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Professional Experience:

- 2008-Present **Associate Professor**, Department of Computer and Information Technology, School of Technology, Purdue University, West Lafayette, Indiana.
- 2004-2008 **Assistant Professor**, Department of Computer and Information Technology, School of Technology, Purdue University, West Lafayette, Indiana.
- 2004-Present **Lead Genomic Scientist**, Bindley Bioscience Center, Discovery Park, Purdue University, West Lafayette, Indiana.
- 1997-Present **Adjunct Assistant Professor of Pharmacology**, Department of Pharmaceutical and Biomedical Sciences, College of Pharmacy, Ohio Northern University, Ada, Ohio.
- 2002-2005 **Chief Scientific Officer and Co-Founder**, Nucleico, LLC, Ann Arbor, Michigan.
- 2000-2002 **Vice President of Research and Development**, Genomic Solutions Inc., Ann Arbor, Michigan.
- 1998-2000 **Senior Scientist**, Molecular Technologies Group, Pfizer Global Research and Development, Ann Arbor, Michigan (formerly Parke-Davis Pharmaceuticals).
- 1997-2004 **Adjunct Assistant Professor of Biological Sciences**, Department of Biology, Eastern Michigan University, Ypsilanti, Michigan.
- 1996-1998 **Postdoctoral Research Fellow**, Neuroscience Therapeutics, Parke-Davis Pharmaceutical Research, Warner-Lambert Company, Ann Arbor, Michigan.
- 1992-1996 **Graduate Research Fellowship**, School of Pharmacy and Pharmacal Sciences, Purdue University, West Lafayette, Indiana.

1991-1992 **Research Consultant**, BAS BioAnalytical Systems, Incorporated, West Lafayette, Indiana.

1988-1991 **Research Associate**, Department of Pharmacokinetics and Drug Metabolism, Abbott Laboratories, Abbott Park, Illinois.

Entrepreneurial Experience:

2008-present Co-Founder and Director of Research and Development, Genomic Guidance, LLC., Ada, Ohio.

2005-present Co-Founder and Director of Business Development, Broadband Antenna Tracking Systems, Inc. Zionsville, Indiana.

2002-2005 Co-Founder and Chief Scientific Officer, Nucleico, LLC, Ann Arbor, Michigan.

Education:

1996 Ph.D., Department of Medicinal Chemistry and Molecular Pharmacology, School of Pharmacy, Purdue University, West Lafayette, Indiana.

1988 B.S., Biological Sciences, Chemistry minor. Illinois State University, Normal, Illinois.

Continuing Education:

2005 BioMedical Informatics MBL/NLM Course Fellow - Marine Biological Laboratory, Woods Hole, MA. Sponsored by the National Library of Medicine. Certificate, FALL Course, 2005.

2000 Growing the Organization: Innovative Solutions to the Pressing Problems of Business. University of Michigan School of Business.

2000 Basic Management. University of Michigan School of Business.

Professional Affiliations:

2007-2009 Scientific Advisory Board, Sensigen, LLC

2001-present Editorial Advisory Board, *Genomics & Proteomics* Journal

2000-present American Association of Pharmaceutical Scientists

1999-present International Society for Neurochemistry

1997-present Sigma Xi Scientific Research Society

1995-present Society for Neuroscience

1995-present Society of Toxicology

Honors & Awards:

- 2009 Outstanding Tenured Faculty Award, Department of Computer and Information Technology, Purdue University.
- 2008 University Faculty Scholar, Purdue University
- 2007 Outstanding Non-Tenured Faculty Award, Department of Computer and Information Technology, Purdue University.
- 2006 Seed for Success Award, Purdue University.
- 2006 Outstanding Faculty in Discovery Award
College of Technology, Purdue University.
- 2006 Best Research Poster Award, Faculty Convocation
College of Technology, Purdue University.
- 2005 Biomedical Informatics Course Fellowship, National Library of Medicine.
- 2005 Best Research Poster Award, Faculty Convocation
College of Technology, Purdue University.
- 1996 Jenkins/Knevel Excellence in Research Award Recipient, School of Pharmacy and Pharmacal Sciences, Purdue University.
- 1995 Purdue Research Foundation Fellowship Recipient.
- 1995 American Association of Pharmaceutical Scientists, Graduate Student Research Competition Award Recipient, Indianapolis Chapter.
- 1995 Sigma Xi Scientific Research Society, Purdue University Chapter, Graduate Student Research Award Recipient.
- 1989 Abbott Laboratories Presidential Award Recipient.

Patents:

1. Kurnit, D.M. and **Kane, M.D.** Systems, Methods and Compositions for Detection of Human Papilloma Virus in Biological Samples. 2006.
2. Smith, A.H., Bentley, L.D., **Kane, M.D.**, and Hansen, R.A. Antenna Aiming System for Broadband Wireless Access. 11/534,089, 2005.
3. **Kane, M.D.**, Nagel, A.C., and Dombkowski, A.A. Compositions and Systems for Identifying and Comparing Expressed Genes (mRNAs) in Eukaryotic Organisms. (US patent #6,955,876), 2000.

Peer-Reviewed Publications:

1. Johns, S.M., Denslow, N.D., **Kane, M.D.**, Watanabe, K.H., Orlando, E.F., and Sepúlveda, M.S. Effects of estrogens and antiestrogens on gene expression of fathead minnow (*Pimephales promelas*) early life stages. *Environmental Toxicology* (in press), 2010.
2. Yousef, A.F., Baggili, I.M., Bartlett, G., **Kane, M.D.**, and Mymryk, J. LINA: A laboratory inventory system for oligonucleotides, microbial strains, and cell lines. *Journal of the Association of Laboratory Automation* (in press), 2010.
3. Johns, S.M., **Kane, M.D.**, Denslow, N.D., Watanabe, K.H., Orlando, E.F., Villeneuve, D.L., Ankley, G.T. and Sepúlveda, M.S. Characterization of Ontogenetic Changes in Gene Expression in the Fathead Minnow (*Pimephales promelas*). *Environmental Toxicology and Chemistry* 28(4): 873-880, 2009.

4. Patel, D.A., Shih, Y-J., Newton, D.W., Michael, C.W., Oeth, P.A., **Kane, M.D.**, Opihari, A.W., Ruffin, M.T., Kalikin, L.M., and Kurnit, D.M. Development of a PCR and mass spectrometry (PCR-MS)-based method for quantitative type-specific detection of human papillomavirus. *J Virological Methods* 160: 78–84, 2009.
5. Sprague, J.E., Sullivan, D.L., and **Kane, M.D.** Personalized Medicine: Pharmacogenetics as a Method for Improving Patient Outcomes. *Ohio Pharmacist* 57(11): 13-18, 2008.
6. **Kane, M.D.**, Springer, J.A., and Sprague, J.E. Drug Safety Assurance through Clinical Genotyping: Near-Term Considerations for a System-Wide Implementation of Personalized Medicine. *Personalized Medicine* 5(4): 387-397, 2008.
7. **Kane, M.D.**, Springer, J.A., Iannotti, N.V., Gough, E.S., Johns, S.M., Schlueter, S.D. and Sepulveda, M.S. Identification of Development and Tissue-Specific Gene Expression in the Fathead Minnow *Pimephales promelas*, Rafinesque using Computational and DNA Microarray Methods. *Journal of Fish Biology* 72, 2341-2353, 2008.
8. Zhang, M., Ouyang, Q., Stephenson, A., **Kane, M.D.**, Salt, D., Prabhakar, S., Burgner, J., Buck, C., and Zhang, X. Interactive analysis of systems biology molecular expression data. *BMC Systems Bioinformatics* 2:23, 2008.
9. **Kane, M.D.** and Summers, K.H. Challenges and opportunities in pharmacogenomics and therapeutics. *Journal of Managed Care Pharmacy* 13(7): 607-608, 2007.
10. **Kane, M.D.** and Brewer, J.L. An Information Technology Emphasis in Biomedical Informatics Education. *Journal of Biomedical Informatics* 40: 67-72, 2007.
11. Kim, H., **Kane, M.D.**, Kim, S., Dominguez, W., Applegate, B.M, and Savikhin, S. A Molecular Beacon DNA Microarray System for Rapid Detection of E. coli O157:H7 that Eliminates False Signal Risk. *Biosensors and Bioelectronics* 15:1041-1047, 2007.
12. Perry, L., Heard, P., **Kane, M.**, Kim, H., Savikhin, S., Dominguez, W., Applegate, B. Application of multiplex PCR to the detection of pathogens in food. *Journal of Rapid Methods and Automation in Microbiology* 15: 176-198, 2007.
13. Kemp, M.Q., Liu, W., Thorne, P.A., **Kane, M.D.**, Selmin, O., Romagnolo, D.F. Induction of the transferrin receptor gene by benzo[a]pyrene in breast cancer MCF-7 cells: Potential as a biomarker of PAH exposure. *Environmental and Molecular Mutagenesis* 47: 518-526, 2006.
14. **Kane, M.D.** (invited) Technical Issues in DNA Microarray Production and Utilization: Impact on Clinical Research. *Expert Review of Molecular Diagnostics* 5(5): 649-654, 2005.
15. **Kane, M.D.** (invited) Aligning experimental design with bioinformatics analysis to meet research objectives. *Cytometry* 47: 50-51, 2002.

16. **Kane, M.D.** Screening for xenobiotic-mediated P450 induction using a dedicated DNA microarray protocol. *Journal of Clinical Ligand Assay* 24: 149-151, 2001.
17. Sprague, J.E., Worst, T.J., Haynes, K., Mosler, C.R., Nichols, D.E. and **Kane, M.D.** The pharmacodynamic characterization of an antisense oligonucleotide against monoamine oxidase-B (MAO-B) in rat brain striatal tissue. *Cellular and Molecular Neurobiology* 21: 53-64, 2001.
18. **Kane, M.D.**, Jatko, T.A., Stumpf, C.R., Lu, J., Thomas, J.D, and Madore, S.J. Assessment of the sensitivity and specificity of oligonucleotide microarrays. *Nucleic Acids Research* 28: 4552-4557, 2000.
19. **Kane, M.D.**, Lipinski, W.J., Callahan, M.J., Bian, F., Durham, R.A., Schwarz, R.D., Roher, A.E. and Walker, L.C. Evidence for seeding of β -amyloid by intracerebral infusion of Alzheimer brain extracts in β -amyloid precursor protein-transgenic mice. *Journal of Neuroscience* 20: 3606-3611, 2000.
20. **Kane, M.D.**, Schwarz, R.D., St. Pierre, L., Watson M.D., Emmerling, M.R., Boxer, P.A., and Walker, G.K. Inhibitors of V-type ATPases, bafilomycin A1 and concanamycin A, protect against β -amyloid-mediated effects on 3-(4,5-Dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) reduction. *Journal of Neurochemistry* 72: 1939-1947, 1999.
21. Yan, S.D., Stern, D., **Kane, M.**, Kuo, Y-M., Lampert, H.C., and Roher, A.E. RAGE-A β interactions in the pathophysiology of Alzheimer disease. *Restorative Neurology and Neuroscience* 12: 167-173, 1998.
22. **Kane, M.D.**, Vanden Heuvel, J.P., Isom, G.E., and Schwarz, R.D. Differential expression of group I metabotropic glutamate receptors (mGluRs) in PC12 cells: role of nerve growth factor and ras. *Neuroscience Letters* 252: 1-4, 1998.
23. **Kane, M.D.**, Yang, C.W., Gunasekar, G. and Isom, G.E. Trimethyltin stimulates protein kinase C translocation through receptor-mediated phospholipase C activation in PC12 cells. *Journal of Neurochemistry* 70: 509-514, 1998.
24. Pavlakovic, G., **Kane, M.D.**, Eyer, C.L., Kanthasamy, A., and Isom, G.E. Activation of protein kinase C by trimethyltin: relevance to neurotoxicity. *Journal of Neurochemistry* 65: 2338-2343, 1995.
25. Sun, P., Borowitz, J.L., Kanthasamy, A.G., **Kane, M. D.**, Gunasekar, P.G., and Isom, G.E. Antagonism of cyanide toxicity by isosorbide dinitrate: possible role of nitric oxide. *Toxicology* 104: 105-111, 1995.

Refereed Conference Proceedings (2005-present):

1. Duffy, P., Woods, G., Walsh, J., and **Kane, M.D.** Online real-time water quality monitoring and control system. *8th International Conference on Computing, Communications and Control Technologies (CCCT 2010)*, 2010.

2. Hacker, T.J., Springer, J.A., Schlueter, S.D., and **Kane, M.D.** Developing a curriculum for high performance computing and cyberinfrastructure education. *Conference for Industry and Education Collaboration (CIEC), American Society for Engineering Education (ASEE)*, 2008.
3. **Kane, M.D.** and Sepulveda, M. Identification of development-specific gene expression in the fathead minnow (*P. promelas*) using computational cDNA subtraction and custom DNA microarray validation. *26th Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC)*, 2007.
4. Johns, S.M., **Kane, M.D.**, Denslow, N.D., Watanabe, K.H., Orlando, E.F., Sepulveda, M.S. Characterization of growth, development, and gene expression patterns in the fathead minnow (*Pimephales promelas*). *26th Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC)*, 2007.
5. Sanchez, B., Ochoa-Acuna, H.G., Porterfield, D.M., Ademec, J., Kane, M.D., Sepulveda, M.S. Integrating oxygen flux and genomics into the development of real-time biomarkers of fish egg contaminant exposure. *26th Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC)*, 2007.
6. **Kane, M.D.** & Springer, J.A. Integrating bioinformatics, distributed data management, and distributed computing for applied training in high performance computing. *Proceedings of the Association for Computing Machinery, Special Interest Group for Information Technology Education, USA, New York: ACM, Inc.* pp. 33-36, 2007.
7. Forney, P., Hazbun, T., Springer, J. and **Kane, M.D.** YDM: a Data Management Tool Supporting Yeast-2-Hybrid Research. *4th Annual Indy Regional Bioinformatics Conference*, 2007.
8. Iannotti, N., Johns, S., Gough, E., Sepulveda, M. and **Kane M.D.** Identification of Development-Specific Gene Expression in *P. promelas* using Computational cDNA Subtraction and Experimental Validation. *4th Annual Indy Regional Bioinformatics Conference*, 2007.
9. Sepulveda, M., **Kane, M.**, Johns, S., and Denslow, N. Development of a Gene Microarray for the Study of Environmental Contaminant Effects on Early Life-Stages. *2007 American Water Research Association Conference*, 2007.
10. Zhang, M., **Kane, M.**, Salt, D., Prabhakar, S., Buck, C., Regnier, F. and Zhang, X. Interactive Visualization of ‘Omics Molecular Expression Networks. *55th ASMS Conference on Mass Spectrometry*, 2007.
11. **Kane, M.D.**, Brewer, J.L, Goldman, J.E. and Moidu, K. Integrating Bioinformatics, Clinical Informatics, and Information Technology in Support of Interdisciplinary Curriculum Development. *Proceedings of the Association for Computing Machinery, Special Interest Group for Information Technology Education, USA. New York: ACM, Inc.* pp. 135-140; 2006.

12. Hansen, R. and **Kane, M.D.** Critical Performance Variables in Genomic Sequence Analysis in Cluster Computing Architectures. *TeraGrid '06: Advancing Scientific Discovery*, 2006.
13. Kim, H., **Kane, M.D.**, Kim, S., Dominguez, W., Applegate, B.M., and Savikhin, S. Development of False Signal Suppressing Biosensor Utilizing Color Changing Molecular Beacon on Microarray Platform for Rapid Detection of *Escherichia Coli* O157:H7. *Biannual 9th World Congress on Biosensors*, 2006.
14. Gough, E.S. and **Kane, M.D.** Evaluating Parallel Computing Systems in Bioinformatics. *Proceedings of the Third International Conference on Information Technology: New Generations (ITNG'06)*, pp. 233 – 238, 2006.
15. **Kane, M.D.** and Brewer, J.L. The Creation of Interdisciplinary Biomedical Informatics Education in an Information Technology Curriculum. *Proceedings of the Association for Computing Machinery, Special Interest Group for Information Technology Education, USA*. New York: ACM, Inc., pp. 25-29, 2005.

Book Chapters:

1. Springer, J.A., Beever, J., Morar, N., Sprague, J.E. and **Kane, M.D.** Ethics, Privacy, and the Future of Genetic Information in Healthcare Information Assurance and Security. In: Dark, M (ed.), *Information Assurance and Security Ethics in Complex Systems: Interdisciplinary Perspectives*. Hershey, PA: IGI Global., (in press), 2010.
2. Farquhar, I., **Kane, M.D.**, Schaff, W., Summers, K.H., and Sorkin, A. Innovation in Health Research Infrastructure: Integrating Genomic, Clinical, Public Health, Safety and Bioinformatic Information. In: Farquhar, I., Summers, K., and Sorkin, A. (eds.) *Research in Human Capital and Development (Volume 16). The Value of Innovation: Impact on Health, Life Quality, Safety and Regulatory Research*, Emerald Group Publishing Ltd., p.329-404, 2008.
3. **Kane, M.D.** Introduction to Gene Expression Profiling with DNA Microarray Technology. In: Hardiman, G. (ed.) *Microarray Methods and Applications: Nuts & Bolts, Volume 2*. DNA Press, p.1-10, 2008.
4. **Kane, M.D.**, Lin, H-S, Dombkowski, A.A., Diakiw, A., Nagel, A.C., Flexon, A., Leifheit, M., Sprague, J.E. and Hollenberg, P.F. Accelerating Preclinical Drug Development Using a Microarray-Based Method for Detecting Oxidative Enzyme (P450) mRNA Induction and Other Metabolic Genes in the Rat. In: Hardiman, G., (ed.). *Microarray Methods and Applications: Nuts & Bolts*. DNA Press p.231-248, 2003.
5. Nagel, A.C., Thompson, J.D., Marino, M.A., and **Kane, M.D.** Spanscript: A Novel Method for Deriving Non-Redundant 3' cDNA Libraries for DNA Microarray Production. In Hardiman (ed.), *Microarray Methods and Applications: Nuts and Bolts*, DNA Press p.155-170, 2003.

6. **Kane, M.D.**, Dombkowski, A.A., and Madore, S.J. The Emerging Utility of Oligonucleotide Microarrays. In: Lu, Q. and Weiner, M. (eds.) *Gene Cloning and Expression Technologies*. Eaton Publishing. p.537-547, 2002.

Conference Proceedings (1998-present):

1. **Kane, M.D.**, Springer, J.A., Iannotti, N., and Sprague, J.E. PGRx: An Interactive Software System for Integrating Clinical Genotyping with Prescription Drug Safety Assurance. *Microsoft External Research Summit* (2009).
2. Sanchez, B., Ochoa-Acuña, H.G., Porterfield, D.M., Adamec, J., **Kane, M.D.**, and Sepúlveda, M.S. Incorporating Oxygen Flux and Genomics into the Development of Real-time Biomarkers of Fish Egg Contaminant Exposure. *Latino Scholars Forum at Purdue University* (2007).
3. Henne, K.L., **Kane, M.D.**, Giometti, C.S., Nakatsu, C., and Konopka, A., Genomic and Proteomic Evaluation of the Chromate Response In *Arthrobacter* Sp. Fb24. *Center for the Environment (C4E) Graduate Research Showcase*, Purdue University (2006).
4. Henne, K.L., F. Beasley, F., **Kane, M.D.**, Nakatsu, C., and Konopka, A. Chromium Resistance in *Arthrobacter* sp. FB24. *Annual Meeting of the American Society for Microbiology* (2005).
5. Dominguez, W., Kim, S., Kim, H., Savikhin, S., **Kane, M.**, Applegate, B.M. Multiplex PCR for the Simultaneous Detection of the Foodborne Pathogens: *Escherichia coli* O157:H7, *Salmonella enterica*, and *Listeria monocytogenes*. *American Society for Microbiology* (2005).
6. **Kane, M.D.**, Lin, H., Diakiw, A., Sprague, J. and Hollenberg, P. Screening for Xenobiotic-Dependent P450 Induction in the Rat Using a Dedicated DNA Microarray System. *American Association of Pharmaceutical Sciences Annual Conference* (2002).
7. Seeley, K.A., Rudner, X., and **Kane, M.D.** Vivid GeneArray Slides are Compatible with a Variety of Detection Systems. SmallTalk 2002; the Microfluidics, *Microarrays and BioMEMS Conference of the Association for Laboratory Automation*. TP-045, (2002).
8. Galt, J., Kuchumov, A., Sahay, N., Flexon, A., and **Kane, M.D.** Normalization of microarray data using bacterial spiked transcripts (BSTs). *Microarray Gene Expression Data Conference 3 (MGED)* (2001).
9. Banks, M.L., Hall, C.R., **Kane, M.D.**, and Sprague, J.E. Antisense regulation of *mdr1a* and *mrp1* gene expression in the blood brain barrier: effects on CNS drug concentrations. *Annual Pfizer Fellowship Seminars Meeting*. (2001).
10. Syu, L-J., Kaplan, D.J., Ranganathan, R., Sahay, N., **Kane, M.D.**, DeWitt, D.L., and Kim, H. Characterization of human prostaglandin H2 synthase form 2 (PGHS-2) overexpressed in human fibroblast cells: quantitative PCR of mitochondrial DNA and microarray analysis. *7th International Conference on Eicosanoids & Other Bioactive Lipids in Cancer, Inflammation and Related Diseases*. (2001).

11. Li, Z., Cui, M., **Kane, M.**, Madore, S., and Chung, F.Z. Expression of fractalkine receptor, CX3CR1 mRNA in humans. *Society for Neuroscience Abstracts* 26 (2000).
12. Sprague, J.E, Worst, T.J., Kanthasamy, A., Nichols, D.E., and **Kane, M.D.** Effects of antisense oligonucleotide alteration of MAO-B gene expression on MDMA-induced serotonergic neurotoxicity. *Society for Neuroscience Abstracts* 25(2) 836.19 (1999).
13. **Kane, M.D.**, Watson, M.D., Campbell G.W., Emmerling, M.W., and Schwarz, R.D. Selective inhibitors of the V-type ATPase, bafilomycin A1 and concanamycin A, protect against β -amyloid-induced cell death in NGF-differentiated PC12 and rat cortical neuron cultures. *Sixth Annual Conference on Alzheimer's disease and Related Disorders*, 1998.
14. Schwarz, R.D., **Kane, M.D.**, Emmerling, M.W., St. Pierre, L., and Watson, M.D. A β (1-42) is taken up into NGF-differentiated PC12 cells in a fucoidan-sensitive manner. *Sixth Annual Conference on Alzheimer's disease and Related Disorders* (1998).
15. Davis, J.W., Mills, E.M., **Kane, M.D.**, and Vanden Heuvel, J.P. The use of undifferentiated PC12 cells as a model system to study peroxisome proliferator-activated receptor (PPAR) signaling. *FASEB Abstracts* (1998).

Technical and Editorial Publications:

1. **Kane, M.D.** (Invited) Critical Advancements to Linking Disease Phenotypes with Human Genomic Variations. *Personalized Medicine* 5(5): 428-429, 2008
2. **Kane, M.D.**, Springer, J.A., and Sprague, J.E. Clinical Genotyping: Near-Term Considerations for System-Wide Implementation, Operations, Adoption, and Data Management for Improving Drug Safety. Response to the U.S. Department of Health and Human Services Request for Information (RFI): *Improving Health and Accelerating Personalized Health Care Through Health Information Technology and Genomic Information in Population- and Community-based Health Care Delivery Systems*, 2007.
3. **Kane, M.D.** (invited) Bioinformatics Outstrips Information Technology. Guest Editorial, *Genomics and Proteomics*, 6(2): 2006.
4. **Kane, M.D.** (invited) Interdisciplinary Training in Bioinformatics & Information Technology. Guest Editorial, *Genomics and Proteomics*, 5(4): 10, 2005.
5. Frank, M.B., Cadwell, R.C., **Kane, M.D.**, and Centola, M. Optimizing oligonucleotide microarray printing parameters. *Genomics and Proteomics*, 4(9): 2004.
6. **Kane, M.D.** (invited) Meeting Highlights: 3rd International Symposium on Early Toxicity Screening: Early ADME-Tox Screening Approaches. *Expert Opinion on Drug Safety* 2(2): 199-201, 2003.
7. **Kane, M.D.** (invited) Automating Molecular Biology, Guest Editorial, *Genomics and Proteomics* 2: 11, 2002.

8. **Kane, M.D.** and Pisano, M. (invited) Outsourcing Genomic and Proteomic Technology: A Value-Added Solution. *Helix 2*: 14-16, 2001.

Invited Presentations:

1. "GeneScription: An Information Management System for Enabling Pharmacogenomics and Drug Safety Assurance" *10th Annual Microsoft Research Faculty Summit*, Redmond, Washington (2009).
2. "Translational Research in Genomics: A Model for Personalized Medicine in Healthcare" presented at (1) University of Ulster at Coleraine, Northern Ireland, and (2) Dublin Institute of Technology, Dublin, Ireland (2008).
3. "Genomics Research in the 21st Century" IEEE Purdue Student Chapter Seminar, West Lafayette, Indiana (2007).
4. "The Nuts and Bolts of DNA Microarray Technology" *30th Annual Food Science Symposium: Nutrigenomics – Does Your Diet Fit Your Genes?* West Lafayette, Indiana (2007).
5. [Keynote Speaker] "Genomics in Non-Sequenced Organisms: Integrating Computational and Experimental Methods", *Proteomics and Genomics for Complex Respiratory Diseases, The Veterinary Comparative Respiratory Society (VCRS) 25th Symposium*, West Lafayette, Indiana (2007).
6. "A DNA Microarray System for Rapid Detection of Foodborne Pathogens", *Food Safety and Pathogen Detection, 8th Annual Agricultural Research Services & United States Department of Agriculture Research Meeting*, Ocean City, New Jersey (2006).
7. "Interdisciplinary Curriculum Development in Bioinformatics" *3rd Annual Indiana Bioinformatics Conference*, Indiana University Medical School, Indianapolis, Indiana (2006).
8. "DNA Microarray Technology: A Technical Perspective" Hillsdale College, Hillsdale, Michigan (2006).
9. "A Novel Method for Deriving Non-Redundant cDNA Probes for Microarray Production." *BIOCHIPS 2003*. Boston, Massachusetts (2003).
10. [Keynote Speaker] "Utilizing Microarray Technology and Gene Expression Profiling in Drug Development." *The Drug Delivery Foundation Annual Meeting, Molecular Biopharmaceutics: A New Era in Drug Absorption, Transport and Delivery*. Honolulu, Hawaii (2003).
11. "Screening for Xenobiotic-Mediated P450 Induction in the Rat using a dedicated DNA Microarray System." *3rd International Symposium Early Toxicity Screening: Early ADME-Tox Screening Approaches*. Philadelphia, Pennsylvania (2002).

12. [*Keynote Speaker*] "Implementing Interdependent Discovery Resources in the Post-Genomic Era." *Symposium on Bioinformatics for Drug Discovery*. University of Toledo, Ohio (2001).
13. "The Utility of Genomic Research Tools and Techniques in Discovery Research." *Midwest Clinical Ligand Assay Society, 25th Annual Meeting*. Detroit, Michigan (2001).
14. "Screening for Xenobiotic-Mediated P450 Induction Using a Dedicated DNA Microarray Protocol." *Clinical Ligand Assay Society, 27th National Meeting*. Detroit, Michigan (2001).
15. "Aligning Experimental Design with Bioinformatics Analysis to the Meet Research Objectives." *Genomics and Proteomics in Cancer, 3rd Samuel A. Latt Motown Microarray Meeting*, Detroit, Michigan (2001).
16. "Aligning the Key Variables for Successful DNA Microarray Analysis." *23rd Annual Meeting of the Molecular Biology Society of Japan*, Kobe, Japan (2000).