NIH OFFICE OF TECHNOLOGY TRANSFER ANNUAL REPORT FISCAL YEAR 2006

The Office of Technology Transfer (OTT) is the central National Institutes of Health (NIH) office responsible for the management of inventions from NIH and the Food and Drug Administration (FDA) intramural research activities and for the development of technology transfer policy for NIH intramural and extramural research activities. Implementation responsibilities are shared among the OTT, the Office of Extramural Research (OER), and the Institutes and Centers (ICs). At the end of Fiscal Year 2006 (FY06), OTT was staffed by 54 Government full-time employees (FTEs), eight contractors, three Intramural Research Training Award (IRTA) Fellows, and one intern.

Office of the Director, OTT

The Office of the Director provides advice to the NIH Director, other Department of Health and Human Services (HHS) agency heads, and Public Health Service (PHS) component ICs on general matters of technology transfer, including Cooperative Research and Development Agreements (CRADAs), patenting, license agreements, Material Transfer Agreements (MTAs), and associated policies involving intramural and extramural technology transfer activities. The Office is involved with numerous global, HHS, and NIH-wide issues involving intellectual property, innovation, and technology transfer. These activities include model or agency-wide agreements for the transfer of materials, issues raised by members of Congress and public interest groups, CRADAs, and inter- and intra-governmental technology transfer issues. Additionally, the Office staff gives presentations and meets with companies, national and local governmental officials, and non-profit institutions world-wide to facilitate public-private partnerships and to provide information on NIH technology transfer activities. This outreach also involves sharing policies and practices to advance the development of technology transfer infrastructure and the management of intellectual property. During FY06, more than 400 people from outside the NIH visited OTT to conduct technology transfer business, attend presentations, and discuss NIH technology transfer practices.

In FY06, representatives from the Director's Office attended or presented at national and international meetings, including: Organization for Economic Cooperation and Development (OECD); Biotechnology Industry Organization (BIO); Association of University Technology Managers (AUTM); Federal Laboratory Consortium for Technology Transfer (FLC); American Association of Pharmaceutical Scientists (AAPS); Licensing Executives Society (LES); 7th Annual Congressional Forum for Historically Black Colleges and Universities, the White House Initiative on Historically Black Colleges and Universities, U.S.-Mexico Border Health Commission, the Centre for the Management of Intellectual Property in Health Research and Development (MIHR), Developing Countries Vaccine Manufacturing Network, World Health Organization (WHO), Global Vaccine Research Forum, WHO-MIHR, Malaria Working Group, WHO Initiative for Vaccine Research, MIHR's Global Health Public-Private Partnerships Meeting, World Intellectual Property Organization (WIPO), the Natural Sciences &

Innovation Working Group at the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the United Nations Children's Fund (UNICEF) Vaccine Working Group.

OTT co-sponsored the inaugural Philip S. Chen, Jr. Distinguished Lecture on Innovation and Technology Transfer. This year's lecture titled "Innovation and Collaboration: Revolutionizing TB Therapy" was given by Dr. Maria Freire, President and Chief Executive Officer of the TB Alliance, and former Director, OTT.

The Office received a multitude of international visitors and represented HHS and NIH at international conferences around the globe. A representative from the office was invited by the Chilean government to present at its IP Tour 2006. International visitors to OTT included representatives from Italy, India, Brazil, Japan, Sweden, Korea, China, South Africa, Canada, the United Kingdom, Mexico, Hungary, the Czech Republic, the Philippines, Uganda, and Colombia.

In FY06, OTT continued its outreach to institutions in developing and emerging market countries resulting in new license agreements with companies, public institutions, non-profit organizations, and public-private partnerships (see DTDT report below) to transfer technologies of importance to public health in these regions of the world.

OTT developed and implemented a database of resources pertaining to intellectual property management and technology transfer operations and training available at NIH, other U.S. Government agencies (Department of Energy, FLC, Department of Commerce, National Institute of Standards and Technology, etc.), international organizations (WHO, WIPO, United Nations Industrial Development Organization (UNIDO), etc.), and foundations (e.g. Gates and Rockefeller). This database is currently available on the OTT website as a resource for NIH staff and for technology managers at universities and research centers worldwide.

OTT continued expanding the International Technology Training Program implemented in FY05. Scientists and technology transfer administrative personnel from Mexico, India, the Philippines, and Hungary received in-house practical training. The training included rotations at OTT, NIH Institutes, other federal agencies (such as the FDA and USPTO), and technology transfer offices at Georgetown University, George Washington University, University of Maryland, and the University of California. All the trainees were sponsored and funded by institutions in their home countries.

In addition, OTT conducted on-site training sessions for representatives from India, Brazil, Japan, Canada, Sweden, the Philippines, Ghana, Senegal, and Korea. These training sessions provided extensive information and support on technology transfer related issues, including intellectual property and marketing/licensing practices.

OTT participated in an intellectual property (IP) working group coordinated by the American Association for the Advancement of Science (AAAS). The working group was comprised of senior members from industry, government, academia, and the non-profit

sector and developed a policy document focused on humanitarian use of intellectual property.

The Office continued to work on the program to assist Minority Educating Institutions (MEIs) to establish a framework that promotes capacity building and sustainability such that it fuels new research enterprises. As part of this endeavor, the Office hosted and trained the technology management specialist from Morgan State University and presented at Partnerships for Innovation, a symposium for senior administrators from the MEIs. Additionally, the Deputy Director attended the first meeting of the Board of Advisors at Jackson State University College of Science, Engineering and Technology.

The OTT marketing group coordinates and conducts marketing activities, including evaluating technologies, identifying potential markets for technologies, and disseminating current technology transfer information. The marketing group promoted NIH/FDA technology transfer through one-on-one interaction with potential licensees, the OTT website, exhibits and presentations at technology shows, an e-mail newsletter, dissemination of promotional materials, and a targeted marketing program.

The marketing group has instituted several operational changes to advance OTT's marketing efforts. Three IRTA Fellows (Ph.D.-level) work in each of the three branches of the OTT Division of Technology Development and Transfer (DTDT) to help Technology Licensing Specialists (TLS) assess and promote technologies from a market standpoint. As part of their IRTA program, they also spend 20% of their time conducting postdoctoral research in intramural laboratories.

The marketing and management of the vast and varied portfolio of intramural inventions is a critical aspect in translating scientific discoveries into products that can benefit public health. OTT has developed a Knowledge Management service called SynapseTM to assist in its marketing efforts. In its second year, SynapseTM has undergone significant improvement and has been used extensively to match company in-licensing needs to the OTT portfolio (market pull) as well as to perform targeted marketing (technology push). SynapseTM also was demonstrated in a number of different fora, both domestically and internationally where it received a strongly positive reception.

In June 2006, OTT was awarded \$493,230 in NIH Evaluation Set-Aside funding to support the project titled *Data System for Intramural Research Program Portfolio Evaluation, Synthesis, and Visualization.* The award supports the first phase in the design and development of a system for evaluating, analyzing, synthesizing, and visualizing the intellectual property portfolios managed by OTT. The tool that will be developed uses the backbone of SynapseTM and has been named CatapultTM.

The marketing group has also developed a Leads Database that tracks all business leads and organizes all the customized technology packages sent to various companies. The group currently tracks the in-licensing needs of about 22 companies ranging from large pharmaceutical companies to small start-ups. In addition to these potential licensees, about six venture capitalist companies, technology brokers, and alliance seeking companies sent their technology requests to the marketing group. Additionally, 10 technologies (some that were bundled and others in a portfolio) were thoroughly studied for their application in the marketplace and companies were identified and contacted to discuss licensing interest.

In conjunction with the NIH Office of Rare Diseases, the marketing group identified over 500 technologies available for licensing that are classified as rare diseases or conditions. Work is underway to promote these technologies, as well as those from other non-profit institutions, on the OTT website.

In order to better integrate technology marketing with the Centers for Disease Control and Prevention (CDC), a mechanism to host CDC technologies on the OTT website was also discussed and work is underway for implementation in FY07.

A new avenue for promoting NIH's inventions was opened up through the Office's relationship with the Federal Laboratory Consortium. Abstracts of NIH/FDA technology licensing opportunities were published in the FLC monthly newsletter, NewsLink, which has a readership of approximately 7,000. The marketing group also published 17 technology abstracts through various external organizations.

The marketing group nominated two technologies for the FLC 2006 Award for Excellence in Technology Training. Dr. Jeffrey Rubin from NCI won for "Kepivance: Improving the Quality of Life for Cancer Patients." Additionally, based on nominations from the ICs and OTT, the mid-Atlantic Federal Lab Consortium presented seven 2006 Hot Technology awards to NIH scientists for their inventive contributions.

Division of Technology Development and Transfer (DTDT)

This Division has the primary responsibility for overseeing all OTT program activities related to the review of intramural inventions reported by the NIH Institutes and Centers (ICs), working with ICs to assess the commercial and patent potential of the technologies, securing patent protection for commercially viable technologies, and negotiating licenses for commercial research, development, and sale as well as the monitoring and enforcement of those agreements. Included in these patent and licensing responsibilities are industrial outreach as well as inter- and intra-agency coordination activities, support of collaborative research activities, and coordination and resolution of national and international patent and licensing issues relating to NIH extra- and intramural programs. DTDT is organized into five branches: Cancer, Infectious Diseases and Medical Engineering, General Medicine, Monitoring and Enforcement, and the Technology Transfer Service Center.

DTDT reported the following statistics for NIH technology transfer activities for FY05 (the numbers include FDA technologies unless otherwise indicated):

Invention Disclosures Received	367
New U.S. Patent Applications Filed	173
Total U.S. Patent Applications Filed	309

Total PCT & Foreign Applications Filed	202
Issued Patents	93
Executed Licenses	254
Royalties (in millions)	\$82.7
Executed CRADAs (NIH Only)	51
Standard	22
Material	29

The patenting and licensing workload for OTT's TLSs continued to increase with the 18 TLSs managing a docket consisting of, on average, 76 EIRs, 533 patents and patent applications, and 43 license applications under negotiation.

Some of the technologies patented and licensed this fiscal year included: vaccines, therapeutics, and diagnostics applications for infectious diseases and cancer; biological response modifiers; software; bioinformatics; and medical devices. The Division also licensed P450 monoclonal antibodies and cell lines which dramatically impact drug metabolism, as well as patented mutagenesis technology for rapidly isolating human monoclonal antibodies using phage display and ribosome display systems, with potential impact on the therapeutic antibodies market. The medical mechanical devices, imaging devices, software, and bioinformatics areas showed growth with 95 (26%) of the employee invention reports submitted. This is an increase of 7% over fiscal year 2005.

After more than 20 years of prosecution and interference, four "vaccinia virus vector" patents finally issued based on inventions made by Dr. Bernard Moss et al. This event opened up this important technology to commercial licenses, as many companies use the vaccinia vector for protein expression or DNA vaccines, including a non-exclusive license with Merial, Inc. for several veterinary vaccines.

Two products that embody NIH technologies received FDA approval this fiscal year. A human papillomavirus (HPV) vaccine based upon technology from the National Cancer Institute and developed by Merck & Company received regulatory approval in several countries, including the United States. The vaccine, Gardasil®, has the potential to save many lives worldwide; in particular it will combat cervical cancer in women. The technology was co-exclusively licensed to GlaxoSmithKline which hopes to receive its regulatory approval for CervarixTM this coming fiscal year. This vaccine is the first marketed as a cancer preventative.

The second FDA approved product is a new HIV antiretroviral drug, Prezista[™], which has been shown to work effectively in cases where other HIV drugs fail due to viral resistance. This drug was developed by Tibotec Pharmaceuticals, Inc., a subsidiary of Johnson & Johnson, based in part on the technology licensed non-exclusively from the NIH.

Of the 254 licenses executed during the fiscal year, 13 new agreements were finalized with developing and emerging market countries, such as Barzil, China, Egypt, Hungary, India and South Africa. While the focus of marketing and licensing is on U.S. companies

for market entry in the U.S., a secondary focus is the improvement of public health in developing countries by licensing directly to institutions that will ultimately introduce new technologies to these markets.

This fiscal year, the Division initiated an update effort for OTT's model licensing agreements, which provided an overhaul and harmonization of all model agreements across all of the licensing Branches.

The Monitoring and Enforcement Branch is responsible for monitoring compliance by NIH licensees, settling license disputes, and investigating potential infringement of NIH patents. The Branch reviews licensee's reports of commercial development progress, licensed product sales, and earned royalties. It manages third-party (outside auditing firm) audits of licensees' sales records and enforces collection of royalty payment obligations. The total number of active licenses monitored by the Branch rose to 1.364 by the end of FY06. During the year, 80 licenses expired, 45 were terminated by licensees, and five licenses were terminated by NIH for lack of compliance. The Branch executed 40 amendments to existing licenses and settled five patent infringement cases by executing new licenses, thus avoiding costly preceedings and delays in the patent process. Execution royalties received from these agreements totaled \$215,500. Thirdparty royalty audits were completed for four licensees during FY06. Two of the four licensees were found to have underpaid earned royalties due NIH. Follow-up on overdue, underpaid or back royalty payment obligations by the Branch resulted in the collection of \$1,864,258 in royalties. Additional royalties totaling \$17,107 were collected as additional fees for late payments. The ongoing effort to bill out and collect patent expenses incurred by NIH after license execution resulted in \$3,007,464 in billings and \$5,330,213 in royalty receipts. A substantial portion of the patent expense reimbursement receipts were from billings made in FY05. In all, a total of \$7,427,078 (9.1%) of the total royalties collected for FY06 may be attributed to the Branch's efforts.

The Technology Transfer Service Center (TTSC) provides ongoing services to the ICs, including initial review, docketing of Employee Invention Reports, managing the patent annuity portfolio, and OTT database administration. The TTSC continues to serve as the Competitive Service Center for the National Institute of Mental Health (NIMH) assisting with the negotiating of Cooperative Research and Development Agreements, Material Transfer Agreements, Confidentiality Agreements, and Research Collaboration Agreements. The TTSC completed portfolio reviews of unlicensed, patented or patent pending inventions for NIMH and, where necessary, initiated additional marketing efforts. It also participated in NIMH initiatives to update various standard operating procedures.

OTT utilizes proprietary software named TechTracS to record, facilitate, and coordinate many office functions (e.g. docketing, work-flow, and records management). The TTSC continues to manage substantial enhancements to TechTracS, which this fiscal year included: automating the Royalty Distribution Form; storage and handling of data related to use of Radio Frequency Identification (RFI) tags to track file-folder locations and access TechTracS records; automation of foreign filing recommendation information,

including creation of patent records; and numerous other enhancements to the Patent, Technology, and Invention tables to enhance the user interface and increase productivity.

As part of an ongoing effort to provide training of importance to the entire NIH technology transfer community, DTDT staff hosted a number of speakers who presented on a variety of issues. Some of the featured speakers were: John Raubitschek, patent counsel, Department of Commerce; Fred Provorny, Director of the University of Maryland Intellectual Property Legal Resource Center; John Wilbanks from Science Commons; Robin Chadwick from Schwegman, Lundberg, Woessner & Kluth; and Thomas Tillett, President and CEO of Rheogene. DTDT also coordinated and taught three Foundation for Advanced Education in the Sciences courses entitled "Technology Transfer," "Biomedical Business Development for Scientists," and "International Strategic Partnering and Business Development."

In addition, DTDT staff co-chaired the Technology Transfer Task Force for the Greater Washington Board of Trade and provided support and mentoring for their Virtual Incubator Program. Two technologies submitted by NIH OTT were further developed by the Virtual Incubator.

Division of Policy (DOP)

The Office of Technology Transfer leads the NIH efforts to develop policies and procedures related to technology transfer and intellectual property matters. The Division of Policy contributes to many of these activities. The actions taken within the DOP include crafting and communicating policies to enhance the translation of early-stage technologies into practical applications. The DOP also provides support for training activities and expert advice regarding health-related technology transfer and intellectual property matters to offices and programs both internally within the U.S. Department of Health and Human Services and externally across the U.S. Government. Members of the DOP represent HHS and NIH in interagency, intergovernmental, and international fora on these issues. Additionally, the DOP hosts the Cooperative Research and Development Agreement Administrator and Coordinator who are responsible for oversight of NIH-wide CRADA activities.

One of the DOP's top priorities is managing and facilitating the review and revision of existing technology transfer and IP policies as well as crafting new policies that reflect current NIH and Public Health Service technology transfer practices. For example, in the past year, the DOP convened a task force comprised of subject-matter experts on software, including members of the intramural and extramural programs, scientists, technology transfer staff from across the NIH institutes and centers, OTT, contracting officers, grants experts, and administrative staff to consider policy on the technology transfer aspects of copyright and software developed for or by NIH. This process yielded a series of DOP drafted software policies that will be presented to the PHS Technology Transfer Policy Board (TTPB) in early FY2007. Also, the DOP drafted a new policy on NIH's assertion of ownership over inventions made by non-employees working at NIH

who are substantially supported by third-parties. Currently, DOP is working with NIH stakeholders to refine the ownership policy for submission to the TTPB in early FY07.

DOP, working with other members of the PHS technology transfer community, led the drafting of NIH comments to the U.S. Patent and Trademark Office's "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility." These regulatory changes have significant impact regarding the standards used to determine the threshold criteria for patentability. The goal was to articulate a policy framework for the development and implementation of technology transfer and intellectual property polices to promote diffusion of basic research efforts into the marketplace. In addition, these comments documented NIH's public stance against the issuance of overly broad patent claims in the field of biochemical diagnostics.

Among its administrative duties, the DOP is responsible for overseeing administrative processes that have policy implications. These duties include oversight of OTT's participation in the Government Performance Results Act of 1993 (GPRA) reporting, responding to FOIA requests, and processing extramural waivers. DOP staff also reconciled and updated FOIA files, closed 13 FOIA cases (including all FY04 cases), and helped to collect approximately \$1,800 by identifying requesters delinquent in payment of FOIA fees. DOP also reviewed of 66 waiver requests, including extramural inventor waivers, waivers of U.S. manufacturing requirements, and waivers of assignment.

DOP has led a variety of initiatives and implemented major policy changes in the CRADA process. These include revision of the U.S. Public Health Service Technology Transfer Manual Chapter's 400-402 and working with other NIH stakeholders to address issues of fair-access and Private Investigator (PI)-eligibility for extramural staff. DOP supported efforts to revise the CRADA Subcommittee Charter and the associated Standard Operating Procedures that have been adopted by the Technology Transfer Policy Board. In addition, CRADA staff has worked to streamline the CRADA review process by establishing an electronic CRADA (eCRADA) review process for the CRADA Subcommittee of the TTPB.

Members of the DOP actively participate in a wide array of trans-NIH projects that address programmatic components of technology transfer. Examples include membership on the Trans-NIH Task Force on Nanotechnology, the Data/Resources Sharing Interest Groups, and the Inter-Agency Working Group on Technology Transfer. It also acts as advisors on many *ad hoc* issues related to technology transfer and IP.

Division of Administrative Management (DAM)

This Division is responsible for the internal policy development, guidance, and conduct of administrative and management functions within OTT, including financial management; human resource management; administrative training; travel; purchase and maintenance of equipment and supplies; acquisition and management of space; contracts and interagency agreements; database management; and records and forms management. DAM is also responsible for the post-license agreement administration tasks related to royalty collection, reconciliation of payments made to the Office of Financial Management, recoupment of patent costs from licensees, and assistance in audits of licensees. In FY06, NIH collected \$82.7 million in royalty payments from 882 license agreements or amendments.

In June 2004, the HHS Office of Inspector General began a year long audit of the royalties' processes and collections reviewing all payments received in FY02, '03 and '04. As a result of their initial findings, the auditors determined they only needed to perform an in-depth review on a small sample of the payments and associated license agreements. The investigation was completed in March 2005. The OIG plans to submit its final recommendations to the Director, OTT in FY07.

The implementation of paperless processing of executed license agreements and notices has significantly reduced the effort needed to distribute documents to licensees, NIH Technology Development Coordinators, and the Office of Financial Management (OFM). Increased usage of electronic dissemination of documents reduced overnight delivery and courier charges by more than \$9,000 in 2006. In August 2006, OFM and OTT further reduced courier service charges by notifying OTT of incoming checks electronically and sharing them on a common drive accessible by OTT and OFM personnel.

OTT administered 1,435 checks totaling \$82.7M in royalties, including \$1.5M that was collected on royalty terms that were due prior to July 1, 2005. "Additional Royalties" as late payment penalties were assessed on eight licenses for a total of more than \$17,000. OTT collected \$6.5M in patent prosecution expenses. Of this amount, \$5.3M was from ongoing patent expenses due for reimbursement under executed licenses.

The Royalty Administration Unit staff reviewed more than 1,200 licenses throughout the year to ensure that terms and financials were appropriately recorded in the OTT database. As of September 30, 2006, there were 273 licenses that contained 452 terms that were more than 90 days old and are being investigated by the Royalty Administration Unit and the DTDT Monitoring and Enforcement Branch because of non-payment or a short payment.

DAM supported the multi-award contract to law firms for patent prosecution of NIH and FDA inventions. In FY06, the group managed 14 law firm contracts and authorized 3,398 (increase of 3.4%) procurement orders. A review of FY06 obligations led to amending 1,300 task orders by \$1.9M. DAM processed an additional 1,450 task order amendments from prior year obligations and returned \$3.3M to the Institutes, which pay these patent prosecution expenses. Patent service task order obligations totaled \$16.4M. This is a 22% decrease from the total obligation at the end of FY05 (\$21M). DAM processed 2,844 invoices for patent prosecution services.

DAM oversaw the hiring of 17 new FTEs, 11 contractors, and five IRTA fellows for OTT. Additionally, DAM processed three detailees from other ICs, and 10 interns from external educational institutions and foreign countries. Forty-seven people, including 16 contractors, nine interns, six detailees, and five Post-doctoral Fellows, were out-

processed. Of the 11 government employees who left OTT, two retired from the Federal Government.

OTT Records Management and Privacy Act Coordinator responsibilities were moved to DAM and FOIA Coordinator responsibilities are being transitioned to DAM.

Articles authored by OTT personnel

Bahar, M., Chatterjee, S., Ray, E., Brochure for distribution at conferences entitled *Commercialization Opportunities at the National Institutes of Health*

Ferguson, S., et al., Nature's Medicines: Traditional Knowledge and Intellectual Property Management. Case Studies from the National Institutes of Health (NIH), USA, *Current Drug Discovery Technologies*, Vol. 2, 2005

Ferguson, S., et al., Beyond Patents and Royalties: the Perception and Reality of Doing Business with the NIH, *Nature Biotechnology*, Vol. 24 No. 1, January 2006

Feindt, H., Chapter on License Administration, *The Handbook of Best Practices for Management of Intellectual Property in Health and Agriculture Research & Development*, 2nd Edition, published by MIHR and the Rockefeller Foundation, 2006

Ben-Menachem, G., Ferguson, S, and Balakrishnan K., Beyond Patents and Royalties: The Perception and Reality of Doing Business with the NIH, *Nature Biotechnology*, Volume 24, Number 1, January 2006

Salicrup, L., Harris, R., Rohrbaugh, M., Partnerships in Technology Transfer: An Innovative Program to Move Biomedical and Health Technologies from the Laboratory to Worldwide Application, *IP Strategy Today*, February 2005

Salicrup, L. and Rohrbaugh, M., Partnerships in Technology Transfer: An Innovative Program to Enhance Biomedical Research and Global Health, *International Microbiology*, Vol. 8, March 2005

Salicrup, L. and Rohrbaugh, M., International Technology Transfer: An Innovative Strategy to Move Medical Technologies to Institutions in Developing Countries, *Proceedings of WHO Global Forum of Health Research*, 2005

Salicrup, L., Harris, R., Garner, C. and Rohrbaugh, M., Developing Health R&D Systems: Partnerships for Capacity Building in International Technology Transfer, *Proceedings of WHO's Global Forum of Health Research*, 2005

Rohrbaugh, M., Distribution of Data and Unique Material Resources Made with NIH Funding, *J. Commercial Biotechnology*, Vol. II, No.3, April 2005

Ruchika, N., Tidwell, J., Ferguson, S. and Balakrishnan, K., Bypassing bypass surgery and other success stories from the National Institutes of Health, *Journal of the Association of University Technology Managers*, Vol. XVII, No. 2: 1-16, Fall 2005 Ramakrishnan V., Chen J., Balakrishnan K., Effective strategies for marketing biomedical inventions: Lessons Learnt from NIH License Leads, *Journal of Medical Marketing*, Vol. 5: 342-352, 2005

Salicrup, L. and Rohrbaugh, M.L., Chapter on global health and technology transfer, *The Handbook of Best Practices for Management of Intellectual Property in Health and Agriculture Research & Development*, 2nd edition, published by MIHR and the Rockefeller Foundation, 2005

Sadowski, D., Avoiding the Avalanche: Records Management Techniques for Improving Workflow in Technology Transfer Offices, *Association of University Technology Managers (AUTM) Technology Transfer Practices Manual*, 3rd Edition, Volume 2, Part 1, Chapter 8.3, 2006

Salicrup, L., collaborated in MIHR publication, *Academic Licensing to Global Health* and Product Development Partnerships, 2006

Posters presented by OTT personnel

Ramakrishnan V, Gupta, R., and Balakrishnan K, "Role of NIH Inventors in Technology Transfer," NIH Research Festival, Bethesda, MD, October 2005

Feindt H., Keller G., Pan, P., Walenta J., Ferguson S., "Technology License Monitoring Programs at NIH", NIH Research Festival, October 2005

Sadowski, D., Ano, S., "Technology Transfer Needs You – Endless Possibilities For Your Research," NIH Research Festival, October 2005

Ferguson, S., et al., "Bypassing Bypass Surgery," AUTM Annual Meeting, Orlando, FL, March 2006

Finley, S., "Adventures in Technology Transfer: Lessons Learned in the Deployment of a New Technology Transfer Information Management System," AUTM Annual Meeting, Orlando, FL, March 2006

Select presentations by OTT personnel

The Current Status of Research Exemptions Post-*Merck v. Integra*, Interagency Working Group on Technology Transfer, October 2005

Merck KGA v. Integra & Research Tools, Presentation, Licensing Executives Society Annual Meeting, October 2005 Products, Partners & Public Health: Doing Business with NIH, Frederick Business Incubator Seminar on Federal Technology Transfer, October 2005

Research Tool Web Program, Pfizer Nagoya Laboratories, Nagoya, Japan, October 2005 *LabCorp v. Metabolite*, Patent Lawyers Club of Washington, December 2005

The CREATE Act, 6th Advanced Forum on Biotech Patents, February 2006

TechMatch: Text Mining for Marketing Innovation, KM Symposium, February 2006

Why Knowledge Management and Transfer are Important to Academia, ORAU HBCU/MEI Council Meeting, February 2006

Research Tools & Knowledge Exchange: View from NIH, Japan Pharmaceutical Manufacturers Association, Tokyo, Japan, February 2006

Management of Confidential Information, IP Licensing/ NIH Perspective; Research Tools Policy and Guidelines and Material Transfer Agreements; and Valuation of IP, Indian Department of Science & Technology and the Indian Patent. Indian Department of Science & Technology and the Indian Patent Facilitating Centre, Bangalore and New Delhi, India, February 2006

Facilitating Centre, Bangalore and New Delhi, India, February 2006

An Alternative Business Model for Patenting and Licensing Biotechnology Inventions in China: Entering Financial and Operational Agreements with Chinese Institutions, A World Research Group Intellectual Property Series Conference - A Blue Print for Building and Enforcing IP Value in China, February 2006

Technology Transfer Activities in Japan and China, George Washington University Center for Creative & Innovative Economy, March 2006

The '411' on the PTO's Proposed Rules Changes on Continuation/Claim Examination Practice, OTT, April 2006

Exciting Research Advances at NIH Lead to Public Health Improvements, NIH Director's Council of Public Representatives (COPR), April 2006

Briefing on USPTO's Interim Guidelines on Subject Matter Eligibility ('the 101 Guidelines'), TDC Policy & Legislative Working Group, April 2006

Open Source and Patents, Fordham University School of Law, Fourteenth Annual Conference, International Intellectual Property Law and Policy, April 2006

IP and Licensing: Strategies for a Government Agency with a Public Health Mission, Health Research Alliance, April 2006 Products, Partners & Public Health: Doing Business with NIH, BIO 2006 Annual Meeting, April 2006 Products, Partners & Public Health: Doing Business with NIH, Lab to IPO, George Washington University, May 2006

Marketing Laboratory Intellectual Property, FLC Annual Meeting, May 2006

Trends in Technology Transfer, the 3rd Annual Florida Tech Transfer Conference, May 2006

Technology Transfer: The NIH Experience, Maryland/Israel Development Center, June 2006

Cutting-Edge Practices and Considerations in Technology Transfer, National Academies of Science, June 2006

NIH Research Tools Policy Applications, Beyond Genome Conference, June 2006

The 411 on Comments to the PTO's 101 Guidelines, NIH/CDC/FDA Technology Transfer Community, August 2006

Merck v. Integra and LabCorp, Trans-NIH Working Group, August 2006

George Washington University Angels Investment Workshop, August 2006

SynapseTM and CatapultTM – New NIH OTT Technology Transfer Tools, Interagency Working Group on Tech Transfer, September 2006

Transitioning from Academia to the Real World of Technology Transfer: Our Experience, White House Initiative on Historically Black Colleges and Universities

Trade Shows

LES Tech Fair 2005, Phoenix, AZ

American Association of Pharmaceutical Scientists, Annual Meeting 2005, Nashville, TN

AUTM 2006 Annual Meeting/Networking Fair & Technology Exchange, Orlando, FL

BIO 2006 Annual Meeting, Chicago, IL

BioDefense Vaccines Meeting, Washington, DC, April 2006

Drug Discovery Technology 2006, Boston MA

LES/AUTM Spring Meeting, Philadelphia, PA, May 2006

PharmaDiscovery 2006, Bethesda, MD

Awards received by OTT personnel

NIH Merit Awards (6)