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

2018-pres. 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).

2019-pres. NIH/NIMH 1R01MH119157 Christopher Quinn, sole PI
Investigation of how axon development is disrupted by the autism-causing Timothy syndrome mutation.
Total Cost: $1,884,849

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

2026 EMBO *C. elegans* biology workshop, Merida, Mexico.*
2025 University of Wisconsin-Madison, Dept. of Genetics Colloquium, Madison, WI.*
2025 University of Puerto Rico, Institute of Neurobiology, San Juan, Puerto Rico*
2023 Andalusian Center for Developmental Biology Seminar, Sevilla, Spain*
2023 Axon Development Meeting, Altea, Spain.**
2023 University of Wisconsin-Milwaukee Neuroscience Seminar, Milwaukee, WI.*
2022 Midwest Society for Developmental Biology Meeting, Madison, WI.*
2022 *C. elegans* Development, Cell Biology and Gene Expression Meeting, Madison, WI.**
2018 *C. elegans* Neurodevelopment, Synaptic Function and Behavior Meeting, Madison, WI.**
2018 Chicago Area *C. elegans* Meeting**,** Chicago, IL.*
2016 Greater Milwaukee Foundation, Shaw Scientist Talk, Milwaukee, WI.*
2015 Michigan Technological University, Biological Sciences Seminar, Houghton, MI.*
2014 Milwaukee Institute for Drug Discovery Talk, Milwaukee, WI 2014.*
2013 UWM, College of Engineering and Applied Sciences, Seminar Milwaukee, WI.*
2009 University of Montana, Department of Biology Seminar, Missoula, MT.*
2009 UWM, Department of Biology Seminar, Milwaukee, WI.*
2009 Medical College of Georgia, Institute of Molecular Medicine and Genetics Seminar.*
2009 Uniformed Services University of the Health Sciences, Dept. of Pharmacology Seminar.*
2008 University of Maryland Baltimore County, Department of Biology Seminar.*
2008 Stony Brook University, Department of Pharmacology Seminar, Stony Brook, NY.*
2007 Mid-Atlantic Society for Developmental Biology, Princeton, NJ.*
2004 Cold Spring Harbor meeting on Axon Guidance and Plasticity.*
2004 East Coast *C. elegans* meeting, Yale University, New Haven, CT.*
2001 Society for Neuroscience meeting, San Diego, CA.*
*Presented by Christopher Quinn
**Presented by trainee of Christopher Quinn

Teaching

2020-pres. Developmental Biology.
2012-pres. Laboratory in Genetics and Cell Biology.
2024-pres. Foundations of Biological Sciences I.
2011-2023 Seminar Courses (various).
2014-2017 Developmental Genetics.

Internal Service

Faculty Senate (2025-present).
Academic Policy Committee (2025-present).
Graduate Program Review Committee (2025-present).
Internal reviewer for the Spanish BA program at UWM (2024)
Co-chair Search Committee for Shaw Professor of Biology (2023).
Co-chair Search Committee for Assistant Professor of Cell Biology (2022).
Co-director of Neuroscience BS program (2022-present).
Biological Sciences Graduate Committee (2021).
Course and Curriculum Committee (2021-present).
Chair of Neuroscience Seminar Committee (2020-2021).

Chair of the Biological Sciences Awards Committee (2020-present).
Organizer of the UWM Neuroscience Seminars (2020-2023).
Reviewer for RACAS proposals (2019).
Planning and Policy Committee (2018-2020; 2023-present).
Search Committee for Genetics Assistant Professor (2017-2018).
GER course change committee (2017).
Internal reviewer Shaw Scientist proposals (2016).
Biological Sciences Award Committee (2016-2019).
Biological Sciences Personnel Committee (2014-2017; 2022-present).
Reviewer for FRACAS proposals (2014).
Biological Sciences Space Committee (2012- 2014).
Search Committee for Anatomy and Physiology lecturer (2012).
Liaison to the Library (2011-present).
Biological Sciences Colloquium Committee (2010-2011).
Curriculum Committee for reorganization of BioSci 316 (2010-2011).

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, *micropublication Biology, Neurotoxicology, Biochemical Genetics, Molecular Neurobiology,*

Textbook review: *Principals of Life.*

Grant reviews: National Institutes of Health, National Science Foundation (USA), Swiss National Science Foundation, European Rare Disease Foundation.

Program review: External Reviewer for the Biochemistry and Biotechnology Program at the University of Missouri-St. Louis.

Advisory Boards: CureMAPK8IP3 Foundation Scientific Advisory Board, Undiagnosed Diseases Network Therapeutic Matching Committee on *CACNA1C.*

Publications

1. Chowdhury TA*, **Quinn CC**** (2026) *How the nuclear RNA exosome protects against axon degeneration: A potential role for the RBM26/27 RNA binding proteins. Neural Regen Res., in press.*

2. Nguyen APT**, Nguyen LTN, Stokke BA* and **Quinn CC**** (2025) Roles of LRRK2 and its orthologs in protecting against neurodegeneration and neurodevelopmental defects. *Front. Cell Dev. Biol.* 13:1569733.

3. Chowdhury TA, Luy DA, Farache D, Lee ASY, **Quinn CC** (2024). Ortholog of autism candidate gene *RBM27* regulates mitoribosomal assembly factor MALS-1 to protect against mitochondrial dysfunction and axon degeneration during neurodevelopment *PLoS Biology* 22(10): e3002876.

4. Drozd CJ, Chowdhury TC, **Quinn CC.** (2024) UNC-16 interacts with LRK-1 and WDFY-3 to regulate the termination of axon growth**.** *Genetics***,** 227(2): iyae053.

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

6. 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,* 18(11): e1010521.

7. Buddell T, **Quinn C** (2022). A null allele in the *wdfy-3* selective autophagy gene of *C. elegans*. *microPublication Biology,* 10.17912/micropub.biology.000598.

8. 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,* 10.17912/micropub.biology.000378

9. 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.

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

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

12. 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.

13. 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.

14. 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.

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

16. **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.

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

18. **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.

19**. 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.

20. 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.

21. 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.

22. 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.

23. 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.

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