

ERIC R. WENGERT PHD

Pronouns: he/him/his

EDUCATION AND EMPLOYMENT

Geisinger College of Health Sciences Assistant Professor of Neuroscience Department of Medical Education Director of AI	<i>September 2025-present</i>
Children's Hospital of Philadelphia Postdoctoral Fellow Advisor: Ethan M. Goldberg MD PhD	<i>July 2021-September 2025</i>
University of Virginia PhD in Neuroscience Advisor: Manoj K. Patel PhD Committee: Jaideep Kapur (Chair), Howard Goodkin, Mark Beenhakker, and Ali Guler Thesis: <i>Mechanisms and Treatment of SCN8A Epileptic Encephalopathy</i>	<i>July 2016 - May 2021</i> Overall GPA: 4.0
Bucknell University B.S. in Neuroscience Minor in Philosophy	<i>August 2012 - May 2016</i> Overall GPA: 3.99

TEACHING EXPERIENCE

Lecturer, University of Pennsylvania Co-instructor for NRSC 3492: Experimental Methods in Synaptic Physiology	<i>January-May 2025</i>
Visiting Assistant Professor of Biology, Bryn Mawr College BIO202 Introduction to Neurobiology	<i>January-May 2024</i>
Visiting Assistant Professor of Biology, Haverford College BIO302 Advanced Lab in Neurobiology ("Superlab")	<i>July-December 2023</i>
Adjunct Professor, Eastern Mennonite University BIOL451/PSYC451 Neuropsychology	<i>January-May 2020</i>

FELLOWSHIPS AND SCHOLARSHIPS

Holt Family Epilepsy Research Fellowship Inaugural awardee of the one-year postdoctoral fellowship at the Children's Hospital of Philadelphia	<i>June 2022</i>
F32 Ruth L. Kirschstein National Research Service Award NIH postdoctoral training fellowship	<i>May 2022</i>
F31 Ruth L. Kirschstein National Research Service Award NIH predoctoral training fellowship	<i>September 2019</i>
Presidential Fellowship for Collaborative Neuroscience One-year predoctoral fellowship. Declined due to F31 NRSA fellowship.	<i>July 2019</i>
Double-Hoo Research Award Collaborative grant between one undergraduate and one graduate student at the University of Virginia	<i>May 2019</i>
Robert R. Wagner Fellowship One-year fellowship awarded to an outstanding graduate student at the University of Virginia	<i>June 2018</i>
Lenfest College Scholarship Academic scholarship awarded to students from rural Pennsylvania	<i>April 2011</i>

ACADEMIC AWARDS AND HONORS

- American Epilepsy Society Young Investigator Award** *December 2023*
This award recognizes young investigators conducting basic, translational, or clinical epilepsy research
- Cute Syndrome Foundation Cuties Award** *December 2021*
Annual award given to honor an individual who is a Champion for Understanding, Treating, Investigating, and Empowering those with SCN8A epilepsy
- UVA Neuroscience Graduate Program Outstanding Student Award** *May 2021*
Annual award given to the individual selected by faculty as the top neuroscience graduate student
- Bucknell University Prize for Men** *May 2016*
Awarded to the male of the graduating class with the highest cumulative GPA
- Bucknell University Prize in Neuroscience** *May 2016*
Awarded to the member of the graduating class demonstrating excellence in neuroscience
- Bucknell University Award for Academic Excellence** *May 2015 and 2016*
Awarded to the Residential Advisor with the highest cumulative GPA
- President's Award for Distinguished Academic Achievement** *September 2013 and 2014*
Awarded to students achieving a perfect 4.0 cumulative GPA

PROFESSIONAL MEMBERSHIPS

- Society for Neuroscience** *September 2022-Present*
Member
- American Epilepsy Society** *December 2017-Present*
Member
- Phi Beta Kappa** *May 2015-Present*
Member

INVITED RESEARCH TALKS

- Haverford College Biology Seminar Series** *November 2023*
- Bucknell University Neuroscience Seminar Series** *March 2023*
- Cute Syndrome Foundation Family, Researcher, Clinician Gathering** *December 2021*
- Suter Science Seminar Series Guest Speaker** *April 2021*
Eastern Mennonite University
- Platform Presentation American Epilepsy Society** *December 2020*
Research seminar presented for session on Translational Research/Genetics.

SCIENTIFIC OUTREACH

- Invited Guest Speaker Davidson College** *April 2023*
Class Presentation to BIOL161 Being Human in STEM course
- Guest Speaker Tech Freire Charter High School** *Annually from 2021-2025*
Introductory neuroscience presentation to high school seniors at Tech Freire Public Charter High School in North Philadelphia.
- Invited Speaker Cute Syndrome Foundation** *December 2018-2023*
Lecture delivered to families of children with SCN8A epileptic encephalopathy at annual research roundtable gathering

Authentic Applications Speaker Series

Neuroscience lecture delivered to Charlottesville High School STEM teachers

December 2019

Brain Awareness Week

K-12 classroom neuroscience demonstrations

2017-2020

INVITED PEER REVIEW

Frontiers in Physiology

Neuron Served as peer-reviewer alongside Ethan Goldberg with editor permission

Journal of Neuroscience Served as peer-reviewer alongside Ethan Goldberg with editor permission

PUBLICATIONS

*indicates co-first author

Mentored student trainees are underlined

RESEARCH ARTICLES IN PREPARATION/REVISION/PRESS

Eric Wengert, Patrick Lawlor, Melody Cheng, Benjamin Kennedy, Vijay Balasubramanian, and Ethan Goldberg (2026). Selective Inhibitory Interneuron Failure Underlying Temperature-dependent Seizures. Pending Resubmission *Science Translational Medicine*.

Shridhar Parthasarathy, Stacey Cohen, Eryn Fitch, ..., **Eric Wengert**, ..., Ethan Goldberg, ..., and Ingo Helbig (2025). Optimizing clinical interpretability of functional evidence in epilepsy-related ion channel variants. In Review at *AJHG*.

RESEARCH ARTICLES

Eric Wengert and Roshan Jain (2026). Comparative Investigations of the Neurophysiological Mechanisms of Escape Behavior: A Course-based Undergraduate Research Experience. Accepted. *Journal of Undergraduate Neuroscience Education*.

Eric Wengert, Melody Cheng, Sophie Liebergall, Kelly Markwalter, Yerahm Hong, Ala Somarowthu, Leroy Arias, Eric Marsh, Xiaohong Zhang, and Ethan Goldberg (2026). Impaired Excitability of Fast-Spiking Interneurons in a Novel Mouse Model of *KCNC1* Epileptic Encephalopathy. *eLife*. 2026 Feb 18. doi:10.7554/eLife.103784

Sophie Hill, **Eric Wengert**, Ethan Goldberg, and Brian Theyel (2025). Interneurons exhibit attenuated ectopic action potential firing in a severe neurodevelopmental disorder. *Journal of Neurophysiology*. 2025 Jun 1 doi:10.1152/jn.00133.2025

Raquel Miralles, Alexis Boscia, Shrinidhi Kittur, Shreya Vundela, **Eric Wengert**, and Manoj Patel (2024). Parvalbumin Interneuron Impairment Leads to Synaptic Transmission Deficits and Seizures in *SCN8A* Epileptic Encephalopathy. *JCI Insight*. 2024 Oct 22. doi:10.1172/jci.insight.181005

Huijie Feng, Jerome Clatot, Keisuke Kaneko, Marco Flores-Mendez, **Eric Wengert**, Carly Koutcher, Emily Hoddeson, Emily Lopez, Demetrius Lee, Leroy Arias, Qiansheng Liang, Xiaohong Zhang, Ala Somarowthu, Manuel Covarrubias, Martin Gunthorpe, Charles Large, Naiara Akizu, Ethan Michael Goldberg (2024). Targeted therapy improves cellular dysfunction, ataxia, and seizure susceptibility in a model of a progressive myoclonus epilepsy. *Cell Reports Medicine*. 2024 Feb 20. doi:10.1016/j.xcrm.2023.101389

Keisuke Kaneko, Christopher Currin, Kevin Goff, **Eric Wengert**, Ala Somarowthu, Tim Vogels, and Ethan Goldberg (2022). Developmentally-regulated impairment of parvalbumin interneuron synaptic transmission in an experimental model of Dravet syndrome. *Cell Reports*. 2022 March 29. doi:10.1016/j.celrep.2022.110580

Eric Wengert, Pravin Wagley, Anne Christiansen, Samantha Strohm, Nuha Reza, Ian Wenker, Ronald Gaykema, Gene Liau, and Manoj Patel (2021). Targeted augmentation of nuclear gene output (TANGO) of *Scn1a* rescues parvalbumin interneuron excitability and reduces seizures in a mouse model of Dravet syndrome. *Brain Research*. 2021 Nov 26. doi:10.1016/j.brainres.2021.147743

Jeremy Thompson, Raquel Miralles, **Eric Wengert**, Pravin Wagley, Wenxi Yu, Ian Wenker, and Manoj Patel (2021). Astrocyte reactivity in a mouse model of *SCN8A* epileptic encephalopathy. *Epilepsia Open*. 2021 Nov 26. doi:10.1002/epi4.12564

Eric Wengert, Raquel Miralles, Kyle Wedgwood, Samantha Strohm, Payal Panchal, Abrar Majidi Idrissi, Ian Wenker, Pravin Wagley, Jeremy Thompson, Ronald Gaykema, and Manoj Patel (2021). Somatostatin-positive interneurons contribute to seizures in *SCN8A* epileptic encephalopathy. *The Journal of Neuroscience*. 2021 Sept 20. doi:10.1523/JNEUROSCI.0718-21.2021

Eric Wengert*, Ian Wenker*, Elizabeth Wagner, Pravin Wagley, Ronald Gaykema, Jung-Bum Shin, and Manoj Patel (2021). Adrenergic mechanisms of seizure-induced sudden death in a mouse model of *SCN8A* encephalopathy. *Frontiers in Neuroscience*. 2021 March 4. doi:10.3389/fnins.2021.581048

Ian Wenker, Frida Teran, **Eric Wengert**, Pravin Wagley, Payal Panchal, Elizabeth Blizzard, Priyanka Saraf, Jacy Wagon, Howard Goodkin, Miriam Meisler, George Richerson, and Manoj Patel (2021). Postictal death is associated with tonic phase apnea in a mouse model of SUDEP. *Annals of Neurology*. 2021 Feb 18. doi:10.1002/ana.26053

Eric Wengert*, Cathrine Tronhjem*, Jacy Wagon, Katrine Johannesen, Hayley Petit, Ilona Krey, Anusha Saga, Payal Panchal, Samantha Strohm, Jorn Lange, Sussanne Kamphausen, Guido Robboli, Johannes Lemke, Elena Gardella, Manoj Patel, Miriam Meisler, and Rikke Moller (2019). Biallelic inherited *SCN8A* variants, a rare cause of developmental and epileptic encephalopathy. *Epilepsia* 2019 Oct 18. doi:10.1111/epi.16371

Eric Wengert, Anusha Saga, Payal Panchal, Bryan Barker, Ronald Gaykema, and Manoj Patel (2019). Prax330 reduces persistent and resurgent sodium channel currents and neuronal excitability in a mouse model of *SCN8A* encephalopathy. *Neuropharmacology*. 2019 July 3. doi:10.1016/j.neuropharm.2019.107699

Rosie Bunton-Stasyshyn*, Jacy Wagon*, **Eric Wengert**, Bryan Barker, Alexa Faulkner, Pravin Wagley, Kritika Bhatia, Julie Jones, Marissa Maniaci, Jack Parent, Howard Goodkin, Manoj Patel, and Miriam Meisler (2019). Prominent role of forebrain excitatory neurons in *SCN8A* encephalopathy. *Brain*. 2019 Jan 2. doi:10.1093/brain/awy324

Erin Baker, Christopher Thompson, Nicole Hawkins, Jacy Wagon, **Eric Wengert**, Manoj Patel, Alfred George, Miriam Meisler, Jennifer Kearney (2018). The novel sodium channel modulator GS-458967 (GS967) is an effective treatment in a mouse model of *SCN8A* encephalopathy. *Epilepsia*. 2018 May 21. doi:10.1111/epi.14196

Jacy Wagon, Niccolo Mancacci, Bryan Barker, **Eric Wengert**, Manoj Patel, and Miriam Meisler (2018). Partial loss-of-function of sodium channel *SCN8A* in familial isolated myoclonus. *Human Mutation*. 2018 May 18. doi:10.1002/humu.23547

Xin Tang, Julie Kim, Li Zhou, Eric Wengert, Lei Zhang, Zheng Wu, Cassiano Carromeu, Alysson Muotri, Fred Gage, and Gong Chen (2016). KCC2 rescues functional deficits of human neurons derived from Rett syndrome patients. *Proc Natl Acad Sci USA*. 2016 Jan 5. doi:10.1073/pnas.1524013113

REVIEW ARTICLES

Eric Wengert and Manoj Patel (2020). The role of the persistent sodium current in epilepsy. *Epilepsy Currents*. 2020 Nov 25. doi:10.1177/1535759720973978

BOOK CHAPTERS

Eric Wengert, Raquel Miralles, and Manoj Patel (2023). Voltage-gated sodium channels as drug targets in epilepsy-related sodium channelopathies. *Ion Channels as Targets in Drug Discovery*. 2024 April 25.

SCIENTIFIC COMMENTARY ARTICLES

Eric Wengert (2021). Learning to unplug. *Science*. 2021 Aug 20. doi:10.1126/science.373.6557.938

Eric Wengert and Manoj Patel (2021). One size doesn't fit all: Variant-specific effects in SCN8A encephalopathy. *Epilepsy Currents*. 2021 March 16. 10.1177/15357597211002206

Eric Wengert (2021). Mentor as you'd want to be mentored. *Science*. 2021 Feb 19. doi:10.1126/science.371.6531.858

PATENTS

Adrenergic Mechanisms of Audiogenic Seizure-induced Death in a Mouse Model of SCN8A Encephalopathy. U.S. Pat. Ser. No. 63/136,439, filed 2022 Jan 12.