levels, *FLC NewsLink* published articles that focused on the processes and techniques that led to collaborative R&D efforts by laboratories and academic institutions and resulted in new technologies in the marketplace, FLC education and training programs, laboratories' educational outreach efforts, educational opportunities and internships in technology transfer, and technology management at universities and laboratories.

- *Technology for Today*, which highlights and details technologies and expertise that had their genesis in federal research and are now moving into the marketplace or are used in everyday life, is an effective tool for promoting the national benefits of federal technology transfer. The publication also discusses how federal laboratories work with students to increase their interest in science, technology, math, and engineering.

- The FLC Planner is a planning tool that uses imagery and captions submitted by federal laboratories to promote the benefits of federal technology transfer and FLC member laboratories.

- The awards booklet showcased the 2010 winners of the prestigious FLC awards. It was distributed at the awards banquet at the national meeting and to the *FLC NewsLink* mailing list.

- Other informational and promotional materials produced and distributed in FY 2010 include a number of laboratory media packets promoting the value of government technology transfer and the federal laboratory system. These consisted of various one-page information sheets promoting the technologies and areas of expertise of specific federal laboratories and research centers, as well as highlighting the FLC's mission, products, and services. The FLC also produced and distributed promotional material concerning the Technology Locator service and the annual national meeting, and placed advertisements promoting the FLC SPIE and State Science & Technology Institute (SSTI) onsite conference materials. In addition, promotional products such as tee-shirts and pens have been distributed via direct mail campaigns, trade shows, and the FLC national meeting.

OUTREACH

The FLC promotes federal technology transfer generally, and the technical and research capabilities of its member laboratories specifically, through an extensive outreach program. The FLC implements its outreach efforts through attendance at regional and national trade shows and related events; targeted presentations for industry, government and other groups; and engaging other stakeholders as appropriate.

FLC EXHIBIT TOUR

The FLC trade show program has been extremely successful at increasing dialogue with industry, academia, and state and local governments. The Consortium attends the premier shows in specific technology focus areas and target industries. In addition to providing presentations, the FLC displays an exhibit booth designed to effectively communicate what the FLC and its members offer industry. In FY 2010, the FLC exhibited, attended, or presented at several high-visibility trade shows—two SPIE conferences, the annual SSTI conference, SPIE Photonics, SPIE Defense, the Nanotechnology Forum, the Association of University Research Parks (AURP), the National Association of Seed and Venture Funds (NASVF), the Small Business Innovation Research (SBIR) Conference, and the Department of Homeland Security (DHS) S&T Stakeholders Conference—and received numerous leads and inquiries regarding potential technology transfer partnerships facilitated by the Technology Locator service.

Technology for Today*, the 2010 FLC Planner, and* Federal Laboratories & State and Local Governments *bring a high level of publicity to programs, laboratories, and award winners by showcasing technologies emerging from federal laboratories.*

REGIONAL ACTIVITIES

In FY 2010, the FLC regions also participated in extensive and effective outreach activities, as well as conducted regional meetings.

In FY 2010, the FLC's six geographic regions (i.e., Northeast, Mid-Atlantic, Southeast, Mid-Continent, Midwest, and Far West) also conducted annual meetings—typically two to three days focused on the specific needs and interests of the region's laboratories. Regional meetings generally feature training, networking forums, discussions of regional initiatives, laboratory overviews, laboratory/industry technology forums, marketing strategies, award presentations, and sharing of success stories.

The Northeast Region held two regional conferences in FY 2010. The spring conference was held at the historic Thayer Hotel on the grounds of the U.S. Military Academy at West Point. Twenty-eight technology transfer professionals braved extensive snow to discuss export control and best practices in the use of CRADAs and the licensing of software to the private sector. At its fall conference in Fishkill, N.Y., the Region's new science, technology, engineering, and math (STEM) program was introduced, and experiences with venture capitalists and commercialization and licensing issues were discussed. The Northeast Region honored members with two Awards for Excellence in Technology Transfer and one Regional Coordinator's Excellence Award.

The FY 2010 Mid-Atlantic Region annual meeting, held in Richmond, Va., was attended by 137 participants from federal labs, academia, and industry, over 50 of whom attended interactive workshops on negotiation tactics and demystifying federal technology transfer. The Region awarded 16 members awards for excellence in technology transfer, interagency partnership, and outstanding technology transfer professional.

The Southeast Region held a well-attended two and one-half day regional conference in Naples, Fla. The conference, "Building a Sustainable Energy Future Through Federal Laboratory Technology Transfer," highlighted a different perspective on emerging alternative energy technology needs. The conference included networking events, sessions and an awards luncheon that honored regional scientists and engineers with five Awards for Excellence in Technology Transfer, one Partnership Award, and one Excellence in Technology Transfer Project of the Year. Additionally, the Region conducted a workshop focused on innovative means to market available technologies for licensing, as well as opportunities for partnerships via current and emerging electronic media such as Twitter, Facebook, and others. Participants also worked in discussion groups to compare approaches for motivating researchers to file disclosures and to improve the quality of disclosures sent to technology transfer offices.

The two and one-half day 2010 Midwest regional meeting, held in Madison, Wisc., was attended by more than 44 individuals from government, academia, and industry. The meeting included networking activities, educational sessions, and a tour of the Forest Products Laboratory. In 2010, the Midwest Region presented three Awards for Excellence in Technology Transfer, as well as a Regional Coordinator's Excellence Award and a Regional Laboratory Award.

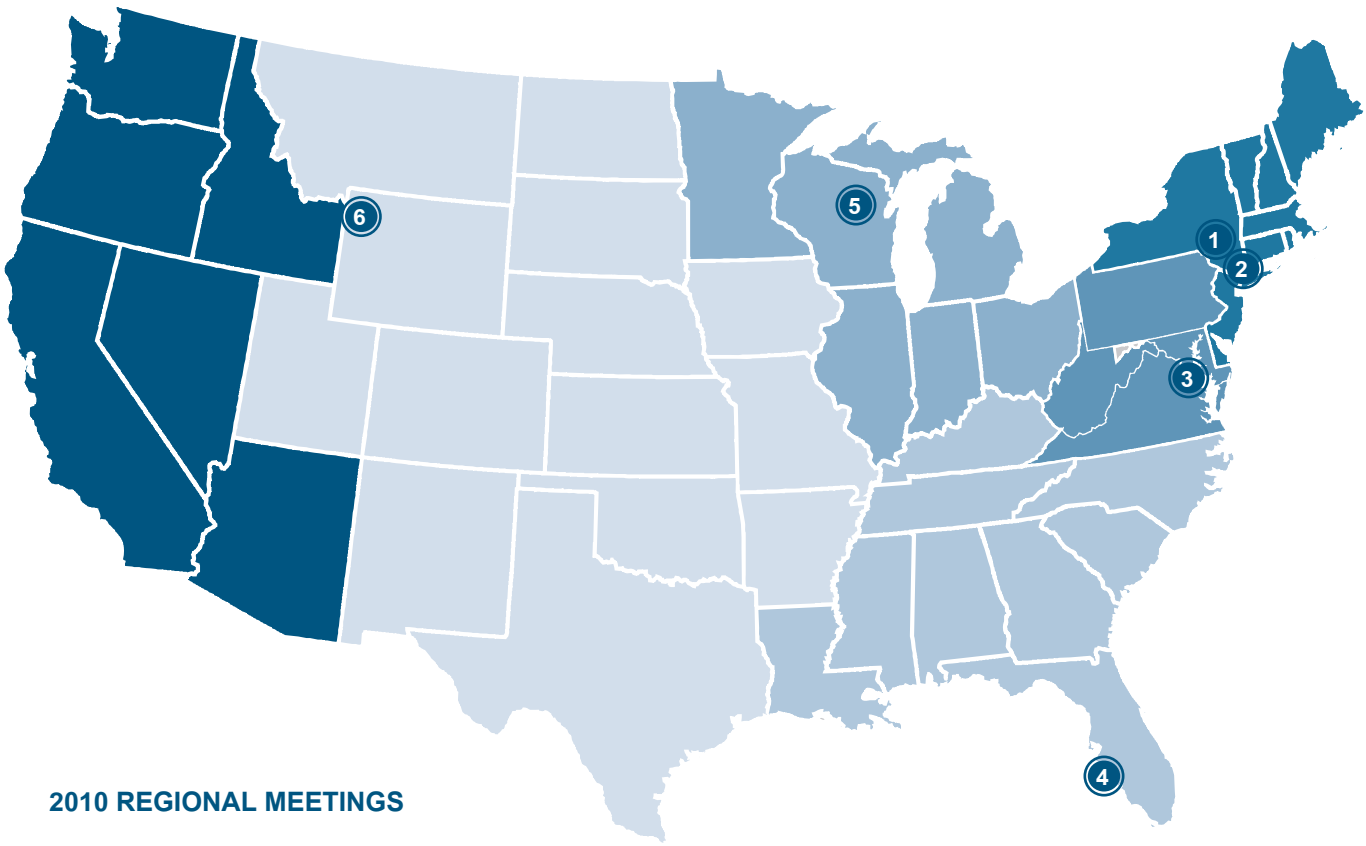
The Far West and Mid-Continent regions held a joint regional conference in Jackson Hole, Wyoming. The conference, entitled "New Opportunities Powering T2," was attended by 97 people and focused on the best mechanisms for CRADAs, best practices for licensing, how to improve work for others, and how to partner with small businesses in SBIR/STTR solicitations. The Mid-Continent Region honored regional members with five awards for notable technology development, one award for regional partnership, six for excellence in technology transfer, two for STEM mentorship, and one for outstanding service.

The Far West Region gave member laboratories awards in four categories: Outstanding Technology Development, Outstanding Partnership, Outstanding Commercialization Success, and Laboratory Representative of the Year. The Far West Region also recognized seven Outstanding Technology Development winners, including a multi-aircraft control system, and a solar-powered system for the generation and storage of hydrogen.

OUTREACH AND EDUCATION ACTIVITIES

Northeast Region

Northeast Region representatives participated in regional and state technology-based economic development (TBED) activities, and expanded the Region's relationships with state



2010 REGIONAL MEETINGS

1. Northeast Fall Regional Meeting, Fishkill, N.Y.
2. Northeast Spring Regional Meeting, West Point, N.Y.
3. Mid-Atlantic Regional Meeting, Richmond, Va.
4. Southeast Regional Meeting, Naples, Fla.
5. Midwest Regional Meeting, Madison, Wisc.
6. Far West and Mid-Continent Regional Meeting, Jackson Hole, Wyo.

and local government (S&LG) groups, state government administrators, and stakeholders. The Northeast Region promoted STEM education by assisting local students and teachers at five middle and high schools located throughout the region. Most significantly, the Region continued its support of the CubeSat Club, at which middle-school students designed a miniature spacecraft, by providing software funding and mentoring the students in conjunction with staff at Princeton Plasma Physics Laboratory. Member laboratories have fostered numerous outreach and education efforts, including several educational programs for elementary, junior, and senior high school students. The Region has provided research and development funding for the artificial muscle project at Raslabs, Inc., in Princeton, N.J.; Biosensors in Biotechnology at Douglas High School in Douglas, Mass., the engineering design process lesson plan at Horace Middle School in Franklin, Mass.; and nanotechnology at Tri-Country Regional Vocational Technical High School in Franklin, Mass.

The Northeast Region is expanding its STEM program and expects to fund eight projects. Proposals for these projects were evaluated by a team from the Federal Aviation Administration (FAA) laboratory in Pomona, N.J. Submissions were received from Department of Energy, Department of Commerce and Department of Interior laboratories in the Region, and the selected winners represent laboratory/teacher teams from the same agencies. Regionally, the awardees represent the states of New Jersey, New York, Massachusetts and Maine. The topics for award consideration were: Controlled All Terrain Transport System, Plasma Speaker, Integrating Google Earth, Falmouth High School Freshman Science School Grounds Survey Project, Using Sea Perch to Support Engineering Design Process on a Real World Project, Rethinking STEM Literacy, and More Materials in the Classroom. The awards span middle, high and vocational-technical schools.

Mid-Atlantic Region

The Mid-Atlantic Region conducted a variety of activities designed to interact with economic development groups, regional businesses, and academia. Several forums brought these stakeholders together with technology transfer practitioners to focus on specific fields, including bioinformatics, robotics and bioproducts, as well as environmental business opportunities. The Region also hosted three networking events: the Nanotechnology Partnership Forum; the Southeast Virginia BioMedical Forum; and the PostDoc Conference and

Career Fair, which is designed to help federal lab post-docs find opportunities for career growth in the region. A lecture series entitled "Demystifying Working With Federal Labs" was launched in conjunction with the Maryland Technology Development Corporation (TEDCO) to encourage dialogue between federal laboratories and other stakeholders in the area of technology innovation and transfer. The goal is to reach industry, academia, economic development organizations, and technology transfer professionals. The Mid-Atlantic's presence and support at BIO International Convention and TEDCO's Bioimaging Showcase exposed tens of thousands of attendees to federal technology transfer.

The Mid-Atlantic Region, Montgomery College, Foundation for Advancement and Education in the Sciences (FAES), Montgomery County Department of Economic Development and Human Workflows, LLC, combined forces to develop a novel training certificate program focused on teaching academic scientists the business leadership and management skills necessary for success in industry. The program consists of 36 credit hours offered through a 12-week course. The first class to complete the program graduated in April 2011.

Montgomery County launched the Gateway to Innovation Welcome Center for Federal and Academic Technology Transfer as a result of the established relationship between the Region and the Maryland Department of Economic Development. At the Center, business owners and researchers can learn how to commercialize a product and discuss topics such as financing, federal licensing, and techniques.

In addition, the Region has established and sustained relationships with county and state economic development organizations, including Northeast Pennsylvania, Washington Metro, Maryland Eastern Shore, West Virginia, Southeast Virginia, Philadelphia, and Delaware.

Southeast Region

The Southeast Region produced and distributed brochures with laboratory points of contact, as well as an educational planning guide for distribution by ORTAs in regional laboratories and industry partners to illustrate the value of the technology transfer office and operations to laboratory management, science and technical communities, and potential industry partners. The materials included a short primer on the technology transfer process and illustrative success stories that highlighted the many ways federal technology transfer strengthens national security, fuels economic growth, and fosters an improved quality of life. In addition, the Region hosted electronic discussions on topics of interest to technology transfer practitioners, and fielded more than 30 requests from industry and other outside groups requesting information about technology transfer opportunities in the Region; these requests were forwarded to the appropriate regional laboratories and/or to the FLC Technology Locator.

Midwest Region

The Midwest Region attended and exhibited at a number of meetings and events throughout the Region. Regional representatives conducted a strength, weakness, opportunity, and threat (SWOT) analysis, and surveyed laboratory representatives on their goals in order to develop the Region's priorities for coming years. Technical areas of importance to the laboratories and the regional economy were identified, including energy, electronics, materials, sensors, and medical/human performance. With the laboratories' needs in mind, the Region focused its outreach on alternative energy, automotive, and technology-based economic development. The Region presented at the Original Equipment Suppliers Association (OESA) Technology Forum at Michigan State University's Management Center, prepared for a visit by OESA members to NASA Glenn Research Center in early 2011, and met with representatives from AutoHarvest and Automation Alley at the Delphi facility to foster a relationship with the automotive industry in Michigan.

The Region also promoted relevant events hosted by member laboratories, such as the opening of the Knowledge Management Lab by the U.S. Transportation Command (USTRANSCOM), U.S. Army Tank Automotive Research, Development, and Engineering Center (TARDEC) Dual-Use Technology Briefings, the Forest Products Laboratory's Small Wood 2010 Conference, and TARDEC's Ground Vehicle System Engineering and Technology Symposium.

The Region furthered its outreach efforts by updating its website with relevant opportunities and events; published a quarterly newsletter; highlighted laboratory success stories; revamped its brochure; and provided 11 copies of FLC training videos.

Far West and Mid-Continent Regions

The Far West Region reached an audience of over 13,000 through its participation at several outreach initiatives, such as the National Small Business Innovation Research (SBIR) Conference, Beyond Phase II Conference, American Chemical Society, Tech Connect, and Advanced Research Projects Agency-Energy (ARPA-E) Summits. The Mid-Continent Region also participated in several SBIR-related conferences, including the National SBIR Conference in Oklahoma City, Okla., and Madison, Wisc.; the Mid-Continent SBIR Conference in St. Louis, Mo.; and the Beyond Phase II Commercialization Conference & Expo in Atlanta, Ga.

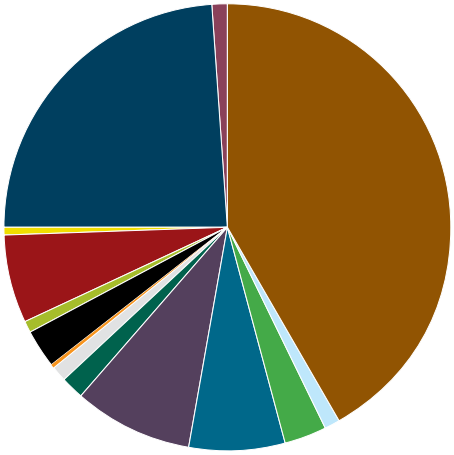
TECHNOLOGY LOCATOR SERVICE

The Technology Locator is a centralized technology service through which the FLC locates a specific federal resource, technology, or expertise sought by potential technology partners. As one of the FLC's most popular services, the Technology Locator service acts as a technology matching service—placing its customers in contact with a federal laboratory that can help meet their needs. In FY 2010, the Technology Locator reviewed and routed hundreds of requests from potential technology partners to the appropriate laboratory or center. These requests came from a wide variety of sources, including referrals from federal laboratories, trade show contacts, website visitors, email inquiries, letters via mail, and telephone inquiries.

The requestors sought federal laboratory partners in a wide variety of technology areas, including pharmaceutical, medical, homeland security, materials, biotechnology, electronics, manufacturing, energy, environmental science, food, agriculture, sensors, assistive technology, computers and software, transportation, automotive, and weapons. Figures 1 and 2 represent Technology Locator requests by category and type.

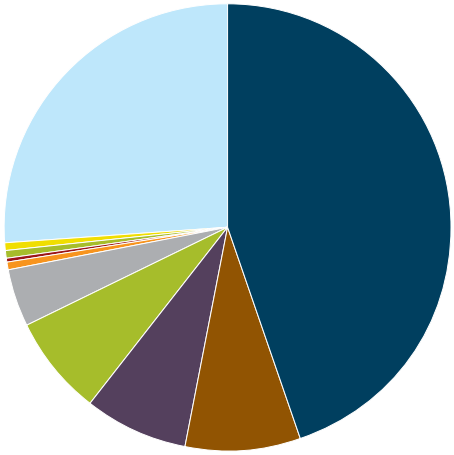
Technology Locator Requests

Requests By Category



- Other 41.8%
- Pharmaceutical 23.8%
- Energy 8.5%
- Electronics 6.9%
- Materials 6.3%
- Computers 3.2%
- Environmental 2.6%
- Homeland Security 1.6%
- Automotive 1.1%
- Firefighting 1.1%
- Manufacturing 1.1%
- Packaging 1%
- Food/Agriculture 0.5%
- Safety 0.5%

Requests By Type



- Informational 44.8%
- License Potential 26%
- Technology Need 8.5%
- Invention 7.4%
- Collaboration 7.1%
- Solve a Problem 4.2%
- Administration 0.5%
- CRADA 0.5%
- Marketing 0.5%
- Test/Facility Need 0.5%

WORKING WITH STATE AND LOCAL GOVERNMENTS

The FLC is mandated with helping state and local governments and regional organizations participate in and benefit from the technology transfer process with federal laboratories. Federal funding for research and development is supplemented and leveraged by states for activities ranging from technology maturation to workforce development and tax incentives for new technology startups.

Through the State and Local Government Committee, the FLC ensures that state and local government organizations are aware of the benefits available to them and their regions through technology transfer partnerships and collaborations with federal laboratories. In FY 2010, the FLC engaged in a number of activities to promote the federal laboratories to these entities, such as forging new relationships with technology-based economic development organizations, developing a concept for state and local one-page flyers, and establishing a new award category for state and local government partnerships.

Various activities were conducted with long-time partner the State Science and Technology Institute (SSTI), including a special session for SSTI annual conference attendees entitled "How to Work With Federal Laboratories." The FLC coordinates closely with SSTI, a national nonprofit organization dedicated to improving government-industry programs that encourage economic growth through the application of science and technology, with membership that includes key individuals working in state science and technology programs in 49 states. SSTI was the first organization targeted by the FLC for a strategic partnership. Additionally, Memoranda of Understanding were forged with key organizations targeted in FY 2010, including the Association of University Research Parks (AURP) and the National Association of Seed and Venture Funds (NASVF). The FLC was also represented at both International Economic Development Council (IEDC) and the National Business Incubation Association (NBIA) annual meetings. The State and Local Government Committee attended, participated, or exhibited at numerous strategic conferences, such as the IEDC 2010 Federal Economic Development Forum and Annual Conference, NBIA 24th International Conference, SSTI Annual Conference, AURP 2010 International Conference, and NASVF 2010 Conference.

FY 2010 CONFERENCE PARTICIPATION

At local and regional levels, the State and Local Government Committee furthered the integration of technology-based economic development by sponsoring, coordinating, and participating in several technology-focused economic development conferences in conjunction with local economic development agencies. These included the Robotics and Unmanned Technologies Conference in Hampton Roads, Va.; Business Opportunities Through Technology Transfer Forum in Salisbury, Md.; and the Bioinformatics Technology Forum in Rockville, Md.

STATE AND LOCAL GOVERNMENT RECOGNITION INITIATIVES

The State and Local Government Committee values the FLC's core principle: promoting, fostering, and implementing technology transfer. The Committee promotes the success of each federal laboratory in print and web-based publications.

New in FY 2010, the State and Local Government Committee's state profile project was born out of a desire to show federal laboratory investment and return on investment at a state level. Each page will provide a snapshot of technology transfer activities in a specific state. The initial drafts demonstrate the technology transfer activities in each state, with the end result being to engage and involve potential parties with interest in federal technology in their geographical region. The launch of final versions is scheduled for FY 2011.

AWARDING STATE AND LOCAL GOVERNMENT ACHIEVEMENTS

The FLC actively supports and encourages the transfer of technology developed in federal laboratories to state and local governments. These efforts strengthen and improve state and regional economies through the effective transmission of science, technology, and innovation from federal laboratories to the private sector.

The new State and Local Economic Development Award, which will be presented for the first time in FY 2011, will celebrate exceptional achievement in approaches used to foster an environment in a geographical region whereby technology transfer from a federal laboratory thrives. For example, relevant initiatives may include those that promote the transfer of technologies from federal labs into products with high commercial potential in a geographic region; encourage entrepreneurship; enhance the ability of companies to access capital in order to bring products to market and to grow; or that seek to improve the skill levels of the local science and technology workforce.

BNL scientists launch a concerted effort of basic and applied research for the development of improved energy-storage materials.

Photo courtesy of Brookhaven National Laboratory

TECHNOLOGY TRANSFER AWARDS PROGRAM

Since 1984, the FLC technology transfer awards program has recognized federal laboratories and their industry partners for outstanding technology transfer efforts. The FLC is pleased to have presented federal laboratories a total of 847 awards–making them one of the most prestigious honors in the world of technology transfer.

In 2010, nominations submitted by federal laboratories were judged by panels of distinguished scientists and engineers from federal laboratories, industry, academia, and state and local governments, who reviewed the nominations and selected the winners. Thirty-four awards were presented in the following 5 categories.

AWARDS FOR EXCELLENCE IN TECHNOLOGY TRANSFER

Laboratory employees and their partners outdid themselves once again in FY 2010. The Awards for Excellence in Technology Transfer formally recognize the process by which technologies developed by a federal laboratory are transferred. Twenty-seven awards for outstanding work in a wide variety of technologies were presented to 20 laboratories representing 5 federal agencies.

LABORATORY DIRECTOR OF THE YEAR AWARD

This award honors directors of FLC laboratories who have made maximum contributions to the overall enhancement of technology transfer for economic development. In FY 2010, two winners were selected:

- Dr. Kenneth Linthicum, U.S. Department of Agriculture, Agricultural Research Service, Center for Medical, Agricultural, and Veterinary Entomology
- Dr. Robert Wiltrout, National Cancer Institute, Center for Cancer Research.

FLC SERVICE AWARDS

These awards recognize individuals who provided significant support to the technology transfer process, thus furthering the mission of the Consortium. Awards are presented in three categories:

- The Harold Metcalf Award for sustained significant service to the FLC was presented to Dr. Theresa Baus, Naval Undersea Warfare Center Division Newport.
- The Representative of the Year Award for the most significant contribution to the FLC program in the past year was presented to Lorraine Flanders, Naval Surface Warfare Center Dahlgren Division.
- The Outstanding Service Award honors an individual who is not an FLC Representative for a notable contribution to the FLC in terms of sustained support and/or service. This award was not presented in FY 2010.

INTERAGENCY PARTNERSHIP AWARD

This award jointly recognizes agency and/or laboratory employees from at least two different agencies who have collaboratively accomplished outstanding work in transferring a technology. Two awards were presented in FY 2010. The first was to the U.S. Department of Agriculture Agricultural Research Service, Goddard Space Flight Center, Walter Reed Army Institute of Research, U.S. Central Command, U.S. Army Medical Research Unit - Kenya, Armed Forces Research Institute of Medical Sciences, Centers for Disease Control and Prevention, and the CDC Medical Research Unit. The second award was presented to the Air Force Research Laboratory, Department of Energy, Oak Ridge National Laboratory, Los Alamos National Laboratory, Office of Naval Research, and National Energy Technology Laboratory.

OUTSTANDING TECHNOLOGY TRANSFER PROFESSIONAL AWARD

This award recognizes the efforts of a technology transfer professional (or team) who has demonstrated outstanding work in transferring a technology. The recipient of this award was Dr. Richard Brenner of the U.S. Department of Agriculture, Agricultural Research Service.

The 2010 FLC awards were presented at a banquet during the national meeting in Albuquerque, N.M. In addition to the awards, the winners also received congratulatory letters from the heads of their respective agencies, members of Congress, and governors.

2010 Financial Statement

UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899

October 7, 2011

Dr. J. Scott Deiter, Chair
Federal Laboratory Consortium for Technology Transfer
Washington, D.C. Office
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Washington, DC 20036

Dr. Deiter:

We have reviewed the Schedules of Revenues and Disbursements of the Federal Laboratory Consortium for Technology Transfer for Fiscal Year 2010. This schedule is the responsibility of the Consortium's management. Our responsibility is to express an opinion on the schedule based on our review.

We examined, on a test basis, evidence supporting the amounts and disclosures in the schedule of revenues and expenses, in addition to evaluating the overall presentation of the schedule of revenues and expenses. We believe that our review provides a reasonable basis of our opinion.

In our opinion the Federal Laboratory Consortium for Technology Transfer Schedules of Revenues and Disbursements for Fiscal Year 2010 present fairly, in all material respects, funds received and funds disbursed in accordance with accounting principles generally accepted in the United States of America.

Sincerely,

Paul R. Zielinski, Director
Technology Partnerships Office
National Institute of Standards & Technology

NIST

Schedule of Revenues and Disbursements

	2009	2010
Revenue	$2,574,442	$2,369,394
Disbursements*		
Contract Support	$1,428,140	$1,422,537
NIST Administrative Charges	$70,125	$181,625
Committee/Operations	$898,529	$914,276
Total Disbursements	$2,396,794	$2,518,438

Agency Contributions to the FLC for Fiscal Year 2010

Agency	Amount Paid
Department of Agriculture	$105,936
Department of Commerce	$69,736
Department of Defense	$1,159,224
Department of Energy	$476,000
Department of Homeland Security	$31,520
Department of Interior	$0
Department of Justice	$0
Department of Labor	$0
Department of Transportation	$22,536
Department of Veterans Affairs	$35,328
Environmental Protection Agency	$31,624
National Aeronautics and Space Administration	$0
National Institutes of Health	$434,272
National Science Foundation	$3,218
Total	$2,369,394

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