

UNIVERSITY OF ROCHESTER SCHOOL OF MEDICINE & DENTISTRY CURRICULUM VITAE

Douglas S. Portman, Ph.D.

601 Elmwood Avenue, Box 645

Rochester, NY 14642

Telephone: 585-275-7414 | Fax: 585-276-1947

E-Mail: douglas.portman@rochester.edu

Website: www.urmc.rochester.edu/cndd/research/portman

CURRENT POSITION

Associate Professor of Biomedical Genetics, Biology, and Neuroscience

Center for Neural Development and Disease

University of Rochester School of Medicine & Dentistry, Rochester, NY

EDUCATION

1984-88 B.A., Biology, University of Pennsylvania, Philadelphia, PA

1989-95 Ph.D., Molecular Biology and Genetics, University of Pennsylvania, Philadelphia, PA

POSTDOCTORAL TRAINING

1996-2002 Postdoctoral Fellowship, Molecular Genetics, Albert Einstein College of Medicine, Bronx, NY

FACULTY APPOINTMENTS

2001 Adjunct Assistant Professor, Department of Biological Sciences, Hunter College, New York, NY

2003-10 Assistant Professor, Departments of Biomedical Genetics and Biology (2007-2010), Center for Aging and Developmental Biology, University of Rochester School of Medicine & Dentistry, Rochester, NY

2010-present Associate Professor with Unlimited Tenure, Departments of Biomedical Genetics, Neuroscience (2015-present), and Biology, Center for Neural Development and Disease, University of Rochester School of Medicine & Dentistry, Rochester, NY

PROFESSIONAL NON-ACADEMIC EMPLOYMENT HISTORY

1988-89 Biochemist, FMC Corporation, Plainsboro, NJ

HONORS AND AWARDS

1988 Honors in Biochemistry, University of Pennsylvania

1989-91 Trainee, NIH Training Grant in Molecular and Cell Biology

1990 Honorable Mention, National Science Foundation Pre-Doctoral Fellowship

1995 Travel Award to Tenth International *C. elegans* Meeting, Madison, WI

1996 Trainee, NIH Training Grant in Molecular Genetics

1997 Emil Holland Postdoctoral Scholarship, Albert Einstein College of Medicine

1996-98 NIH Individual National Research Service Award F32 Fellowship

2010 Keynote speaker, *C. elegans* Male Development and Behavior Meeting, Madison, WI

2010 Mentoring of Basic Science Trainees Award, University of Rochester School of Medicine & Dentistry (2010)

2013 University of Rochester Graduate Student Society Faculty Award

2014-16 Chair, NIH F03A Study Section (F30/31/32 Neurodevelopment, Synaptic Plasticity and Neurodegeneration)

2014 Co-Organizer, *C. elegans* Topic Meeting: Neurobiology and Behavior, Madison, WI

2015-16 President, Rochester Chapter of the Society for Neuroscience

2017 Program Committee Chair, Organization for the Study of Sex Differences 2018 Meeting

ACADEMIC & PROFESSIONAL ORGANIZATIONS

- 2000-present Member, Genetics Society of America
 2003-present Member, Society for Neuroscience
 2010-present Member, Organization of the Study for Sex Differences
 2013-present Member, Rochester Chapter of the Society for Neuroscience
 2014-present Member, Association for Chemoreception Sciences
- 2013-2014 Faculty Councilor, Rochester Chapter of the Society for Neuroscience
 2015-2016 President, Rochester Chapter of the Society for Neuroscience
 2016-present Past President, Rochester Chapter of the Society for Neuroscience

COMMITTEES & OTHER ADMINISTRATIVE SERVICEUniversity of Rochester

- 2003-4 Nathan Shock Center Pilot Proposal Review Committee (2003-04)
 2003 Howard Hughes Medical Institute Pilot Project Review Committee (2003)
 2004-present Reviewer for Dean's Office Interim Funding Proposals
 2004-13 Neuroscience Graduate Program Retreat Committee (chair, 2008-13)
 2005-08 OGS Representative to Annual Biomedical Research Conference for Minority Students
 2006 Graduate Education Website Redesign Committee
 2006 Graduate Education External Audit Committee
 2007 Reviewer for Clinical Translational Science Institute pilot grants
 2007-09 Coordinator, Inter-campus Developmental Cell Biology Journal Club
 2008-10 Faculty search committee, Center for Neural Development and Disease
 2009-11 Co-coordinator, GEBS Summer Scholars Program
 2009 University Review Committee for Messersmith and Hooker dissertation fellowships
 2009-present Neuroscience Graduate Program Admissions Committee (chair, 2013-present)
 2010-11 Departmental Representative, Committee on Graduate Studies (2010-11)
 2010-12 Neuroscience Graduate Program Curriculum Committee
 2010-present Neuroscience Graduate Program Steering Committee
 2011-13 Review committee for Dean's mentoring awards
 2011-2015 NYSTEM training grant review committees
 2012-14 Member of three *ad hoc* University of Rochester SMD promotion committees
 2013-15 Academic IT Faculty Committee
 2014-present Center Representative, Medical Faculty Council
 2015 eCV Advisory Committee
 2015 Reviewer for University Research Awards
 2015 Reviewer for Fenn and duVigneaud Thesis Awards
 2015-16 Reviewer for Medical Faculty Council Travel Awards
 2015 Graduate School Convocation Awards Committee
 2016 Faculty Search Committee, Department of Neuroscience/Del Monte Neuroscience Institute
 2016-17 CV Reform Task Force

Regional

- 2010-2016 Co-organizer (with D. Pruyne, Upstate Medical University), Upstate New York *C. elegans* Meeting

International

- 2014 Co-organizer (with A. Hart, Brown University), 2014 International *C. elegans* Neuroscience Meeting, Madison, WI

- 2016 Program Committee Member, 2016 International *C. elegans* Neuroscience Meeting, Nagoya, Japan
- 2016-17 Program Committee Member, 2017 Organization for the Study of Sex Differences Meeting, Montreal, Canada
- 2017-2018 Program Committee Chair, 2018 Organization for the Study of Sex Differences Meeting, Atlanta, GA

EDUCATIONAL CONTRIBUTIONS

Research Mentoring

Post-doctoral Fellows

- 2004-11 Renee M. Miller, Ph.D.; *currently Instructor, Department of Brain and Cognitive Sciences, University of Rochester*
- 2005-08 D. Adam Mason, Ph.D.; *currently Assoc. Professor of Biology, Siena College*
- 2009-10 KyungHwa Lee, Ph.D.; *currently Postdoctoral Fellow, City College of New York*
- 2010-11 William Mowrey, Ph.D.; *currently Postdoctoral Fellow, Janelia Farm/HHMI*
- 2010-14 Deborah Ryan, Ph.D.
- 2011-14 Inna Hughes, M.D., Ph.D.; *currently Asst. Professor of Neurology, Univ. of Rochester*
- 2012-13 Stacy Ruvio, Ph.D.; *currently Asst. Professor of Biology, D'Youville College*
- 2016-present Jintao Luo, Ph.D. (2016 – present)

Graduate Students

- 2003-09 KyungHwa Lee, Ph.D., Interdepartmental Graduate Program in Neuroscience (IGPN); *awarded the 2010 Doty Award for Excellence in Neuroscience Dissertation Research; currently Postdoctoral Fellow, City College of New York*
- 2004-09 Neda Muzaffar, Genetics, Genomics and Development Graduate Program (GGD) (*Co-advisor*) [Left program with Master's Degree]
- 2005-10 William Mowrey, Ph.D., Interdepartmental Graduate Program in Neuroscience (IGPN); *currently Postdoctoral Fellow, Janelia Farm/HHMI*
- 2006-08 Dilip Rao, Genetics, Genomics and Development Graduate Program (GGD) [Left program with terminal Master's Degree]
- 2007-13 Margaret Casazza, Ph.D., Genetics, Genomics and Development Graduate Program (GGD); *currently Education Specialist, Detroit Zoological Society*
- 2007-13 Edward Vuong, MSTP student, Genetics, Genomics and Development Graduate Program (GGD); *currently Resident in Internal Medicine, North Shore-Long Island Jewish Health System*
- 2011-17 Kelli Fagan, Neuroscience Graduate Program (NGP); *currently Data Scientist, Excellus BlueCross/BlueShield*
- 2014-present Emily Wexler, Genetics, Genomics and Development Graduate Program (GGD)
- 2014-15 Purba Gupta, Ecology and Evolutionary Biology Graduate Program (EEB) [Left program with terminal Master's Degree]
- 2015-present Hannah Steinert, Cellular, Developmental and Molecular Biology Graduate Program (CDM)

Rotation Students

- 2003 Hai Wu (GGD)
- 2005 Jeremy Rabinowitz (BIO)
Grace Vangeison (IGPN)
Jamie Krautwurst (BCH)
- 2006 Ellen Kelsey (GGD)
Xin Yi Chan (BIO)
- 2007 Crystal McClain (IGPN)
Su Jun Lim (BIO)

2008	Kimberly Fernandes (IGPN)
2009	Mialy Duong DeFelice (BIO)
2010	Shiona Biswas (IGPN)
2011	Jingyuan Zhang (BIO)
2012	Eugene Kim (GGD)
	Yang Cheng (GGD)
	Wenxuan Liu (GGD)
	Matthew Johnson (BIO)
	Matthew Cavanaugh (NGP)
2013	Sean Lindley (BIO)
2014	Alanna Staton (GGD)
	Sebastian Rojas Villa (BIO)
	Wan-Jung (Christine) Li (GGD)
2015	Roxan Stephenson (BIO)
	Rianne Stowell (NGP)
	Shen Zhou (BIO)
	Holly Beaulac (NGP)
2016	Jenna Lentini (BIO)
	Ningyang Guo (BIO)
2017	Wenkui Dai (BIO)

Undergraduate Students

2003	Nicole Juskiw (Vassar College)
2003	Andrew Hart (University of Rochester)
2004	Kenneth Stewart (University of Bath)
2004-06	Woo-sin Park (University of Rochester)
2005	Carolyn Fisher (St. John Fisher College)
2005	Abigail Perkins (University of Bath)
2005	Maria Mikedis (Duke University)
2005	Anne Tanenhaus (Smith College)
2005-06	Arthur Simons (Rochester Institute of Technology)
2005-06	Victoria DiMarco (University of Rochester)
2007	Sarah Guerrero (Dallas Baptist University)
2007-09	Riley O'Neil (University of Rochester)
2008	Lizbeth Núñez (Queens College, City University of New York)
2008	Michael Denson (University of Rochester)
2008	Jamilynn Poletto (University of Rochester)
2009	Charles Mackin (University of Connecticut)
2009	Michelle Winston (University of Rochester)
2009-10	Rebecca Lu (University of Rochester)
2010	Samy Belfer (University of Pennsylvania)
2010	Travis Amengual (University of Rochester)
2010	Molin Shi (University of Rochester)
2011	Keyra Melendez-Cuadrado (University of Puerto Rico, Río Piedras)
2012	Roni Barak Ventura (University of Rochester)
2012-14	Teigan Ruster (University of Rochester)
2013	Jannette Rodriguez (University of Puerto Rico)
2014-15	Clare McMahon (University of Rochester)
2016	Michael Pagan (University of Rochester)
2016	Tylor Militello (Siena College)

2016	Connor Schroyer (Ithaca College)
2016	Rebecca Moffat (University of Rochester)
2017	Zhibin Chen (Boston University)

High School Student

2008	Marius (Mimi) Kothor (Greece Athena HS, Greece, NY)
------	---

Classroom Teaching

2004-05	NSC 503, Neuroscience Student Seminar, Co-coordinator
2004-present	GEN 507, Advanced Genetics, three to five lectures
2005-07	IND 501, Ethics and Professional Integrity in Research, Small group facilitator
2006-present	NSC 249, Developmental Neuroscience, one lecture
2006-present	NSC 592, Cellular Neuroscience Journal Club, <i>course director</i> , 2006 – present
2007	NSC 591, Ph.D. Readings in Neuroscience, “Programmed cell death in <i>C. elegans</i> ”
2007-12	IND 409, Advanced Cell Biology, four lectures; <i>course director</i> , 2007-12
2008	BIO 228, Laboratory in Cell and Developmental Biology, one three-week unit
2008-09	BIO 255, Biochem. of Male-Female Diff. in Health and Disease, two lectures
2011	BIO 220, Cell Biology, one lecture
2011-present	NSC 512, Cellular Neuroscience, one lecture
2012	NSC 591, Ph.D. Readings in Neuroscience, “Genetic control of normal and pathological synaptic development and function”
2012	TOX 533, Neurotoxicology, one lecture
2012-present	SRM (Scientific Reasoning in Medicine), one lecture
2013	BIO 516, Cellular/Developmental/Molecular Biology Seminar: Neurogenetics
2013	NSC 591, Ph.D. Readings in Neuroscience, “Neurogenetics”

Thesis Committee Service

2003-04	Ellen Hibbard (GGD)
2003-05	Jill Weimer (IGPN)
2003-05	Meng Wang (GGD)
2003-06	Denia Ramirez (GGD)
2003-06	Joogyung Hyun (GGD)
2003-07	Adi Sethi (GGD)
2004-06	Fan Xia (GGD)
2004-07	Ling Pan (IGPN)
2005-08	Jared Bushman (GGD); <i>chair, Qualifying Exam committee</i>
2005-08	Joanna Tober (GGD)
2005-08	Yasser Elshatory (IGPN)
2005-09	Hai Wu (GGD); <i>chair, Qualifying Exam committee</i>
2006-10	David Johnson (BMCB); <i>chair, Qualifying Exam committee</i>
2006-10	Jeremy Rabinowitz (BIO)
2006-10	Lynette Desouza (IGPN)
2007	Zhihui (Gerald) Zhang (TOX); <i>chair, Thesis Defense committee</i>
2007-11	Ellen Kelsey (GGD); <i>chair, Qualifying Exam committee</i>
2007-11	Kathleen McAvoy (IGPN)
2008-09	Laurie Robak (IGPN)
2008-10	Qiong Wang (GGD); <i>chair, Qualifying Exam committee</i>
2008-11	Christine Hochmuth (BIO)
2008-12	Xin Yi Chan (BIO)
2009	Cijian Peter Feng (BIO) (<i>Qualifying exam committee only</i>)

2009	Jing Zhu (BIO) (<i>Qualifying exam committee only</i>)
2009	Jonathan Millen (BIO); <i>chair, Thesis Defense committee</i>
2009-11	Su Jun Lim (GGD)
2009-12	Dae-Sung Hwangbo (GGD)
2009-12	Dawn Lee (TOX)
2009-12	Mohammad Rahman (GGD)
2009-15	Nirmalya Chatterjee (BIO)
2010	Subir Kapuria (BIO) (<i>Qualifying exam committee; chair, Thesis Defense committee</i>)
2010-14	Christopher Folts (GGD)
2010-14	Mridula Vinjamuri (GGD)
2010-15	Gurpreet Arora (BIO)
2010-15	Yu-shan Huang (GGD)
2010-16	Shiona Biswas (NGP); <i>chair, Qualifying Exam committee</i>
2010-present	LeAnne Lovato (BIO)
2011	David Loehlin (BIO); <i>chair, Thesis Defense committee</i>
2011	Sarah Latchney (TOX)
2011-15	Xuan Li (GGD)
2011-16	Ritika Das (BIO)
2012-14	Cuicui Wang (PATH)
2012-15	Anwasha Ghosh (BIO)
2012-15	Jenna Frame (PATH)
2012-16	Nicole Scott (GGD)
2012-17	Wenli Wang (GGD)
2013-14	Seo-Kyoung Hwang (GGD); <i>chair, Qualifying Exam committee</i>
2013-16	Brittany Krupp (GGD)
2013-16	Samuel Carrell (GGD); <i>chair, Qualifying Exam committee</i>
2013-present	Adam Johnson (BIO)
2014	Binshuang Li (BIO) (<i>Qualifying exam committee only</i>)
2014-present	Lisa Prince (TOX); <i>chair, Qualifying Exam committee</i>
2015	Marina Feigenson (BMCB); <i>chair, Thesis Defense committee</i>
2015-present	Jared Mereness (GGD)
2015-present	Sebastian Rojas-Villa (BIO)
2016	Caleb Strait (BCS); <i>chair, Thesis Defense committee</i>
2016	Emily Landeen (BIO); <i>chair, Thesis Defense committee</i>
2016-present	Andrew Allbee (GGD)
2016-present	Dalhia Ghoneim (GGD)

NATIONAL AND INTERNATIONAL RESEARCH REVIEW COMMITTEES

2003	United States-Israel Bi-National Science Foundation
2003-10	NSF: Mail Reviewer
2005	NIH: Special Emphasis Panel, Polycystic Kidney Disease Centers (SRC)
2005	Hong Kong Research Grants Council
2006	NIH: Special Emphasis Panel, Neurogenetics and Neurogenomics (MDCN)
2007-08	Autism Speaks
2008	NIH: Review Panel, Minority Biomedical Research Support (MBRS-7)
2008	Research Council of the Katholieke Universiteit Leuven
2009	NIH: Cellular and Molecular Biology of Glia (CMBG) Panel (<i>ad hoc</i>)
2009	NIH: Special Emphasis Panel, RC1 Challenge Grant Proposals, Round 1 (DKUS-A)
2009	NIH: Special Emphasis Panel, RC1 Challenge Grant Proposals, Round 1 (ETTN-A)
2010-13	Fonds Wetenschappelijk Onderzoek Vlaanderen (Flanders, Belgium)

2011-16	NIH: Neurodevelopment, Synaptic Plasticity and Neurodegeneration Fellowship Review Panel (F03A); <i>chair</i> , 2014-16)
2012-13	NIH: Special Emphasis Panel, Neurodevelopment and Degeneration (MDCN-G)
2013	NIH: Special Emphasis Panel, Resources for Comparative Medicine (CM)
2013	UK Medical Research Council
2014	NIH: Special Emphasis Panel, Modeling of Social Behavior (HDM)
2015	NIH: Molecular Neuropharmacology and Signaling (MNPS) (mail reviewer)
2015	NSF: Neural Systems Cluster, “Modulation” Panel
2015	NSF: Neural Systems Cluster, “Organization 2” Panel
2016-17	NIH: Molecular Neurogenetics (MNG) (<i>ad hoc</i>)
2017	NIH: Special Emphasis Panel, EBIT Member Conflict
2017	Israel Science Foundation

EDITORIAL ASSIGNMENTS IN PROFESSIONAL JOURNALS

Ad hoc reviews for: BMC Neuroscience, Brain Research, Cell Reports, Current Biology, Development, Developmental Biology, Developmental Dynamics, eLife, European Journal of Neuroscience, Genes Brain & Behavior, Genetics, Journal of Neurophysiology, Journal of Neuroscience, Mechanisms of Development, Nature, Nature Communications, Neurobiology of Aging, Neuroscience, PLOS Biology, PLOS Genetics, PLOS ONE, Proceedings of the National Academy of Sciences, Proceedings of the Royal Society B, WormAtlas

PATENTS & INVENTIONS

G. Dreyfuss, M. Kiledjian, and **D.S. Portman**. (1995) Methods of promoting intermolecular interactions involving a nucleic acid. U.S. Patent 5,457,026.

GRANTS & CONTRACTS

As Principal Investigator / Co-Principal Investigator

NIH R01 GM108885 (PI: Portman)

“Genetic and Hormonal Mechanisms of Sex Differences in the Nervous System”

9/1/14 – 5/31/18; Total award: \$1,063,755

NSF IOS 1353075 (PI: Portman)

“DM Genes and Dynamic Specification of Dimorphism” (PI: D. Portman)

8/15/14 – 7/31/17; Total award: \$658,000

NIH R21 NS082849 (PI: Portman)

“Genetic modulation of synaptic development and maintenance” (PI: Portman)

4/1/13 – 3/31/16; Total award: \$422,125

Schmitt Foundation for Integrative Brain Research, “Lipid Droplets in Motor Neuron Pathology: A Nematode Model” (PI: Portman, co-PI: Welte)

1/1/14 – 12/31/15; Total award: \$50,000

NIH R01 GM086456 (PI: Portman)

“Genetic control of sex differences in the nervous system”

1/1/09 – 12/31/13; Total award: \$1,010,240

NSF IOS 0920024 (PI: Portman)

“Modulation of *C. elegans* locomotor behavior”

9/1/09 – 12/31/12; Total award: \$438,432

NIH R01 NS050268 (PI: Portman)

“Cell fate specification in the developing nervous system”

4/1/06 – 3/31/11; Total award: \$1,251,000

NIH R21 DK054896 (PI: Portman)

“Imaging polycystin-mediated Ca²⁺ transients in *C. elegans*”

7/1/05 – 6/30/08; Total award: \$310,600

Autism Speaks Research Grant 1166 (PI: Portman)

“Genetic control of sexual dimorphism in the nervous system: A nematode model for genetic mechanisms in autism”

7/1/05 – 12/1/07; Total award: \$110,649

PKD Foundation Research Grant 78b2, “Four novel proteins implicated in the sensory function of the *C. elegans* polycystins” (PI: Portman)

1/1/04 – 12/31/05; Total award: \$130,000

Other Roles

NIH F31 NS086283 (PI: Fagan; Sponsor: Portman)

“Genetic Control of a Sexually Dimorphic Neural Circuit”

9/1/13 – 8/31/16

P30 AI078498 (PI: Dewhurst)

“University of Rochester Developmental Center for AIDS Research”

5/1/08 – 4/30/13; Annual direct costs: \$490,364

DCFAR Pilot Project: “A nematode model for Tat-mediated neurodegeneration” (PI: Portman)

10/1/12-4/30/13; Total award: \$37,474

NIH F32 DK075270, (PI: Miller; Sponsor: Portman)

“A New Gene Family as Modifiers of Polycystin Signaling”

1/1/07 – 12/31/09

Batten Disease Support and Research Association Studentship (PI: Muzaffar; Sponsor: Portman)

“A Nematode Model for Batten Disease”

9/1/06 – 8/31/08

INVITED PRESENTATIONS

- 2000 “The bHLH Transcription Factors LIN-32 and HLH-2 Specify Multiple Aspects of Ray Development in the *C. elegans* Male Tail,” East Coast Worm Meeting, Atlanta, GA, June 2000
- 2001 “Neural Cell Fate Specification in the *C. elegans* Male Tail,” Hunter College, City University of New York, New York, NY, Oct. 2001 (Host: R. Rudner)
- 2001 “Neuronal Fate Specification by bHLH Proteins in the *C. elegans* Ray Sublineage,” Thirteenth International *C. elegans* Meeting, Los Angeles, CA, June 2001
- 2002 “Dissecting the *C. elegans* Ray Developmental Pathway with DNA Microarrays,” East Coast Worm Meeting, Durham, NH, June 2002
- 2002 “Rays and Arrays: Development and Function of Sensory Structures in the *C. elegans* Male Tail,” City College, City University of New York, New York, NY, Apr. 2002 (Host: T. Venkatesh)

- 2002 “Rays and Arrays: Development and Function of Sensory Structures in the *C. elegans* Male Tail,” University of Rochester, Center for Aging and Developmental Biology, Mar. 2002 (Host: H. Federoff)
- 2003 “DNA Microarrays Identify Genes Expressed in the *C. elegans* Male Tail Rays, Including Four Novel Genes Coexpressed with the Polycystins *lov-1* and *pkd-2*,” 14th International *C. elegans* Meeting, Los Angeles, CA, June 2003
- 2003 “Rays and Arrays: Development and Function of Sensory Structures in the *C. elegans* Male Tail,” Northeast Regional Society for Developmental Biology, Woods Hole, MA, April 2003
- 2004 “Rays and Arrays: Development and Function of Sensory Structures in the *C. elegans* Male Tail,” University of Rochester, Department of Biology, Nov. 2004
- 2004 “Rays and Arrays: Development and Function of Sensory Structures in the *C. elegans* Male Tail,” New York University, Department of Biology, New York, NY, June 2004 (Host: D. Fitch)
- 2004 “A Genomic Approach to the Development and Function of the *C. elegans* Male Tail Rays,” East Coast Worm Meeting, New Haven, CT, June 2004
- 2006 “Generating Sexual Dimorphism in *C. elegans*,” Hobart and William Smith Colleges, Department of Biology, Dec. 2006 (Host: K. Kenyon)
- 2006 “Sex, Worms and Videotape: Generating Sexual Dimorphism in *C. elegans*,” University of Rochester, Department of Biology, Sept. 2006
- 2007 “Sex and the single worm: Genetic regulation of sex differences in *C. elegans* development and behavior,” Texas A&M University, Department of Biology, Sept. 2007 (Hosts: R. Garcia/R. Lints)
- 2007 “Rays and Arrays: Using microarrays to probe *C. elegans* neural development and function,” Virginia Commonwealth University, July 2007 (Host: J. Bettinger)
- 2007 “Sex and the single worm: How does sex regulate innate behavior in *C. elegans*?”, HHMI/Janelia Farm Research Conference: Neural Circuits and Behavior in *C. elegans*, Mar. 2007
- 2008 “Sex and the single worm: Sex differences in *C. elegans* development and behavior,” Rutgers University, Department of Genetics, Sept. 2008 (Host: A. Singson)
- 2008 “Sex and the single worm: Regulation of behavior by neural sex in *C. elegans*,” University at Buffalo, Department of Biological Sciences, March 2008 (Host: D. Ferkey)
- 2008 “Neural sex modifies the function of shared circuitry in *C. elegans*,” Salk Institute Symposium on Biological Complexity: Genes, Circuits and Behavior, Jan. 2008
- 2009 “Genetics and neurobiology of sex differences in the *C. elegans* nervous system,” Siena College, Dept. of Biology, Nov. 2009 (Host: A. Mason)
- 2009 “Sex and the single neuron: Sexual modification of shared circuitry in *C. elegans*”, HHMI/Janelia Farm Research Conference: Neural Circuits Controlling Sexual Behavior, Oct. 2009 (*Invited talk*)
- 2009 “Sex and the single neuron: Sex differences in *C. elegans* neurobiology and behavior,” Columbia University, Dept. of Biological Sciences, Sept. 2009 (Host: M. Chalfie)
- 2009 “Distributed neural sex differences modify *C. elegans* locomotor behavior,” 17th International *C. elegans* Meeting, Los Angeles, CA, June 2009
- 2009 “Sex and the single neuron: Sex differences in *C. elegans* neural function and behavior,” University of Southern California, Dept. of Biological Sciences, June 2009 (Host: J.P. Masly)
- 2009 “Sex and the single neuron: Diverse changes in *C. elegans* behavior arise through the sexual modification of core circuitry”, HHMI/Janelia Farm Research Conference: Neural Circuits and Behavior in *C. elegans*, Mar. 2009 (*Invited talk*)
- 2009 “Sex and the single neuron: Sex differences in *C. elegans* neural function and behavior,” University of Texas at Austin, Section of Neurobiology, Feb. 2009 (Host: J. Pierce-Shimomura)
- 2010 “Sex and the Single Neuron: The Neurobiology of Sex Differences in *C. elegans* Behavior,” Department of Neurobiology, University of Massachusetts Medical School, Sept. 2010 (Host: M. Francis)

- 2010 “Sex and the Single Worm: The Genetics of Sex Differences in Neurobiology, Behavior and Disease,” University of Rochester “Second Friday Science Social,” Sept. 2010
- 2010 “Sexual differentiation of the *C. elegans* nervous system,” *C. elegans* Topic Meeting: Neuronal Development, Synaptic Function & Behavior, June 2010 (*Keynote lecture*)
- 2010 “Sex and the Single Neuron: The Neurobiology of Sex Differences in *C. elegans* Behavior,” Hong Kong University of Science and Technology, Feb. 2010 (Host: K.L. Chow)
- 2011 “Sex and the Single Worm: The Neurobiology of Sex Differences in Development and Behavior,” Department of Biology, New York University, Apr. 2011 (Host: D. Fitch)
- 2011 “Sex and the Single Neuron: The Genetics of Sex Differences in *C. elegans* Neurobiology, Behavior and Disease,” Neuroscience and Behavior/Molecular and Cellular Biology Seminar, University of Massachusetts at Amherst, Apr. 2011 (Host: N. Forger)
- 2011 “Sex and the Single Worm: Sex Differences in *C. elegans* Development, Neurobiology and Behavior,” Department of Cell & Developmental Biology, Upstate Medical University, Syracuse, NY, Feb. 2011 (Host: D. Pruyne)
- 2012 “Sex and the Single Neuron: Genetic Control of Sex Differences in Brain and Behavior,” WHEEL Symposium, University of Rochester, Sept. 2012
- 2012 “Sex and the Single Neuron: Sex Differences in Neurobiology and Behavior in the Nematode *C. elegans*,” Annual Meeting of the Organization for the Study of Sex Differences, Baltimore, MD, June 2012 (*Invited talk*)
- 2013 “Genes, Circuits and Behavior: How a Worm Sets Its Priorities,” University of Rochester Genetics Day, Apr. 2013
- 2014 “Sexual Modulation of Shared Circuitry Drives Adaptive Behavioral Prioritization,” HHMI/Janelia Farm Research Conference: Neural Circuits Controlling Sexual Behavior, Nov. 2014 (*Invited talk*)
- 2014 “Regulated olfaction drives state-dependent plasticity in *C. elegans* behavioral prioritization,” Nanosymposium presentation (“Plasticity in the Olfactory System”), Society for Neuroscience Annual Meeting, Nov. 2014
- 2014 “How a worm makes up its mind: Sex differences in behavioral prioritization in *C. elegans*,” Department of Biology, University of Rochester, June 2014
- 2014 “How worms set their priorities: Sexual modulation of shared circuitry in *C. elegans*,” Institute of Biophysics, Chinese Academy of Sciences, Beijing, China, Apr. 2014 (Host: H. Zhang)
- 2014 “How worms set their priorities: Sexual modulation of shared circuitry in *C. elegans*,” Institute of Neuroscience, Chinese Academy of Sciences, Shanghai, China, Apr. 2014 (Host: Z. Wang)
- 2015 “Food or sex? Dynamic, adaptive modulation of sensory circuits in the nematode *C. elegans*,” Department of Biology, University of Oklahoma, Oct. 2015 (Host: J.P. Masly)
- 2015 “Sexual modulation of neural circuits and behavior: A worm’s perspective,” Neuroscience Program, Upstate Medical University, June 2015 (Host: B. Howell)
- 2015 “Sexual modulation of neural circuits and behavior: A worm’s perspective,” Department of Pharmacology and Physiology, University of St. Louis, St. Louis, MO, May 2015 (Host: W. Neckamayer)
- 2015 “Sexual modulation of neural circuits and behavior in the nematode *C. elegans*,” Cellular and Molecular Biology Graduate Program, University of Nevada–Reno, Apr. 2015 (Host: A. van der Linden)
- 2015 “Food vs. Sex: A Worm’s Perspective on Behavioral Choice,” Neuroscience Retreat, University of Rochester, Apr. 2015
- 2015 “Sexual modulation of neural circuits in *C. elegans*,” State Key Laboratory of Medical Genetics, Central South University, Changsha, Hunan, China, Mar. 2015 (Host: L. Ma)
- 2015 “Behavioral prioritization in *C. elegans*,” Department of Genetics, Albert Einstein College of Medicine, Bronx, NY, Mar. 2015 (Host: S. Emmons)

- 2015 “Sex vs. Food: How Genes and Environment Converge in the Mind of a Worm,” Department of Biology, Siena College, Latham, NY, Mar. 2015 (Host: A. Mason)
- 2016 “Sexual modulation of neural circuits and behavior in *C. elegans*,” Department of Neurobiology and Behavior, Cornell University, Dec. 2016 (Host: David Deitcher)
- 2016 “What does sex do to your brain?” University of Rochester “Seeds for Collaboration” Series, June 2016
- 2017 “Genes, circuits, and behavior: Inside the mind of a worm,” Eastman Institute of Oral Biology Scientific Symposium, University of Rochester, June 2017

PUBLICATIONS

Peer-Reviewed Journal Articles

1. **Portman, D.S.** and Dreyfuss, G. (1994) RNA annealing activities in HeLa nuclei. *EMBO J.* **13**:213-221.
2. Kamma, H., **Portman, D.S.**, and Dreyfuss, G. (1995) Cell type-specific expression of hnRNP proteins. *Exp. Cell Res.* **221**:187-196.
3. **Portman, D.S.**, O'Connor, J.P., and Dreyfuss, G. (1997) *YRA1*, an essential *Saccharomyces cerevisiae* gene, encodes a novel nuclear protein with RNA annealing activity. *RNA* **3**:527-537.
4. Hassfeld, W., Chan, E.K.L., Mathison, D.A., **Portman, D.**, Dreyfuss, G., Steiner, G., and Tan, E.M. (1998) Molecular definition of heterogeneous nuclear ribonucleoprotein R (hnRNP R) using autoimmune antibody: immunological relationship with hnRNP P. *Nucl. Acids Res.* **15**:439-445.
5. **Portman, D.S.** and Emmons, S.W. (2000) The basic helix-loop-helix transcription factors LIN-32 and HLH-2 function together in multiple steps of a *C. elegans* neuronal sublineage. *Development* **127**:5415-5426.
6. **Portman, D.S.** and Emmons, S.W. (2004) Genomic identification of *C. elegans* sensory ray genes. *Dev Biol* **270**:499-512. [Cover article.]
7. Lee, K.H. and **Portman, D.S.** (2007) Neural sex modifies the function of a *C. elegans* sensory circuit. *Curr Biol* **17**:1858-63.
8. Mason, D.A., Rabinowitz, J.S. and **Portman, D.S.** (2008) *dmd-3*, a *doublesex*-related gene regulated by *tra-1*, governs sex-specific morphogenesis in *C. elegans*. *Development* **135**: 2373-82. [Highlighted as “Must Read” by Faculty of 1000 Biology, f1000biology.com/article/id/1115084.]
9. R.M. Miller and **D.S. Portman**. (2010) A latent capacity of the *C. elegans* polycystins to disrupt sensory transduction is repressed by the single-pass ciliary membrane protein CWP-5. *Disease Models and Mechanisms* **3**:441-450.
10. D.D. Hurd, R.M. Miller, L. Núñez and **D.S. Portman**. (2010) Specific α - and β -tubulin isoforms optimize the functions of *C. elegans* sensory cilia. *Genetics* **185**:883-896. [Featured in July 2010 Issue Highlights.]
11. R.M. Miller and **D.S. Portman**. (2011) The Wnt/beta-catenin asymmetry pathway patterns the atonal ortholog *lin-32* to diversify cell fate in a *Caenorhabditis elegans* sensory lineage. *J. Neurosci.* **31**:13281-91.
12. M.S. Siehr, P.K. Koo, A.L. Sherlekar, X. Bian, M.R. Bunkers, R.M. Miller, **D.S. Portman** and R. Lints. (2011) Multiple *doublesex*-related genes specify critical cell fates in a *C. elegans* male neural circuit. *PLoS One* **6**:e26811.
13. W.R. Mowrey, J.R. Bennett and **D.S. Portman**. (2014) Distributed effects of biological sex define sex-typical motor behavior in *Caenorhabditis elegans*. *J. Neurosci* **34**:1579-1591 [Featured article.]
14. D.A. Ryan, R.M. Miller, K.H. Lee, S. Neal, K.A. Fagan, P. Sengupta, and **D.S. Portman**. (2014) Sex, age and hunger regulate behavioral prioritization through dynamic modulation of chemoreceptor expression. *Curr Biol* **24**:2509-17. [Press coverage in *The Washington Post*, *The Daily Mail*, IFLscience.com, Huffington Post, Daily Kos, RCN Radio Colombia, and elsewhere.]

15. K.E. Kiontke, E. Vuong, A. Herrera, D.H.A. Fitch*, and **D.S. Portman***. The long non-coding RNA *lep-5* promotes the juvenile-to-adult transition by stabilizing LIN-28. In revision for *Dev Cell*. Originally submitted Dec. 5, 2016. *Co-senior authors.

Books, Monographs, Chapters, & Reviews

16. Görlach, M., Burd, C.G., **Portman, D.S.**, and Dreyfuss, G. (1993) The hnRNP proteins. *Mol. Bio. Rep.* **18**:73-78.
17. Kiledjian, M., Burd, C.G., Gørlach, M., **Portman, D.S.**, and Dreyfuss, G. (1994) Structure and function of hnRNP proteins. In *RNA-Protein Interactions* (K. Nagai and I.W. Mattaj, eds.), Oxford University Press, Oxford, pp. 150-177.
18. **Portman, D.S.** (2006) Profiling *C. elegans* gene expression with DNA microarrays. *WormBook*, doi:10.1895/wormbook.1.104.1, <http://www.wormbook.org>.
19. **Portman, D.S.** (2007) Genetic control of sex differences in *C. elegans* neurobiology and behavior. *Adv Genet* **59**:1-37.
20. W.R. Mowrey and **D.S. Portman.** (2012) Sex differences in behavioral decision-making and the modulation of shared neural circuits. *Biol Sex Differ* **3**:8.
21. K.A. Fagan and **D.S. Portman.** (2014) Sexual modulation of neural circuits and behavior in *C. elegans*. *Sem Cell Dev Biol* **33**:3-9.
22. L.R. García and **D.S. Portman.** (2016) Neural circuits for sexually dimorphic and sexually divergent behaviors in *Caenorhabditis elegans*. *Curr Opin Neurobiol.* **38**:46-52.
23. **D.S. Portman** (2017) Sexual modulation of sex-shared neurons and circuits in *Caenorhabditis elegans*. *J. Neurosci. Res.* **95**:527-538. NIHMS809903.

Letters, Editorials, & Other Contributions

24. **Portman, D.S.** and Bohmann, D. (2004) Toward the computable transcriptome. *Mol Cell* **14**:693-694.
25. **D.S. Portman** and B. Biteau. (2016) Neuter No More: Fly Stem Cells Know Their Sex. *Cell Stem Cell* **18**:429-30. PMID: 27058932. doi: 10.1016/j.stem.2016.03.009
26. **D.S. Portman** (2016) Wired for Sex [News & Views]. *Nature* **533**:188-9. PMID: 27144358. doi: 10.1038/nature17898