

CURRICULUM VITAE

SANDRA S. ROSSIE

ADDRESS: Department of Biochemistry
Purdue University
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EDUCATION

1978	B.A.	The Johns Hopkins University	Natural Science
1984	Ph.D.	The University of Chicago	Pharmacology

ACADEMIC APPOINTMENTS

2007-present	Professor, Department of Biochemistry, Purdue University, West Lafayette, IN
1998-2007	Associate Professor, Department of Biochemistry, Purdue University, West Lafayette, IN
1991-1998	Assistant Professor, Department of Biochemistry, Purdue University, West Lafayette, IN
1989-1991	Assistant Professor, Department of Pharmacology and Toxicology, College of Pharmacy, University of Arizona, Tucson, AZ
1988-1989	Research Associate, Department of Pharmacology, The University of Washington, Seattle, WA
1984-1988	Postdoctoral Fellow, Department of Pharmacology, The University of Washington, Seattle, WA

AWARDS AND HONORS

1979-1984	Pharmacological Sciences Training Fellowship, General Medical Sciences, NIH, The University of Chicago
1984-1987	NIH Postdoctoral Fellowship, The University of Washington
2008	Fulbright Scholar

PROFESSIONAL AFFILIATIONS

American Society for Biochemistry and Molecular Biology
Society for Neuroscience

NATIONAL & INTERNATIONAL SERVICE

Reviewer for 5-year external review, Department of Biochemistry, Virginia Polytechnic Institute and State University, 2015
NSF graduate fellowship review panelist, 2013, 2014
Reviewer, Fulbright Student and Scholar applications from Russian Federation, 2009-present

Ad hoc reviewer for NSF, the Lowe Syndrome Association and Michigan Diabetes Association grant applications

Co-Chair for 2003 FASEB International Summer Conference on Ion Channel Regulation in Tucson, AZ

Ad hoc reviewer, *Journal of Biological Chemistry, Protein Science, Proceedings of the National Academy of Science, BMC Microbiology, Biochemistry*

Volume Editor, together with Dr. David Armstrong (NIEHS) of "Ion Channel Modulation," *Advances in Second Messenger and Phosphoprotein Research* Vol. 33 (1999) Academic Press, Harcourt Brace, San Diego CA

Chairperson, workshop "Control of Electrical Excitation, at *Cellular Regulation by Protein Phosphorylation: Forty Years of Progress*, Seattle, WA, August 1997

PUBLICATIONS

Chatterjee A, Wang L, Armstrong DL, Rossie, S. 2010. Activated rac1 GTPase translocates protein phosphatase 5 to the cell membrane and stimulates phosphatase activity in vitro. *J. Biol. Chem.* **285**: 3872-3882.

Sanchez-Ortiz, E, Hahm, BK, Armstrong DL, Rossie, S. 2009. Protein phosphatase 5 protects neurons against amyloid-beta toxicity. *J. Neurochem.* **111**: 391-402.

Ham BM, Jayachandran H, Yang F, Jaitly N, Polpitiya, A, Monroe ME, Wang, L, Zhao R, Purvine SO, Livesay EA, Camp DG 2nd, Rossie S, Smith RD. 2009. Novel ser/thr protein phosphatase 5 (PP5) regulated targets during DNA damage identified by proteomics analysis. *J. Proteome Res.* **9**: 945-53.

Ham BM, Yang F, Jayachandran H, Jaitly N, Monroe ME, Gritsenko MA, Livesay EA, Zhao R, Purvine SO, Orton D, Adkins J, Camp DG 2nd, Rossie S, Smith RD. 2008. The influence of sample preparation and replicate analyses on HeLa cell phosphoproteome coverage. *J Proteome Res.* **7**: 2215-21.

Yang F, Jaitly N, Jayachandran H, Luo Q, Monroe ME, Du X, Gritsenko MA, Zhang R, Anderson DJ, Purvine SO, Adkins JN, Moore RJ, Mottaz HM, Ding SJ, Lipton MS, Camp DG 2nd, Udseth HR, Smith RD, Rossie S. 2007. Applying a targeted label-free approach using LC-MS AMT tags to evaluate changes in protein phosphorylation following phosphatase inhibition. *J. Proteome Res.* **6**: 4489-97.

Rossie S, Jayachandran H and Meisel RL. 2006. Cellular Co-localization of Protein Phosphatase 5 and Glucocorticoid Receptors in Rat Brain. *Brain Research* **1111**: 1-11.

Messner DJ, Romeo C, Boynton A and Rossie S. 2006. Inhibition of PP2A, but not PP5, mediates p53 activation by low levels of okadaic acid in rat liver epithelial cells. *J. Cellular Biochem.* **99**: 241-55.

Luo Q, Tang K, Yang F, Elias A, Shen Y, Moore RJ, Zhao R, Hixson KK, Rossie SS, Smith RD. 2006. More sensitive and quantitative proteomic measurements using very low flow rate porous silica monolithic LC columns with electrospray ionization-mass spectrometry. *J. Proteome Res.* **5**: 1091-7.

Gentile S, Darden T, Romeo C, Russo A, Martijn N, Erxleben C, Rossie S, Armstrong DL. 2006. Rac GTPase Signaling through the PP5 Ser/Thr phosphatase. *Proc. Nat. Acad. Sci.* **103**: 5202-5206.

Yan F, He M, Hogan JM, Rossie SS and McLuckey SA. 2005. Targeted Biomarker Detection via Whole Protein Ion Trap Tandem Mass Spectrometry: Thymosin 4 in a Human Lung Cancer Cell Line. *J. Mass Spectrom.* **40**: 444-451.

Liu F, Iqbal K, Grundke-Iqbal I, Rossie S and Gong C-X. 2005. Dephosphorylation of Tau by Protein Phosphatase 5: Impairment in Alzheimer Disease. *J. Biol. Chem.* **280**: 1790-1796.

Manaves V, Qin W, Bauer A, Rossie S, Kobayashi M and Rane SG. 2004. Calcium and Vitamin D increase mRNA levels for the growth control hK1 channel in human epidermal keratinocytes but functional channels are not observed. *BMC Dermatol.* **4(1)**: 7.

Gong CX, Liu F, Wu G, Rossie S, Wegiel J, Li L, Iqbal IG and Iqbal K. 2004. Dephosphorylation of microtubule-associated protein tau by protein phosphatase 5. *J. Neurochem.* **88(2)**: 298-310.

Jeong JY, Johns J, Sinclair C, Park JM and Rossie S. 2003. Characterization of *Saccharomyces cerevisiae* protein Ser/Thr phosphatase T1 and comparison to its mammalian homolog PP5. *BMC Cell Biol.* **4**: 3.

Erxleben C, Everhart AL, Romeo C, Florance H, Bauer MB, Alcorta DA, Rossie S, Shipston JJ and Armstrong DL. 2002. Interacting Effects of N-terminal Variation and Strex Exon Splicing on slo Potassium Channel Regulation by Calcium, Phosphorylation, and Oxidation. *J. Biol. Chem.* **277(30)**: 27045-27052.

Bahl R, Bradley KC, Thompson KJ, Swain RA, Rossie S and Meisel RL. 2001. Localization of Protein Ser-Thr Phosphatase 5 in Rat Brain. *Mol. Brain Research* **90**: 101-109. **(S. Rossie, corresponding author)**

Van Wagoner D, Pond A, Lamorgese M, Rossie S, McCarthy P, Nerbonne J. 1999. Atrial L-type Calcium Currents and Human Atrial Fibrillation. *Circulation Research* **85**: 18-36.

Sinclair C, Borchers C, Parker C, Tomer K, Charbonneau H and Rossie S. 1999. The Tetratricopeptide Repeat Domain and a C-terminal Region Control the Activity of ser/thr Protein Phosphatase 5. *J. Biol. Chem.* **274**: 23666-23672.

Skinner J, Sinclair C, Romeo C, Armstrong D, Charbonneau H and Rossie S. 1997. Purification of a Fatty Acid-stimulated Protein Ser/Thr Phosphatase from Bovine Brain and its Identification as a Homolog of Protein Phosphatase 5. *J. Biol. Chem.* **272**: 22464-22471.

Kondratyuk T and Rossie S. 1997. Depolarization of Rat Brain Synaptosomes Increases Phosphorylation of Voltage-sensitive Sodium Channels. *J. Biol. Chem.* **272**: 16978-16983.

Law B and Rossie S. 1995. The Dimeric and Catalytic Forms of Protein Phosphatase 2A from Rat Brain are Stimulated by C₂-ceramide. *J. Biol. Chem.* **270**: 12808-12813.

Chen T-C, Law B, Kondratyuk T and Rossie S. 1995. Identification of the Soluble Protein Phosphatases that Dephosphorylate Voltage-sensitive Sodium Channels in Rat Brain. *J. Biol. Chem.* **270**: 7750-7756.

Murphy BA, Rossie S, DeJongh KS and Catterall WA. 1993. Identification of the Sites of Selective Phosphorylation and Dephosphorylation of the Rat Brain Na⁺ Channel α Subunit by cAMP-dependent Protein Kinase and Phosphoprotein Phosphatases. *J. Biol. Chem.* **268**: 27355-27361.

Artalejo CR, Rossie S, Perlman RL and Fox AP. 1992. Voltage-dependent Phosphorylation May Recruit Ca²⁺ Current Facilitation in Chromaffin Cells. *Nature* **358**: 63-66.

Rossie S and Catterall WA. 1989. Phosphorylation of the α Subunit of Rat Brain Sodium Channels by cAMP-dependent Protein Kinase at a New Site Containing Ser₆₈₆. *J. Biol. Chem.* **264**: 14220-14224.

Valentine MA, Meier KS, Rossie S and Clark EA. 1989. Phosphorylation of the CD20 Phosphoprotein in Resting B Lymphocytes is Regulated by Protein Kinase C. *J. Biol. Chem.* **264**: 11282-11287.

Rossie S, Gordon D and Catterall WA. 1987. Identification of an Intracellular Domain of the Sodium Channel Having Multiple cAMP-dependent Phosphorylation Sites. *J. Biol. Chem.* **262**: 17530-17535.

Rossie S and Catterall WA. 1987. Cyclic AMP-dependent Phosphorylation of Voltage Sensitive Sodium Channels in Primary Cultures of Rat Brain Neurons. *J. Biol. Chem.* **262**: 12735-12744.

Schmidt JW, Rossie S and Catterall WA. 1985. A Large Intracellular Pool of Inactive Sodium Channel α Subunits in Developing Rat Brain. *Proc. Natl. Acad. Sci. USA.* **82**: 4847-4851.

Rossie S and Miller RJ. 1982. Regulation of Histamine Release from Peritoneal Mast Cells by Neurotensin. *Annals N.Y. Acad. Sci.* **400**: 394-395.

Rossie S and Miller RJ. 1982. Regulation of Mast Cell Histamine Release by Neurotensin. *Life Sci.* **31**: 509-516.

Rossie S. 1984. Stimulation of Histamine Release from Mast Cells by Neurotensin. Ph.D. dissertation. University of Chicago

BOOK CHAPTERS:

Rossie S. 1999. Regulation of Voltage-Sensitive Ion Channels by Phosphorylation. In: *Advances in Second Messenger and Phosphoprotein Research* vol. 33 (Armstrong D and Rossie S, eds.) Academic Press, San Diego, CA.

Catterall WA, Scheuer T, Thomsen W and Rossie S. 1991. Structure and modulation of voltage-gated ion channels. *Annals N.Y. Acad. Sci.* (Rubin E, Miller KW and Roth SH, eds) vol. 265, pp. 174-180.

Catterall WA, Nunoki K, Lai Y, DeJongh K, Thomsen W and Rossie S. 1990. Structure and Modulation of Voltage-sensitive Sodium and Calcium Channels. In *Advances in Second Messenger and Phosphoprotein Research*, (Y. Nishizuka, M. Endo and C. Tanaka, eds.), Raven Press, New York, NY, vol. 24, pp. 30-35.

Rossie S and Catterall WA. 1988. Molecular Properties of Voltage-sensitive Sodium and Calcium Channels. In *Advances in Biotechnology of Ion Transport*, Serono Symposia, (P. L. Jorgensen and R. Verna, eds.), Raven Press, NY, vol 51, pp. 37-55.

Rossie S and Catterall WA. 1987. Regulation of Ion Channels. In *The Enzymes, Part B, Control by Phosphorylation*, (E. G. Krebs and P. D. Boyer, eds.), Academic Press, Orlando, FL, vol. XVIII, pp. 337-359.

Burt DR, Rossie S and Miller RJ. 1980. Peptide Receptor Methodology. In *Receptor Binding Techniques*, (D. Bylund, ed.), Society for Neuroscience, pp. 150-167.

MEETING PRESENTATIONS:

Jayachandran H, Meisel R, Rossie S. Cellular Co-localization of Protein Phosphatase 5 and Glucocorticoid Receptors in Rat Brain. FASEB Summer Conference on Protein Phosphatases, July 2006.

Yang F, Jaitly N, Jayachandran H, Luo Q, Gristenko M, Anderson DJ, Zhang R, Purvine SO, Moore RJ, Mottaz H, Lipton MS, Camp DG, Udseth HR, Rossie S and Smith RD. Label-free Comparative Study of Phosphatase Inhibitor Induced Phosphoproteomics Using Data-directed Analysis (American Society for Mass Spectrometry, May, 2006).

Rossie S, Gentile, S, Darden T, Russo A, Erxleben C, Armstrong D. The Ser/Thr protein phosphatase, PP5, is an effector for RAC-dependent stimulation of KCNH2 channels in rat pituitary cells. Protein Phosphorylation & Cell Signaling, Cold Spring Harbor Laboratory, NY May 2005.

Yan F, He M, Hogan JM, Rossie S, McLuckey SA. The Application of Intact Protein Mass Spectrometry Using Ion-Ion Reaction to Top-Down Proteomics of Human Cancer Cell Lines, 52nd ASMS Conference on Mass Spectrometry, Nashville, TN, June 2004.

Invited Participant, NINDS-sponsored workshop "Proteomics in the Neurosciences," Washington, D.C. December 2002.

Nichols L, Bradley K, Meisel R and Rossie S. The Role of Protein Phosphatase 5 in Glucocorticoid Signal Transduction in Brain. Annual Meeting of the Society for Neuroscience, Orlando, FL, 2002.

Rossie, S., Bahl, R., Bradley, K. C., Thompson, K. J., Swain, R., and Meisel, R. L. Regional Distribution of Ser/Thr Protein Phosphatase 5 in Rat Brain. Annual Meeting of the Society for Neuroscience, San Diego, CA, 2001.

Hu, M., Rossie, S., and Rane, S. G. The growth regulatory IK_{Ca} channel: cDNA cloning, functional characterization, and mechanistic basis for its upregulation. Annual Meeting of the Society for Neuroscience, San Diego, CA, 2001.

Sinclair, C., Jones, J., Jeong, J.-Y., and Rossie, S.. The Role of the TPR Domain and C-Terminus in Regulating Protein Phosphatase 5 and T1. 2000 FASEB Summer Conference on Protein Phosphatases, Copper Mountain, CO 2000.

Rossie, S., Bradley, K.C., Thompson, K.J., Swain, R., and Meisel, R.L. Immunolocalization of Ser/Thr Protein Phosphatase 5 in Rat Brain. Annual Meeting of the Society for Neuroscience, Miami, FL, 1999.

Wang, D., Hall, S. K., Rossie, S., and Armstrong, D., A S/T Protein Phosphatase is Necessary and Sufficient for GIRK Activation. Cellular Regulation by Protein Phosphorylation: 40 Years of Progress, Seattle, WA, 1997.

Sinclair, C., Skinner, J., Charbonneau, H., and Rossie, S., Examination of the Structural Basis for Lipid Activation of the Ser/Thr Protein Phosphatase PP5. Cellular Regulation by Protein Phosphorylation: 40 years of Progress, Seattle, WA, 1997.

Skinner, J., Charbonneau, H., and Rossie, S., A Bovine Brain Homologue of the Ser/Thr Phosphatase PP5/PPT is Stimulated by Unsaturated Fatty Acids. 10th Chicago Signal Transduction Symposium, Chicago, IL, 1997.

Skinner, J., Charbonneau, H., and Rossie, S., A Bovine Brain Homologue of the Ser/Thr Phosphatase PP5/PPT is Stimulated by Unsaturated Fatty Acids. The FASEB Summer Research Conference on Protein Phosphatases, Copper Mountain, CO, 1996.

Law, B. and Rossie, S. C₂-Ceramide Stimulates Dephosphorylation of Sodium Channels *in vitro*. The 9th International Conference on Second Messengers and Phosphoproteins, Nashville, TN, 1995.

Rossie, S. and Kondatyuk, T., Depolarization Increases Sodium Channel Phosphorylation in Rat Brain Synaptosomes. Annual Meeting of The Society for Neuroscience, Miami, FL, 1994.

Law, B., Chen, T.-C., and Rossie, S., Identification of the Major Protein Serine/Threonine Phosphatases in Rat Brain Extracts that Dephosphorylate Rat Brain Sodium Channel *in vitro*. The Fall Symposium of the American Society for Biochemistry and Molecular Biology, Structure and Function of Protein Kinases and Phosphatases, Keystone, CO, 1991.

INVITED LECTURES

"Examining the Regulation and Role of Ser/Thr Protein Phosphatase 5 (PP5) in Signal Transduction", Institute of Chemical Kinetics and Combustion, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia, June 2005.

"Examining the Function and Regulation of Protein Phosphatase 5 in Brain", Biological Sciences Faculty, University of Manchester, Manchester, UK, June 2005.

"Examining the Function and Regulation of Protein Phosphatase 5 in Brain", Department of Biology, Neuroscience Unit, Phillips-University of Marburg, Marburg, Germany, June 2005.

"Examining the Function and Regulation of Protein Phosphatase 5 in Brain", New York State Institute for Basic Research in Developmental Disabilities, Staten Island, NY, May 2005.

"Examining the Function and Regulation of Protein Phosphatase 5 in Brain," Neuroscience Seminar Series, National Institute of Environmental Health Sciences, Research Triangle Park, NC; February 2005.

"Protein Phosphatase 5: Proteomic Strategies for Identification of Physiologic Substrates," Environmental and Molecular Science Laboratory, Pacific Northwest National Laboratory, Richland, WA; March 2004.

"Protein Phosphatase 5: Exploration of Regulation and Function in Brain and Pituitary Cells," Department of Basic Medical Science, School of Veterinary Science, Purdue University; February 2001.

"The Role of Ser/Thr Protein Phosphatases in Regulating Ion Channel Function," The University of Wisconsin-Milwaukee, Milwaukee, WI; November 1999.

"Ion Channel Regulation by Reversible Phosphorylation," Gustavus College, St. Peter, MN; November 1998.

"Ser/Thr Protein Phosphatases and the Regulation of Ion Channel Function," Department of Biochemistry, University of Minnesota, Minneapolis, MN; November 1998.

"Structure and Regulation of Protein Phosphatase 5," National Institute of Environmental Health Sciences; August, 1998.

"Regulation of Ion Channels by Reversible Phosphorylation," Department of Biological Sciences, Northern Illinois University, De Kalb, IL; October 1997.

"Regulation of S/T Phosphatases Controlling Ion Channel Function," Second International Conference on Membrane Signal Transduction, Seattle, WA; August 1997.

"Regulation of Ion Channel Dephosphorylation," Department of Pharmacology, Indiana University, Indianapolis, IN; November 1996.

"Regulation of Sodium Channel Phosphorylation and Dephosphorylation in Brain," Department of Chemistry, Ball State University, Muncie, IN; March 1996.

"Phosphatases and the Control of Sodium Channel Phosphorylation in Brain," Department of Biology, Wabash College, Crawfordsville, IN; April 1994.

"The Role of Protein Phosphatases in Regulation of Voltage-sensitive Sodium Channels," Department of Biochemistry and Molecular Biology, Indiana University, Indianapolis, IN; March 1993.

GRANTS (most recent 5 years only)

P30 AG010133 (Rossie, PI) 07/15/08-06/30/09

Indiana University/National Institutes of Health

Indiana Alzheimer's Disease Center

"The role of protein phosphatase 5 in neurodegenerative disease processes"

5 R01 NS031221-13 (Rossie, PI) 06/01/02-05/31/08

National Institutes of Health

"Role and regulation of protein phosphatase 5 in brain"

GRADUATE STUDENT TRAINEES

Tzu-Chin Chen, Toxicology MS 1999, University of Arizona School of Pharmacy; Thesis Title:

"Development of an Assay for Characterization of Sodium Channel Phosphatases in Rat Brain Extract."

Brian Law, BMB, Ph.D., 1996 Thesis Title: "Identification, Characterization, and Regulation of Sodium Channel Phosphatases from Rat Brain" current position- Assistant Professor, College of Medicine, University of Florida, Gainesville FL

Jeffrey Skinner, BMB, Ph.D., 1998; Thesis Title: "Purification, Identification and Characterization of Two Protein S/T Phosphatases Stimulated by Unsaturated Fatty Acids" current position- Pharmaceutical Drug Development Manager, Osaka Japan

Cassandra Phillips, BMB, MS, 1998; Thesis Title: "Generation, Characterization and Functional Analysis of Ser/Thr Protein Phosphatase 5 Mutants with Altered Sensitivity to Inhibitors" current position-Federal Bureau of Investigation, Homeland Security.

Christopher Sinclair, BMB, Ph.D., 1999; Thesis Title: "The Structural Basis for Lipid Activation of Protein S/T Phosphatase 5" current position- Senior Manager, Business Excellence at Abbott Laboratories, IL

Rimple Bahl, BCHM, MS, 2001; Thesis Title: "Localization of Protein Ser/Thr Phosphatase 5 in Rat Brain" current position- Quality Consultant, Eli Lilly Corporation, Indianapolis, IN.

Jee-Yeong Jeong, BMB, Ph.D., 2002; Thesis Title: "Examining Potential Roles of Protein Phosphatase 5 by Identification of Protein Binding Partners and Characterization of Its Yeast Homologue, PPT1" current position- Instructor in Medicine, Brigham and Women's Hospital, Boston MA

Kristin Brunelle-Hardymon, BCHM, MS, 2003; Thesis Title: "Development of an Assay System to Examine the Role of Protein Phosphatase 5 in Glucocorticoid Receptor Mediated Gene Transcription"

Efrain Sanchez-Ortiz, BCHM, Ph.D., 2009; Thesis Title: "Exploring the Role of Protein Phosphatase 5 in Response to Toxicity Induced by Amyloid-B and Oxidative Stress in RAT Cortical Neurons" current position- Postdoctoral Research Fellow, University of Southwestern Texas Medical School, Dallas, TX

Ayesha Elias, BMB, Ph.D., 2009; Thesis Title: "Investigating the Role of Protein Phosphatase 5 (PP5) in the Heat Shock Protein (Hsp) 70/90 Chaperone Complex" current position- Postdoctoral Research Fellow, St Jude Childrens Research Hospital, Memphis, TN

Anindya Chatterjee, BCHM, Ph.D., 2010; Thesis Title: "Investigating the Regulation of Protein Phosphatase 5 by the Monomeric GTPase RAC1" current position- Postdoctoral Research Fellow, Indiana University, Indianapolis, IN

Hemalatha Jayachandran, BMB, Ph.D., 2010; Thesis Title: “Examining the Role of Protein Phosphatase 5 in the DNA Damage and Neuronal Signaling Pathways by Identification of Targets and Protein Partners”

POSTDOCTORAL TRAINEES

Jung-Min Park (2001-2002) current position- Staff Fellow, South Korean Institute for Microbiology.

Byoung-Kwon Hahm (1998-2001) current position- Pharm. D.

Amber Pond (1997-1999) current position- Adjunct Assistant Professor, Basic Medical Sciences, School of Veterinary Medicine, Purdue University

Tamara Kondratyuk (1992-1994) current position- Assistant Specialist & Laboratory Manager, College of Pharmacy, University of Hawaii at Hilo

UNDERGRADUATE TRAINEES

Carol Bator (B.S. 1997)

Yasmine Valentin-Vega (MARC-AIM student)

Jeremiah Johns (B.S. 2000)

Jessica Stewart (B.S. 2002)

Amanda Mullins (B.S. 2002)

Anthony Robertson (B.S. 2003)

Lei Shi (B.S. 2008)

Joy Lee (B.S. 2010)

SooHa Lee (B.S. 2011)

Janki Shukla (B.S. 2015)

Jiahao Huang (current)

DOCTORAL THESIS COMMITTEES

Served on 50 graduate student thesis advisory committees since 1991. Currently serving on 13 thesis committees.

TEACHING EXPERIENCE

1988-1989 team taught Pharmacology, (Cardiovascular Pharmacology lectures), Nursing School, Pharmacy School-*University of Arizona*

1999-2014 BCHM 693 Mol. Mechanisms of Signal Transduction - *Purdue University*

1991-2014 BCHM 663 Membrane – Structure, Function, Control - *Purdue University*

1991-2003 BCHM 690 Seminar in Biochemistry – *Purdue University*

1997 BIOL 696B Seminar in Cell. & Mol. Neurobiology – *Purdue University*

1995-present BCHM 498 Undergraduate Biochemistry Research- *Purdue University*

2001 BCHM 695R Special Lectures in Neuroscience: Ion Channel Regulation: Biophysics to Systems – *Purdue University*

2003 BCHM 695C Special Lectures in Neuroscience Molecular, Cellular and Clinical Analysis of Parkinson’s Disease – *Purdue University*

2010-2014 BCHM 690 Seminar in Biochemistry – *Purdue University*

2014-2015 BCHM 307 General Biochemistry- *Purdue University*

2015- BCHM 690 Seminar in Biochemistry – *Purdue University*
2015- BCHM 490 Undergraduate Seminar – *Purdue University*
2008 Scientific Communication in English (10 week Workshop) - *Institute of Chemical Kinetics and Kinetics, Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia*

University, College and Departmental Administrative Services

School of Agriculture Dean's A/P Advancement Committee (2014-present)
Department Undergraduate curriculum committee (2015-present)
Department Safety Committee (2013- present)
Departmental honors committee representative for School of Agriculture (2015-present)
Promotion and Tenure document revision for School of Agriculture 2012
Biochemistry Department undergraduate student advising (2000-present)
University Senate (2011-present)
University Senate Subcommittee for Student Affairs (2011-present)
Biochemistry Department Faculty Recruiting Committee (2012)
School of Agriculture Diversity Action Team in Agriculture (2011-2013)
PULSe Interdisciplinary Life Sciences program Executive committee (2009-2012)
Graduate Council in Agriculture (2003-04, 2004-05, 2005-06, 2006-07)
Cancer Center Cell Growth and Differentiation Group Phosphorylation and Signaling research meeting (2005-2008)
PULSe Interdisciplinary Life Sciences program Graduate Recruitment (2005-2007)
Graduate Affairs Committee (2003-2004)
Cancer Center Cluster Hire Faculty Recruitment Committee (Fall 2002)
University Policy Advisory Group (Summer 2001)
Temporary Advisory Committee for BMB (2001-2003)
Departmental Review – Graduate (2001-2003)
Biochemistry Department Faculty Recruiting Committee (C) (2001-2002)
School of Agriculture Roadmapping Committee (Summer 2001)
Medicinal Chemistry & Molecular Pharmacology Department Faculty Recruitment Committee (Fall 2000)
BMB Recruitment Committee (C) (2000)
Biochemistry Department Head Search committee (1999)
Biochemistry Department Head's Advisory Committee (1999-2002)
BMB Admissions Committee (C) (1999)
Medicinal Chemistry & Molecular Pharmacology Department Faculty Recruitment Committee (Spring 1997)
Purdue University Neuroscience Admissions Committee (1996-1998)
Molecular Signaling Program Executive Committee (1995-1996)
Cellular and Molecular Neurobiology Executive Committee (1995-1998)
Biological Sciences Department Faculty Recruitment Committee (Fall 1995)
Biochemistry, Department Head's Advisory Committee (1994-1997)

BMB Admissions Committee (1993-1997)

School of Agriculture Grade Appeals Committee (Chairperson Spring 93-Spring 94)

Purdue Neuroscience Retreat Committee (1993-2002)

Biochemistry Department Professional Staff Promotions (1992-1993)

Axelrod/Beach Lectures Committee (1991-2003)