

Curriculum Vitae

TIMOTHY S. TRACY, Ph.D.

GENERAL INFORMATION

Office Address: College of Pharmacy
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EDUCATION

1978 - 1983 B.S., Pharmacy, with honors, Ohio Northern University
1985 - 1988 Ph.D., Clinical Pharmacy, Purdue University
1989 - 1990 Post Doctoral Fellow in Clinical Pharmacology, Indiana University

PROFESSIONAL LICENSURE

Registered Pharmacist: Ohio

PROFESSIONAL EXPERIENCE

2004 - Pres Head, Dept. of Experimental and Clinical Pharmacology, University of Minnesota College of Pharmacy
2003 - Pres Professor, Dept. of Experimental and Clinical Pharmacology, University of Minnesota College of Pharmacy
2003 - Pres Adjunct Professor, Dept. of Basic Pharmaceutical Sciences, West Virginia University School of Pharmacy
2002 - 2003 Professor, Dept. of Basic Pharmaceutical Sciences, West Virginia University School of Pharmacy
1998 - 2002 Associate Professor, Dept. of Basic Pharmaceutical Sciences, West Virginia University School of Pharmacy
1998 - 2002 Associate Professor of Pharmacology, Department of Biochemistry and Molecular Pharmacology, School of Medicine, West Virginia University
1998 - 2002 Guest Scientist, National Institutes of Occupational Safety and Health, Morgantown, WV
1992 - 1998 Assistant Professor, Dept. of Basic Pharmaceutical Sciences, West Virginia University School of Pharmacy
1991 - 1992 Lecturer in Clinical Pharmacology, Indiana University School of Medicine
1989 - 1990 Post Doctoral Fellow in Clinical Pharmacology, Indiana University School of Medicine
1986 - 1988 Graduate Instructor, Department of Pharmacy Practice, Purdue University
1985 - 1986 Graduate Teaching Assistant, Department of Pharmacy Practice, Purdue University

1984 - 1985 Staff Pharmacist, Scioto Memorial Hospital, Portsmouth, Ohio
1983 - 1984 Staff Pharmacist, Staker's Drugs, Portsmouth, Ohio
1983 Pharmacist-Assistant Manager, Revco Drugs, Gallipolis, Ohio

PROFESSIONAL ACHIEVEMENTS

1993, '95, '97, '99,
'01 and '03 Outstanding Teacher Award, WVU School of Pharmacy
1997 - Pres Phi Lambda Sigma Pharmacy Leadership Honorary
1997 - Pres Kappa Psi Pharmacy Fraternity
1996 "*Golden Apple Award*" for outstanding teaching, WVU Chapter of Golden
Key National Honor Society
1982 - Pres Rho Chi Pharmacy Honorary
1982 - Pres Omicron Delta Kappa Honorary
1988 - Pres Sigma Xi Scientific Research Society
1988 Jenkins/Knevel Graduate Student Research Award, Finalist, Purdue
University
1987 Albert and Anna Kienly Award for Excellence in Teaching, Purdue
University

PROFESSIONAL AFFILIATIONS

1999 - Pres International Society for Study of Xenobiotics
1999 - Pres American Society for Pharmacology and Experimental Therapeutics
1992 - Pres American Association of Colleges of Pharmacy
1992 - Pres American Society for Clinical Pharmacology and Therapeutics

PUBLICATIONS

Original Research Articles

Kumar V, Oetting WS, Leppik IE, Tracy TS. Differential Genotype Dependent Inhibition of CYP2C9 in Humans. *Drug Metab Dispos*, Submitted.

Hummel, MA, Gannett PM, Tracy TS. Evaluation of Flurbiprofen and Dapsone Proton to Heme Distances in CYP2C9 Allelic Variants. *Arch Biochem Biophys*, Submitted.

Gannett PM, Miller L, Daft J, Locuson C, Tracy TS. Synthesis of deuterated naproxens. *J Labelled Comp Radiopharm*, 50:1272-1275, 2007.

Wei L, Locuson CW, Tracy TS. Polymorphic Variants of CYP2C9: Mechanisms Involved in Reduced Catalytic Activity. *Mol Pharmacol*, 72:1280-1288, 2007.

Hodge LS, Tracy TS. Changes in Drug Metabolism During Pregnancy: Implications for Drug Therapy. *Expert Opin Drug Metab Toxicol*, 3:557-571, 2007.

Locuson CW, Wienkers LC, Jones JP, Tracy TS. CYP2C9 Protein Interactions with Cytochrome *b₅*: Effects on the Coupling of Catalysis. *Drug Metab Dispos*, 35:1174-1181, 2007.

Locuson CW, Tracy TS. Comparative Modeling of the Human UDP-glucuronosyltransferases (UGTs): Insights into Structure and Mechanism. *Xenobiotica*, 37(2):155-168, 2007.

Locuson CW, Gannett PM, Ayscue R, Tracy TS. Use of Simple Docking Methods To Screen a Virtual Library for Heteroactivators of Cytochrome P450 2C9. *J Med Chem.* 50(6):1158-65, 2007.

Zgheib NK, Frye RF, Tracy TS, Romkes M, Branch RA. Evaluation Flurbiprofen Urinary Ratios as In Vivo Indices for CYP2C9 Activity. *Br J Clin Pharmacol*, 63(4):477-87, 2007.

Locuson CW, Hutzler JM, Tracy TS. Visible spectra of type-II P450-drug complexes: evidence that "incomplete" heme coordination is common. *Drug Metab Dispos.* 35:614-622, 2007.

Kumar V, Wahlstrom JL, Rock DA, Warren CJ, Gorman LA, Tracy TS. CYP2C9 Inhibition: Impact of Probe Selection and Pharmacogenetics on In Vitro Inhibition Profiles. *Drug Metab Dispos*, 34:1966-1975, 2006

Kumar V, Rock DA, Warren CJ, Tracy TS, Wahlstrom JL. Enzyme Source Effects on CYP2C9 Kinetics and Inhibition. *Drug Metab Dispos*, 34:1903-1908, 2006.

Tracy TS. Atypical Cytochrome P450 Kinetics: Implications for Drug Discovery and Disease Therapy. *Drugs in R and D*, 7:349-63, 2006.

Locuson CW, Tracy TS. Identification of Binding Sites of Non-I-Helix Water Molecules in Mammalian Cytochromes P450. *Drug Metab Dispos*, 34:1954-1957, 2006.

Kumar V, Locuson CW, Sham YY, Tracy TS. Amiodarone-Analog Dependent Effects on CYP2C9-mediated Metabolism and Kinetic Profiles. *Drug Metab Dispos*, 34:1688-1696, 2006.

Zgheib NK, Frye RF, Tracy TS, Romkes M, Branch RA. Validation of Incorporating Flurbiprofen into the Pittsburgh Cocktail. *Clin Pharmacol Ther*, 80:257-63, 2006.

Gu J, Kabulski J, Gannett PM, Lederman D, Locuson CW, Ayscue R, Tracy TS. Characterization, Electrochemistry and Substrate Metabolism of Gold-Immobilized Cytochrome P450 2C9. *J Am Chem Soc*, 128:8374-8375, 2006.

Locuson CW, Gannett PM, Tracy TS. Heteroactivator effects on the coupling and spin state equilibrium of CYP2C9. *Arch Biochem Biophys*, 449:115-129, 2006.

Hummel MA, Tracy TS, Hutzler, JM, Wahlstrom JL, Zhou Y, Rock DA. Influence of Fluorescent Probe Size and Effect of Cytochrome b5 on Drug-Drug Interactions in CYP2C9. *J Biomol Screen*, 11:303-309, 2006.

Sanga M, Younis IR, Tirumalai PS, Bland TM, Banaszewska M, Konat GW, Tracy TS, Gannett PM, Callery PS. Epoxidation of the methamphetamine pyrolysis product, trans-phenylpropene, to trans-phenylpropylene oxide by CYP enzymes and stereoselective glutathione adduct formation. *Toxicol Appl Pharmacol*, 211:148-156, 2006.

Hummel MA, Locuson CW, Gannett PM, Rock DA, Mosher C, Rettie AE, Tracy TS. CYP2C9 Genotype-Dependent Effects on In Vitro Drug-Drug Interactions: Switching of Benzbromarone Effect from Inhibition to Activation in the CYP2C9.3 Variant. *Mol Pharm*, 68:644-651, 2005.

Bland TM, Haining RL, Tracy TS, Callery PS. CYP2C-catalyzed delta(9)-Tetrahydrocannabinol Metabolism: Kinetics, Pharmacogenetics and Interaction with Phenytoin, *Biochem Pharmacol*, 70:1096-1103, 2005.

Kotlyar M, Brauer L, Tracy TS, Hatsukami DK, Harris J, Bronars CA, Adson DE. Inhibition of CYP2D6 activity by bupropion. *J Clin Psychopharmacol*, 25:226-229, 2005.

Kolwankar D, Glover DD, Ware JA, Tracy TS. Expression and Function of ABCB1 and ABCG2 in Human Placental Tissue, *Drug Metab Dispos*, 33:524-529, 2005.

Tracy TS, Venkataramanan R, Glover DD, Caritis SN. Temporal Changes in Drug Metabolism (CYP1A2, CYP2D6 and CYP3A Activity) During Pregnancy. *Am J Obstet Gynecol*, 192:633-639, 2005.

Tirumalai PS, Gannett PM, Callery PS, Bland TM, Tracy TS. Conversion of Methamphetamine to N-Methyl-Methamphetamine in Formalin Solutions. *J Anal Toxicol*, 29:48-53, 2005.

Williams ML, Mager DE, Parenteau H, Gudi G, Tracy TS, Mulheran M, Wainer IW. Effects of Protein Calorie Malnutrition on the Pharmacokinetics of Ketamine in Rats. *Drug Metab Dispos*, 32:786-793, 2004.

Hummel MA, Gannett PM, Aguilar JS, Tracy TS. Effector-Mediated Alteration of Substrate Orientation in Cytochrome P450 2C9. *Biochemistry*, 43:7207-7214, 2004.

Tracy TS, Hummel, MA. Modeling Kinetic Data from In Vitro Drug Metabolism Enzyme Experiments. *Drug Metab Rev*, 36:231-242, 2004.

Hummel MA, Dickmann LJ, Rettie AE, Haining RL, Tracy TS. Differential Activation of CYP2C9 Variants by Dapsone. *Biochem Pharmacol*, 67:1831-1841, 2004.

Komoroski BJ, Zhang S, Cai H, Hutzler JM, Frye R, Tracy TS, Strom SC, Lehmann T, Ang CYW, Cui YY, Venkataramanan R. Induction And Inhibition Of Cytochromes P450 By The St. John's Wort Constituent Hyperforin In Human Hepatocyte Cultures. *Drug Metab Dispos*, 32:512-518, 2004.

Glover DD, Rybeck BF, Tracy TS. Medication Use in a Rural Gynecologic Population: Prescription, Over-the Counter, and Herbal Medicines. *Am J Obstet Gynecol*, 190: 351-357, 2004.

Beldina EB, Huang MY, Schneider JA, Brundage RC, Tracy TS. Steady-State Pharmacokinetics and Pharmacodynamics of Cysteamine Bitartrate in Pediatric Nephropathic Cystinosis Patients, *Br J Clin Pharmacol*, 56: 520-525, 2003.

Tracy TS. Atypical Enzyme Kinetics: Their Effect on *In Vitro-In Vivo* Pharmacokinetic Predictions and Drug Interactions, *Curr Drug Metab*, 4: 341-346, 2003.

Glover DD, Amonkar M, Rybeck BF, Tracy TS. Prescription, over-the-counter and alternative medicine use in a rural, obstetric population. *Am J Obstet Gynecol*, 188:1039-1045, 2003.

Gannett PM, Johnson EM, Grimes M, Myers A, Deavers RE, Tracy TS. Synthesis of deuterated 4,4'-diaminodiphenylsulfone (dapsone) and analogs. *J Labelled Comp Radiopharm*, 46:107-114, 2003.

Hutzler JM, Wienkers LC, Wahlstrom JL, Carlson TJ, Tracy TS. Activation of Cytochrome P450 2C9-Mediated Metabolism: Mechanistic Evidence in Support of Kinetic Observations. *Arch Biochem Biophys*, 410:16-24, 2003.

Hutzler JM, Kolwankar D, Hummel MA, Tracy TS. Activation of CYP2C9-mediated metabolism by a series of dapsone analogs: Kinetics and structural requirements. *Drug Metab Dispos*, 30:1194-1200, 2002.

Hutzler JM, Tracy TS. Atypical Kinetic Profiles in Drug Metabolism Reactions. *Drug Metab Dispos*, 30:355-362, 2002.

Tracy TS, Hutzler JM, Haining RL, Rettie AE, Hummel MA, Dickmann LJ. Polymorphic variants (CYP2C9*3 and CYP2C9*5) and the F114L active site mutation of CYP2C9: Effect on atypical kinetic metabolism profiles. *Drug Metab Dispos*, 30:385-390, 2002.

Gannett PM, Daft JR, James D, Rybeck BF, Knopp JB, Tracy TS. In vitro reaction of barbiturates with formaldehyde. *J Anal Toxicol*, 25: 443-449, 2001.

Tracy TS, Rybeck BF, James DG, Knopp JB, Gannett PM. Stability of benzodiazepines in formaldehyde solutions. *J. Anal Toxicol*, 25: 166-173, 2001.

Hutzler JM, Frye RF, Korzekwa KR, Branch RA, Huang S-M, Tracy TS. Minimal in vivo activation of CYP2C9-mediated flurbiprofen metabolism by dapsone. *Eur J Pharmaceut Sci*, 14: 47-52, 2001.

Hutzler JM, Hauer MJ, Tracy TS. Dapsone activation of CYP2C9-mediated metabolism: Evidence for activation of multiple substrates and a two-site model. *Drug Metab Dispos*, 29: 1029-1034, 2001.

Gannett PM, Hailu S, Daft J, James D, Rybeck B, Tracy TS. In vitro reaction of formaldehyde with fenfluramine: Conversion to N-methyl fenfluramine. *J Anal Toxicol*, 25: 88-92, 2001.

Menke ER, Jackson CR, Bagby MD, Tracy TS. The effectiveness of prophylactic etodolac on post-endodontic pain. *J Endodont*, 26: 712-715, 2000.

Ko JW, Desta Z, Soukhova NV, Tracy T, Flockhart DA. In vitro inhibition of the cytochrome P450 (CYP450) system by the antiplatelet drug ticlopidine: potent effect on CYP2C19 and CYP2D6. *Br J Clin Pharmacol*, 49: 343-351, 2000.

Scharman EJ, Hutzler JM, Rosencrance JG, Tracy TS. Single dose pharmacokinetics of syrup of ipecac. *Ther Drug Mon*, 22: 566-573, 2000.

Hutzler JM, Frye RF, Tracy TS. Sensitive and specific high-performance liquid chromatographic Assay for 4'-hydroxyflurbiprofen and flurbiprofen in human urine and plasma. *J Chromatogr B*, 749: 119-125, 2000.

Zhang W, Parenteau H, Greenly RL, Metz CA, Aggarwal S, Wainer IW, Tracy TS. Effect of protein-calorie malnutrition on cytochromes P450 and glutathione S-transferase. *Eur J Drug Metab Pharmacokin*, 24: 141-147, 1999.

Schmidt RJ, Domico J, Samsell LS, Yokota S, Tracy TS, Sorkin MI, Engels K, Baylis C. Indices of activity of the nitric oxide system in patients on hemodialysis, *Am J Kidney Dis*, 34: 228-234, 1999.

Tracy TS, Korzekwa KR, Gonzalez FJ, Wainer IW. Cytochrome P450 isoforms involved in metabolism of the enantiomers of verapamil and norverapamil. *Br J Clin Pharmacol*, 47: 545-552, 1999.

Schmidt RJ, Yokota S, Tracy TS, Sorkin MI, Baylis C. Nitric oxide production is low in end stage renal disease patients on peritoneal dialysis, *Am J Physiol*, 276 (Renal Physiol. 45):F794-F797, 1999.

Stamatakis MK, Leader WG, Tracy TS. Stability of high-dose vancomycin and ceftazidime in peritoneal dialysis solution. *Am J Health-Syst Pharm*, 56: 246-248, 1999.

Korzekwa KR, Krishnamachary N, Shou M, Ogai, A, Parise RA, Rettie AE, Gonzalez FJ, Tracy TS. Evaluation of atypical cytochrome P450 kinetics with two-substrate-models: Evidence that multiple substrates can simultaneously bind to cytochrome P450 active sites. *Biochemistry*, 37:4137-4147, 1998.

Cupp MJ, Tracy TS. Cytochrome P450: New Nomenclature-Clinical Implications, *Am Fam Phys*, 57: 107-116, 1998.

McRobie DJ, Glover DD, Tracy TS. Effects of gestational and overt diabetes on human placental cytochromes P450 and glutathione S-transferase. *Drug Metab Dispos*, 26: 367-371, 1998.

Omar HA, Ramirez R, Arsich J, Tracy T, Glover D, Gibson M. Reduction of the human placental vascular relaxation to progesterone by gestational diabetes. *J Maternal-Fetal Invest*, 8: 27-30, 1998.

McRobie DJ, Korzekwa KR, Glover DD, Tracy TS. The effects of diabetes on placental aromatase activity. *J Steroid Biochem Mol Biol*, 63: 147-153, 1997.

Tracy TS, Marra C, Wrighton SA, Gonzalez FJ, Korzekwa KR. Involvement of multiple cytochrome P450 isoforms in naproxen O-demethylation. *Eur J Clin Pharmacol*, 52: 293-298, 1997.

Chittur SV, Tracy TS. A rapid and sensitive HPLC assay for 6-hydroxychlorzoxazone and chlorzoxazone in liver microsomes. *J Chromatogr B - Biomed Appl*, 693: 479-483, 1997.

Cupp M, Tracy TS. Cytochrome P450 3A subfamily in drug interactions. *US Pharmacist*, January issue:HS9-HS21, 1997.

McRobie DJ, Glover DD, Tracy TS. Regiospecificity of placental metabolism by cytochromes P450 and glutathione S-transferase. *Gynecol Obstet Invest*, 42:154-158, 1996.

Tracy TS, Marra C, Wrighton SA, Gonzalez FJ, Korzekwa KR. Studies of flurbiprofen 4'-hydroxylation: Additional evidence suggesting the sole involvement of cytochrome P450 2C9. *Biochem Pharmacol*, 52:1305-1309, 1996.

Tracy TS, Rosenbluth BW, Wrighton SA, Gonzalez FJ, Korzekwa KR. Role of cytochrome P450 2C9 and an allelic variant in the 4'-hydroxylation of (R)- and (S)-flurbiprofen. *Biochem Pharmacol*, 49:1269-1275, 1995.

Tracy TS. Stereochemistry in Pharmacotherapy: When mirror images are not identical. *Annals of Pharmacotherapy*, 29:161-165, 1995.

Tracy TS, Worster T, Bradley JD, Greene PK, Brater DC. Methotrexate disposition following concomitant administration of ketoprofen, piroxicam and flurbiprofen in patients with rheumatoid arthritis. *Br J Clin Pharmacol*, 37:453-456, 1994.

Tracy TS, Hall SD. Metabolic inversion of (R)-ibuprofen: Formation of ibuprofenyl-coenzyme A. *Drug Metab Disp*, 21:114-120, 1993.

Tracy TS, Black CD. Ability of nifedipine to prolong parturition in rats. *J Reprod Fertil* 95:139-144, 1992.

Tracy TS, Hall SD. Metabolic inversion of (R)-ibuprofen: Epimerization and hydrolysis of ibuprofenyl-coenzyme A. *Drug Metab Disp* 20:322-327, 1992.

Tracy TS, Krohn K, Jones DR, Bradley JD, Hall SD, Brater DC. The effects of a salicylate, ibuprofen, and naproxen on the disposition of methotrexate in patients with rheumatoid arthritis. *Eur J Clin Pharmacol*, 42:121-125,1992.

Tracy TS, Hall SD. Determination of the epimeric composition of ibuprofenyl-CoA. *Analytical Biochem*, 195:24-29, 1991.

Newton GD, Tracy TS, Popovich NG. The development and implementation of an integrating pharmacy practice laboratory. *Am J Pharm Educ* 54:138-145, 1990.

Tracy TS, Bowman L, Black CD. Effect of a partial PVC-based intravenous administration set on the delivery of nitroglycerin. *Am J Hosp Pharm* 46:2031-2035, 1989.

Tracy TS, Black CD. Calcium modulators: Future agents, future uses. *Drug Intell Clin Pharm* 21:575-583, 1987.

Books

Dietary Supplements: Toxicology and Clinical Pharmacology. Cupp MJ and Tracy TS eds., Humana Press, Inc., 2003. (Authored or co-authored 23 chapters of the book).

Toxicology and Clinical Pharmacology of Herbal Products. Tracy TS and Kingston RL, eds. Humana Press, Inc., 2007 (Authored six chapters of the book).

Book Chapters

Abu-Ghazallah R, Tracy TS. Therapeutic Index, In "Encyclopedia of Clinical Trials", Wiley, Inc., In Press.

Locuson CW, Tracy TS. Metabolism Kinetics, In "Preclinical Drug Handbook", Wiley, In Press.

Tracy TS. Enzyme Kinetics, In "Drug Metabolism in Drug Design and Development: Basic Concepts and Practice", Zhu, Zhang, and Humphreys eds., Wiley, 2007.

Tracy TS. Drug absorption and distribution. In "*Modern Pharmacology with Clinical Applications*", Craig and Stitzel, eds., Lippincott, Williams and Wilkins, 2003.

Tracy TS. Metabolism and excretion of drugs. In "*Modern Pharmacology with Clinical Applications*", Craig and Stitzel, eds., Lippincott, Williams and Wilkins, 2003.

Tracy TS. Pharmacokinetics. In "*Modern Pharmacology with Clinical Applications*", Craig and Stitzel, eds., Lippincott, Williams and Wilkins, 2003.

Glover DD, Tracy TS. Antibiotics and Pregnancy, In "*Infectious Diseases in Obstetrics and Gynecology*", Monif, ed., Parthenon Publishing, 2003.

Griffith RK, Tracy TS. Azole antifungal agents. In "*Principles of Medicinal Chemistry*". Foye, Lemke and Williams editors., Lippincott, Williams and Wilkins, 2002.

Tracy TS. Nonsteroidal Antiinflammatory Drugs. In "*Metabolic Drug Interactions*". Levy, Thummel, Trager, Hansten and Eichelbaum eds., Lippincott, Williams and Wilkins, 2000.

Letters

Tracy TS, Cupp M. Comment: delirium probably induced by clarithromycin in a patient receiving fluoxetine (letter). *Ann Pharmacother*, 30: 1199-1200, 1996.

ABSTRACTS (PODIUM AND POSTER PRESENTATIONS)

Kumar V, Oetting WS, Leppik IE, Tracy TS. Differential Genotype Dependent Inhibition of CYP2C9 in Humans. American Association of Pharmaceutical Scientists Annual Meeting, San Diego, CA, November 2007.

Kabulski JL, Wollenberg L, Yang M, Wu N, Tracy TS, Lederman D, Gannett PM. Enzyme characterization at the nano-bio interface. American Chemical Society Annual Meeting, Boston MA, August 2007.

Gannett PM, Kabulski J, Wollenberg L, Gu J, Lederman D, Tracy TS. Cytochrome P450-Gold Immobilized Nanobio Chip Platform for Basic Science Research and Practical Applications. 15th Annual Conference of Cytochromes P450: Biochemistry, Biophysics, Functional Genomics. Bled, Slovenia, June 21, 2007 (poster).

Tracy TS, Low M. CYP2C9:CYP2D6 Protein-Protein Interactions and Altered Catalytic Activity. 15th Annual Conference of Cytochromes P450: Biochemistry, Biophysics, Functional Genomics. Bled, Slovenia, June 21, 2007 (podium).

Kramer MA, Tracy TS. Pharmacogenetics of CYP2D6 Inhibition. Great Lakes Drug Metabolism Discussion Group, Ann Arbor, MI, May, 2007.

Kumar V, Basu S, Oetting WS, Leppik IE, Tracy TS. Effect of Genotype on *in-vivo* CYP2C9 Inhibition. Great Lakes Drug Metabolism Discussion Group, Ann Arbor, MI, May, 2007.

Locuson CW, Hutzler JM, Tracy TS. Visible spectra of type-II P450 complexes using purified human enzymes. International Society for the Study of Xenobiotics Annual Meeting, Rio Grande, Puerto Rico, October 2006.

Kumar V, Locuson CW, Gannett PM, Tracy TS. Choosing docking poses for use in predicting CYP2C9 inhibition with 3D-QSAR models. International Society for the Study of Xenobiotics Annual Meeting, Rio Grande, Puerto Rico, October 2006.

Gold-immobilized Cytochrome P450 2C9 metabolism: On chip technology. Gannett PM, Kabulski JL, Perez FA, Liu Z, Lederman D, Locuson CW, Ayscue RR, Thomsen NM, Tracy TS. American Chemical Society National Meeting, San Francisco, CA, September 2006

Li D, Gu J, Chye Y, Lederman D, Kabulski J, Gannett P, Tracy T. Exploring the electrical conductivity of cytochrome P450 by nano-electrode and conductive atomic force microscopy. American Physical Society Annual Meeting, March 2006.

Aguilar, J., Hartman, Z.R., Niehaus, A.G., Gannett, P.M., Tracy, T.S. Distance dependence of flurbiprofen and dapsone in the CYP 2C9 active site as studied by molecular dynamics, Division of Computers in Chemistry, 231st American Chemical Society Mtg., Atlanta, GA, Mar 26-30, 2006.

Hartman, Z.R., Fry, J.L., Gardner, B.L., Aguilar, J.S., Gannett, P.M., Tracy, T.S. 'Molecular dynamics of hydrogen bonding interactions of dapsone and flurbiprofen within the CYP 2C9 active site, Division of Computers in Chemistry, 231st American Chemical Society Mtg., Atlanta, GA, Mar 26-30, 2006.

Zgheib NK, Frye R, Tracy TS, Romkes M, Branch R. Validation of incorporating flurbiprofen into the Pittsburgh cocktail. (Poster) American Society for Clinical Pharmacology and Therapeutics Annual Meeting, March 2006.

Kabulski, J., Gannett, P.M., Lederman, D., Gu, J., Tracy, T.S. 'Nanobio Metabolism Chips for Cytochrome P450-Drug Interaction Screening', National NSF-EPSCoR mtg, Sept 25-29, 2005, Puerto Rico.

Kabulski J, Gannett PM, Lederman D, Jianhua G, Tracy T. Nanobio metabolism chips for cytochrome p450-drug interaction screening. 38th Mid-Atlantic Graduate Student Symposium in Medicinal Chemistry, Duquesne University, Pittsburgh, PA, June 19, 2005.

Locuson CW, Tracy TS. P450 Reductase and cyt b5 Effects on Metabolite and H₂O₂ Formation by CYP2C9. (Poster) American Society for Pharmacology and Experimental Therapeutics Annual Meeting, April 2005.

Hummel MA, Gannett PM, Tracy TS. Comparison of Proton to Heme Distances of Flurbiprofen in CYP2C9.1 and CYP2C9.3., International Society for the Study of Xenobiotics Annual Meeting Vancouver, BC, August 2004.

Hummel MA, Gannett PM, Tracy TS. Effect of Diclofenac on Flurbiprofen Metabolism and Orientation Within the CYP2C9 Active Site, International Society for the Study of Xenobiotics Annual Meeting, Vancouver, BC, August 2004.

Besspiata DA, Hummel MA, Tracy TS. Differential Inhibition Kinetics in CYP2C9 Genetic Variant-Mediated Metabolism, International Society for the Study of Xenobiotics Annual Meeting, Vancouver, BC, August 2004.

Bland TM, Tracy TS, Callery PS. Delta9-THC Activates CYP2C9-Catalyzed Phenytoin Metabolism, International Society for the Study of Xenobiotics Annual Meeting, Vancouver, BC, August 2004.

Sanga M, Tirumalai PS, Tracy TS, Callery PS. Metabolic Activation and Reactivity of Thermal Breakdown Product of Smoked Methamphetamine, American Society for Pharmacology and Experimental Therapeutics Annual Meeting, April 2004.

Bland TM, Tracy TS, Callery PS. Kinetics of the Conversion of D⁹-Tetrahydrocannabinol to 11-Hydroxy-D⁹-THC Catalyzed by CYP2C9, American Society for Pharmacology and Experimental Therapeutics Annual Meeting, Washington, DC, April 2004.

Kotlyar M, Brauer L, Tracy TS, Hatsukami DK, Harris J, Bronars C, Adson DE. Effect of bupropion on cytochrome P450 2D6 (CYP2D6) activity (abstract). College of Psychiatric and Neurologic Pharmacists (CPNP) Annual Meeting, Chicago, IL (April 2004)

Gannett PM, Hummel MA, Tracy TS. T1 Relaxation Time Based Evaluation of Proton Heme Distances of Flurbiprofen and Dapsone with the Active Site of CYP2C9, Southeastern Magnetic Resonance Conference, Tallahassee, FL, October 2003

Hummel MA, Rettie AE, Dickmann LJ, Tracy TS. Differential effects of dapsone on metabolism by CYP2C9 site-directed mutants. International Society for the Study of Xenobiotics Annual Meeting, Providence, RI, October 2003.

Hummel MA, Gannett PM, Tracy TS. Evaluation of proton to heme distances of flurbiprofen and dapsone within the active-site of CYP2C9. International Society for the Study of Xenobiotics Annual Meeting, Providence, RI, October 2003.

Tracy TS, Kolwankar DR, Glover DD. Expression and Function of the ABCP Transporter in Human Placenta and its Regulation by Smoking. American Society for Pharmacology and Experimental Therapeutics Annual Meeting, San Diego, CA, April 2003.

Tracy TS, Grimm DL. Kinetics of Cytochrome P450 2C9 Inhibition by Fluoxetine and Norfluoxetine. American Society for Pharmacology and Experimental Therapeutics Annual Meeting, San Diego, CA, April 2003.

Myers AL, Wolfe SS, Gannett PM, Tracy TS, Callery PS. Formation of a glutathione adduct with a cocaine pyrolysis product, anhydroecgonine methyl ester. Society of Toxicology Annual Meeting, Salt Lake City, UT, March 2003.

Tirumalai PS, Gannett PM, Callery PS, Bland TM, Tracy TS. Methamphetamine methylation in aqueous solutions of formaldehyde, Society of Toxicology Annual Meeting, Salt Lake City, UT, March 2003.

Sanga M, Schuler BJ, Wolfe SS, Carrier R, Callery PS, Bland TM, Tracy TS. Pyrolytic Products of Methamphetamine Hydrochloride as Potential Markers for Smoked Methamphetamine, Society of Toxicology Annual Meeting, Salt Lake City, UT, March 2003.

Kramer PR, Soisson AP, Gibson M, Callery PS, Wolfe SS, Tracy TS. Drug Absorption Across the Cervico-Vaginal Epithelium. Society for Gynecologic Oncology Annual Meeting, New

Orleans, LA, February 2003.

Soisson AP, Reed E, Brown P, Ducatman B, Wang W, Kramer P, Tracy T, Armistead J. HPV Prevalence in Appalachian Women. Society of Gynecologic Oncology, New Orleans, LA, February 2003.

Ducatman B, Soisson A, Reed E, Brown P, Wang W, Kramer P, Tracy T, Armistead J. HPV Testing and Adequacy of Self-Collected Versus Provider Collected Liquid Based PAP Tests. United States-Canadian Academy of Pathology, February 2003.

Carrier R, Schuler BJ, Sanga M, Bland T, Tracy TS, Callery PS. Detection of Pyrolytic Products of Amphetamine and Methamphetamine by Differential Scanning Calorimetry. American Academy of Forensic Sciences Annual Meeting, Chicago, IL, February 2003.

Myers AL, Sanga M, Wolfe SS, Tracy TS, Callery PS. Formation of a Glutathione Adduct with a Cocaine Pyrolysis Product, Anhydroecgonine Methyl Ester. American Academy of Forensic Sciences Annual Meeting, Chicago, IL, February 2003.

Kolwankar DP, Glover DD, Tracy TS. Effects of smoking on P-glycoprotein and cytochrome P450 1A1 in human placenta. International Society for the Study of Xenobiotics, Orlando, FL, October 2002.

Hutzler JM, Wienkers LC, Wahlstrom J, Carlson T, Tracy TS. Activation of Cytochrome P450 2C9-Mediated Metabolism by Dapsone and its N-Hydroxy Metabolite: Mechanistic Evidence for Kinetic Observations, International Society for the Study of Xenobiotics, Orlando, FL, October 2002.

Hummel MA, Rettie AE, Dickmann LJ, Tracy TS. Dapsone activation of flurbiprofen and naproxen metabolism in CYP2C9*1 and CYP2C9*5 variants. American Society for Pharmacology and Experimental Therapeutics Annual Meeting, New Orleans, LA, April 2002.

Kolwankar D, Ware J, Smith E, Voorman R, Sampson T, Raub T, Tracy T. Induction of P-glycoprotein and cytochrome P450 3A activities in LS174T cells. American Society for Pharmacology and Experimental Therapeutics Annual Meeting, New Orleans, LA, April 2002.

Tracy TS, Gannett PM, James DG, Rybeck BF, Knopp JB. Decomposition of opiate analgesics in the presence of formaldehyde. American Academy of Forensic Sciences Annual Meeting, February 2002, Atlanta, GA.

Komoroski BJ, Zhang S, Cai HB, Nakasawa F, Hutzler JM, Tracy TS, Frye R, Ang C, Ramachandran V, Strom SC, Venkataramanan R. Effect of St. John's Wort components on cytochrome P450 enzymes in primary cultures of hepatocytes, International Society for the Study of Xenobiotics, October 2001 (Drug Metabolism Reviews 2001: 33; 144).

Hutzler JM, Hauer MJ, Tracy TS. Dapsone Activation of Multiple CYP2C9 Substrates: Evidence for a Two-Site Binding Model, Gordon Conference on Drug Metabolism, July 2001, Plymouth, NH.

Lacayo CI, Pak W, Benowitz NL, Tracy TS, Kroetz DL. Transport and disposition of nicotine in the human placenta. American Society for Clinical Pharmacology and Therapeutics Annual Meeting, March 2001, Clin. Pharmacol. Ther. 69: P95, 2001.

Hutzler JM, Tracy TS. Activation of CYP2C9 by Dapsone and Analogs. International Society for the Study of Xenobiotics, October 2000 (Drug Metabolism Reviews 2000: 32; 217).

Hutzler JM, Rettie AE, Haining RL, Tracy TS. Dapsone Activation of CYP2C9 Allelic Variants. International Society for the Study of Xenobiotics, October 2000 (Drug Metabolism Reviews 2000: 32; 217).

Tracy TS, Hutzler JM, Hamman MA, Hall SD. Dapsone Activation of CYP2C9 Mediated Ibuprofen Metabolism: Regio- and Stereoselective Effects. International Society for the Study of Xenobiotics, October 2000 (Drug Metabolism Reviews 2000: 32; 294).

Frye RF, Tracy TS, Hutzler JM, Korzekwa KR, Cannon, Y, Pauli M, Huang, S-M, Branch RA. Flurbiprofen as a Selective In Vivo Probe of CYP2C9 Activity. American Society for Clinical Pharmacology and Therapeutics Annual Meeting, March 2000 (Clinical Pharmacology and Therapeutics 2000:67;109).

Hutzler JM, Frye RF, Korzekwa KR, Branch RA, Huang S-M, Tracy TS. Does Dapsone-Mediated Activation of Flurbiprofen Metabolism by CYP2C9 Occur In Vivo? American Society for Clinical Pharmacology and Therapeutics Annual Meeting, March 2000 (Clinical Pharmacology and Therapeutics 2000:67;134).

Tracy TS, Rettie AE, Haining RL, Goldstein J, Metz CA, Hutzler JM, Korzekwa KR. Metabolism of Flurbiprofen, Naproxen and Piroxicam by Cytochrome P450 2C Isoforms: CYP2C9 Selectivity, Atypical Kinetics and Effect of Allelic Variants on the Kinetic Profile. Proceedings of the 9th North American International Society for the Study of Xenobiotics Meeting, Volume 15, page 131, 1999.

Daft JR, James DG, Rybeck BF, Gannett PM, Tracy TS. Drug reactions in the presence of formaldehyde. Proceedings of the 9th North American International Society for the Study of Xenobiotics Meeting, Volume 15, page 216, 1999.

Ramachandran V, Kostrubsky VE, Dorko K, Esplen J, Hutzler J, Strom SC, Tracy TS, Venkataramanan R. Assessment of the induction of CYP2C9 by rifampicin and dexamethasone in primary cultures of human hepatocytes. American Association of Pharmaceutical Scientists Annual Meeting, Nov. 1999.

Hutzler JM, Rettie AE, Haining RL, Tracy TS. Flurbiprofen Hydroxylation by chimeric P450 2C9/19 enzymes.; American Society for Clinical Pharmacology and Therapeutics Annual Meeting: San Antonio, TX, March 1999 (Clinical Pharmacology and Therapeutics 1999:65;164).

Tracy TS, Metz CA, Korzekwa KR. Activation of CYP2C9 by dapsone and analogs. American Society for Clinical Pharmacology and Therapeutics Annual Meeting, March 1998.

Tracy TS, Metz CA, Korzekwa KR. Metabolism of dapsone by CYP2C9 and its effect on CYP2C9 substrates. American Society for Clinical Pharmacology and Therapeutics Annual Meeting, March 1998.

Glover DD, McRobie DJ, Tracy TS. Effect of gestational and overt diabetes on placental cytochromes P450 and glutathione S-transferase. American College of Obstetrics and Gynecology Annual Meeting, May 1998.

Metz CA Tracy TS. Activation of CYP2C9 by dapsone and analogs. (poster) Pfizer Undergraduate Fellowship Seminar, Pfizer, Inc., Groton, CT, September 26, 1997.

AlKhouri N, Auber ML, Higa GM, Tracy T, Crowell EB, Romero P, Ericson SG, Lynch JP, Hogan T, Hogg J, Rogers JS. High-dose ifosfamide (HD-I) in advanced refractory solid tumors. American Society of Clinical Oncology Annual Meeting, Denver, CO, May 1997. (American Society of Clinical Oncology Proceedings, vol. 16, 423)

Zhang W, Parenteau H, Wainer IW, Tracy TS. Effect of protein-calorie malnutrition on cytochrome P450 2C and glutathione S-transferase enzymes (poster). American Association of Pharmaceutical Scientists Annual Meeting, Seattle, WA, October 1996.

Wainer IW, Granvil CP, Parenteau H, Marra C, Tracy TS. The effect of protein-calorie malnutrition on the N-dechloroethylation of ifosfamide in the rat (poster). International Society for the Study of Xenobiotics Annual Meeting, San Diego, CA, October 1996 (ISSX Proceedings, Vol. 6, page 187).

McRobie D, Glover D, Tracy T. Regiospecificity of human placental aromatase cytochrome P-450 (poster). American College of Obstetrics and Gynecology Annual Meeting, Denver, CO, May 1996.

Tracy TS, Marra C, Wrighton SA, Gonzalez FJ, Korzekwa KR. Involvement of multiple cytochrome P450 isoforms in naproxen demethylation (poster). American Society for Clinical Pharmacology and Therapeutics Annual Meeting, Orlando, FL, March 1996. (Clinical Pharmacology and Therapeutics 59:171, 1996)

Marra C, Wrighton SA, Gonzalez FJ, Korzekwa KR, Tracy TS. Involvement of multiple cytochrome P450 isoforms in naproxen demethylation (poster). Pfizer Undergraduate Fellowship Seminar, Pfizer, Inc., Groton, CT, October 20, 1995.

Marra C, Wrighton SA, Gonzalez FJ, Korzekwa KR, Tracy TS. Involvement of multiple cytochrome P450 isoforms in naproxen demethylation (podium). Merck Undergraduate Research Seminar, West Virginia University, Morgantown, WV, October 16, 1995.

Iser T, McRobie D, Glover D, Tracy T. Activity and expression of glutathione S-transferase in human placental tissue (podium). Merck Undergraduate Research Seminar, West Virginia University, Morgantown, WV, October 16, 1995.

Omar HA, Ramirez R, Arsich J, Glover D, Tracy T, Einzig S, Gibson M. Gestational diabetes alters human placental vascular relaxation to progesterone (podium). American Pediatric Society, San Diego, CA, May 1995. (Pediatric Research 1995;37(4):66A)

McRobie DJ, Glover DD, Tracy TS. Regiospecificity of placental xenobiotic metabolism in normal and diabetic patients (poster). American Society for Clinical Pharmacology and Therapeutics Annual Meeting, San Diego, CA, March 1995. (Clinical Pharmacology and Therapeutics 57:154, 1995)

Tracy TS, Rosenbluth BW, Wrighton SA, Gonzalez FJ, Korzekwa KR. Flurbiprofen 4'-hydroxylation by CYP2C9 (poster). American Society for Clinical Pharmacology and Therapeutics Annual Meeting, San Diego, CA, March 1995. (Clinical Pharmacology and Therapeutics 57:152, 1995)

Wang K, Ma JKH, Tracy T, Bhat M. The study of the degradation of an LHRH analogue by lung microsomal fraction using HPLC (poster). Merck Undergraduate Research Seminar, West Virginia University, October 1994.

Eddy J, Higa G, Auber M, Tracy T. Ifosfamide hydroxylation following continuous infusion high dose therapy (poster). Merck Undergraduate Research Seminar, West Virginia University, October 1994.

Tracy TS, Worster T, Bradley JD, Greene PK, Brater DC. Methotrexate disposition following concomitant administration of ketoprofen, piroxicam and flurbiprofen in patients with rheumatoid arthritis (poster). American Association of Pharmaceutical Scientists Annual Meeting, Orlando, FL, November 1993. (Pharmaceutical Research 10:S-301, 1993)

Rosenbluth BW, Tracy TS. Cytochrome P-450-mediated stereoselective oxidation of flurbiprofen (poster). Merck Undergraduate Research Seminar, West Virginia University, October 1993.

Xiaotao Q, Tracy TS, Hall SD. Modulation of ibuprofen metabolism in isolated rat hepatocytes (poster). Federation of American Societies for Experimental Biology Annual Meeting, Anaheim, CA, April 1992. (Faseb Journal 6:A1571, 1992)

Tracy TS, Wirthwein DP, Hall SD. Chiral inversion of ibuprofen: Formation of ibuprofenyl-CoA (poster). American Society for Clinical Pharmacology and Therapeutics Annual Meeting, Orlando, FL, March 1992. (Clinical Pharmacology and Therapeutics 51:179, 1992)

Tracy TS, Hall SD. Hydrolysis and isomerization of ibuprofenyl-CoA by rat and human liver tissue (poster). Federation of American Societies for Experimental Biology Annual Meeting, Atlanta, GA, April 1991.

Krohn K, Bradley J, Tracy T, Jones D, Hall S, Brater DC, Brandt K. Effect of NSAIDs on methotrexate disposition in rheumatoid arthritis (podium presentation). American College of Rheumatology, Central Regional Meeting, Chicago, IL, May 1990. (Arthritis and Rheumatism 33:R27, 1990)

Tracy TS, Jones DR, Hall SD, Brater DC, Bradley JD, Krohn K. The effect of NSAIDs on methotrexate disposition in patients with rheumatoid arthritis (poster). American Society for Clinical Pharmacology and Therapeutics Annual Meeting, San Francisco, CA, March 1990. (Clinical Pharmacology and Therapeutics 47:138, 1990)

Black CD, Bowman L, Peters G, Tracy TS. Effect of a partial PVC-based intravenous administration set on the delivery of nitroglycerin (poster). American Society of Hospital Pharmacists, Midyear Clinical Meeting, Dallas, TX, December 1988.

Tracy TS, Newton GD, Popovich NG. Development and implementation of a non-traditional pharmacy practice dispensing laboratory (podium presentation). International Society for Exploration of Teaching Alternatives, Chicago, IL, October 1988.

PROFESSIONAL SEMINARS

Allosteric enzyme and transporter-based drug interactions: in vitro and in vivo studies, AAPS Workshop on Enzyme and Transporter Based Drug Interactions: Progress and Future Challenges, American Association of Pharmaceutical Scientists Annual Meeting, San Diego, CA, November 10, 2007.

Cytochrome P450 2C9 Pharmacogenetics and Atypical Kinetics: Relevance to In Vitro and In Vivo Metabolism Studies, Abbott Labs, Abbott Park, IL, March 12, 2007

Cytochrome P450 2C9-Mediated Metabolism: Kinetics, Pharmacogenetics and the Role of Multiple Binding Sites, NIEHS Center for Environmental Health Sciences, University of Texas Medical Branch, Galveston, TX, February 12th, 2007.

Application of In Vitro Models to Clinical Drug-Drug Interactions. Land O' Lakes Drug Metabolism and Applied Pharmacokinetics Conference, September 14, 2006.

Cytochrome P450 2C9 Pharmacogenetics and Atypical Kinetics: Relevance to In Vitro Metabolism Studies. Amgen Inc., Seattle, WA, August 15, 2006.

Predicting In Vivo Drug Metabolism from In Vitro Data: Caveats, Successes and Lessons Learned. Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield, CT, April 21, 2006.

Pharmacogenetics and CYP2C9-Mediated Drug Interactions, Great Lakes Drug Metabolism Discussion Group, Annual Meeting, Kalamazoo, MI, April 27, 2006.

Cytochrome P450 2C9-Mediated Metabolism: Kinetics, Pharmacogenetics and the Role of Multiple Binding Sites. Dept. of Medicinal Chemistry, School of Pharmacy, University of Washington, Seattle, WA December 15, 2005.

Cytochrome P450 2C9-Mediated Metabolism: Kinetics, Pharmacogenetics and the Role of Multiple Binding Sites. School of Pharmacy and Pharmaceutical Sciences, University at Buffalo, Buffalo, NY, September 29, 2005.

Cytochrome P450 Enzyme – Substrate Interactions: Factors Controlling Metabolism Rate and Drug-Drug Interactions. Pfizer, Inc., St. Louis, MO, July 29, 2005

Enzyme (Mis)Behavior: The Effects of Atypical Kinetics and Genotype on Predictions of Drug Disposition and Drug-Drug Interactions. Gordon Research Conference on Drug Metabolism, Plymouth, NH, July 13, 2005.

Cytochrome P450 Enzyme – Substrate Interactions: What Really Controls Drug Metabolism Rates and the Potential for Interactions? Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield, CT, July 8, 2005.

Pharmacogenetics of CYP2C9 Inhibition and Activation, American Society for Pharmacology and Experimental Therapeutics Annual Meeting, April 2005.

Steroids and Dietary Supplements in Athletic Performance Enhancement, Golden Valley Rotary Club, Golden Valley, MN, Jan. 25, 2005

Drug Disposition During Pregnancy and the Implications for Psychiatric Practice, Psychiatry Grand Rounds, Fairview-Riverside Hospital, Minneapolis, MN, January 12, 2004.

Drugs and Pregnancy: What Do Women Take and How Does Pregnancy Affect Drug Disposition?, Psychiatry Grand Rounds, Hennepin County Medical Center, Minneapolis, MN, December 3, 2004.

Drugs and Pregnancy: What Do Women Take and How Does Pregnancy Affect Drug Disposition? Center of Excellence in Women's Health, University of Minnesota, Minneapolis, MN, November 10, 2004.

Cytochrome P450 2C9-Mediated Metabolism: Kinetics, Pharmacogenetics and the Role of Multiple Binding Sites, Boehringer-Ingelheim Pharmaceuticals, Bridgeport, CT, Oct. 26, 2004.

Drug Disposition During Pregnancy: Maternal and Fetal Considerations, Women's Health Research Conference, Minneapolis, MN, Sept. 13, 2004.

Dietary Supplements in Athletic Performance Enhancement: Fact vs. Fiction, Society of Toxicology Northland Regional Meeting, St. Paul, MN, June 7, 2004.

Kinetic "Misbehavior" of Drug Metabolizing Enzymes, Engebretson Seminar, North Dakota State Univ., May 11, 2004.

Cytochrome P450 2C9 Mediated Metabolism: Kinetics, Modulation and Pharmacogenetics, Gerontology Research Center, National Institute on Aging, Baltimore, MD, March 22, 2004.

Dietary Supplements in Athletic Performance Enhancement: Fact vs. Fiction, Society of Toxicology Annual Meeting, Baltimore, MD, March 21, 2004.

Kinetic "Misbehavior" of Drug Metabolizing Enzymes, Cancer Center, U. of Minnesota, March 18, 2004.

Forecasting Drug Response - Application to Cysteamine in Pediatric Nephropathic Cystinosis, Experimental and Clinical Pharmacology Dept., U. of Minnesota, January 21, 2004.

Drug Metabolism Initiatives/Research on Drugs in Pregnancy, Experimental and Clinical Pharmacology Dept., U. of Minnesota, November 19, 2003.

Fundamental Enzyme Kinetics, Short Course 5:Enzyme Kinetics and Allosterism in Drug Metabolism, International Society for the Study of Xenobiotics, Annual Meeting, Providence, RI, October 12, 2003.

Cytochrome P450 2C9-Mediated Metabolism: Kinetics, Modulation and Pharmacogenetics, Clinical Pharmacology Division, Indiana University School of Medicine, Indianapolis, IN, September 30, 2003

Cytochrome P450 2C9-Mediated Metabolism: Kinetics, Modulation and Pharmacogenetics, Dept. of Pharmaceutics, University of Minnesota, September 25, 2003

Atypical Enzyme Kinetics: Their Effect on In Vitro-In Vivo Pharmacokinetic Predictions and Drug Interactions, 6th International Conference on Drug-Drug Interactions, San Diego, CA, June 23, 2003.

Formaldehyde and Drugs: What's a Body to Do? State of West Virginia Supreme Court of Appeals, Fall Judicial Conference, Stonewall Jackson Resort, October 24, 2002.

Formaldehyde and Drugs: What's a Body to Do? BRIN program, West Virginia University, Morgantown, WV, June 27, 2002.

Formaldehyde and Drugs: What's a Body to Do? Forensic Science Recruitment Day, West Virginia University, Morgantown, WV March 15, 2002.

Cyclooxygenase Inhibitors and Their Role in the Treatment of Pain. School of Dentistry, West Virginia University, Morgantown, WV, November 17, 2001.

Genetic Variation, Atypical Enzyme Kinetics, and Other Factors Affecting In Vitro-In Vivo Drug Disposition Predictions. Department of Biological Sciences, Marshall University, Huntington, WV December 13, 2000.

Medication Use in an Obstetric and Gynecologic Population: Prescription, OTC and Herbal Medicines. Division of Clinical Pharmacology, School of Medicine, Georgetown University, Washington, DC, December 6, 2000.

Atypical Enzyme Kinetics, Allelic Variants and Other Factors Affecting In Vitro-In Vivo Pharmacokinetic Predictions. Department of Pharmacology and Toxicology, West Virginia University, Morgantown, WV December 4, 2000.

Medication Use in an Obstetric and Gynecologic Population: Prescription, OTC and Herbal Medicines. Integrative Medicine Program, School of Medicine, West Virginia University, Morgantown, WV, November 9, 2000.

In Vitro and In Vivo Models for Predicting Human CYP Metabolism, AAPS Sunrise School, American Association of Pharmaceutical Scientists Annual Meeting, Indianapolis, IN, November 1, 2000.

Atypical Enzyme Kinetics and Their Relationship to In Vitro-In Vivo Predictions, Conference on Predicting, Managing and Preventing Drug-Drug Interactions, Philadelphia, PA, October 5, 2000.

Kinetics of CYP2C9-Mediated Metabolism: Substrates, Modulation and Effect of Allelic Variants on Kinetic Profiles, Pharmacia Inc., Kalamazoo, MI, August 11, 2000

Kinetics of CYP2C9-Mediated Metabolism: Substrates, Modulation and Effect of Allelic Variants on Kinetic Profiles, Camitro Corp., Menlo Park, CA, May 16, 2000

Atypical Kinetics of Cytochrome P450 2C9 Mediated Drug Metabolism, Dept of Pharmacology and Toxicology, West Virginia University, Morgantown, WV, February 15, 1999.

Atypical Kinetics of Cytochrome P450 2C9 Mediated Drug Metabolism, School of Pharmacy, University of Pittsburgh, Pittsburgh, PA, October 8, 1998.

Atypical Kinetics of Cytochrome P450 2C9 Mediated Drug Metabolism, Division of Clinical Pharmacology, Georgetown University, Washington, DC, June 11, 1998.

Effects of Diabetes on Human Placental Drug and Steroid Metabolism, Department of Obstetrics and Gynecology, West Virginia University, Morgantown, WV, March 19, 1998.

Atypical Kinetics of Cytochrome P450 2C9 Mediated Drug Metabolism, Center for Clinical Pharmacology, University of Pittsburgh, Pittsburgh, PA, November 6, 1997.

Cytochrome P450 2C9: Substrates and Atypical Kinetics, National Institutes of Occupational Safety and Health, HELD Seminar, April 18, 1997.

Flurbiprofen 4'-hydroxylation: A potential probe for cytochrome P450 2C9. Clinical Pharmacokinetics Division, Dept. of Oncology, McGill University, Montreal, Canada, October 27, 1995.

Role of cytochrome P450 2C9 in the 4'-hydroxylation of (R)- and (S)-flurbiprofen. Center for Clinical Pharmacology, University of Pittsburgh, Pittsburgh, PA, August 29, 1995.

Flurbiprofen 4'-hydroxylation: A potential probe for cytochrome P450 2C9. West Virginia University School of Pharmacy Graduate Seminar, Morgantown, WV, September 20, 1995.

Biotransformation of ibuprofen: The role of coenzyme A thioesters. Clinical Pharmacology Division, Indiana University, Indianapolis, IN, April 1992.

Chiral inversion of 2-arylpropionic acids. Syntex Laboratories, Palo Alto, CA, July 1991.

Calcium-Channel Blockers: Future Agents, Future Uses, Dept. of Veterinary Physiology, Purdue University, West Lafayette, IN, November 1986.

GRANT SUPPORT

Current Funded Support

"Pharmacogenetics and Drug Interactions", National Institutes of Health (R01 GM-69753), \$962,957 (total costs), August 2004-July 2008, Principal Investigator – 30% effort.

"Mechanisms of Atypical Drug Kinetics and Interactions", National Institutes of Health (R01 GM-63215), \$982,247 (total costs), May 2005-April 2009, Principal Investigator - 25% effort.

"A Multidisciplinary Scholar Development Program to Advance Clinical Research" (K12 HD052187-01) \$13,867,949 (total costs), September 2005-September 2010, Co-Investigator – 5% effort.

Past Funded Support

"Substrate Interactions with Drug Metabolizing Enzymes", \$226,373, University of Minnesota, Academic Health Center Development Grant, Jan 2004-December 2005, Principal Investigator – 10% effort.

"PharmGKB Experimental Biology Workshop", National Institutes of Health (R13 GM-074553), \$4750 (total costs), April 2005-March 2006, Principal Investigator.

"Mechanisms of Atypical Drug Kinetics and Interactions", National Institutes of Health (R01 GM-63215), \$654,560 (total costs), July 2001-June 2005, Principal Investigator - 20% effort.

"Dual Wavelength UV Spectrometer", \$19,000, University of Minnesota Grant-in-Aid, Jan. 2004-Dec. 2004, Principal Investigator.

"Drug Metabolism During Pregnancy (Cooperative Multicenter Maternal-Fetal Medicine Units)", National Institutes of Health (5 U10 HD21410-17), \$28,909 (total costs for Dr. Tracy's effort), May 2002 – April 2004, Co-investigator – 5% effort.

"Standard Substances for Forensic Applications", National Institute of Justice (2001-RC-CX-K013), \$78,886 (direct costs for Dr. Tracy's portion), August 2002 – July 2004, Co-investigator – 10% effort (P. Callery, P.I.)

"DNA Analysis by Denaturing HPLC", National Institute of Justice, \$178,952 (direct costs), July 2002-June 2004, Principal Investigator – 10% effort.

"Drug Metabolism Research Enhancement with Mass Spectrometry", West Virginia University Research Corporation, \$35,000, July 2001-June 2002, Principal investigator – 5% effort.

"Dapsone Analogs as Effectors of CYP2C9-Mediated Drug Metabolism", Camitro Corp., \$45,430, October 2000-September 2001, Principal Investigator - 10% effort.

"Interdisciplinary GLP Analytical Laboratory", West Virginia University Research Corporation, \$31,732, July 1999-June 2000, Principal investigator – 5% effort.

"Degradation of Drugs in Embalmed Tissue", \$322,465 (total costs), Federal Bureau of Investigation Laboratory Division, October 1998-September 2000, Principal Investigator – 20% effort.

"Laboratory for Computational Chemistry and Chemical Biology", \$90,000, West Virginia University Research Corporation, July 1998-June 1999, Co-investigator - 5% effort (no salary), Dr. Peter Gannett - Principal Investigator.

"In Vitro Metabolism/Drug Interaction and Human Clinical Drug Studies", Food and Drug Administration, \$150,000 total costs, October 1997-September 1998, Co-investigator, 10% effort, (Robert Branch, M.D., Univ. of Pittsburgh, Principal Investigator).

"Drug Interactions via Activation of Cytochrome P450 2C9", Pfizer Inc., Summer Research Scholarship for Ms. Charity Metz, \$5000, May 1997-August 1997., Principal Investigator.

"Measurement of Drug Metabolizing Activity in Human Tissue Samples by Fluorescence Spectroscopy", WVU Office of Sponsored Programs, \$21,800 (equipment grant for purchase of spectrofluorometer), January 1996, Principal Investigator.

"Metabolism of Lornoxicam by Cytochrome P450 2C9 and 2C9R144C", Hafslund Nycomed Pharma, \$1,155, January 1996-February 1996, Principal Investigator.

"Substrate specificity and development of specific inhibitors for cytochrome P450 2C9", Pfizer Inc., Summer Research Scholarship for Ms. Christina Marra, \$5000, May 1995-August 1995., Principal Investigator.

"In vitro screening for cytochrome P-450 substrate specificities", National Science Foundation, \$168,000 direct costs, July 1994-June 1997, Co-Principal Investigator - 5% effort. This grant is a project within an EPSCoR proposal entitled "Development of a core facility for biotechnology research", Joseph K.H. Ma, Principal Investigator.

"Placental drug metabolism in diabetic patients", National Institutes of Health, \$107,246 (total costs), July 1994-June 1997, Principal investigator - 25% effort.

"Stereoselective metabolism of ifosfamide enantiomers in human liver microsomes", Pfizer Inc., Summer Research Scholarship for Ms. Lora Lewellyn, \$5000, May 1994-August 1994, Principal Investigator.

"A phase II study of the clinical efficacy and the pharmacokinetics of high-dose ifosfamide in advanced refractory solid tumors and lymphomas", Amgen Inc., \$9180.50 (total costs), November 1993-November 1995, Co-principal investigator - 20% effort, (Gerald M. Higa, Pharm.D. and Miklos L. Auber, M.D., co-principal investigators)

"Cytochrome P-450-mediated stereoselective drug metabolism", West Virginia University Senate Grant Program, \$6,450 (direct costs), July 1993-June 1994, Principal investigator - 20% effort.

"The effect of piroxicam, ketoprofen and flurbiprofen on methotrexate disposition in patients with rheumatoid arthritis", Pfizer Inc., \$55,194 (total costs), February 1992-February 1993, Principal investigator - 25% effort.

"Effect of ibuprofen on arachidonic acid release", Showalter Trust, \$36,078 (direct costs), July 1991-July 1992, Principal investigator - 30% effort.

PATENTS

Tracy TS, Glover DD, Callery PS, Brancazio LR, McFarlin BL, Smith JE, Soisson AP. Cervical Drug Delivery System and Use with Drugs, #6,526,980. Issued 3/4/03.

Tracy TS, Glover DD, Callery PS, Soisson AP, Smith JE. Cervical Isolation and Delivery Apparatus, #7,165,550. Issued 1/23/2007.

TEACHING AND INSTRUCTION

UNIVERSITY OF MINNESOTA

ECP 5620 – Drug Metabolism and Disposition – (3 credit hours) (Graduate Level)
Course coordinator and primary lecturer. Fundamental concepts of drug metabolism both in vitro and in vivo.

2004 (Spring) – 32 contact hours

2005 (Spring) – 32 contact hours

2006 (Spring) – 32 contact hours

2007 (Spring) – 32 contact hours

ECP 8900 – Principles of Clinical Pharmacology – (3 credit hours) (Graduate Level)
Participation as facilitator. Introduction to the fundamentals of clinical pharmacology, bridging the areas of pharmacokinetics, pharmacodynamics and pharmacogenetics.

2003 (Fall) – 6 contact hours

PHAR 6215 – Applied Pharmacokinetics – (2 credit hours) (Professional Level)
Participation as lecturer. Application of pharmacokinetic principles to therapeutic drug monitoring.

2004 (Spring) – 3 contact hours

2005 (Spring) – 3 contact hours
2006 (Spring) – 3 contact hours
2007 (Spring) – 3 contact hours

ECP 8220 – Introduction to Clinical Pharmacology – (3 credit hours) (Graduate Level)
Participation as lecturer. Introduction to fundamental principles of clinical research, regulatory compliance and clinical research grants.

2004 (Fall) – 5 contact hours
2006 (Fall) – 3 contact hours

EPhECT – Early Pharmacy Experience with Community Teachers – (1 credit hour)
(Professional Level)
Participation as group leader. Early practice experiences in the community.

2004 (Fall) – 5 contact hours
2005 (Spring) – 6 contact hours
2005 (Fall) – 6 contact hours
2006 (Spring) – 6 contact hours
2006 (Fall) – 6 contact hours
2007 (Spring) 11 contact hours

PubH 5501 – Fundamentals of Clinical Research
Participation as lecturer. Introduction to clinical research.

2004 (Fall) – 1 contact hour
2005 (Fall) – 1 contact hour
2006 (Fall) – 1 contact hour

BioC 4521 – Introduction to Physical Biochemistry
Participation as lecturer. Fundamentals of physical biochemistry and enzyme kinetics.

2004 (Fall) – 1 contact hour
2005 (Fall) – 1 contact hour
2006 (Fall) – 1 contact hour

WEST VIRGINIA UNIVERSITY

PCOL 743 (formerly PCOL 343) - Pharmacology 1 - (3 credit hours) (Professional and Graduate Level)

Participation as Lecturer. Introduces students to basic pharmacological principles, mechanisms of drug actions, side effects and elimination of these drugs from the body.

1999 (Fall) - 7 contact hours
2000 (Fall) - 7 contact hours
2001 (Fall) - 7 contact hours

PCOL 744 (formerly PCOL 344) - Pharmacology 2 - (3 credit hours) (Professional and Graduate Level)

Course Coordinator and Lecturer. Introduces students to basic pharmacological principles, mechanisms of drug actions, side effects and elimination of these drugs from the body.

2000 (Spring) - 8 contact hours
2001 (Spring) - 7 contact hours
2002 (Spring) – 7 contact hours

PHAR 793 (formerly PHAR 390) – Pharmaceutical Sciences – Bench to Shelf (3 credit hours)
(Graduate Level)

Participation as lecturer. This course provides students with a basic understanding of the pharmaceutical sciences as they involve bringing a product to market. Emphasis is placed on drug design and discovery, drug disposition and drug development.

1998 (Fall) – 4.5 contact hours
2000 (Fall) - 4.5 contact hours
2001 (Fall) - 4.5 contact hours

PHAR 715 (formerly PHAR 361) - Pathophysiology and Therapeutics (4 credit hours)
(Professional Level)

Participation as Lecturer. This course provides students with a fundamental understanding of disease processes and drug treatments.

1999 (Fall) - 5 contact hours
2000 (Fall) - 5 contact hours
2001 (Fall) - 5 contact hours

PHAR 793O (formerly PHAR 345) - Elective Clerkship - (4 credit hours) (Professional Level)
Preceptor. This is a one month elective clerkship rotation in pharmaceutical research.

1999 (Fall) - 3 students
2000 (Spring) - 2 students
2000 (Summer & Fall) - 8 students
2001 (Spring) - 4 students
2001 (Summer & Fall) - 7 students
2002 (Spring) – 4 students
2002 (Summer) – 2 students

PHAR 790L - Drug Metabolism - (3 credit hours) (Graduate Level)

Lecturer. This course provides graduate students with a fundamental understanding of drug metabolism, the enzymes responsible and factors that regulate drug metabolism.

2001 (Spring) - 8 contact hours
2002 (Spring) – 8 contact hours

PHAR 724 (formerly PHAR 306) - Pharmaceutical Care Lab 4 - (1 credit hour) (Professional Level)

Lecturer. This course provides students with hands-on experiences in medical information resources, communications, case study evaluation, and development of pharmaceutical care skills.

2000 (Spring) - 18 contact hours
2001 (Spring) - 18 contact hours
2002 (Spring) – 18 contact hours

PHAR 794 (formerly PHAR 484) - Pharmacokinetics Journal Club (1 cr. hr.) (Graduate level)
Participation as coordinator (co-coordinator with Dr. Peter Gannett beginning in Fall 1998). This elective provides a forum for graduate students interested in pharmacokinetics/drug metabolism/medicinal chemistry) to discuss current research articles in the field.

1996 (Spring) - 15 contact hours
1996 (Fall) - 15 contact hours
1997 (Spring) - 15 contact hours
1997 (Fall) - 15 contact hours
1998 (Spring) - 15 contact hours
1998 (Fall) - 15 contact hours
1999 (Spring) - 15 contact hours
1999 (Fall) - 15 contact hours
2000 (Spring) - 15 contact hours
2000 (Fall) - 15 contact hours
2001 (Spring) - 15 contact hours
2001 (Fall) - 15 contact hours
2002 (Spring) - 15 contact hours

PHAR 716 (formerly PHAR 362) - Pathophysiology and Therapeutics (4 credit hours)
(Professional Level)

Participation as Lecturer. This course provides students with a fundamental understanding of disease processes and drug treatments.

2001 (Spring) - 2 contact hours

PHAR 391 - Disease Processes and Clinical Therapeutics (7 credit hours) (Professional Level)
(Course no longer taught due to switch to entry-level Pharm.D.)

Participation as Lecturer. This course provides students with a fundamental understanding of disease processes and drug treatments.

1998 (Fall) - 2 contact hours
1999 (Spring) - 2 contact hours
1999 (Fall) - 2 contact hours
2000 (Spring) - 2 contact hours

PHAR 245 - Pharmacotherapeutics I (3 cr. hrs.) Fall semester (Course no longer taught due to switch to entry-level Pharm.D.)

Participation as course coordinator and lecturer. The course involves instruction of 2nd professional year pharmacy students on the application of pharmacodynamic, pharmacokinetic and pharmaceutical principles in the treatment, diagnosis and prevention of disease states.

1992 - 15 contact hours
1993 - 28 contact hours
1994 - 33 contact hours
1995 - 31 contact hours
1996 - 31 contact hours
1997 - 33 contact hours
1998 - 34 contact hours

PHAR 246 - Pharmacotherapeutics II (3 cr. hrs.) Spring semester (Course no longer taught due to switch to entry-level Pharm.D.)

Participation as course coordinator and lecturer. Continuation of PHAR 245.

1993 - 15 contact hours
1994 - 17 contact hours
1995 - 17 contact hours
1996 - 17 contact hours
1997 - 17 contact hours
1998 - 19 contact hours
1999 - 17 contact hours

PHAR 203 – Pharmacokinetics and Biopharmaceutics (4 cr. hrs.) Fall semester (Course no longer taught due to switch to entry-level Pharm.D.)

Participation as lecturer. The course involves instruction of 2nd professional year pharmacy students on the kinetic, therapeutic and dosage formulation-related aspects of drug absorption and disposition.

1998 - 2 contact hours

PHAR 256 - Advanced Pharmacotherapeutics (3 cr. hrs.) Fall semester (Course no longer taught due to switch to entry-level Pharm.D.)

Lecture and group-discussion presentations to 3rd professional year pharmacy students involving the integration of pharmacological-therapeutic concepts in the study of treatment modalities and problems encountered by the pharmacist in drug management of selected disease states.

1992 - 3 contact hours
1994 - 2 contact hours

PHAR 301 - Advanced Biopharmaceutics (3 cr. hrs.) Spring semester (Graduate Level)

Participation as lecturer. Concepts of biopharmaceutics and pharmacokinetics in relation to the design and evaluation of dosage forms and determination of rational dosage regimens in health and disease.

1993 - 1.5 contact hours
1995 - 1.5 contact hours
1997 - 1.5 contact hours
1999 - 1.5 contact hours

PHAR 329 - Clinical Pharmacokinetics (3cr. hrs.) Spring semester (Pharm.D. program)

Participation as lecturer. Concepts of clinical pharmacokinetics and drug therapy monitoring.

1994 - 3 contact hours
1995 - 3 contact hours
1996 - 3 contact hours
1997 - 3 contact hours
1998 - 3 contact hours
2000 - 3 contact hours

2001 - 2 contact hours

PHAR 749A (formerly PHAR 289) - Pharmaceutical Investigations (2-3 cr. hrs)

Participation as preceptor. This elective serves as an introduction to research for undergraduate students by allowing them to participate in conducting scientific research under the auspices of a faculty preceptor.

Students precepted

Dexter Underwood - 2 cr. hrs. - Fall 1993
Brady Rosenbluth - 3 cr. hrs. - Spring 1994
Lora Lewellyn - 6 cr. hrs. total - Spring 1994, Fall 1994
Talonna Iser - 6 cr. hrs. total - Spring 1995, Fall 1995
Christina Marra - 3 cr. hrs. - Fall 1995
James King - 3 cr. hrs. - Spring 1996
Rebecca Greenly - 3 cr. hrs. - Summer 1996
Ivan Monge - 3 cr. hrs. - Spring 1997
Ronald Selders - 2 cr. hrs. - Fall 1997
Christina Coffman - 2 cr. hrs. - Summer 1998
Amy Grogg - 2 cr. hrs. - Spring 1999
Aaron Howell - 2 cr. Hrs. - Fall 1999

POST-DOCTORAL FELLOWS

Padma Tirumalai, Ph.D.	2002-2003
Charles W. Locuson, Ph.D.	2004-2006
Melissa A. Kramer, Ph.D.	2006-present
Murali Subramanian, Ph.D.	2007-present

GRADUATE STUDENTS

Major Advisor for Completed Theses and Dissertations

Weijiang Zhang	M.S. (completed 1997)
Thesis Title: Effect of Protein-Calorie Malnutrition on Phase I and Phase II Drug Metabolizing Enzymes	
Donna McRobie	Ph.D. (completed 1998)
Dissertation Title: Placental Xenobiotic and Steroid Metabolism in Normal and Diabetic Patients	
Devona James	M.S. (completed 1999)
Thesis Title: The Degradation of Drugs in Formaldehyde	
Eric Belldina	M.S. (completed 2001)
Thesis Title: The Treatment of Cystinosis with Cysteamine	
J. Matthew Hutzler	Ph.D. (completed 2001)
Dissertation Title: Factors Affecting CYP450 2C9 Mediated Metabolism	

Dhanashri Kolwankar	Ph.D. (completed 2002)
Dissertation Title: Placental Transport of Drugs	
Matthew A. Hummel	M.S. (completed 2003)
Thesis Title: Dapsone Activation of CYP2C9 Allelic Variants	
Madhu Sanga	Ph.D. (completed 2004)
Dissertation Title: Methamphetamine Toxicity: Thermal Degradation, CYP450-Mediated Metabolic Activation and Cytotoxic Epoxide Formation	
Tina Bland	Ph.D. (completed 2004)
Dissertation Title: Role of CYP2C9 in the Metabolism of Tetrahydrocannabinol	
Matthew A. Hummel	Ph.D. (completed 2004)
Dissertation Title: Assessment of Multiple Substrate Binding in CYP2C9	
Lian Wei	M.S. (completed 2006)
Dissertation Title: Mechanisms of Atypical CYP2C9 Kinetics	
Vikas Kumar	Ph.D. (completed 2007)
Dissertation Title: Pharmacogenetics of CYP2C9 Inhibition	

Current Graduate Students

Lucy Hafner	Ph.D. (expected 2010)
Dissertation Title (tentative): Cervical Transport of Gemcitabine	

Committee Member

K. Gary Barnette	Ph.D. (completed 1996)
Sridar V. Chittur	Ph.D. (completed 1996)
Qinying Zhao	Ph.D. (completed 1996)
Ping Li	M.S. (completed 1996)
Deepak Thakkar	Ph.D. (completed 1997)
Carol Cronenberger	Ph.D. (completed 1997)
Xiahong Pan	M.S. (completed 1997)
Girish Gudi	M.S. (completed 1998)
Eric Menke	M.S. (completed 1999)
Girish Gudi	Ph.D. (completed 2001)
Stephen Moore	M.S. (completed 2002)
Steven Wolfe	M.S. (completed 2003)
Brenda Schuler	Ph.D. (completed 2003)
Jon Daft	Ph.D. (completed 2004)
Spencer Erickson	Ph.D. (completed 2004)
Alan Myers	Ph.D. (completed 2005)
Weiyang Zhang	Ph.D. (completed 2005)
Upendra Argikar	Ph.D. (completed 2006)
Brian Willis	Ph.D. (completed 2007)
Atul Kumar	Ph.D. (completed 2007)
Kari Dicke	Ph.D. (completed 2007)
Carrie Mosher	Ph.D. (completed 2007)
Nagdeep Giri	Ph.D. (in progress)
Jeannette Zinggeler	Ph.D. (in progress)
Li Li	Ph.D. (In progress)

Laura Maertens
Jin Zhou

Ph.D. (In progress)
Ph.D. (In progress)

UNDERGRADUATE/PROFESSIONAL STUDENTS SUPERVISED

Brady Rosenbluth - Summer Research (1993)

Title: Flurbiprofen stereoselective oxidation by human liver microsomes.

Lora Lewellyn - Summer Research (1994)

Title: Stereoselective metabolism of ifosfamide enantiomers in human liver microsomes.

Jeffrey Eddy - Summer Research (1994)

Title: Pharmacokinetics of high-dose ifosfamide given by continuous infusion in patients with advanced refractory solid tumors and lymphomas.

Christina Marra - Summer Research (1995)

Title: Cytochrome P450 2C9: Substrate specificity and development of specific inhibitors.

Talonna Iser - Summer Research (1995)

Title: Cytochrome P450 1A1 and glutathione S-transferase activities in human placental tissue fractions.

Rebecca Greenly - Summer Research (1996)

Title: Alterations in cytochrome P450 2E1 activity by protein-calorie malnutrition.

Charity Metz - Summer Research (1997)

Title: Drug Interactions via Activation of Cytochrome P450 2C9

Derek Grimm – Summer Research (2001-2003)

Title: Atypical Kinetics of Cytochrome P450 2C9 Mediated Metabolism

Michael Low – Summer Research (AFPE Fellowship) (2005)

Title: Pharmacogenetics of CYP2D6 inhibition

Michael Low – Summer Research (Pfizer SURF Fellowship) (2006)

Title: CYP Protein-Protein Interactions

Ryan VanSickle – Summer Research (2007)

Title: Pharmacogenetics of CYP2D6 inhibition

Jared Anderson – Summer Research (2007)

Title: Mechanisms of CYP2C9 genotype-dependent inhibition

Todd Nelson – Summer Research (2007)

Title: Correlation of In Vitro CYP2C9 Inhibition with In Vivo Inhibition Studies

Helen Zheng – Directed Research (2007-2008)

Title: CYP2C9-CYP3A4 Protein-Protein Interactions

HIGH SCHOOL STUDENTS SUPERVISED

Erin Jiang - Summer Research Apprentice Program (1996-1997)

Title: Distribution and expression of xenobiotic metabolizing enzymes in human placental tissue.

Rayna Momen - Summer Research Apprentice Program (1998)
Title: Effect of protein-calorie malnutrition on cytochrome P450 and glutathione S-transferase expression.

Seema Aggarwal - Summer Research Apprentice Program (1999)
Title: Alterations in cytochromes P450 2D1 and 3A2 by protein-calorie malnutrition.

Derek Grimm - Summer Research Apprentice Program (2000)
Title: Dapsone Analogs as Effectors of CYP2C9-Mediated Drug Metabolism

SERVICE

University of Minnesota College of Pharmacy

Pharmacy Practice and Pharmaceutical Sciences Dept. Head Search (co-chair) (2007)

Associate Dean for Research and Graduate Programs Search Committee (co-chair) (2006)

Central Council (2004-2007)

College of Pharmacy Space Committee (2004-2007)

College of Pharmacy Educational Implementation Committee (2004-2007)

Epilepsy Research and Education Program (P50) Internal Advisory Board (2004-2007)

Promotion and Tenure Committee, Experimental and Clinical Pharmacology, Chair (2003)

Pharmacology Faculty Search Committee for Duluth (2003)

University of Minnesota

Participant and Clinical Interactions Resources Manager Search Committee, Chair 2007-2008.

Translational Research Assistance Committee, Chair, 2006-2007.

Medicinal Chemistry Supercomputing Institute –Visualization Workstation Laboratory Steering Committee (2006-2007)

University of Minnesota Strategic Repositioning Clinical Science Enterprise Task Force (2005-2006)

K12 Multidisciplinary Clinical Research Scholars Program Grant, Multi-Disciplinary Advisory Committee (2005-2010)

K12 Multidisciplinary Clinical Research Scholars Program Grant, Mentoring Committee (2005-2010)

AHC Executive Director for Clinical Research Search Committee (2005)

T32 Pre-Doctoral Training Grant in Clinical Research Advisory Committee (2005-2006)

AHC Clinical Research Advisory Board (formerly AHC Clinical Research Task Force) (2003-2007)

Center of Excellence in Women's Health, Research Advisory Committee (2003-2007)

West Virginia University School of Pharmacy

Professional Academic Standards Committee (1999-2002) [Chair 2000-2002]

Search Committee for Assistant Professor in Basic Pharmaceutical Sciences (1998-2000),
Chair
Assessment Committee (1998)
Graduate Affairs and Admissions Committee (1998-1999)
Recruitment Committee (1997-1998)
Search Committee for Assistant Professor in Basic Pharmaceutical Sciences (1997-1998)
Faculty Delegate to American Association of Colleges of Pharmacy (1996-1998, 2001)
Self-Study Committee on the Curriculum, Chair (1996-1997)
Basic Pharmaceutical Sciences Faculty Evaluation Committee (1995)
School Wide Faculty Evaluation Committee (1995)
Search Committee for Chairperson in Basic Pharmaceutical Sciences (1995-1996).
Curricular Design Committee (1995-1996)
Strategic Plan Steering Committee (1994-1995)
Strategic Plan Education Subcommittee, Chairman (1994-1996)
Curriculum Committee, Chairman (1993-1997)
West Virginia University Senate Grant Program Reviewer (1993)
Ad Hoc Planning Group for Relocated Pharmacy Practice Laboratory (1994)
School of Pharmacy Academic Standards Committee (1993-1994)
Search Committee for Assistant Professor in Behavioral and Administrative Pharmacy (1993-
1994)
Search Committee for Chairman in Behavioral and Administrative Pharmacy (1993)
Anatomy Course Revision Committee [ad hoc] (1993)
Alternate faculty secretary/American Association of Colleges of Pharmacy delegate (1992-1994,
1995, 2000)

West Virginia University

Mylan Chair in Pharmacology Search Committee (2002)
WVU Health Sciences Center Clinical Research Committee (2000-2002)
WVU Research Advisory Council (2000-2002)
Pharmacology and Toxicology Chair Search Committee (1999-2000)
Ad Hoc Committee on Restructuring of Clinical Research Trials Unit (1999)
WVU Foundation Outstanding Teacher Selection Committee (1996)

National

Gordon Research Conference on Drug Metabolism, Chair, 2007-2008
Indiana University T32 Clinical Pharmacology Training Grant External Advisory Board, 2007
(Chair)

Julius Axelrod Award Selection Committee, American Society for Pharmacology and Therapeutics, 2006 & 2007

Gordon Research Conference on Drug Metabolism, Vice-Chair, 2006-2007.

American Association of Colleges of Pharmacy, Council of Faculties Task Force on Training Clinical Scientists, 2006-2007.

National Institutes of Health, XNDA Study Section, Member, 2006-2010

National Institutes of Health, ZRG1 DIG-F(02), Special Review Panel, Reviewer, 2005

American Association of Colleges of Pharmacy, Council of Faculties Task Force on Interprofessional Education, Research and Patient Care, Chair, 2005-2006.

American Society for Pharmacology and Experimental Therapeutics, Drug Metabolism Division, Past-Chair, 2004-2005.

National Institutes of Health, Infectious Diseases, Reproductive Health, Asthma and Pulmonary Conditions Study Section, Reviewer, 2005

Gordon Research Conference on Drug Metabolism, Session Chair, "*Integrating Preclinical Information to Predict Human Drug Disposition*", July 2005.

National Institutes of Health, Novel Methods for Predicting ADME and Toxicology Ad Hoc Review Panel, Reviewer, 2005

National Institutes of Health, XNDA Study Section, Ad Hoc reviewer, 2005

American Society for Pharmacology and Experimental Therapeutics, Drug Metabolism Division, Chair, 2004-2005.

American Society for Pharmacology and Experimental Therapeutics, Co-Chair for symposium entitled "*Glucuronosyl Transferases: Their Role in Drug Interactions and Toxicity*", held at Annual Meeting in April 2005.

American Society for Pharmacology and Experimental Therapeutics, Co-Chair for symposium entitled "*PharmGKB and the Scientific Community: An Interactive Workshop*", held at Annual Meeting in April 2005.

Accreditation Council on Pharmaceutical Education, Site Visitation Team, 2004.

Center for the Advancement of Pharmaceutical Education (CAPE) Commission for Revision of Educational Outcomes, 2003-2004.

American Society for Pharmacology and Experimental Therapeutics, Drug Metabolism Division, Chair-elect, 2003-2004.

Drug Metabolism and Disposition "Best Paper of 2003" Selection Cmte.

American Association of Colleges of Pharmacy, Academic Affairs Committee, 2003-2004.

United States Pharmacopeia, Expert Committee on Antivirals and Antimicrobials (PA-7), 2000-2010, Member.

American Association of Colleges of Pharmacy, Academic Sections Coordinating Committee, Chair, 2002-2003.

American Association of Colleges of Pharmacy, Board of Directors, Member, 2002-2003.

American Society for Pharmacology and Experimental Therapeutics, James Gillette Best Paper Award (in Drug Metabolism and Disposition), Review Panel, 2002.

National Institutes of Health, NICHD Ad Hoc Review Panel (RFA HD-02-001), 2002.

National Institutes on Aging, Special Emphasis Review Panel, 2002.

American Association of Colleges of Pharmacy, Biological Sciences Section, Chair, 2001-2002.

American Society for Clinical Pharmacology and Therapeutics, Abstract Reviewer for Annual Meeting presentations, 1997, 1998, 1999, 2000.

American Society for Clinical Pharmacology and Therapeutics, Co-Chair for symposium entitled "*Predicting Cytochrome P450 Mediated Metabolism in Humans*", held at Annual Meeting in March 1998.

North American Pharmaceutical and Biomedical Analysis meeting, Scientific Organizing Committee, 1999.

Biological Sciences Section, Awards Committee Chair, American Association of Colleges of Pharmacy, 1997-1998.

American Association of Colleges of Pharmacy Curriculum Committee SIG, Chair, July 1996-June 1997.

American Association of Colleges of Pharmacy Curriculum Committee SIG, Secretary, July 1995-June 1996.

American Association of Colleges of Pharmacy Curriculum Committee SIG, Discussion Facilitator, Annual Meeting, Philadelphia, PA, July 1995.

American Association of Colleges of Pharmacy Curriculum Committee SIG, Discussion Facilitator, Annual Meeting, Albuquerque, NM, July 1994.

Merck Undergraduate Research Scholarship Program Advisory Committee (1994-1995)

EDITORIAL BOARDS

Clinical Pharmacology and Therapeutics (2001 – present)

Drug Metabolism and Disposition (2003-present)

American Journal of Pharmaceutical Education (2007-present)

Journal of Chromatography B – Analytical Technologies in the Biomedical and Life Sciences (2001 – 2006)