Daniel M. Suter

Curriculum Vitae

Department of Biological Sciences
Weldon School of Biomedical Engineering (courtesy)
Purdue University
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West Lafayette, IN 47907-2054, USA

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Education and Training

1995-2000	Postdoctoral Fellow in Cellular Neurobiology, Yale University; advisor: Dr. Paul Forscher
1995	PhD in Biochemistry, University of Zurich, Switzerland; thesis advisor: Dr. P. Sonderegger
1993	BS in Biology Education, ETH Zurich, Switzerland
1992	BS in Chemistry Education, ETH Zurich, Switzerland
1988	BS in Natural Sciences, Focus Biology, ETH Zurich, Switzerland

Professional Experience

2023-	Professor (courtesy), Weldon School of Biomedical Engineering, Purdue University
2020-	Member, Purdue Institute of Inflammation, Immunology and Infectious Disease, Purdue University
2017-	Professor, Department of Biological Sciences, Purdue University
2015-	Member, Purdue Institute for Integrative Neuroscience, Purdue University
2010-	Member, Birck Nanotechnology Center, Purdue University
2009-2017	Associate Professor, Department of Biological Sciences, Purdue University
2003-2009	Assistant Professor, Department of Biological Sciences, Purdue University
2003-	Member, Bindley Bioscience Center, Purdue University
2000-2002	Associate Research Scientist, Department of Molecular, Cellular and Developmental Biology, Yale University
1995-2000	Postdoctoral Fellow, Department of Molecular, Cellular and Developmental Biology, Yale University
1990-1995	Graduate Research Assistant, Department of Biochemistry, University of Zurich, Switzerland
1989-1990	Instructor in Chemistry, Academic High School Büelrain, Winterthur, Switzerland

Awards

2021	Graduate Student Mentoring Award, Department of Biological Sciences
2020	Seed for Success Award, Purdue University
2017	Graduate Student Mentoring Award, Department of Biological Sciences
2016	J. Alfred and Martha Chiscon Award for Outstanding Undergraduate Teaching
2016	Purdue Research Foundation International Travel Award
2013	Seed for Success Award, Purdue University
2012	Purdue Research Foundation International Travel Award
2011	Outstanding Faculty Mentor Award, LSAMP Indiana
2005	Seed for Success Award, Purdue University

2003	Purdue Research Foundation International Travel Award
1998-1999	Swiss National Science Foundation Advanced Researcher Postdoctoral Fellowship
1997-1998	Roche Research Foundation Postdoctoral Fellowship,
1995-1997	Swiss National Science Foundation Postdoctoral Fellowship

Professional Associations

2014-	Biophysical Society
2007-	Society for Neuroscience
1994-	American Society for Cell Biology
1993-2006	Swiss Society for Biochemistry

Areas of expertise

- Neuroscience: neuronal development, axonal growth and guidance, neuronal mechanics, reactive oxygen species (ROS) signaling, neuronal regeneration, spinal cord injury
- Cell biology: cell adhesion, cytoskeletal dynamics, signal transduction, cell motility, advanced live cell imaging and biophysical approaches

Teaching and Supervisory Experience

2019	Instructor of BIOL 695 NIH Fellowship Writing Workshop
2016	Instructor of BIOL 696 “Seminar in Neuroscience: Spinal cord and traumatic brain injury: Mechanisms and Treatments” (graduate level seminar course, enrollment: 20)
2015-	Instructor of BIOL 695 “Microscopy for Life Scientists” (graduate level lecture course, enrollment: 9)
2012, 2020	Instructor of BIOL 231 “Cell Structure and Function” (undergraduate level lecture course, enrollment: 46)
2009	Instructor of BIOL 695S/696N “Special Lectures in Neuroscience: Neuronal Migration and Axonal Guidance in Neural Development” (graduate level seminar course, enrollment: 10)
2006-2015	Instructor of BIOL 44212 lab module “Light Microscopy and Cell Biology” (undergraduate level lab course, enrollment: 8)
2003-	Instructor of BIOL 436 “Neurobiology” (undergraduate level lecture course, enrollment: 96)
2003-	Supervision of 5 postdoctoral researchers, 15 graduate students, 49 rotation students and 50 undergraduate researchers, Department of Biological Sciences, Purdue University
1995-2002	Supervision of research assistants, undergraduate and graduate students in the Forscher lab, Department of Molecular, Cellular and Developmental Biology, Yale University
1990-1995	Teaching assistant, Biochemistry courses for biology and medical students, Department of Biochemistry, University of Zurich
1989-1990	Instructor in Chemistry, Academic High School Büelrain, Winterthur, Switzerland

Former Postdocs (5):
Dr. Boris Decourt (2005-2009), Assistant Professor, Texas Tech University Health Sciences Center
Dr. Ahmad Athamneh (2013-2016), Cofounder & CEO, Kindi Therapeutics and Drug Discovery LLC
Dr. Yuri Efremov (2015-2018, co-supervised by Dr. Arvind Raman), Scientist, Institute for Stem Cell Research, Moscow
Dr. Aslihan Terzi (2020-2021), Scientist, Chan Zuckerberg Biohub
Dr. Soumyajit Dutta, (2022-2024), Imaging Facility Manager, Texas Biomed Research Institute

Current Graduate Students (4):
Jorge Hernandez-Dominguez, 2024-
Rajashree Banerjee, 2023-
Laura Pulido, 2021-
Paola Vega-Rodriguez, 2021-

Graduated Students (12):
Bingbing Wu, PhD 2009, Associate Director, WuXi Biologics Co. Ltd, Shanghai, China
Aih Chen Lee, PhD 2009, Senior Scientist, WuXi Biologics Co. Ltd, Shanghai, China
Vidhya Munnamalai, PhD 2009, Associate Professor, National Brain Research Centre, India
Yingpei He, PhD 2015, Lead Data Scientist, Target, San Francisco Bay area
Cory J. Weaver, PhD 2016, Scientist, SC Dept. of Health & Environmental Control, Columbia SC
Yuan Ren, PhD 2018, Postdoctoral Associate, Yale University, New Haven, CT
Kristi McElmurry, PhD 2019, Assistant Professor, US Air Force Academy, Colorado Springs, CO
Aslihan Terzi, PhD 2020, Scientist, Chan Zuckerberg Biohub, Stanford, CA
Sabbir Alam, PhD 2022, Postdoctoral Associate, Purdue University, West Lafayette, IN
Garland, Elisabeth, MS 2010, Research Assistant, Purdue University, West Lafayette, IN
Haley Roeder, MS 2017, Research Scientist, Bioanalytical Systems Inc., West Lafayette, IN
Gentry Lee-Andrews, MS 2022, Research Assistant, Harvard University, Boston, MA

Chairperson PhD Examining Committee (10):
Cong Wei, Mandana Amiri, Jessica Verburg, Andrea Campero-Battisti, Kristen Fantetti, Anju Karki, Swathi Devireddy, Basudev Chowdhury, Liyuan Xu, Beichen Wang

Member PhD Examining Committee (58):
Sashi Marella, Vidya Rajagopalan, Ling Huang, Chikka Maddhu, Ying Xiong, Divya Pathak, Nnadozie Onunkwo, Ryan Spaulding, Andrew Huh, Bingbing Wu, Aih Chen Lee, Vidhya Munnamalai, Yingpei He, Cory Weaver, Kayalvizhi Madhivanan, Daniel Minner, Hyun Sung, Janak Gaire, Glen Acosta, Yuan Ren, Mary Katherine Scott, Ninghai Gan, Pin-Chao Liao, Logan Ganzen, Aslihan Terzi, Wonyeong Jung, Roy Licke, Kristi McElmurry, Jing Chen, Saranya Radhakrishnan, Paula-Marie Ivey, Jing Li, Nanami Miyazaki, Yu Tang, Peiyi Zhang, Sehong Min, Cheng Bi, Yilun Li, Jennifer Lee, Yueyang Wang, Daniel Kim, Sabbir Alam, Paola Vega-Rodriguez, Laura Pulido, Rajashree Banerjee, Tyler Pikes, Dhulika Ravinuthala, Shams Saad, Chang Ding, Hao-Cheng Gao, Brooke Steeno, Shreya Ugale, Md Nazmul Hasan, Mingdong Liu, Nikita Krishnan, Brandon Slater, June Hyung Kim

Undergraduate Students (56):
Past: Jeff Fitzgerald, Keira MacIsaac, Goldie Peabody-Dowling, Mamduh Zabidi, Levi Wuethrich, William Kim, Aditi Trehan, Lauren Sanchez, Corinne Weisheit, Desmond Grimm, James Hamilton, Lauren Payne, Christina Atallah, Kristi Jo Streeter, Monique Nichols, Autumn Beachy, Erica Wimer, Rodolfo Amezcua, Amy Seifert, Dayoon Kwon, Melissa Casella, Hanna House, Tenaizus Woods, Amber Lee, Roshini Mudunuru, Kenny Nguyen, Leah Biasi, Laura Pulido, Jessica Stone, Halie Szilagyi, Saron Bhoopathy, Lady Dayana Salcedo, Abbigail Crabtree, Adrianne Ceruti, Neha Shah, Mehul Shrivastava, Perapa Chotiprasidhi, Catherine Gervais, Marguerite Whiteside, Alexandria Warren, Ella Ditslear, Nina Fujii, Cassandra Hannemann, Samantha Maari, Lexie Bright, Alexa Burke, Aislinn Davis, Twesha Ray, Kelsey Everett
Current: Kaitlyn Ying, Manasa Gudugundla, Nikhil Sadavarte, Beatriz Cren-Colalillo, Joseph Bang, Lydia Baker, Jonathan Ngo, Samira Ayoub, Darshini Shankar, Raveena Venkateshwaran, Jaewoo Lee

Horizons' Faculty Mentoring Program:
Keturah Scott (2016)

High School Students (3):
Kaveri Sheth, West Lafayette High School (2013-2014)
Cara Penquite, West Lafayette High School (2019-2021)
Kaitlyn Manfra, Harrison High School, West Lafayette (2024)

Editorial Board Member

2013-present Scientific Reports, Neuroscience
2014-present Frontiers in Cellular Neuroscience, Associate Editor for Research Topic *"Neuronal Mechanics and Transport", Parts 1 and 2,* > 269,000 combined views so far

Manuscript Reviewer

1995-present *ACS Appl. Mater. Interfaces, ASN Neuro, Biophys. J., Cell Reports, Comm. Int. Biol., Dev. Neurobiol., eLife, EMBO J., eNeuro, FASEB J., FEBS letters, J. Biol. Chem., J. Cell Biol., J. Cell. Mol. Med., J. Cell Sci., J. Nanosci. Nanotech., J. Neurobiol., J. Neurochem., J. Neurosci., J. Neurosci. Meth., J. Vis. Exp., Mol. Cell. Neurosci., Mol. Biol. Cell, Nature Cell Biology, Nature Communications, Nature Reviews Neurosci., Neuron, Neural Development, PLoS ONE, PLoS Computational Biology, PNAS, Scientific Reports, Seminars in Cell and Developmental Biology, Theranostics*

Grant Reviewer

2023 Louisiana Board of Regents Support Fund Research Competitiveness Subprogram Biological Sciences II Review Panel
2023 European Research Council Executive Agency, declined
2023 Ad hoc reviewer for NIH study section group “Neuronal Communication” (NC)
2022 UitZicht, The Netherlands
2021 Reviewer for German Research Foundation
2020 Ad hoc reviewer for NSF CAREER Award
2019 Reviewer for French National Research Agency (ANR), declined
2019 Indiana Brain and Spinal Cord Injury Research Fund
2019 Ad hoc reviewer for NSF, IOS
2018 Ad hoc reviewer for NSF CAREER Awards
2018 Reviewer for Bergen Research Foundation, Norway
2017 Indiana Brain and Spinal Cord Injury Research Fund
2015 EVPRP, Purdue University, New R01 grant program reviewer
2015 Indiana Brain and Spinal Cord Injury Research Fund
2014 Reviewer for the Vienna Science and Technology Fund, Austria
2014 Ad hoc reviewer for NSF, IOS
2013 Ad hoc reviewer for NIH Neurodevelopment, Synaptic Plasticity, and Neurodegeneration Fellowship Review Panel
2011 Reviewer for British Council
2010 Reviewer for Canada Foundation for Innovation (CFI)
2009 Ad hoc reviewer for NIH study section group “Neuronal Differentiation, Plasticity and Regeneration” (NDPR)
2008 Ad hoc reviewer for NSF, IOS
2006 Ad hoc reviewer for NIH study section group “Synapses, Cytoskeleton and Trafficking” (SYN)
2006 Oncological Sciences Center, Purdue University, grant reviewer
2005 Ad hoc reviewer for NIH study section group “Neuronal Differentiation, Plasticity and Regeneration” (NDPR)

Publications

Peer Reviewed

1. Leitgeb, F., C. Smoak, A. Horvath, I. Bolton, **D. M. Suter**, and A. Darbyshire. 2025. The use of filters in the sump for monitoring the health of laboratory zebrafish (Danio rerio). ***J. Am. Ass. Lab Ani Sci (JAALAS)*** 64(2): 241 – 249. doi: 10.30802/AALAS-JAALAS-24-102

2. Andrews, G., G. Andrews, Y. F. Leung, and **D. M. Suter**. 2024. A robust paradigm for studying regeneration after traumatic spinal cord injury in zebrafish. ***J. Neurosci. Methods*** doi: 10.1016/j.jneumeth.2024.110243

3. Pulido Cifuentes, L., A. I. M. Athamneh, Y. Efremov, A. Raman, T. Kim, and **D. M. Suter**. 2024. A modified motor-clutch model reveals that neuronal growth cones respond faster to soft substrates. ***Mol. Biol. Cell***. doi: 10.1091/mbc.E23-09-0364

4. Alam, S. M. S., Y. Watanabe, B. L. Steeno, S. Dutta, H. A. Szilagyi, A. Wei, and **D. M. Suter**. 2023. Neuronal NADPH oxidase is required for neurite regeneration of *Aplysia* bag cell neurons. ***J. Neurochem.*** 167(4):505-519. doi: 10.1111/jnc.15977

5. Wang, Y., L. D. Troughton, F. Xu , A. Chatterjee, H. Zhao , L. P. Cifuentes , R. B. Wagner, T. Wang, S. Tan, J. Chen , L. Li, D. Umulis, S. Kuang, **D. M. Suter**, C. Yuan, D. Chan, F. Huang, P. W. Oakes, and Q. Deng. 2023. Atypical peripheral actin band formation via overactivation of RhoA and non-muscle myosin II in mitofusin 2-deficient cells. ***eLife*** doi: 10.7554/eLife.88828

3. Efremov, Y. M., **D. M. Suter**, P. S. Timashev, and A. Raman. 2022. 3D nanomechanical mapping of subcellular and sub-nuclear structures of living cells by multi-harmonic AFM with long-tip microcantilevers. ***Sci. Rep.*** 12(1):529. doi: 10.1038/s41598-021-04443

4. Brown, S. L., Y. Ren, **D. M. Suter**, and S. Mattoo. 2021. A co-purification method for efficient production and Src kinase-mediated phosphorylation of Aplysia cortactin. ***Bio-protocol*** 11(18): e4158. doi:10.21769/BioProtoc.4158

5. Terzi, A., S.M.S. Alam, and **D. M. Suter**. 2021. ROS live cell imaging during neuronal development. ***JoVE*** 62165 doi: 10.3791/62165

6. Terzi, A., H. Roeder, C. J. Weaver, and **D. M. Suter**. 2021. Neuronal NADPH oxidase 2 regulates growth cone guidance downstream of slit2/robo2. ***Dev Neurobiol***. 81(1):3-21; doi: 10.1002/dneu.22791

7. Terzi, A. and **D.M. Suter**. 2020. The role of NADPH oxidases in neuronal development. ***Free Radic Biol Med*** 154:33-47. doi: 10.1016/j.freeradbiomed.2020.04.027

8. McElmurry, K., J.E. Stone, D. Ma, P. Lamoureux, Y. Zhang, M. Steidemann, L. Fix, F. Huang, K.E. Miller, and **D.M. Suter**. 2020. Dynein-mediated microtubule translocation powering neurite outgrowth in chick and Aplysia neurons requires microtubule assembly. ***J Cell Sci.*** 133. doi: 10.1242/jcs.232983

9. Ren, Y., Y. He, S. Brown, E. Zbornik, M. J. Mlodzianoski, D. Ma, F. Huang, S. Mattoo, and **D. M. Suter**. 2019. A single tyrosine phosphorylation site in cortactin is important for filopodia formation in neuronal growth cones. ***Mol. Biol. Cell.*** 30(15):1817-1833. doi: 10.1091/mbc.E18-04-0202.

10. Efremov, Y. M., M. Velay-Lizancos, C. J. Weaver, A. I. M. Athamneh, P. D. Zavattieri, **D. M. Suter**, and A. Raman. 2019. Anisotropy vs isotropy in living cell indentation with AFM. ***Sci. Rep.*** 9(1):5757. doi: 10.1038/s41598-019-42077-1

11. Miller, K. E. and **D. M. Suter**. 2018. An integrated cytoskeletal model of neurite outgrowth. ***Front. Cell. Neurosci.*** 12:447. doi: 10.3389/fncel.2018.00447.

12. Efremov, Y. M., A. X. Cartagena-Rivera, A. I. M. Athamneh, **D. M. Suter**, and A. Raman. 2018. Mapping heterogeneity of cellular mechanics by multi-harmonic atomic force microscopy. ***Nature Protocols***.13(10):2200-2216. doi: 10.1038/s41596-018-0031-8.

13. Fligor, C. M., K. B. Langer, A. Sridhar, Y. Ren, P. K. Shields, M. C. Edler, S. K. Ohlemacher, V. M. Sluch, D. J. Zack, C. Zhang, **D. M. Suter**, and J. S. Meyer. 2018. Three-dimensional retinal organoids facilitate the investigation of retinal ganglion cell development, organization and neurite outgrowth from human pluripotent stem cells. ***Sci. Rep.*** 8(1):14520. doi: 10.1038/s41598-018-32871-8.

14. Weaver, C. J., A. Terzi , H. S. Roeder , T. Gurol, Q. Deng, Y. F. Leung, and **D. M. Suter**. *nox2/cybb* deficiency affects zebrafish retinotectal connectivity. 2018. ***J. Neurosci.*** 38(26):5854-5871. doi: 10.1523/JNEUROSCI.1483-16

15. Ren, Y., M. J. Mlodzianoski, A. C. Lee, F. Huang, and **D. M. Suter**. 2018. A low-cost chip for high-resolution imaging of neurite outgrowth in 3D. ***J. Neur. Eng.*** 15(3):035001. doi: 10.1088/1741-2552/aaaa32.
16. Liu, S., M. J. Mlodzianoski, Z. Hu, Y. Ren, K. McElmurry, **D. M. Suter**, and F. Huang. 2017. sCMOS noise correction algorithm for microscopy images. ***Nature Methods***. 14(8):760-761. doi: 10.1038/nmeth.4379.
17. Athamneh, A. I. M., Y. He, P. Lamoureux, L. Fix, **D. M. Suter**, and K. E. Miller. 2017. Neurite elongation is highly correlated with bulk forward translocation of microtubules. ***Sci. Rep.*** 7(1):7292. doi: 10.1038/s41598-017-07402-6
18. Ren, Y., and **D. M. Suter**. 2016. Increase in growth cone size correlates with decrease in neurite growth rate. ***Neural Plast.*** http://dx.doi.org/10.1155/2016/3497901
19. Miller, K. E., and **D. M. Suter**. 2016. Editorial: Neuronal Mechanics and Transport. ***Front. Cell. Neurosci.*** 10:1. doi: 10.3389/fncel.2016.00001.
20. Weaver, C. J., Y. F. Leung, and **D. M. Suter**. 2016. Expression dynamics of NADPH oxidases during early zebrafish development. ***J. Comp. Neurol.*** 524(10):2130-41. doi: 10.1002/cne.23938.
21. Athamneh, A. I. M., A. X. Cartagena-Rivera, A. Raman, and **D. M. Suter**. 2015. Substrate deformation predicts neuronal growth cone advance. ***Biophys. J.*** 109(7):1358-71.
22. Athamneh, A. I. M., and **D. M. Suter. 2015**. Quantifying mechanical force in axonal growth and guidance. ***Front. Cell. Neurosci.*** 9:359. doi: 10.3389/fncel.2015.00359
23. He, Y., Y. Ren, B. Wu, B. Decourt, A.C. Lee, A. Taylor, and **D. M. Suter**. 2015. Src and cortactin promote lamellipodia protrusion and filopodia formation and stability in growth cones. ***Mol. Biol. Cell*** 26(18):3229-44.
24. Munnamalai, V., C. J. Weaver, C. E. Weisheit, P. Venkatraman, Z. S. Agim, M. T. Quinn, and **D. M. Suter**. 2014. Bidirectional interactions between NOX2-type NADPH oxidase and the F-actin cytoskeleton in neuronal growth cones. ***J. Neurochem.*** 130(4):526-40.
Cover article
25. Kilinc, D., A. Blasiak, J. J. O'Mahony, **D. M. Suter**, and G. U. Lee. 2012. Magnetic tweezers-based force clamp reveals mechanically distinct apCAM domain interactions. ***Biophys. J.*** 103(6):1120-9.
26. Martines, E., J. Zhong, J. Muzard, A.C. Lee, B. B. Akhremitchev, **D. M. Suter**, and G. U Lee. 2012. Single molecule force spectroscopy of the *Aplysia* cell adhesion molecule apCAM reveals two homophilic bonds. ***Biophys. J.*** 103(4):649-57.
27. **Suter, D. M.**, and K. E. Miller. 2011. The emerging role of forces in axonal elongation. ***Prog. Neurobiol.*** 94(2):91-101.
28. Snyder, J. E., O. Azizgolshani, B. Wu, Y. He, A. C. Lee, J. Jose, **D. M. Suter**, C. M. Knobler, W. M. Gelbart, and R. J. Kuhn. 2011. Rescue of infectious particles from pre-assembled alphavirus nucleocapsids cores. ***J. Virol.*** 85(12):5773-81.
29. Xiong, Y., A. C. Lee, **D. M. Suter**, and G. U. Lee. 2009. Topography and nanomechanics of live neuronal growth cones analyzed by atomic force microscopy. ***Biophys. J.*** 96 (12):5060-5072.
30. Munnamalai, V., and **D. M. Suter**. 2009. Reactive oxygen species regulate F-actin dynamics in neuronal growth cones and neurite outgrowth. ***J. Neurochem.*** 108 (3):644-661.
31. Decourt, B., V. Munnamalai, A. C. Lee, L. Sanchez, and **D. M. Suter**. 2009. Cortactin colocalizes with filopodial actin and accumulates at IgCAM adhesion sites in Aplysia growth cones. ***J. Neurosci. Res.*** 87(5):1057-1068.
Cover article
32. Wu, B., B. Decourt, M. A. Zabidi, L. T. Wuethrich, W. H. Kim, Z. Zhou, K. MacIsaac, and **D. M. Suter**. 2008. Microtubule-mediated Src tyrosine kinase trafficking in neuronal growth cones. ***Mol.***

Biol. Cell. 19 (11): 4611-4627.
Cover article and highlighted in InCytes from Molecular Biology of the Cell

33. Lee, A. C., and **D. M. Suter**. 2008. Quantitative analysis of microtubule dynamics during adhesion-mediated growth cone guidance. ***Dev. Neurobiol.*** 68 (12):1363-1377.
Cover article

34. Lee, A. C., B. Decourt, and **D. M. Suter**. 2008. Neuronal cell cultures from *Aplysia californica* for high-resolution imaging of growth cones. ***J. Vis. Experim.*** *(JoVE)* 12, http://www.jove.com

35. Grzywa, E. L., A. C. Lee, G. U. Lee, and **D. M. Suter**. 2006. High-Resolution Analysis of Neuronal Growth Cone Morphology by Comparative Atomic Force and Optical Microscopy. ***J. Neurobiol.*** 66 (14):1529-43
Cover article

36. **Suter, D. M.**, A. W. Schaefer, and P. Forscher. 2004. Microtubule dynamics are necessary for Src family kinase dependent growth cone steering. ***Curr. Biol.*** 14:1194-1199

37. **Suter, D. M.**, and P. Forscher. 2001. Transmission of growth cone traction force through apCAM-cytoskeletal linkages is regulated by Src family tyrosine kinase activity. ***J. Cell Biol.*** 155 (3):427-438
Comment to Suter and Forscher, J. Cell Biol. 155 (3):427-438 (2001) by Jay, D. G. 2001. A Src-astic response to mounting tension. *J. Cell Biol*. 155 (3): 327-330

38. Espindola, F. S., **D. M. Suter**, L. B.E. Partata, T. Cao, J. S. Wolenski, R. E. Cheney, S. M. King, and M. S. Mooseker. 2000. The light chain composition of chick brain myosin-Va: calmodulin, myosin-II essential light chains, and 8 kDa dynein light chain/PIN. ***Cell Motil. Cytoskeleton*** 47(4): 269-281

39. **Suter, D. M.**, and P. Forscher. 2000. Substrate-cytoskeletal coupling as a mechanism for the regulation of growth cone motility and guidance. ***J. Neurobiol.*** 44 (2): 97-113

40. Fitzli, D., E. T. Stoeckli, S. Kunz, K. Siribour, C. Rader, B. Kunz, S. V. Kozlov, A. Buchstaller, R. P. Lane, **D. M. Suter**, W. J. Dreyer, and P. Sonderegger. 2000. A direct interaction of axonin-1 and NrCAM results in guidance, but not growth of commissural axons. ***J. Cell Biol.*** 149 (4): 951-968

41. **Suter, D. M.**, F. S. Espindola, C.-H. Lin, P. Forscher, and M. S. Mooseker. 2000. Localization of unconventional myosins V and VI in neuronal growth cones. ***J. Neurobiol.*** 42 (3): 370-382

42. **Suter, D. M.**, L. D. Errante, V. Belotserkovsky, and P. Forscher. 1998. The Ig superfamily cell adhesion molecule, apCAM, mediates growth cone steering by substrate-cytoskeletal coupling. ***J. Cell Biol.*** 141 (1): 227-240
Comment to Suter et al., J. Cell Biol. 141 (1): 227-240 (1998) by Heidemann, S., and R. E. Buxbaum. 1998. Cell crawling: First the motor, now the transmission. *J. Cell Biol.* 141 (1): 1-4

43. **Suter, D. M.**, and P. Forscher. 1998. An emerging link between cytoskeletal dynamics and cell adhesion molecules in growth cone guidance. ***Curr. Opin. Neurobiol.*** 8 (1): 106-116

44. **Suter, D. M.**, G. E. Pollerberg, A. Buchstaller, R. J. Giger, W. J. Dreyer, and P. Sonderegger. 1995. Binding between the neural cell adhesion molecules axonin-1 and Nr-CAM/Bravo is involved in neuron-glia interaction. ***J. Cell Biol.*** 131 (4): 1067-1081

45. **Suter, D. M.**, and P. Sonderegger. 1994. Evidence for a nonneuronal receptor for axonin-1 and Ng-CAM. ***Swiss. Arch. Neurol. Psychiatr.*** 145 (3): 37-40

46. **Suter, D. M.**, E. T. Stoeckli, and P. Sonderegger. 1993. Inhibitory effects of the immunoglobulin superfamily molecule axonin-1 on Schwann cells and astrocytes. ***Swiss. Arch. Neurol. Psychiatr.*** 144 (3): 221-224

Invited Book Chapters, News and Views Articles

1. Pulido Cifuentes, L. and **D.M. Suter**. 2024. Measuring Retrograde Actin Flow in Neuronal Growth Cones. In: Toyooka, K. (eds) Neuronal Morphogenesis. ***Methods in Molecular Biology***, vol 2831. Humana, New York, NY. https://doi.org/10.1007/978-1-0716-3969-6_18
2. Alam, S. M. S., and **D. M. Suter**. 2023. NADPH Oxidases in Zebrafish. In "NADPH Oxidases Revisited – From Function to Structure". Edgar Pick, editor. Springer Press.
3. Stoeckli, E. T., D. Kilinc, B. Kunz, S. Kunz, G. U. Lee E., Martines, C. Rader, and **D. M. Suter**. 2013. Analysis of cell-cell contact mediated by Ig superfamily cell adhesion molecules. In ***Current Protocols in Cell Biology***. John Wiley & Sons, Inc, New York. Unit 9.5
4. Hollenbeck, P. J., and **Suter, D. M.** 2013. Axon outgrowth: motor protein moonlights in microtubule sliding. ***Curr. Biol.*** 23(13):R575-6.
5. **Suter, D. M.**, and P. J. Hollenbeck. 2012. How to get on the right track. ***Nat. Neurosci***. 15(1):7-8.
6. **Suter, D. M.** 2011. Live cell imaging of neuronal growth cone motility and guidance *in vitro. Chapter 6* In *Cell Migration: Methods and Protocols,* 65-86, Second Edition, Claire Wells and Dr. Maddy Parsons (eds.), ***Methods in Molecular Biology***.
7. **Suter, D. M.** 2010. Functions of myosin motor proteins in the nervous system. In *The Neurobiology of Actin: From Neurulation to Synaptic Function*, Gianluca Gallo and Lorene Lanier (eds.), ***Advances in Neurobiology*** 5:45-72.
8. Sonderegger, P., S. Kunz, C. Rader, **D. M. Suter**, and E. T. Stoeckli. 2001. Analysis of cell-cell contact mediated by Ig superfamily cell adhesion molecules. In ***Current Protocols in Cell Biology***. J. S. Bonifacino, M. Dasso, J. Lippincott-Schwartz, J. B. Harford, and K. M. Yamada, editors. John Wiley & Sons, Inc, New York. Unit 9.5

News Release

Pulido Cifuentes, L., A. I. M. Athamneh, Y. Efremov, A. Raman, T. Kim, and **D.M. Suter**. 2024. A modified motor-clutch model reveals that neuronal growth cones respond faster to soft substrates. ***Mol. Biol. Cell***. doi: 10.1091/mbc.E23-09-0364

https://www.bio.purdue.edu/news/articles/2025/how-neurons-navigate-their-environment-insights-that-could-transform-medicine.html

Cory J. Weaver, Aslihan Terzi, Haley Roeder, Theodore Gurol, Qing Deng, Yuk Fai Leung and Daniel M. Suter (2018). nox2/cybb Deficiency Affects Zebrafish Retinotectal Connectivity. *J. Neurosci.* 27 June 2018, 38 (26) 5854-5871; DOI: https://doi.org/10.1523/JNEUROSCI.1483-16.2018

https://www.bio.purdue.edu/news/articles/2018/Suter%207%2013%2018.html
https://www.purdue.edu/newsroom/releases/2018/Q3/chemicals-associated-with-oxidative-stress-may-be-essential-to-development.html
https://www.eurekalert.org/pub_releases/2018-07/pu-caw071218.php
https://www.the-scientist.com/image-of-the-day/image-of-the-day--not-all-bad-64490
https://www.nsf.gov/news/news_summ.jsp?cntn_id=296061&org=NSF&from=news

Invited Meeting Talks

2025 "Mechanosensation and mechanotransduction in neuronal growth cones" Invited talk at the *Exploring Brain Mechanics (EBM) Symposium 2025*, Max Planck Institute for the Science of Light in Erlangen, Germany, 09/30/25-10/01/25

2023 "A zebrafish drug screen identifies HDAC inhibitors as regeneration-enhancing compounds after spinal cord injury". Invited Talk by Gentry Andrews at the *54th Annual Meeting of the Society for Neuroscience,* Washington DC, 10/05/23.

2023 "Neuronal NADPH oxidase is required for neurite regeneration". Invited talk at the *IUBMB, EMBO Workshop Emerging Concepts of Neuronal Cytoskeleton,* in Santa Cruz, Chile, 03/29/23

2022 "Mechanosensation and mechanotransduction in neuronal growth cones". Invited talk at the virtual *Cytoskeleton of Neurons and Glia Seminar Series,* 05/19/22

2020 "Zebrafish NADPH oxidase 2 regulates retinal ganglion cell guidance downstream of slit2/robo2" Invited Minisymposium talk at Cell Bio Virtual 2020, Annual Meeting of the American Society for Cell Biology. 12/02/20-12/16/20

2020 "The role of Nox-derived reactive oxygen species in axonal growth and guidance" invited talk Labroots online conference on cell biology, 09/23/20

2019 "Microtubule assembly is required for dynein-mediated microtubule translocation and neurite elongation". Invited talk at the 50th *Annual Meeting of the Society for Neuroscience,* Chicago, IL, 10/21/19

2019 "The role of Nox-derived reactive oxygen species in axonal growth and guidance". Invited talk at the *Society for Free Radical Research Europe Annual Meeting*, Ferrara, Italy, 06/21/19

2018 "Src-mediated tyrosine phosphorylation of cortactin is critical for growth cone filopodia formation". Invited talk at the *Toledo Cellulart Meeting,* Toledo, OH, 09/14/18

2016 "Micrometer-scale elastic adhesions are involved in rigidity sensing of growth cones". Invited talk for the Special Interest Subgroup Meeting "*Neuronal Cell Biology: Cytoskeleton and Trafficking*" at the *56th Annual Meeting of the American Society for Cell Biology,* San Francisco, CA, 03/12/16

2016 "NOX2-derived ROS regulates retinotectal development". Invited talk for the Special Interest Subgroup Meeting *"Emerging roles of ROS-related redox signaling in cell biology"* at the *56th Annual Meeting of the American Society for Cell Biology,* San Francisco, CA, 03/12/16

2016 "Traction force and substrate deformation in adhesion-mediated neuronal growth cone advance". Invited talk at Heraeus-funded workshop on *"Neuronal Mechanics"* at Bad Honnef, Germany, 08/18/16

2016 "Nox2/cybb is Required for Retinotectal Development in Zebrafish". Invited talk at the Gordon Research Conference on Nox Family NADPH Oxidases, Waterville Valley, NH, 06/06/16

2016 "Modeling mechanically-induced growth cone advance reveals the importance of micrometer-scale elastic adhesion structures in rigidity sensing." Invited talk given by Postdoctoral Associate Dr. Ahmad Athamneh at *Chicago Cytoskeleton Meeting*, Northwestern University, Chicago, IL, 04/22/16

2014 "The level of Substrate Deformation and not Traction Force Regulates Adhesion-mediated Neuronal Growth Cone Advance. Invited talk given by Postdoctoral Associate Dr. Ahmad Athamneh at Workshop on Axonal Transport & Neuronal Mechanics, Mathematical Biosciences Institute at Ohio State University, Columbus, OH. 11/06/14

2014 "Src Regulation of Lamellipodia, Filopodia, and Substrate-Cytoskeletal Coupling in Neuronal Growth Cones". Invited talk at on-line Neuroscience BioConference Live, 03/19/14

2014 "Src Regulation of Lamellipodia and Filopodia in Neuronal Growth Cones". Invited talk at Chicago Cytoskeleton meeting, Northwestern University, Chicago, 03/14/14

2013 "Src Regulation of Lamellipodia, Filopodia, and Substrate-Cytoskeletal Coupling in Neuronal Growth Cones". Invited talk at the *2nd Meeting on Emerging Concepts on Neuronal Cytoskeleton.* Marbella Resort, Maitencillo, Chile, 05/28/13

2012 "A Novel Role for ROS in Neuronal Growth Cone Migration". Invited talk at on-line BioConference Live Life Sciences, 09/13/12

2010 "A Novel Role for NOX-derived ROS in the Regulation of Neuronal Growth Cone Motility" Invited talk at the Gordon Research Conference on Nox Family NADPH Oxidases, Les Diablerets, Switzerland, 06/09/10

2007 "Microtubule dynamics in neuronal growth cones during adhesion-mediated guidance". Invited Minisymposium talk at 47th Annual Meeting of the American Society for Cell Biology, Washington, DC, 12/03/07

2006 "The role of Src tyrosine kinase in neuronal growth cone guidance". Invited talk at Chicago Cytoskeleton meeting, Northwestern University, Chicago, 04/21/06

2003 "Substrate-cytoskeletal coupling and force transduction in neuronal growth cone steering". Invited talk at INSERM workshop "Role of mechanical constraints in cell biology: nanomanipulations by optical and magnetic tweezers", Montpellier, France, 11/06/03

2003 "Analysis of microtubule extension during growth cone steering". Invited talk at Chicago Cytoskeleton Meeting, Northwestern University, Chicago, 02/21/03

2002 "Neuronal Growth Cone Steering: A Complex Cellular Process Studied Using Advanced Light Microscopy Techniques". Invited talk at Genomics Symposium, Purdue University, West Lafayette, IN, 10/13/02

1998 "Neuronal growth cone steering mediated by IgCAM-cytoskeletal coupling". Invited talk at Symposium on Molecular Medicine, Max Delbrueck Center for Molecular Medicine, Berlin, Germany, 12/18/98

1998 "Neuronal growth cone steering mediated by IgCAM-cytoskeletal coupling". Invited talk at Gordon Research Conference on Developmental Physiology, Plymouth, NH, 08/04/98

Meeting Organizer

2022 Labroots Virtual Cell Biology Event, September 22, 2022, https://www.labroots.com/virtual-event/cell-biology-2022

2021 Labroots Virtual Cell Biology Event, September 22, 2021, https://www.labroots.com/virtual-event/cell-biology-2021

2019 Symposium Chair *"ROS in Nervous System Function and Dysfunction"* at the Society for Free Radical Research-Europe Meeting 2019 *"Redox Homeostasis: From Signaling to Damage"*, Ferrara, Italy, June 19-21, 2019

2016 Special Interest Subgroup Meeting *"Emerging roles of ROS-related redox signaling in cell biology"* at the *56th Annual Meeting of the American Society for Cell Biology,* San Francisco, CA, December 3-7, 2016

2016 Heraeus-funded workshop on *"Neuronal Mechanics"* at Bad Honnef, Germany, on August 17-19, 2016

2014 Mathematical Bioscience Institute (MBI) workshop on "Axonal Transport and Neuronal Mechanics", Ohio State University, Columbus OH, November 3-7, 2014

Invited Seminars

2025 Department of Neurobiology and Anatomy, Drexel University, Philadelphia, PA, 05/14/25

2022 Department of Psychological Sciences, Purdue University, West Lafayette, IN, 11/02/22

2022 Weldon School of Biomedical Engineering, Purdue University, West Lafayette, IN, 09/07/22

2022 Cytoskeleton of Neurons and Glia, Seminar, 05/19/22

2021 Purdue Neuroscience Society, Purdue University, 10/07/21

2021 Purdue Institute of Inflammation, Immunology and Infectious Disease, Research Spotlight Series, Purdue University, 03/10/21

2021 Department of Biological Sciences, Bowling Green State University, Bowling Green, OH, 02/17/21

2020 Neuroscience Program, Michigan State University, East Lansing, MI, 09/21/20

2019 Department of Biological Sciences Retreat, Swan Lake Resort, Plymouth, IN, 11/16/19

2019 Institute of Molecular Life Sciences, University of Zurich, Zurich Switzerland, 06/12/19

2019 Birck Nanotechnology Center, Purdue University, West Lafayette, IN, 04/25/19

2018 Division of Biological Sciences, University of California, San Diego, CA, 12/10/18

2018 Brain and Spinal Cord Injury Seminar Series, Purdue Institute for Integrative Neuroscience Purdue University, 02/14/18

2017 Department of Biology, IPFW, Fort Wayne, IN, 12/08/17

2017 Purdue Institute for Integrative Neuroscience Retreat, St. Joseph, MI, 05/18/17

2016 Department of Biological Sciences, Purdue University, West Lafayette, IN, 10/19/16

2016 Department of Biology, IUPUI, Indianapolis, IN, 09/23/16

2016 Department of Cell and Developmental Biology, University of Illinois, Urbana-Champaign, IL, 03/16/16

2016 Weldon School of Biomedical Engineering, Purdue University, West Lafayette, IN, 02/17/16

2016 Department of Microbiology and Immunology, Montana State University, Bozeman, MT, 01/19/16

2015 Institute of Molecular Life Sciences, University of Zurich, Zurich Switzerland, 07/21/15

2015 Department of Molecular, Cellular and Developmental Biology, Yale University, New Haven, CT, 04/29/15

2013 Purdue Science Student Council Neuroscience Panel, Purdue University, West Lafayette, IN 10/16/13

2013 Department of Chemistry, Purdue University, West Lafayette, IN, 09/20/13

2013 Department of Fundamental Neuroscience, University of Lausanne, Lausanne, Switzerland, 06/17/13

2013 Department of Biological Sciences, Purdue University, West Lafayette, IN, Lecture about axon guidance to High School Students competing in BioOlympiad, 06/04/13

2012 Indiana Spinal Cord and Brain Injury Research Forum, Indiana University School of Medicine, Indianapolis, IN, 11/14/12

2011 Department of Biological Sciences, Purdue University, West Lafayette, IN, 11/05/11

2011 Conway Institute of Biomolecular and Biomedical research, University College Dublin, Dublin, Ireland, 05/06/11

2010 NSF-funded Research Experiences for Undergraduates program, Physics Department, Purdue University, 06/30/10

2009 Purdue Chapter of Biomedical Engineering Society, Purdue University, West Lafayette, IN, 12/02/09

2009 Neuroscience Program, Michigan State University, East Lansing, MI, 03/19/09

2008 Department of Cell and Developmental Biology, University of Michigan, Ann Arbor, MI, 10/29/08

2008 Department of Biological Sciences, Purdue University, West Lafayette, IN, 10/22/08

2008 Brain Research Institute, University of Zurich, Zurich Switzerland, 08/04/08

2008	Stark Neurosciences Research Institute, Indiana University School of Medicine, Indianapolis, IN, 03/07/08
2008	Department of Biological Sciences, Purdue University Calumet, Hammond, IN, 02/22/08
2007	Department of Anatomy, University of Wisconsin Medical School, Madison, WI, 09/13/07
2007	Department of Neurobiology and Anatomy, Drexel University, Philadelphia, PA, 03/14/07
2005	Department of Biochemistry, University of Zurich, Zurich, Switzerland, 08/12/05
2005	Nano Center for Learning and Teaching (NCLT) workshop for K-12 teachers, Purdue University, 07/20/05
2005	Department of Biological Sciences, Purdue University Calumet, Hammond, IN, 03/25/05
2004	Department of Chemistry, Purdue University, West Lafayette, IN, 04/30/04
2003	Department of Physics, Purdue University, West Lafayette, IN, 12/12/03
2002	Department of Animal Biology, University of Pennsylvania, Philadelphia, PA, 05/29/02
2002	Hospital St. Gallen, St. Gallen, Switzerland, 03/13/02
2002	Department of Biochemistry, University of Zurich, Zurich, Switzerland, 03/11/02
2002	Department of Biological Sciences, Purdue University, West Lafayette, IN, 02/16/02
2002	Department of Biological Sciences, Carnegie Mellon University, Pittsburgh, PA, 01/23/02
2002	Department of Physiology, Tufts University, Boston, MA, 01/07/02
2001	Department of Biology, University of Massachusetts, Amherst, MA, 11/14/01
2001	European Molecular Biology Laboratory (EMBL), Heidelberg, Germany, 02/12/01
2000	Department of Zoology, University of Zurich, Zurich, Switzerland, 07/10/00
2000	Institute of Molecular Pathology (IMP), Vienna, Austria, 05/23/00
2000	Swiss Institute for Experimental Cancer Research, Lausanne, Switzerland, 04/13/00
2000	Friedrich Miescher Institute, Basel, Switzerland, 04/10/00
1999	Center for Molecular Biology, University of Heidelberg, Heidelberg, Germany, 10/04/99
1997	Department of Biochemistry, University of Zurich, Zurich, Switzerland, 01/06/97
1997	Brain Research Institute, University of Zurich, Zurich, Switzerland, 01/08/97
1995	Department of Biochemistry, University of Zurich, Zurich, Switzerland, 07/13/95
1994	Department of Biology, Yale University, New Haven, CT, 12/18/94
1994	Department of Biology, MIT, Boston, MA, 12/17/94
1994	Department of Neurosciences, Case Western Reserve University, Cleveland, OH, 12/15/94
1994	Department of Physiology, University of California, San Francisco, CA, 12/09/94
1994	The Burnham Institute, La Jolla, CA, 12/06/94

Research Funding

Current

NIH R01 NS117701 07/01/20 - 06/30/26
"NADPH oxidase regulates growth cone guidance"
Role: PI

Indiana CTSI Core Pilot Program 07/01/24 - 06/30/26
"Light sheet fluorescence microscopy for imaging nervous system development in zebrafish"
Role: PI

Ross-Lynn Research Scholar Grant 07/01/24 - 06/30/25
"Mechanosensing by neuronal growth cones"
Role: PI

Past

Indiana Spinal Cord and Brain Injury Research Fund 07/01/21 – 06/30/24
"A Zebrafish Drug Screening Platform for Axonal Regeneration"
Role: PI

Indiana CTSI Core Pilot Program 09/01/20 - 08/31/23
"Confocal imaging of axonal development and regeneration in zebrafish embryos"
Role: PI

Purdue Institute for Integrative Neuroscience 06/01/20 – 08/31/21
"Axonal Regeneration following Injury: Mechanisms and Treatments"
Role: PI

Sigma Xi Grants-in-Aid of Research (Aslihan Terzi) 03/01/20 -02/28/21
"Reactive oxygen species in axon development: NADPH oxidase regulates growth cone guidance
Role: PI

Indiana Spinal Cord and Brain Injury Research Fund 07/01/18 – 06/30/21
"Reactive Oxygen Species: Janus-faced Molecules in Axonal Regeneration"
Role: PI

Purdue University, EVPRP New NIH R01 program 12/01/17 - 05/31/19
"ROS as novel signaling molecules in axonal growth and guidance"
Role: PI

NSF IOS-1146944 09/01/12 - 08/31/18
"Nanomechanics of Src signaling in neuronal growth cones"
Role: PI

Purdue Research Foundation 06/01/17 - 05/31/18
"Regulation of growth cone filopodia by cortactin phosphorylation"
Role: PI

Purdue University Major Scientific Equipment Award 07/01/16 - 06/30/17
"High-resolution, high-sensitivity digital camera for quantitative live cell imaging"
Role: PI

Showalter Trust 07/01/16 - 06/30/17
"Mitochondrial Reactive Oxygen Species Regulate Neutrophil Migration in Vivo"
Role: co-PI; Qing Deng PI

Purdue University, EVPRP New NIH R01 program 05/01/15 - 12/31/16
"NADPH oxidase-derived reactive oxygen species regulate axonal growth and guidance"
Role: PI

Purdue Research Foundation 08/01/14 - 07/31/16
"NADPH oxidase-derived ROS in axonal growth and guidance"
Role: PI

Purdue University, OVPR Incentive Grant Program 08/01/13 - 05/31/16
"An integrated AFM platform for cellular dynamics and mechanics"
Role: PI; Arvind Raman co-PI

Indiana CTSI Core Pilot Program 08/17/12 - 05/01/15
"High-resolution electron microscopy of growth cone actin organization regulated by Src tyrosine kinase"
Role: PI

Purdue Research Foundation 08/01/12 - 07/31/14
"Src Tyrosine Kinase Regulation Of Growth Cone Motility And Guidance"
Role: PI

Sigma Xi Grants-in-Aid of Research (Cory Weaver) 06/01/12 -05/31/13
"The Role Of NADPH-oxidase Derived Reactive Oxygen Species In Zebrafish Axonal Growth And Guidance"
Role: PI

NIH R01 NS49233 02/15/05 - 01/31/13
"Regulation of Neuronal Growth Cone Guidance"
Role: PI

NSF 102533 01/01/11-01/01/12
Louis Stokes Alliance for Minority Participation Indiana (Monique Nichols)
Role: co-PI

Bindley Bioscience Center 08/01/02 – 08/31/05
Startup Funds for Imaging Instrumentation
Role: PI

Collaborators:

Current

Claudio Aguilar, Purdue University, West Lafayette, IN
Yuk Fai Leung, Purdue University, West Lafayette, IN
Qing Deng, Purdue University, West Lafayette, IN
Alex Wei, Purdue University, West Lafayette, IN
Arvind Raman, Purdue University, West Lafayette, IN
Ryan Wagner, Purdue University, West Lafayette, IN
Fang Huang, Purdue University, West Lafayette, IN
Taeyoon Kim, Purdue University, West Lafayette, IN
Riyi Shi, Purdue University, West Lafayette, IN
Kyle Miller, Michigan State University, East Lansing, MI

Past

Estuardo Robles, Purdue University, West Lafayette, IN
Seema Mattoo, Purdue University, West Lafayette, IN
Gaudenz Danuser, Harvard Medical School, Boston, MA
Richard J. Kuhn, Purdue University, West Lafayette, IN
Mark T. Quinn, Montana State University, Bozeman, MT
Carol Post, Purdue University, West Lafayette, IN
Gil U. Lee, University College, Dublin, Ireland
Val Watts, Purdue University, West Lafayette, IN
Jeff Urbach, Georgetown University, Washington, DC
Jason Meyer, IUPUI, Indianapolis, West Lafayette, IN

Membership In University Centers and Interdisciplinary Programs

Purdue Institute for Integrative Neuroscience
Purdue Institute of Inflammation, Immunology and Infectious Disease

Birck Nanotechnology Center
Bindley Bioscience Center
Interdisciplinary Life Science Graduate Program PULSe, Integrative Neuroscience and Membrane Biology training groups

University and Public Service

Department

2024-	Dream Hire Committee
2024-	Area Promotions Committee
2023-2024	Strategic Planning Committee
2022-2023	Co-chair of Departmental Faculty Search Committee “Basic Biomedical Sciences”
2017-2021	Convener of the Graduate and Advanced Studies Committee, Chair of Graduate Program
2016-2019	Convener of Neuroscience and Physiology Area
2017-2018	Department Head Search Committee
2015-2016	Chair of Departmental Faculty Search Committee “Neurobiology”
2015-2016	Convener of Development and Disease Cluster
2015-2018	Departmental Honors Committee
2013-2021	Graduate and Advanced Studies Committee
2012-2013	Departmental Faculty Search Committee “Molecular Pathogenesis”
2010-2014	Departmental Safety Committee
2010-2012	Departmental Faculty Teaching Load Committee
2005-2008	Graduate and Advanced Studies Committee
2004-2007	Departmental Seminar Organizer
2005-2006	Departmental Faculty Search Committee “Animal Development”
2004-2005	Departmental Faculty Search Committee COALESCE “Membrane”
2004-2005	Purdue Cytoskeletal Group Research Seminar Organizer
2003-2016	Neurobiology Qualifier Committee
2003-2004	Graduate Studies Admission Committee
2003-	Member of 58 graduate student committees, chair of 10 committees

College of Science

2023	Faculty ambassador for '50 Phone Friday' undergraduate recruitment event 03/10/23
2023-	College of Science Area Promotions Committee
2017-2021	College of Science Graduate Curriculum and Academic Policy Committee (GCAP)
2015-2016	Strategic Hiring Committee
2015-2016	Grade Appeals Committee
2009-2012	College of Science Graduate Curriculum and Academic Policy Committee (GCAP)
2009-2012	College of Science Faculty Council, Secretary, 2011-2012
2007	College of Science White Paper Presentation: “Biology and Physics of the Cytoskeleton” COS faculty retreat May 9, 2007
2003	Strategic Planning Focus Groups: Membrane Biology and Nanoscience
2003	COALESCE Search Committee “Nanoscience”

University

2025	Judge for 6th Annual Research Pitch Competition
2025	Committee investigating an allegation of research misconduct
2020-	Faculty Advisor for Brain Exercise Initiative
2019-2020	Task Force on Graduate Housing and Stipend
2017	Departmental Liaison for PIIN
2017	Poster judge at Annual Life Sciences Postdoc Symposium, 04/14/17
2016	Poster judge at Purdue University Sigma Xi Poster competition

2015	EVPRP New R01 Program grant reviewer
2015	Co-leader Pillars of Excellence “Cell Biology”
2012-2015	Chair of PULSe Graduate Program Admissions Committee
2009-2015	PULSe Graduate Program Admissions Committee, Co-Chair 2011-2012
2014	Poster Judge at Discovery U Undergraduate Research Symposium at Purdue University, West Lafayette, 04/08/14
2008-2010	Campus Grievance Appeals Committee
2006	Oncological Sciences Center, Purdue University, grant proposal reviewer
2005	PRF grant proposal reviewer

Public

2003-present Demonstration of *Aplysia californica* as model system to study neuronal growth at the Purdue Spring Fest, April 12-13, 2003, April 12-13, 2008, April 18-19, 2009, April 14-15, 2012, April 13-14, 2013, April 12-13, 2014, April 18-19, 2015, April 16-17, 2016, April 8-9, 2017, April 15, 2018, April 6-7, 2019, April 15, 2023, April 13, 2024, April 12, 2025

2012-present Exhibit about microscopy at Purdue NanoDays, April 26-27, 2012, April 25, 2013, April 10-11, 2014, April 16-17, 2015, April 14-15, 2016, April 6-7, 2017, April 12-13, 2018, April 4-5, 2019, April 14, 2023

2012-present Judge for the Lafayette Regional Science and Engineering, Purdue University, West Lafayette, IN, March 2, 2012; March 4, 2016; March 7, 2025

Scientific Society

2021-present Member of the Scientific Communication, Outreach, and Public Engagement (SCOPE) Committee, American Society for Cell Biology (ASCB)