Christopher C. Quinn

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Education

1996-2001 Yale University, Doctor of Philosophy in Neurobiology
Thesis Advisor: Dr. Susan Hockfield

1992-1996 Rutgers University, Rutgers College
Bachelor of Arts in Biological Sciences with high honors.

Positions and Employment

2022- Co-Director of Neuroscience Program
University of Wisconsin, Milwaukee, WI.

2018- Associate Professor, Department of Biological Sciences
University of Wisconsin, Milwaukee, WI.

2010-2018 Assistant Professor, Department of Biological Sciences
University of Wisconsin, Milwaukee, WI.

2001-2009 Postdoctoral Fellow/Instructor in the laboratory of Dr. William Wadsworth in the Department of Pathology at Rutgers University, Piscataway, NJ.

External Research Support (Total: $2.69 million).

2022-2024 NIH/NIMH 3R01MH119157-4S/5S. Christopher Quinn, sole PI
Research Supplement to Promote Diversity in Health-Related Research.
Total Cost: $174,849

2019-2025 NIH/NIMH 1R01MH119157 Christopher Quinn, sole PI
Investigation of how axon development is disrupted by the autism-causing Timothy syndrome mutation.
Total Cost: $1,710,000

2017-2020 NIH/NINDS 1R03NS101524 Christopher Quinn, sole PI
Investigation of the mechanisms that stabilize axons and their branches.
Total Cost: $152,000

2015-2018 NIH/NINDS 1R03NS091983 Christopher Quinn, sole PI
Investigation of SYD-1 function in axon guidance.
Total Cost: $149,500

2012-2015 NIH/NINDS 1R03NS081361. Christopher Quinn, sole PI
Spatial organization of actin polymerization during axon guidance.
Total Cost: $147,700

2011-2016 Greater Milwaukee Foundation – sole PI
Shaw Scientist Award.
$200,000 Direct Cost.

2009-2012: NIH/NICHD R03HD060787 Christopher Quinn, sole PI
Investigation of asymmetric signaling complexes in axon guidance
$156,000 Total Cost.

2003-2006 NIH/NINDS F32NS046840. Christopher Quinn, sole PI
Individual Ruth L. Kirschstein National Research Service Award.
Molecular Mechanisms of MIG-10 function in axon guidance.

Internal Research Support (Total: $262,400).

2017-2018 Research Growth Initiative 2017 Christopher Quinn, sole PI
Investigation of the mechanisms that regulate axon branch stability.
Direct Cost: $117,500

2012-2014 Research Growth Initiative 2012 Christopher Quinn, sole PI
Investigation of ITSN-1 function in axon guidance.
Direct Cost: $94,900

2011-2012 Intercampus Research Grant. Co-PI with Jeff Hardin
Investigation of ABI-1 function in axon and cell migration.
Direct Cost: $50,000

Awards and Honors

2011 Shaw Scientist Award
2003-2006 Individual National Research Service Award
2001-2003 UMDNJ Foundation Fellow
1996 Henry Rutgers Scholar

1994-1995	Rutgers College Merit Scholarship
1994	ASPET summer research fellowship
1994-1995	Sigma Xi research fellowship

Oral Presentations

Andalusian Center for Developmental Biology Seminar, Sevilla, Spain 2023

Axon Development Meeting, Altea, Spain, 2023

University of Wisconsin-Milwaukee Neuroscience Seminar, Milwaukee 2023

Midwest Society for Developmental Biology Meeting, Madison, WI 2022.

C. elegans Development, Cell Biology and Gene Expression Meeting, Madison, WI 2022.

C. elegans Neurodevelopment, Synaptic Function and Behavior Meeting, Madison, WI 2018.

Chicago Area *C. elegans* Meeting**,** Chicago, IL, 2018.

Greater Milwaukee Foundation, Shaw Scientist Talk, Milwaukee, WI 2016.

Michigan Technological University, Biological Sciences Seminar, Houghton, MI, 2015.

Milwaukee Institute for Drug Discovery Talk, Milwaukee, WI 2014.

University of Wisconsin-Milwaukee, College of Engineering and Applied Sciences, Seminar Milwaukee, WI, 2013.

University of Montana, Department of Biology Seminar, Missoula, MT, 2009.

University of Wisconsin-Milwaukee, Department of Biology Seminar, Milwaukee, WI, 2009.

Medical College of Georgia, Institute of Molecular Medicine and Genetics Seminar, Augusta, GA, 2009.

Uniformed Services University of the Health Sciences, Department of Pharmacology Seminar, Bethesda, MD 2009.

University of Maryland Baltimore County, Department of Biology Seminar, Baltimore, MD, 2008.

Stony Brook University, Department of Pharmacology Seminar, Stony Brook, NY, 2008.

Mid-Atlantic Society for Developmental Biology, Princeton, NJ, 2007.

Cold Spring Harbor meeting on Axon Guidance and Plasticity, 2004.

East Coast *C. elegans* meeting, Yale University, New Haven, CT, 2004.

Society for Neuroscience meeting, San Diego, CA, 2001.

Teaching

Developmental Biology: Fall Semesters 2020-present

Laboratory in Genetics and Cell Biology: Spring Semesters 2012-present

Foundations of Biological Sciences: Alternating Fall Semesters 2017-present

Seminar in Neuroscience: Alternating Spring Semesters 2020-present

Seminar Courses (various): Fall or Spring 2011-2019

Developmental Genetics: Fall Semesters 2014-2017

Internal Service

Co-director of Neuroscience BS program (2022-present).
Co-chair Search Committee for Shaw Professor of Biology (2023).
Co-chair Search Committee for Assistant Professor of Cell Biology (2022).
Chair of Neuroscience Seminar Committee (2020-2021).
Chair of the Biological Sciences Awards Committee (2020-present).
Organizer of the UWM Neuroscience Seminars (Alternating Years 2020-present).
Committee on Instructional Academic Staff (2023-present)
Biological Sciences Personnel Committee (2014-2017; 2022-present).
Biological Sciences Graduate Committee (2021).
Course and Curriculum Committee (2021-present).
Planning and Policy Committee (2018-2020; 2023-present).
Search Committee for Genetics Assistant Professor (2017-2018).
GER course change committee (2017).
Biological Sciences Award Committee (2016-2019).
Biological Sciences Space Committee (2012- 2014).
Search Committee for Anatomy and Physiology lecturer (2012).
Biological Sciences Colloquium Committee (2010-2011).
Curriculum Committee for reorganization of BioSci 316 (2010-2011).
Reviewer for FRACAS proposals (2014).
Reviewer for RACAS proposals (2019).
Internal reviewer Shaw Scientist proposals (2016).
Liaison to the Library (2011-present).

External Service

Journal reviews: *PLoS Genetics*, *Journal of Neuroscience, Development, Genetics, Science Signaling, Small GTPases, Neuroscience, Journal of Visualized Experiments*, *Molecular and Cellular Neuroscience*, Bioessays, and *micropublication Biology.*

Textbook review: *Principals of Life.*

Grant reviews: National Science Foundation.

Program review: 5-year review for the Biochemistry at Biotechnology Program at the University of Missouri-St. Louis.

Publications

1. Drozd CJ, **Quinn CC.** UNC-16 (JIP3) functions with the dynein-dynactin complex and the LRK-1 (LRRK1/LRRK2) kinase to promote axon targeting. Revision invited for *Genetics*.

2. Chowdhury TA, Luy DA, Farache D, Lee ASY, **Quinn CC** (2023)**.** Autism candidate gene *rbm-26* (*RBM26/27*) regulates MALSU-1 to protect against mitochondrial dysfunction during axon development. *bioRxiv* 2023.10.12.562060.

3. Drozd CJ, **Quinn CC** (2023) UNC-116 and UNC-16 function with the NEKL-3 kinase to promote axon targeting. *Development,* 150(18): dev201654.

4. Fischer N, Friedman V, Chowdhury TA, **Quinn CC** (2022) The ANC-1(SYNE1) protein promotes neuronal polarity by recruiting mitochondria to the axon initial segment. *PLoS Genetics,* 15(12): e1008488.

5. Buddell T, **Quinn C** (2022). A null allele in the *wdfy-3* selective autophagy gene of *C. elegans*. *microPublication Biology,* 2022:10.17912.

6. Buddell T, **Quinn CC** (2021) An autism-associated calcium channel variant causes defects in neuronal polarity in the ALM neuron of *C. elegans. microPublication Biology,* 2021:10.17912.

7. Buddell T, Friedman V, Drozd CJ, **Quinn CC** (2019) An autism-causing calcium channel variant functions with selective autophagy to alter axon targeting and behavior. *PLoS Genetics,* 15(12): e1008488.

8. Xu Y**, Quinn CC** (2016) Transition between synaptic branch formation and synaptogenesis is regulated by the *lin-4* microRNA. *Developmental Biology*, 420:60-66.

9. Xu Y**, Quinn CC** (2016) SYD-1 promotes multiple developmental steps leading to neuronal connectivity. *Molecular Neurobiology*, 53(10) 6768-6773.

10. Xu Y, Taru H, Jin Y, **Quinn CC** (2015) SYD-1C, UNC-40 (DCC) and SAX-3 (Robo) function interdependently to promote axon guidance by regulating the MIG-2 GTPase. *PLoS*

Genetics, 11(4): e1005185.

11. Xu Y, **Quinn CC** (2012) MIG-10 functions with ABI-1 to mediate the UNC-6 and SLT-1 axon guidance signaling pathways. *PLoS Genetics,* 8(11): e1003054.

12. Xu Y, Ren XC, **Quinn CC**, Wadsworth WG. (2011) Axon response to guidance cues is stimulated by acetylcholine in *Caenorhabditis elegans*. *Genetics*, 189:899-906.

13. **Quinn CC** and Wadsworth WG (2008) Axon Guidance: Asymmetric signaling orients polarized outgrowth. *Trends in Cell Biology*, 18:597-603.

14. **Quinn CC**, Pfeil DS, Wadsworth WG (2008) Ced-10/Rac1 mediates axon guidance by regulating the asymmetric distribution of MIG-10/lamellipodin. *Current Biology* 18:808-13.

15. **Quinn CC** and Wadsworth WG (2006) Axon Guidance: Ephrins at WRK on the Midline. *Current Biology* 16:R954-5.

16. **Quinn CC**, Pfeil DS, Chen E, Stovall EL, Harden MV, Gavin MK, Forrester WC, Ryder EF, Soto MC, Wadsworth WG (2006) UNC-6/netrin and SLT-1/slit guidance cues orient axon outgrowth mediated by MIG-10/RIAM/lamellipodin. *Current Biology* 16:845-853.

17**. Quinn CC**, Chen E, Kinjo TG, Kelly G, Bell AW, Elliott RC, McPherson PS, Hockfield S (2003) TUC-4b, a novel TUC family variant, regulates neurite outgrowth and associates with vesicles in the growth cone. *Journal of Neuroscience* 23:2815-2823.

18. Benvenuti S, Cramer R, **Quinn CC**, Bruce J, Zvelebil M, Corless S, Bond J, Yang A, Hockfield S, Burlingame AL, Waterfield MD, Jat PS (2002) Differential proteome analysis of replicative senescence in rat embryo fibroblasts. *Mol. Cell. Proteomics.* 1:280-292.

19. Wasiak S, **Quinn CC**, Ritter B, de Heuvel E, Baranes D, Plomann M, McPherson PS (2001) The Ras/Rac guanine nucleotide exchange factor mammalian Son-of-sevenless interacts with PACSIN1/syndapin I, a regulator of endocytosis and the actin cytoskeleton. *Journal of Biological Chemistry*. 276:26622-26628.

20. Hussain NK, Jenna S, Glogauer M, **Quinn CC**, Wasiak S, Guipponi M, Antonarakis SE, Kay BK, Stossel TP, Lamarche-Vane N, McPherson PS (2001) Endocytic protein intersectin-l regulates actin assembly via Cdc42 and N-WASP. *Nature Cell Biology* 10:927-932.

21. Tong XK, Hussain NK, de Heuvel E, Kurakin A, Abi-Jaoude E, **Quinn CC**, Olson MF, Marais R, Baranes D, Kay BK, McPherson PS. (2000). The endocytic protein intersectin is a major binding partner for the Ras exchange factor mSos1 in rat brain. *EMBO Journal* 19: 1263-1271.

22. **Quinn CC**, Gray GE, Hockfield S. (1999). A family of proteins implicated in axon guidance and outgrowth. *Journal of Neurobiology* 41:158-164.