

Recommendations – Technology Transfer

OITE, 2/2011

Training Opportunities

1. NIH Office of Technology Transfer (OTT) <http://www.ott.nih.gov/>
 - Intramural Research Training Award (IRTA) Fellowships http://www.ott.nih.gov/about_nih/IRTA.aspx
 - Internship Opportunities in Federal Technology Transfer
http://www.ott.nih.gov/about_nih/intern.aspx
 - International Training Opportunities in Federal Technology Transfer
http://www.ott.nih.gov/about_nih/ITOFTT.aspx
2. National Cancer Institute (NCI) Technology Transfer Center (TTC)
 - Cancer Research Training Awards (CRTA): Agreement Negotiation Track
<http://ttc.nci.nih.gov/employment/crtafe.php>
 - Cancer Research Training Awards (CRTA): Marketing Track
<http://ttc.nci.nih.gov/employment/crtafe2.php>
3. Association of University Technology Managers (AUTM) <http://www.autm.net>
 - Scholarships (Also has job resources)
4. Biotechnology Industry Organization (BIO) <http://www.bio.org/>
 - Internships

Education

1. The FAES Graduate School <http://faes.org/>
Courses in Technology Transfer
2. USDA Graduate School – Technology Transfer: Issues and Processes
<http://graduateschool.edu/>
3. National Council of Entrepreneurial Tech Transfer (NCET2)
<http://www.ncet2.org/>
4. National Technology Transfer Center (NTTC) <http://www.nttc.edu/>
5. Federal Laboratory Consortium (FLC) for Technology Transfer
<http://www.federallabs.org/> (Also has job resources)
6. Patent Bar Review Classes
 - Patent Resource Group (PRG) <http://www.patentresources.com/>
 - PatBar.com <http://patbar.com>
 - BAR/BRI Patent Bar Review Course <http://www.barbri.com>

Partnering/Collaboration Opportunities: e.g., Cooperative Research and Development Agreement (CRADA)

- National Institutes of Standards and Technology (NIST)
Technology Partnerships Office (TPO) <http://www.nist.gov/tpo/>
- Naval Research Laboratory (NRL) Technology Transfer Office (TTO) <http://www.nrl.navy.mil/techtransfer>
- Walter Reed Army Institute of Research (WRAIR) Technology Transfer
<http://wrair-www.army.mil/index.php?view=technologyTransfer>

Other Resources

- Maryland Technology Development Corporation (TEDCO)
<http://www.marylandtedco.org/>
 - Funding opportunities, business assistance, etc.
- Licensing Executive Society (LES) <http://www.lesi.org>
- United States Patent and Trademark Office (USPTO) <http://www.uspto.gov/>

Skill Sets

- (1) Strong science background.
- (2) Negotiation and persuasion skills: Able to deal with scientists, inventors, institutes, business people, and legal people.
- (3) Time and project management skills: Able to juggle, multitask, and meet the deadline.

Others

- (1) Be exposed to technology transfer as much as possible.
- (2) Increase your knowledge base about technology transfer.
- (3) Have real-world experience: e.g.,
 - Internships/fellowships.
 - Have gone to law school, have law firm experience or experience in USPTO, or anything related to patenting, licensing, and agreement.
 - Have negotiated for a company.

- Have interned at a university technology transfer office.
- Etc.

Ai Mtha Wan

EDUCATION

Ph.D. joint degree in Genetics and in Plant Pathology, Michigan State University, East Lansing, MI.

M.Sc. Cell Biology, University of Cincinnati, OH.

B.Sc. Cell, Molecular, and Developmental Biology, McGill University, Montreal, PQ, Canada.

Current: Technology License Monitoring and Enforcement Specialist, NIH Office of Technology Transfer, present. Responsibilities include obtaining and reviewing sales reports and annual reports, collecting overdue royalties, and ensuring that licensees comply with milestones and benchmarks and associated payments. Renegotiate agreements not in compliance with new benchmarks, milestones, or other elements of the license, such as the minimum annual royalty. Examine potential infringement of NIH patented technologies, contact potential infringers, and execute settlement agreements. Oversee external audits of selected licenses.

Intellectual Property Asset Manager, American Type Culture Collection (ATCC), Manassas, VA, XXXX to XXXX.

- (1) As the IP Asset Manager, created an IP Asset Registry to record research efforts and inventions. Oversaw and coordinated the prosecution of patent and trademark applications with external legal counsel. Reviewed all company publications, posters, and grant proposals for proprietary content. Assessed the potential for intellectual property protection. Supported New Product and Business Development initiatives and the R&D group by searching the prior art, assessing patentability, and conducting freedom-to-operate analyses of products in the development pipeline.
- (2) As head of the International Patent Depository, was responsible for the storage of tens of thousands of samples of a myriad of biological organisms, seeds and tissue samples.. Administered the budget and allocated resources to fulfill the various responsibilities, such as viability testing of all deposited materials.

Intellectual Property Rights Specialist, International Rice Research Institute (IRRI), Los Banos, Laguna, Philippines, XXXX to XXXX.

- (1) IP Management at IRRI. Responsibilities included negotiating licenses, and material transfer agreements; reviewing research agreements, memoranda of understanding, memoranda of agreement, and grant proposals for IPR statements; and advising staff, management, and the IRRI Board of Trustees for IPR issues.
- (2) Capacity Building. Conducted IPR training for IRRI staff and for external partners. Traveled throughout Asia and Africa to promote the benefits of IPRs in R&D and international trade. Gave numerous seminars and workshops on IPR in Lao PDR, Burma, Cambodia, China, Thailand, Philippines, Ivory Coast, and Kenya and IP management.

Patent Advisor, Office of Technology Transfer, Agricultural Research Service, USDA, Albany, CA, XXXX to XXXX.

Advised and trained scientists regarding the best way to achieve technology transfer, whether via publication, patent, or other mechanism. Searched the patent and scientific literature for the closest prior art, and assessed inventions for patentability. Prepared and prosecuted patent applications. Registered to practice before the USPTO as a Patent Agent.

Patent Examiner, Complex Biotechnology, US Patent and Trademark Office, Department of Commerce, XXXX to XXXX.

Evaluated biotechnology-related patent applications on a number of criteria. These evaluations were conducted by evaluating the scientific merit of the invention: by performing prior art searches and weighing the results against the established legal standards. Wrote office actions, conducted phone and in-person interviews with attorneys, negotiated allowable claims with Applicants' representatives, and performed other duties related to the examination process.

Office Actions required detailed scientific and legal analyses of patent applications in many areas. Docket included genetic transformation techniques, viral vectors, and regulatory genes; genome mapping, nucleic acid assays; vaccines, recombinant toxins and genes; plants and recombinant techniques; methods of transforming plant tissues;

novel plant genes; plant transformation vectors, inbred lines of corn and soybeans, and plant genetics, among other areas.

Research Science Experience

Molecular Biologist, Molecular Plant Pathology Lab, Plant Sciences Institute, Agricultural Research Service, USDA, Beltsville, MD, XXXX to XXXX.

Field tested the efficacy of tomato plants that were genetically engineered with various RNA satellites of cucumber mosaic virus. Responsibilities included writing annual progress reports to renew project funding and writing annual reports to APHIS to report research findings. Also responsible for ensuring that the field test complied with all governmental regulations and arranging for inspection by APHIS and state of MD agents.

Graduate Research Assistant, Department of Botany and Plant Pathology and the Genetics Program, Michigan State University, East Lansing, Michigan, XXXX to XXXX.

Characterized the inheritance of resistances in the inbred Chinese cucumber line TMG-1 to zucchini yellow mosaic virus, watermelon mosaic virus, and the watermelon strain of papaya ringspot virus. Discovered a complex pattern of inheritance: one dominant resistance gene conferring resistance to papaya ringspot virus, one recessive gene conferring resistance to zucchini yellow mosaic virus, and two recessive genes conferring resistance to watermelon mosaic virus. The recessive resistance gene to the zucchini yellow mosaic virus is shared with one of the two recessive genes to watermelon mosaic virus. It turned out that the second resistance gene to watermelon mosaic virus is expressed only under certain conditions, such as high light intensity. Proposed two different types of resistance being expressed against watermelon mosaic virus: one against systemic spread of the virus and the second against cell-to-cell spread. This novel mechanism of plant virus resistance at the level of cell-to-cell spread was first described by this researcher.

Research Associate, Pharmaceutical Products Division, Abbott Laboratories, Abbott Park, IL, XXXX to XXXX.

Performed inhibition of DNA gyrase (supercoiling) assays to screen for broad-spectrum antibiotics (quinolones). Studied drug-DNA interactions between quinolones and reconstituted histone-DNA complexes. Chemically modified urokinase by (a) polyethylene glycol addition, and (b) by insertion of synthetic peptides by disulfide exchange (patent obtained for this process). Achieved addition of blocked amino acids and peptides to C5a and its elastase-generated fragments by protease reversal. Attempted to re-fold inactive recombinant rennin into its physiologically active form. Partially purified recombinant HIV-1 protease.

Graduate Research Assistant, Department of Biology, University of Cincinnati, Cincinnati, OH, XXXX to XXXX. Labeled virions and isolated vaccinia virus DNA with the psoralen derivative AMT and acetoxyaminofluorene (AAA-F). Studied the effects of AMT on restriction enzyme patterns and on the electrophoretic mobility of DNAs. Correlated the differential labeling of AMT to packaging of early and late viral genes. Maintained cell culture lines to propagate virus and performed plaque assays.

Other laboratory experience:

- (1) Isolated beta polymerase from rat liver Novikoff hepatomas and performed enzyme assays – lab rotation, masters degree program.
- (2) Maintained large cultures of transformed human breast cancer lines at NCI/NIH, Viral Oncology and Molecular Pathology lab – high school senior project.

Bast Bett

BB@mail.nih.gov

Business Address

Technology Transfer Center
National Cancer Institute/NIH
Rockville, MD 20852
Phone: 301-abc-defg
Fax: 301-hijk-lmno

Home Address

Gaithersburg, MD 20878
Phone: 301-pqr-stuv

Candidate for: Technology Licensing Specialist, GS-0601-11

DHHS, NIH, OIR/OTT

Announcement Number:

Citizenship: United States

Veterans Status: None

PROFESSIONAL SUMMARY

- Twenty-two months as a Licensing and Patenting Manager in the Office of Technology Transfer at the National Institutes of Health
- Twelve months as a Technology Transfer Specialist in the Technology Transfer Center at the National Cancer Institute
- Ph.D. level knowledge in Cell Biology and Molecular Genetics specializing in the areas of Microbial Pathogenesis, Cellular Microbiology, Microbial Genetics, and Molecular Biology
- Over eight years of laboratory research experience
- Five semesters of teaching experience in General Microbiology
- Three publications in peer-reviewed scientific journals and eight scientific poster presentations at international, national, and regional scientific conferences

EDUCATION

Ph. D. in Cell Biology and Molecular Genetics December 2007

University of Maryland College Park, MD

B.S. in Microbiology, minor in Biochemistry May 2001

Duquesne University Pittsburgh, PA

PROFESSIONAL EXPERIENCE

Licensing and Patenting Manager November 2008 – present

Office of Technology Transfer Rockville, MD

National Institutes of Health

Cancer Branch

Supervisors: Teesh Mi Wale, J.D., M.A., CLP (301-abc-defg) and Goode Manter, MBA (301-435-4013)

- Negotiate and/or execute license agreements with commercial entities for both patented and unpatented early-stage scientific technologies, including exclusive and non-exclusive patent commercialization licenses and internal use, biological material, and commercial evaluation licenses
- Review the license applications of prospective licensees and perform a comprehensive valuation on the requested technology(ies) in order to provide the license applicant with the financial terms and the commensurate field of use for the license agreement
- Compose internal license determination memorandums evaluating all aspects of a company to determine if the entity is qualified to develop a technology under an exclusive license agreement and make a qualification recommendation to the office's senior staff during license determination meeting
- Formulate notices describing technologies for the *Federal Register*, including marketing abstracts for unlicensed technologies and statutory notices of intent to grant an exclusive license for a federally-owned invention
- Identify prospective licensees for unlicensed technologies based on the company's research and development interests and send targeted marketing letters and emails to such companies

- Coordinate and generate interest for marketing teleconferences to feature an inventor's portfolio whereby the inventor and technology transfer personnel describe aspects of the technology to interested parties in a telephone forum
- Negotiate interinstitutional agreements with academic, non-profit, and commercial organizations for jointly-owned inventions to allow one of the parties to take the lead responsibilities in patent prosecution management and licensing efforts for the technology
- Manage the preparation, filing, prosecution, and maintenance of patents/patent applications, including evaluating Employee Invention Reports (EIRs), determining filing deadlines, completing the competitive bid process to assign the technology to a contract law firm, reviewing office actions, draft patent applications, draft responses to office actions, and settlement agreements, explaining patenting strategies to inventors, ensuring annuity fee payments are scheduled, and providing prospective licensees with lists of intellectual property of interest
- Manage over 200 technologies consisting of over 730 patent applications and 40 research tools, including the intellectual property portfolio of the most cited scientist in the world, Dr. Steven A. Rosenberg, Chief of the Surgery Branch at the National Cancer Institute, which constitutes over 70 technologies and over 330 of the patent applications on the docket
- Evaluate technologies and compose internal memorandums providing recommendations to funding institutions for proceeding at various stages of patent prosecution, included deciding whether or not to file patent applications at the PCT and National Stages, determining which European jurisdictions to register/validate an allowed European patent, providing abandonment recommendations for problematic intellectual property, delivering updates on the patent prosecution status of a technology when requested by the funding institute
- Work with attorneys from contract law firms to manage intellectual property by providing filing and prosecution instructions through work orders, deciding on the appropriate patent prosecution strategies, and striving to obtain optimal protection for federal intellectual property
- Review and approve law firm invoices for the completion of work orders to carry out instructions filing and prosecuting patent applications

Technology Transfer Specialist November 2007 – November 2008

Cancer Research Training Award (CRTA) Fellow Rockville, MD

Technology Transfer Center

National Cancer Institute

National Institutes of Health

Supervisors: Booke Smart, Ph.D. (301-abc-defg) and Walke Dict, Ph.D. (301-hij-klmn)

- Negotiate and/or execute a variety of different technology transfer agreements, including Material Transfer Agreements (MTAs), Collaboration Agreements (CAs), Confidential Disclosure Agreements (CDAs), Cooperative Research and Development Agreements (CRADAs), and Materials CRADAs (MCRADAs)
- Manage various aspects of CRADAs, including submitting invoices to commercial partners to collect scheduled CRADA payments, preparing Amendments for review by the NIH CRADA Subcommittee, and negotiating the settlement terms of a premature CRADA termination
- Aid scientific investigators in submitting Employee Invention Reports (EIRs) and educate inventors on the patentability of their technologies
- Prepare invention packets for review at the monthly meeting of the National Cancer Institute (NCI) Technology Review Group (TRG)
- Educate intramural scientists on the rules, regulations, and laws that govern the technology transfer field and NIH technology transfer policies and procedures
- Advise intramural scientists and administrative personnel on the technology transfer process for various transactional agreements
- Attend laboratory meetings and seminar presentations by scientific investigators to provide insight and updates on various technology transfer matters
- Write and edit various technology transfer agreements, including MTAs, CAs, CDAs, MCRADAs and Research Plans for different types of agreements
- Review licensing and marketing abstracts of NCI technologies provided by the NIH Office of Technology Transfer (OTT)

- Edit and update the Technology Information Management System (TIMS) database records associated with each transactional agreement and EIRs
- Attended the 2008 NCI Center for Cancer Research (CCR) Fellows and Young Investigators (FYI) Retreat with a small group of NCI Technology Transfer Specialists as an exhibitor where I promoted the NCI Technology Transfer fellowships and explained the important roles of the NCI Technology Transfer Center (TTC) to post-doctoral fellows at our exhibitor's booth and during informal conversations held at the poster presentations of the post-doctoral fellows
- Attended the 2008 NCI Intramural Scientific Investigators Retreat where I spoke with NCI Principal Investigators during their poster presentations about their scientific research programs and about the services I provide as their Technology Transfer Specialist

RESEARCH EXPERIENCE

Research Assistant May 2002 – October 2007

University of Maryland College Park, MD

- Studied the genetic and cell biological mechanisms of bacterial invasion and intracellular survival of *Neisseria gonorrhoeae* in human cervical epithelial cell lines
- Cloned a β -lactamase-IgA β gene fusion construct into *Neisseria gonorrhoeae* and developed a fluorescence-based, β -lactamase reporter assay to identify and quantify human cells invaded by gonococci using flow cytometry
- Demonstrated that nonviable gonococci do not invade human cells: only viable gonococci manipulate host cell signaling and actin morphology to induce invasion
- Discovered that *Neisseria gonorrhoeae* undergo cycles of invasion into and escape from cervical epithelial cells to avoid extracellular immune defenses and intracellular killing mechanisms in order to persist in the female reproductive tract
- Coordinated my own independent research projects by searching scientific literature for information, designing experiments and procedures, ordering essential reagents, and negotiating with my advisor and Zeiss Microimaging, Inc. for the purchase of necessary equipment
- Supervised the laboratory research projects of undergraduates by demonstrating laboratory techniques, helping design future experiments, assist in data analysis, and advising them on different career options

Undergraduate Research Program May 1999 – May 2001

Duquesne University Pittsburgh, PA

- Studied the virulence factors of *Pseudomonas aeruginosa*, specifically the genetics and physiology of the bacterial type-IV pilus
- Identified clinical strains of *Pseudomonas aeruginosa* that possess the *pilO* gene required for pilin glycosylation and increased resistance to host defense
- Tested the ability of *Pseudomonas aeruginosa* to exhibit twitching motility on various synthetic surfaces and investigated the effect of *pilO* expression on twitching motility
- Monitored bacterial twitching motility in real-time utilizing video light microscopy

TEACHING EXPERIENCE

Teaching Assistant Aug. 2001—May 2003, Summer 2006

University of Maryland College Park, MD

- Taught microbiology laboratory skills to undergraduates (class size = 18 students)
- Organized and presented introductory lectures and demonstrations for each two-hour lab session
- Assisted students in mastering laboratory procedures and interpreting data/results
- Answered lecture-related questions during lab sessions and review sessions prior to exams
- Graded all exams, lab reports, and group projects (webpage construction, poster presentation, case studies) for the lecture and lab portions of the course
- Designed grading rubrics and assisted in the design of syllabi
- Presented a formal lecture to undergraduate students in the lecture portion of a general microbiology course as a guest lecturer

RESEARCH ACTIVITIES

Publications

1. **ME** and Those People. "Title." *Microbes and Infection* (in press, 2008 – Epub ahead of print).
2. These People and **Me**. "Title." In: *Neisseria – Molecular Mechanisms of Pathogenesis*. Genco CA and Wetzler LM (ed.) Norwich, UK: Horizon Scientific Press (in press, 2008).

3. These People, **Me**, and Some Other Person. "Title." *Journal of Immunology* 177(2):XXXX (2006).

Selected Presentations

Me and Those People. "Title." (September 2006) 15th International Pathogenic *Neisseria* Conference. Cairns, Queensland, Australia. (Also presented at the February 2007 Mid-Atlantic Microbial Pathogenesis Meeting, Wintergreen, VA, and the November 2006 University of Maryland Bioscience Day, College Park, MD.)

Me and Those People. "Title." (May 2001) The 101st General Meeting for the American Society for Microbiology. Orlando, FL.

Me and The Other Person. "Title." (October 2000) 2000 Meeting of the Allegheny Branch of the American Society for Microbiology. University Park, PA. (Also presented at the July 2000 Duquesne University Bayer School of Natural and Environmental Sciences Undergraduate Research Symposium. Pittsburgh, PA.)

Me and The Other Person. "Title." 1999 Meeting of the Allegheny Branch of the American Society for Microbiology. Morgantown, WV. (Also presented at the July 1999 Duquesne University Bayer School of Natural and Environmental Sciences Undergraduate Research Symposium. Pittsburgh, PA.)

LABORATORY SKILLS

- Tissue culture
- Isolation of primary blood mononuclear cells from human blood
- SDS-PAGE electrophoresis
- Agarose gel electrophoresis
- Western blotting
- Southern blotting
- ELISA
- Various types of microscopy—laser scanning confocal, deconvolution, phase contrast, darkfield, fluorescence, and light
- Flow cytometry
- Molecular cloning techniques—DNA isolation, restriction enzyme digestion, DNA ligation, DNA transformation, DNA spot transformation, mutant screening, mutant selection, and mutant verification
- Pipeting
- Aseptic technique
- Bacterial culturing
- PCR

COMPUTER SKILLS

- Experience with Windows and Macintosh systems
- Experience with Google and Yahoo! Internet search engines
- Windows XP
- Microsoft Word
- Familiar with Word Perfect
- Microsoft Outlook
- Microsoft PowerPoint
- Familiar with Microsoft Excel
- Adobe Photoshop
- Adobe Acrobat Professional
- NIH TechTracS database
- TIMS (Technology Information Management System)
- Experience with Sharepoint
- Experience with the nVision Data Warehouse database
- BLAST and PubMed databases
- Carl Zeiss LSM 510 Image Examiner
- Prism 3.0 Graphing Systems
- Endnote

HONORS AND AWARDS

Office of Technology Transfer, National Institutes of Health

- Federal Laboratory Consortium for Technology Transfer Mid-Atlantic Region Award for Excellence in Technology Transfer XXXX

University of Maryland

- Andrew J. Moyer Award for Outstanding Graduate Student Research XXXX
- Ann G. Wylie Dissertation Fellowship Fall XXXX
- The Graduate School Research Fellowship XXXX
- Best Poster in Cellular Microbiology at the 15th International Pathogenic Conference XXXX
- Jacob K. Goldhaber Travel Award Fall XXXX
- Center for Teaching Excellence Distinguished Teaching Assistant XXXX
- Admission to Candidacy XXXX

Duquesne University

- Chancellor's Merit Scholarship (academic full tuition) in biology
- Department of Biology Outstanding Senior Award XXXX
- First Place Undergraduate Poster Presentation at the Allegheny Branch of the American Society for Microbiology Meeting

PROFESSIONAL AFFILIATIONS

- Member of the American Society for Microbiology
- Member of the Golden Key International Honors Society

NAME

ADDRESS
CITY, STATE 11111
XXX-XXX-XXX (h)
YYY-YYY-YYYY (c)
email@gmail.com

SUMMARY OF PROFESSIONAL QUALIFICATIONS

- **Extensive background in biomedical research**, including medicinal chemistry, cell and molecular biology, pharmacology, and neuroscience; graduate and post-graduate studies on the molecular and cellular mechanisms of stimulant-induced toxicity, the role of free radicals and apoptosis in the neurotoxic effects, and the role of cell death-related genes in the neurodegenerative effects
- **Demonstrated knowledge of Federal rules, regulations, laws** and National Institutes of Health, Federal Drug Administration, and US Patent and Trademark Office policy including laws and policy pertaining to the transfer of technology through transactional agreements, intellectual property, ethics, laboratory animal welfare, human subjects protection, research safety and security, and research misconduct and best practices

EXPERIENCE

Technology Development Specialist, DATE
COMPANY, Bethesda, MD

- Independently, effectively prioritize multiple concurrent projects, including managing the development of technologies with commercial potential and facilitating interactions with interested partners; monitoring Institute's intellectual property portfolio; and managing, drafting, evaluating, and negotiating a variety of complex legal agreements to exchange scientific resources with for-profit and non-profit organizations on behalf of the Institute
- Write scientific research plans and negotiate legal terms for Cooperative Research and Development Agreements (CRADAs) to permit the interchange of scientific and technical personnel and/or proprietary resources and establish the scope of intellectual property rights for inventions created during the collaboration; discuss clinical protocols and negotiate requirements for Clinical Trial Agreements (CTAs), which identify collaborator contributions (devices, study drugs and/or other agents regulated by the FDA) and detail the ownership and use of data and specimens, which may be subject to privacy laws and human research subject protections; and edit publisher agreements to ensure

compliance with U.S. federal law regarding domestic copyright for works prepared by Government employees

- Interpret and navigate numerous laws, policy and contractual obligations regarding technology transfer and intellectual property; consult and coordinate with NIH Offices, including Office of General Counsel, Office of Technology Transfer, Office of Extramural Research, Office of Human Subjects Research or other appropriate offices regarding application of relevant laws, regulations, and policies to specific technology transfer strategies; also consult and coordinate with the NIDDK Ethics Office to provide guidance to scientific staff on ethics issues related to technology transfer, including sponsored travel and official duty activities
- Prepare and deliver informative educational presentations and materials to train scientists, administrative staff, and senior management about intellectual property and technology transfer matters, including inventions, patents, licensing, confidential information, copyright and collaborative agreements; responsible for directing the training and instruction of the NIDDK technology transfer fellow and administrative assistant
- Serve as chair for the Office website working group and manage the website; responsible for new design and format, researching and drafting the content communicated to Institute scientist and the public, and demonstrating proficiency in various web, graphics and desktop publishing software
- Serve as representative on committees, including the NIH Technology Development and Transfer Committee (TDTC) working group tasked with developing a new technology transfer manual chapter for employee inventions and patent related matters based on current PHS and NIH policy; serve as point of contact for Office internal technology transfer database, Knowledge Sharing System's TechTracs used for tracking transactional agreement activities within the office; beta test TechTracs and provide feedback to database developers to improve query and reporting capabilities of the system; draft supporting documentation to be used for training of Office staff on database operations and for the Office training manual; serve as point of contact for the Addgene material deposit and receipt repository account
- Evaluate invention disclosures and manage disclosure submission, including the preparation of formal written patentability assessments for Employee Invention Reports (EIRs) and various stages of patent prosecution; draft complete and informative patent filing and abandonment recommendations to the Office and/or Scientific Director regarding authorizations to pursue intellectual property protection; select new technologies from Institute's portfolio to be advertised on NIDDK technology transfer website; write and prepare marketing materials outlining scope of the technology, the potential market, planned future research and development work and the technologies potential use to attract potential

collaborators or licensors interested in commercial development of the technology

Program Analyst, DATE
COMPANY, Bethesda, MD

- Served as Research Coordinator for the Traumatic Brain Injury and Stroke Rehabilitation Program, which is responsible for promoting research and operation of the Traumatic Brain Injury Clinical Trials Network; responsible for effective communication of program information related to biomedical research grants
- Gathered, reviewed, monitored, analyzed and evaluated program data on disability and rehabilitation programs; prepared program statistics and status reports for program officials and senior management
- Gained knowledge of scientific research grant programs and procedures and award mechanisms
- Identified programmatically significant findings and made recommendations for improvements to promote efficiency related to research grants, scientific research areas, and training and development
- Prepared documents to resolve foreign clearance, special actions, and animal and human subject concerns and submit the documents and correspondence to the appropriate NIH office, including the NIH Office of Extramural Research, NIH Office of Extramural Policy, and The Fogarty International Center
- Participated in discussions, meetings, reviews, conferences and conference calls with the Program Officers, senior staff, and other federal agency officials to promote program goals, to develop alternate courses of action, and to mutually resolve problems

Science and Technology Policy Fellow, DATE
The National Academies, Washington, D.C.

- Engaged in the fundamentals of science and technology policy analysis
- Participated in the policy environment to better understand the interactions of science, technology, and government by attending congressional hearings and seminars at think tanks and shadowing federal officials and others involved in S&T policy
- Researched potential committee topics, gathered information and assisted in preparation of written reports for Committee on Science, Technology, and Law
- Developed, designed, and implemented a public policy seminar similar to a congressional hearing or a panel discussion at a committee meeting

Patent Examiner, DATE
United States Patent and Trademark Office, Alexandria, VA

- Reviewed patent applications in neuroscience and neurobiology in the biotechnology division to determine if they comply with basic format, rules and legal requirements
- Determined the scope of the protection claimed by the inventor
- Researched relevant technologies to compare similar prior inventions with the invention claimed in the patent applications
- Communicated findings as to the patentability of an applicant's invention via a written action to inventors/patent practitioners and in interviews with applicant and applicant representatives

Research IRTA, DATE

COMPANY, Baltimore, MD

- Conducted research for the Laboratory of Molecular Neuropsychiatry on 3,4-methylenedioxymethamphetamine (MDMA) and the effects of MDMA on the developing brain using molecular biology techniques, including cDNA array analysis and immunohistochemistry analysis
- Gathered, reviewed, monitored, analyzed and evaluated biomedical research data
- Presented scientific information at formal and informal meetings to various audiences, including seminars and poster presentations at international, national, and local meetings, and educational presentations to students and non-scientific audiences
- Prepared scientific and technical documents and reports; wrote and/or edited abstracts, basic research papers, and scientific literature review papers for publication

Summer Intern, DATE

COMPANY, Baltimore, MD

- Conducted research in the Laboratory of Cellular and Molecular Biology on the possible degradation of heme moiety cytochrome P450 from rat liver microsomes by hydrogen peroxide and cumene hydroperoxide using fluorescence spectrofluorimeter;
- Developed experience and skill in molecular biology techniques and instrumentation
- Prepared scientific and technical documents and reports and presented information at seminars

MARC Scholar, DATE

UNIVERSITY, Charlotte, NC

- Conducted research on the application of the reaction between indole and sodium bisulfite to indoles substituted in the three position;
- Acquired laboratory skills and experience in synthetic organic techniques and the use of instrumentation, including a Gemini 300 MHZ BB-FT NMR, a Perkin-Elmer Paragon 500 FTIR and the Perkin Elmer Lambda 2 UV/Vis
- Prepared scientific and technical documents and reports and presented information at seminars, including seminars at national and local meetings

MIRT Scholar, DATE

UNIVERSITY, New South Wales Australia

- Conducted research on the chemistry of benzyloquinoline alkaloids and derivatives
- Prepared scientific and technical documents and reports and presented information at research seminars
- Studied Australian culture, chemistry, and psychophysiology

EDUCATION

1997-2006 University of Maryland, Baltimore **Ph.D. Neuropharmacology**

David and Lucille Packard Foundation Fellow

National Institutes of Health (NIH)

Intramural Research Training Awardee (IRTA)

1993-1997 Johnson C. Smith University

B.S. Chemistry, Valedictorian, Summa Cum Laude

National Institute of General Medical Science (NIGMS)

Minority Access to Research Careers (MARC) Scholar

1996 University of Wollongong, Australia

Study Abroad

National Institute of General Medical Science (NIGMS)

Minority International Research Training (MIRT) Scholar

SPECIALIZED TRAINING

NIDDK Senior Leadership Training Program

National Institutes of Health, Bethesda, MD

Advanced Legal Drafting

LawProse, Washington, DC

Commercializing Technology through the Power of IP Licensing (PDS 100)

Licensing Executives Society (LES), Inc., Maryland Chapter, Baltimore, MD

Blogspot and Facebook and Twitter, Oh My!

The Potential of Social Networking Tools for Public Health Research

Staff Training in Extramural Programs (STEP), Office of Extramural Research (OER)
National Institutes of Health, Bethesda, MD

Section 508 Electronic & IT Training - Phase II

Center for Information Technology, National Institutes of Health, Bethesda, MD

Introduction to Technology Transfer

Foundation for Advanced Education in the Sciences (FAES), National Institutes of Health, Bethesda, MD

Negotiation Workshop

Foundation for Advanced Education in the Sciences (FAES), National Institutes of Health, Bethesda, MD

Tools for Technology Transfer

Foundation for Advanced Education in the Sciences (FAES), National Institutes of Health, Bethesda, MD

Macromedia Dreamweaver

Center for Information Technology, National Institutes of Health, Bethesda, MD

Ethical and Regulatory Aspects of Clinical Research

Clinical Center Department of Bioethics, National Institutes of Health, Bethesda, MD

Patent Academy Examiner Training

US Patent and Trademark Office (USPTO), Alexandria, VA

Technology Innovation Training

Macklin Business Institute, Montgomery College, Germantown, MD

Statistics and Algorithms

Silicon Genetics, Bethesda, MD

Research Ethics

University of Maryland, Baltimore, Baltimore, MD

HONORS and AWARDS

NIDDK “You Make a Difference” Award

National Academies Christine Mirzayan Science & Technology Policy Graduate Fellow

NIH Pre-doctoral Intramural Research Training Award (IRTA) Scholar

NIDDK Minority Travel Award Fellow
NIH Graduate Partners Program (GPP) Fellow
David and Lucille Packard Fellow
Minority International Research Training (MIRT) Grant Scholar
Minority Access to Research Careers (MARC) Scholar
Alpha Lambda Delta and Alpha Kappa Mu (vice-pres.) National Honor Society
Beta Kappa Chi National Science Honor Society