

Ileana Soto, Ph.D.
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EDUCATION

2005 Ph.D., Biology/Anatomy, University of Puerto Rico, Rio Piedras, PR, *Academic Excellence Award*.
1999 B.S., General Sciences, University of Puerto Rico, Rio Piedras, PR, *Magna cum Laude*.

RESEARCH EXPERIENCE

Assistant Professor **July 2022- Present**
Providence College
Investigating the role of lysosomal-metabolic signaling in microglia and neurons during development and neurodegeneration.

Associate Professor **September 2015-2022**
Rowan University
Investigating the role of lysosomal function in microglia and neurons during development and neurodegeneration.

Research Associate **September 2012-July 2015**
The Jackson Laboratory
Advisor: Gareth Howell, Ph.D.
Investigated the contribution of age-related cerebrovascular dysfunction to Alzheimer's disease pathogenesis

Postdoctoral Research Fellow **September 2009-August 2012**
The Jackson Laboratory
Advisor: Simon W John, Ph.D.
Studied the role of neuroinflammation and the complement pathway in glaucoma pathogenesis

Postdoctoral Research Fellow **January 2006-August 2009**
Department of Neuroscience, John Hopkins University School of Medicine
Advisor: Nicholas Marsh-Armstrong, Ph.D.
Project Collaborator: Harry A. Quigley, M.D.
Neuronal and glial molecular changes involved in glaucoma neurodegeneration

Graduate Student **August 1999-May 2005**
University of Puerto Rico, Institute of Neurobiology
Advisor: Rosa E. Blanco, Ph.D.
Effects of neurotrophic factors in neuronal survival and axonal regeneration after injury

TEACHING EXPERIENCE

- 2022 Assistant Professor, Biology Department,
Providence College, Providence, RI
Courses: *Cellular Biology & Molecular Genetics, Neurobiology.*
- 2021 Associate Professor, Molecular & Cellular Biosciences Department,
Rowan University, Glassboro, NJ
Courses: *Special Topics in Molecular & Cellular Biology: Neurodegenerative Diseases, Human Physiology, and Molecular & Cellular Neuroscience.*
- 2015 Assistant Professor, Molecular & Cellular Biosciences Department,
Rowan University, Glassboro, NJ
Courses: *Introduction to Cell Biology, Special Topics in Biological Sciences, Human Physiology, and Molecular & Cellular Neuroscience.*
- 2015 Visiting instructor for *Introduction to Immunology* tutorial. College of the Atlantic,
Bar Harbor, ME
- 2014 Visiting instructor for *Introduction to Neurobiology* course. College of the Atlantic,
Bar Harbor, ME
- 2013 Guest lecturer in *Topics of Biomedical Research* class at College of the Atlantic.
Blood Brain Barrier structure and function in health and disease. Bar Harbor,
ME
- 2012 Guest lecturer in *Experimental Design Utilizing Cutting Edge Techniques* course
at The Jackson Laboratory. One lecture on *Optogenetics*. Course for the JAX
Summer Student Program. Bar Harbor, ME
- 2004 Teaching Assistant for the *Cell Biology and Histology* medical course, Medical
Sciences Campus, University of Puerto Rico, San Juan, PR
- 2003 Teaching Assistant for the *Cellular and Molecular Biology* undergraduate course,
University of Puerto Rico, Rio Piedras, PR

HONORS AND AWARDS

- 2020-2021 Mentoring Institute for Neuroscience Diversity Scholars (MINDS) Fellow
2018-2019 Rowan University Seed Funding Program
2009-2011 The Jackson Laboratory Postdoctoral Fellowship, NIH training grant
2006-2007 Visual Neuroscience Training Program, National Eye Institute training grant,
Wilmer Eye Institute/Neuroscience Department, Johns Hopkins University
2005 Research Excellence Award, Biomedical Sciences, School of Medicine,
University of Puerto Rico
2003-2005 Alliance for Graduate Education and the Professoriate Fellowship,
University of Puerto Rico

- 2003 Recipient of the Outstanding Student in Research Award from the Associate Deanship of Biomedical Sciences, School of Medicine, University of Puerto Rico
- 2001 Summer Program in Neuroscience, Excellence and Success (SPINES), Marine Biological Laboratory, Woods Hole, MA
- 2000-2003 Diversity Program in Neuroscience fellowship from the American Psychological Association
- 1999 NIH Summer Internship; National Eye Institute, Bethesda, MD

PROFESSIONAL ACTIVITIES

- 2022 -*Ad hoc* Reviewer manuscript for Journal of Cell Physiology (JCP)
 -NIH Special Emphasis Panel/Scientific Review Group 2023/01 ZRG1 CB-J (30)
 -NIH Special Emphasis Panel/Scientific Review Group 2022/10 ZRG1 F05-Q (20)
- 2020 -Invited Panelist “Transitions Academy - Postdoc Session: Taking Control of the Journey Toward your Independent Career” at ASCB-CELL BIO virtual 2020
 -Invited Panelist “NSF-CAREER Workshop” at Rowan University
- 2019 -Invited Panelist for Professional Development Workshop at Society for Neuroscience (SFN) 2019
 -Workshop Presenter at the Rowan ASCEND Leadership Conference
- 2018 -*Ad hoc* Reviewer, manuscript for Frontiers in Neuroscience
- 2017 -*Ad hoc* Reviewer, grant proposal for the Alzheimer’s Society
 -Invited Panelist, Rutgers University 2017 Postdoctoral Symposium
- 2015 -*Ad hoc* Reviewer, manuscript for PLOS-Biology
 -*Ad hoc* Reviewer, proposal for the Fight for Sight Foundation
- 2014 -*Ad hoc* Reviewer, manuscripts for PLOS-One
- 2012 -*Ad hoc* Reviewer, grant for US-Israel Binational Science Foundation
 -*Ad hoc* Reviewer, manuscript for PLOS-One

UNIVERSITY AND DEPARTMENTAL SERVICE

- 2015-2017 -Election committee, Biological Sciences Department
- 2015-2021 -Academic advising committee, Molecular & Cellular Biosciences Dept.
- 2019 -Search committee, head for Rowan Biological Sciences and Molecular & Cellular Biosciences departments
 -College of Science & Math Academic Dismissal Appeals committee
- 2020-2021 -Search committee, Dean of the College of Science & Mathematics
 -Doctoral Thesis Committee member at University of Puerto Rico
- 2021 -Search committee, Associate Dean of the College of Science & Mathematics

2021-2022 -Member of School of Osteopathic Medicine-RU IACUC committee
 -Member of Rowan University Senate Research committee
 -MCB Department Diversity, Equity and Inclusion committee
 - CSM Research Adjusted Load committee

2022-Present - Providence College Environmental Health & Safety committee

CURRENT AND FORMER TRAINEES (*Publication co-authorship)

Present *Sarah Kim, Rowan University, NJ
 Master student, Molecular & Cellular Biosciences Department

Present *Sierra Melli, Rowan University, NJ
 Master student, Molecular & Cellular Biosciences Department

Present Kathleen Ochoa, Rowan University, NJ
 Chemistry & Biochemistry Department

Present Giana McIntyre, Rowan University, NJ
 Molecular & Cellular Biosciences Department

Present Esteban Delgado, Rowan University, NJ
 Molecular & Cellular Biosciences Department

Present Aela Williams, Rowan University, NJ
 Chemistry & Biochemistry Department

Present James Bolish, Rowan University, NJ
 Chemistry & Biochemistry Department

Present Zerian Barrera, Rowan University, NJ
 Biological Science Department

2020 Emily Tran, Rowan University, NJ
 Biological Science Department

2020 Yashaswi Parikh, Rowan University, NJ
 Biological Science Department

2020 Amaal Khan, Rowan University, NJ
 Molecular & Cellular Biosciences Department

2020 Serwah Danquash, Rowan University, NJ
 Chemistry & Biochemistry Department

2020 Elizabeth Saffarian, Rowan University, NJ

- Biological Science Department
- 2020 Toheeb Akinsanyan, Rowan University, NJ
Biological Science Department
- 2020 Boladale Ashiru, Rowan University, NJ
Biological Science Department
- 2020 *Mariella Vasquez, Rowan University, NJ
Biological Science Department
- 2019-2020 Vincent Wilson, Rowan University, NJ
Biological Science Department
- 2018-2020 *Ruth Altreche, Rowan University, NJ
Biological Science Department
- 2017-2021 *Fawad Yousufzai, Rowan University, NJ
Molecular & Cellular Biosciences Department
- 2017-2020 *Zachary Padron, Rowan University, NJ
Molecular & Cellular Biosciences Department
- 2018-2020 *Bridget Boyle, Rowan University, NJ
Molecular & Cellular Biosciences Department
- 2016-2019 *Larisa Kavetsky, Rowan University, NJ
Molecular & Cellular Biosciences Department
- 2017-2018 *Kayla Green, Rowan University, NJ
Biological Science Department
- 2018 Ernest Wallace, Rowan University, NJ
Biological Science Department
- 2016 Jamil Miller Rowan University, NJ
Biological Science Department
- 2016 Rushelle Mundel, Rowan University, NJ
Biological Science Department
- 2016 Constantine J Pella, Rowan University, NJ
Biological Science Department
- 2105 Iohana Pagnoncelli, exchange student at Rowan University, NJ
Molecular & Cellular Biosciences Department

- 2015 Mary K Helf, Rowan University, NJ
Biological Science Department
- 2015 Haley Magee, Rowan University, NJ
Psychology Department
- 2015 Maribel Juarez, Rowan University, NJ
Biochemistry Department
- 2014 *Hannah Richter, Undergraduate student at Beloit College, WI
The Jackson Laboratory Summer Student Program
- 2014 *Weronika Grabowska, Undergraduate student at the College of the Atlantic, ME
The Jackson Laboratory Research Internship
- 2013 *Jake Radell, Undergraduate student at Wesleyan University, CT
The Jackson Laboratory Summer Student Program
- 2011-2012 *Joseph Kief, Senior student at Mount Desert Island High School, ME
The Jackson Laboratory Research Internship
- 2011 *Cai John, Senior student at Mount Desert Island High School, ME
Summer Research Internship at the Jackson Laboratory
- 2007-2009 *Janice Son, Undergraduate student at Johns Hopkins University, MD
Undergraduate research assistant
- 2007 Ileana Lorenzini, Graduate student at Johns Hopkins University, MD
Neuroscience department rotation student
- 2008 *Teresa Lopez-Roca, Medical student at Medical Science Campus UPR, PR
Summer Internship at Johns Hopkins University
- 2006 Anthony Diaz-Santana, Undergraduate student at University of Puerto Rico,
PR Summer Internship at Johns Hopkins University
- 2004-2005 *Teresa Lopez-Roca, Undergraduate student at University of Puerto Rico, PR
Undergraduate research assistant

INVITED TALKS

- 2019 "Increased Interactions and Phagocytosis of Dendrites by Microglia Precede Purkinje Cell Degeneration in a Mouse Model of Niemann Pick Type C Disease."
Institute of Neurobiology, University of Puerto Rico, May 24, 2019.

- 2019 “Frogs, Mice and Neurodegenerative diseases, how did I get here?” The Jackson Laboratory, July 29, 2019.
- 2020 “An impaired cerebellar postnatal development precedes neurodegeneration in Niemann-Pick Type C disease” Delaware State University, February 13, 2020.
- 2021 “Disruption of cerebellar postnatal development precedes neurodegeneration of Purkinje cells in a mouse model of Niemann-Pick Type C disease” University of Wisconsin-Milwaukee, March 19, 2021. (Virtual Presentation)
- “Deficits in Postnatal Development Precede Degeneration of Purkinje Cells in a Mouse Model of Niemann-Pick Type C Disease” Rowan University School of Osteopathic Medicine, September 16, 2021. (Virtual Presentation)
- 2022 “Connecting disruptive lysosomal-metabolic signaling and neurodevelopmental deficits: a novel role for metabolic balance in Purkinje cell dendritic development” University of Massachusetts-Dartmouth Biology Seminar Series, October 2, 2022.

SOCIETY AND ORGANIZATIONS MEMBERSHIPS

- 2001-Present Society for Neuroscience (SFN)
 2016-Present Faculty for Undergraduate Neuroscience (FUN)
 2017-Present The American Society of Cell Biology (ASCB)

PUBLICATIONS

Peer reviewed articles:

1. Boyle BR, Melli SE, Altreche RS, Padron ZM, Yousufzai FAK, Kim S, Vasquez MD, Carone DM, Carone BR and **Soto I** (2020). NPC1 deficiency impairs cerebellar postnatal development of microglia and climbing fiber refinement in a mouse model of Niemann-Pick Type C disease. *Development*. 147 (21): dev189019. doi: 10.1242/dev.189019.
2. Graham LC, Kocalis HE, **Soto I**, Howell GR (2020). Deficiency of complement component C1Q prevents cerebrovascular damage and white matter loss in a mouse model of chronic obesity. *eNeuro*. Apr 8: ENEURO.0057-20.2020. doi: 10.1523/ENEURO.0057-20.2020.
3. Kavetsky L, Green KK, Boyle BR, Yousufzai FAK, Padron ZM, Melli SE, Kuhnel VL, Jackson HM, Blanco RE, Howell GR, **Soto I** (2019). Increased interactions and engulfment of dendrites by microglia precede Purkinje cell degeneration in a mouse model of Niemann Pick Type-C. *Sci Rep*. 9(1):14722. doi:10.1038/s41598-019-51246-1.
4. Buchanan RA, Foley KE, Pepper KW, Reagan AM, Keezer KJ, Hewes AA, Diemler CA, Preuss C, **Soto I**, John SWM, Howell GR (2019). Meox2 Haploinsufficiency Accelerates Axonal Degeneration in DBA/2J Glaucoma. *Invest Ophthalmol Vis Sci*. Aug 1;60(10):3283-3296. doi: 10.1167/iovs.18-26126.

5. Onos KD, Uyar A, Keezer KJ, Jackson HM, Preuss C, Acklin CJ, O'Rourke R, Buchanan R, Cossette TL, Sukoff Rizzo SJ, **Soto I**, Carter GW, Howell GR (2019). Enhancing face validity of mouse models of Alzheimer's disease with natural genetic variation. *PLoS Genet.* 15(5):e1008155. doi: 10.1371/journal.pgen.1008155.
6. Harder JM, Williams PA, **Soto I**, Foxworth NE, Fernandes KA, Freeburg NF, Libby RT, John SWM (2018). Jnk2 deficiency increases the rate of glaucomatous neurodegeneration in ocular hypertensive DBA/2J mice. *Cell Death Dis.* 9(6):705. doi: 10.1038/s41419-018-0705-8.
7. **Soto I**, Grabowska WA, Onos KD, Graham LC, Jackson HM, Simeone SN, Howell GR (2016). Meox2 haploinsufficiency increases neuronal cell loss in a mouse model of Alzheimer's disease. *Neurobiol Aging* 42:50-60. doi: 10.1016.
8. Graham LC, Harder JM, **Soto I**, de Vries WN, John SW, Howell GR (2016). Chronic consumption of a western diet induces robust glial activation in aging mice and in a mouse model of Alzheimer's disease. *Sci Rep.* 2016 Feb 18;6:21568. doi: 10.1038/srep21568.
9. **Soto I**, Graham LC, Richter HJ, Simeone SN, Radell JR, Grabowska W, Howell MC, Howell GR (2015). APOE stabilization by exercise prevents aging neurovascular dysfunction and complement induction. *PLOS Bio* Oct 29;13(10).
10. **Soto I**, Howell GR, John CW, Kief JL, Libby RT and John SW (2014). DBA/2J mice are susceptible to diabetic nephropathy and diabetic exacerbation of IOP elevation. *PLOS One* Sep 10;9(9):e107291
11. Howell GR, **Soto I***, Ryan M, Graham LC, Smith RS, John SW (2013). Deficiency of complement component 5 ameliorates glaucoma in DBA/2J mice. *J Neuroinflammation* 10:76. ***Co-first author.**
12. Jackson HM, **Soto I**, Graham LC, Carter GW, Howell GR (2013). Clustering of transcriptional profiles identifies changes to insulin signaling as an early event in a mouse model of Alzheimer's disease. *BMC Genomics* 14:831
13. Howell GR, **Soto I**, Zhu X, Ryan M, Macalinao DG, Sousa GL, Caddle LB, Macnicoll KH, Barbay JM, Porciatti V, Anderson MG, Smith RS, Clark AF, Libby RT, John SW (2012). Radiation treatment inhibits monocyte entry into the optic nerve head and prevents neuronal damage in a mouse model of glaucoma. *J Clin Invest* 122: 1246-61.
14. Nair KS, Hmani-Aifa M, Ali Z, Kearney AL, Ben Salem S, Macalinao DG, Cosma IM, Bouassida W, Hakim B, Benzina Z, **Soto I**, Söderkvist P, Howell GR, Smith RS, Ayadi H, John SW (2011). Alteration of the serine protease PRSS56 causes angle-closure glaucoma in mice and posterior microphthalmia in humans and mice. *Nat Genet* 43:579-84.
15. Howell GR, Macalinao DG, Sousa GL, Walden M, **Soto I**, Kneeland SC, Barbay JM, King BL, Marchant JK, Hibbs M, Stevens B, Barres BA, Clark AF, Libby RT, John SW (2011). Molecular clustering identifies complement and endothelin induction as early events in a mouse model of glaucoma. *J Clin Invest.* 121:1429-44.
16. Nguyen JV, **Soto I**, Kim KY, Bushong EA, Oglesby E, Valiente-Soriano FJ, Yang Z, Davis CH, Bedont JL, Son JL, Wei JO, Buchman VL, Zack DJ, Vidal-Sanz M, Ellisman MH, Marsh-Armstrong N (2011). Myelination transition zone astrocytes are constitutively

phagocytic and have synuclein dependent reactivity in glaucoma. *Proc Natl Acad Sci U S A*. 108:1176-81.

17. **Soto I**, Pease ME, Son J, Shi X, Quigley HA, and Marsh-Armstrong N (2011). Retinal Ganglion Cell Loss in a Rat Ocular Hypertension Model is Sectorial and involves Early Optic Nerve Axon Loss and Astrocyte Reactivity. *Invest Ophthalmol Vis Sci* 52:434-41.
18. Son J, **Soto I***, Oglesby E, Lopez-Roca T, Pease ME, Quigley HA, and Marsh-Armstrong N (2010) Glaucomatous Optic Nerve Injury Involves Early Astrocyte Reactivity and Late Oligodendrocyte Loss. *Glia* 58:780-9. ***Co-first author**.
19. Blanco RE, **Soto I**, Duprey-Díaz M, Blagburn JM (2008). Up-regulation of brain-derived neurotrophic factor by application of fibroblast growth factor-2 to the cut optic nerve is important for long-term survival of retinal ganglion cells. *J Neurosci Res* 86:3382.
20. Bosco A, Inman DM, Steele MR, Wu G, **Soto I**, Marsh-Armstrong N, Hubbard WC, Calkins DJ, Horner PJ, Vetter ML (2008). Reduced retina microglial activation and improved optic nerve integrity with minocycline treatment in the DBA/2J mouse model of glaucoma. *Invest Ophthalmol Vis Sci* 49:1437-46
21. **Soto I**, Oglesby E, Buckingham BP, Son JL, Roberson ED, Steele MR, Inman DM, Vetter ML, Horner PJ, Marsh-Armstrong N (2008). Retinal ganglion cells downregulate gene expression and lose their axons within the optic nerve head in a mouse glaucoma model. *J Neurosci* 28: 548-61 (Cover illustration)
22. **Soto I**, Lopez-Roca TH, Blagburn J, Blanco RE (2006). Changes in nNOS and NADPH diaphorase in frog retina and tectum after axotomy and FGF-2 application. *Brain Res* 1103 (1): 65-75.
23. **Soto I**, Rosenthal J, Blagburn J, Blanco RE (2006). Fibroblast growth factor 2 applied to the optic nerve after axotomy increases BDNF and TrkB in ganglion cells by activating the ERK and PKA signaling pathways. *J Neurochem* 96:82-96
24. Ríos-Muñoz W, **Soto I***, Blagburn J, Blanco RE (2005). Fibroblast growth factor 2 applied to the optic nerve after axotomy increases Bcl-2 and Bcl-x and decreases Bax in ganglion cells by activating the ERK signaling pathway. *J Neurochem* 93: 1422-33. ***Co-first author**
25. **Soto I**, Marie B, Baro DJ, Blanco RE (2003). FGF-2 modulates expression and distribution of GAP-43 in frog retinal ganglion cells after optic nerve injury. *J Neurosci Res* 73: 507-517.
26. Duprey-Díaz M, **Soto I**, Blagburn J, Blanco RE (2002). Changes in brain-derived neurotrophic factor and trkB receptor in the adult *Rana pipiens* retina and optic tectum after optic nerve injury. *J Comp Neurol* 454: 456-469.

Reviews:

1. **Soto I**, Krebs M, Reagan A and Howell GR (2019). Vascular Inflammation Risk Factors in Retinal Disease. *Annual Review of Vision Science*. 5:99-122. doi:10.1146/annurev-vision-091517-034416.
2. **Soto I** and Howell GR (2014). The Complex Role of Neuroinflammation in Glaucoma. *Cold Spring Harb Perspect Med*. Jul 3; 4(8). (Cover illustration)

3. Howell GR, **Soto I**, Libby R, John SW (2012). Intrinsic axonal degeneration pathways are critical for glaucomatous damage. *Exp Neurol*, 246:54-61.
 4. Nickells RW, Howell GR, **Soto I**, and John SWM (2012). Under Pressure: Cellular and Molecular Responses in Glaucoma. *Annual Review of Neuroscience*, Vol. 35: July 2012.
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RECENT PRESENTATIONS

2020 Michael, Marcia, and Christa Parseghian Scientific Conference for Niemann-Pick Type C (virtual). “NPC1 deficiency impairs cerebellar postnatal development of microglia and climbing fiber refinement in a mouse model of Niemann-Pick Type C disease”
Ileana Soto, Bridget Boyle, Sierra Melli, Ruth Altreche, Zachary Padron, Fawad Yousufzai, Sarah Kim, Mariella Vasquez, Dawn Carone, Benjamin Carone (poster presentation).

2019 Society for Neuroscience meeting in Chicago IL. “Pathological changes in microglia during cerebellar postnatal development in a mouse model of Niemann Pick type-C disease”
Ruth Altreche, Bridget Boyle and Ileana Soto (poster presentation).

2018 Society for Neuroscience meeting in San Diego CA. “Phagocytic Response in Microglia Correlates with Severity of Neurodegeneration and Behavioral Deficits in the NPC1^{nmf164} Mutant Mouse”
Larisa Kavetsky, Kayla Green, Victoria Kuhnel and Ileana Soto (poster presentation).

2017 The Cell Biology of Degeneration and Repair in the Nervous System Doorstep Meeting in Philadelphia PA. “Phagocytic Response in Microglia/Macrophages Correlates With Severity of Neurodegeneration and Behavioral Deficits in the NPC1^{nmf164} Mutant Mouse”
Larisa Kavetsky, Kayla Green, Victoria Kuhnel and Ileana Soto (poster presentation).

2016 Cold Spring Harbor Laboratory meeting: Glia in Health and Disease
“Neuroinflammatory responses precede loss of Purkinje neurons in the NPC1^{nmf164} mouse model of Niemann Pick Type-C disease”
Ileana Soto, Iohana Pagnoncelli, Rushelle Mundell, Constantine Pella, Marie K Helf, and Maribel Juarez (poster presentation).

2016 Michael, Marcia, and Christa Parseghian Scientific Conference for Niemann-Pick Type C in Tucson AZ. “Neuroinflammatory responses precede loss of Purkinje neurons in the NPC1^{nmf164} mouse model of Niemann Pick Type-C disease”
Ileana Soto, Iohana Pagnoncelli, Rushelle Mundell, Constantine Pella, Marie K Helf, and Maribel Juarez (poster presentation).

2014 Cold Spring Harbor Laboratory meeting: Glia in Health and Disease
“Lifestyle choices to protect the aging brain- Preserving Apoe expression and reversing neurovascular decline” Soto I, Graham LC, Simeone SN and Howell GR (oral presentation).

RESEARCH SUPPORT

Active Grants:

1. NIH Academic Research Enhancement Award (AREA/R15):

“Elucidating the impact of the Npc1nmf164 mutation in the cerebellar postnatal development of a mouse model of Niemann-Pick Type C disease”

Role: Principal Investigator.

Awarded: \$418,093, 7/1/2018 - 6/30/2021.

2. NIH Bridges to baccalaureate program (R25): *Cumberland Bridges to Rowan: A Partnership between Rowan University and Cumberland County College.*

Principal Investigator: Alison Krufka, Ph.D., IS role: Mentor

Awarded: 9/1/2017-8/31/2022.

3. NSF CAREER:

“CAREER: Metabolic control of Purkinje Cell dendritic development and mouse behavior”

Role: Principal Investigator.

Awarded: \$511,767; 04/01/2020 - 03/31/2025.

Completed Research Funding:

1. Rowan University Seed Funding Program – In this application I proposed to test a high-Thiamine diet in NPC1 mutant mice.

Role: Principal Investigator.

Awarded: \$9,833, 7/1/ 2018 - 6/29/ 2019.