Michael B. Hoppa, D. Phil.

Dartmouth College
Department of Biology
Class of 1978 Life Sciences Center
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Education/Training

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
Reed College	BA	05/2004	Biology
University of Oxford (UK)	DPhil	05/2009	Physiology
Weill Cornell Medical College, Cornell University	Postdoctoral	06/2014	Neurobiology

Positions and Employment

2022-Present Director of Neurobiology Summer Program at the Marine Biological Laboratory in Woods Hole, MA

2021-Present Associate Professor, Department of Biology, Dartmouth College, Hanover, NH

2021-Present Co-Director of Graduate Program in Integrative Neuroscience at Dartmouth

2016 -2022 Faculty (Principal Investigator) of Neurobiology Program, MBL, Woods Hole MA

2014-2021 Assistant Professor, Department of Biology, Dartmouth College, Hanover, NH

2011-2014 Faculty (Instructor), Neurobiology Program, MBL, Woods Hole, MA

2009-2014 Postdoctoral Fellow, laboratory of Dr. Timothy Ryan, Weill Cornell Medical College,

2005-2009 Graduate Student (D.Phil), laboratory of Dr. Patrik Rorsman, University of Oxford

2004-2005 Research Assistant, laboratory of Dr. Wolfhard Almers, Vollum Institute, Oregon Health & Science University

2003-2004 Undergraduate Research Thesis, laboratory of Dr. Stephen Arch, Reed College,

Honors

2021 Douglas C. Floren Fellowship

2021 John M. Manley Huntington Award for Newly Tenured Faculty

2018-2023	National Science Foundation, CAREER Award
2017-2020	Klingenstein and Simons Fellowship Award in Neuroscience
2012-2014	Charles H. Revson Senior Fellowship in Biomedical Sciences
2008-2009	Graduate Scholarship, Trinity College, University of Oxford
2007	Graduate Award for Academic Achievement, Trinity College, University of Oxford
2003	Howard Hughes Undergraduate Research Fellowship

Professional Memberships

2023–present	American Society for Cell Biology
2009-present	Society for Neuroscience
2004-present	Biophysical Society

Peer-reviewed Publications and Reviews

28:Ralowicz AJ, Hokeness S., **Hoppa MB***. Frequency of spontaneous neurotransmission at individual boutons corresponds to the size of the readily releasable pool of vesicles. J. Neurosci. 2024, ***In Press.***

27: Abhi Aggarwal, Rui Liu, Yang Chen, Amelia J Ralowicz, Samuel J Bergerson, Filip Tomaska, Boaz Mohar, Timothy L Hanson, Jeremy P Hasseman, Daniel Reep, Getahun Tsegaye, Pantong Yao, Xiang Ji, Marinus Kloos, Deepika Walpita, Ronak Patel, Manuel A Mohr, Paul W Tilberg, The GENIE Project Team, Loren L Looger, Jonathan S Marvin, **Michael B Hoppa**, Arthur Konnerth, David Kleinfeld, Eric R Schreiter, Kaspar Podgorski*. Glutamate indicators with improved activation kinetics and localization for imaging synaptic transmission. Nat Methods. 2023 Jun;20(6):925-934. doi: 10.1038/s41592-023-01863-6.

26: Panzera LC, **Hoppa MB***. Condensing our understanding of endocytosis. Neuron. 2022 Sep 7;110(17):2705-2707. doi: 10.1016/j.neuron.2022.08.002. PMID: 36076334

25: Chipman PH, Fetter RD, Panzera LC, Bergerson SJ, Karmelic D, Yokoyama S, **Hoppa MB**, Davis GW*. NMDAR-dependent presynaptic homeostasis in adult hippocampus: Synapse growth and cross-modal inhibitory plasticity. Neuron. 2022 Oct 19;110(20):3302-3317.e7. doi: 10.1016/j.neuron.2022.08.014. Epub 2022 Sep 6. PMID: 36070750

24: Panzera LC, Johnson B, Quinn JA, Cho IH, Tamkun MM, **Hoppa MB***. Activity-dependent endoplasmic reticulum Ca2+ uptake depends on Kv2.1-mediated endoplasmic reticulum/plasma membrane junctions to promote synaptic transmission. Proc Natl Acad Sci U S A. 2022 Jul 26;119(30):e2117135119. doi: 10.1073/pnas.2117135119. Epub 2022 Jul 21. PMID: 35862456

23: Ralowicz AJ, **Hoppa MB***. Dividing communication, at the nanoscale. Elife. 2022 May 24;11:e79446. doi: 10.7554/eLife.79446. PMID: 35608410

22: Jordan T, Newcomb JM, **Hoppa MB**, Luke GP*. Focused ultrasound stimulation of an ex-vivo Aplysia abdominal ganglion preparation. J Neurosci Methods. 2022 Apr 15;372:109536. doi: 10.1016/j.jneumeth.2022.109536. Epub 2022 Feb 25. PMID: 35227740

21: IH Cho, LC Panzera, M Chin**, SA Alpizar, GE Olveda, RA Hill, **MB Hoppa***. *The Potassium Channel Subunit Kvβ1 serves as a major control point for synaptic facilitation*. Proc Natl Acad Sci U S A.. 2020 Nov 9:202000790. doi: 10.1073/pnas.2000790117. PMID: 33168717

20: Edwards KA, **Hoppa MB**, Bosco G*. *The Photoconvertible Fluorescent Probe, CaMPARI, Labels Active Neurons in Freely-Moving Intact Adult Fruit Flies*. Front. Cell. Neurosci. 2020 May 8;14:22. doi: 10.3389/fncir.2020.00022. PMID: 32457580

19: Perez-Alvarez A, Schulze C, Fearey BC, Moeyaert B, O'Toole RJ, Mohr MA, Arganda-Carreras I, Yang W, Wiegert JS, Schreiter ER, Gee CE, **Hoppa MB**, Oertner T*. *Freeze-Frame Imaging of Synaptic Activity Using SynTagAM.* Nature Communications. 2020 May 18;11(1):2464. doi: 10.1038/s41467-020-16315-4. PMID: 32424147

18: Panzera LC, **Hoppa MB***. *Genetically Encoded Voltage Indicators are Illuminating Subcellular Physiology of the Axon*. Front. Cell. Neurosci., 01 March 2019| doi: 10.3389/fncel.2019.00052 PMID: 30881287

17: Alpizar SA, Cho IH, **Hoppa MB***. *Subcellular Control of Membrane Excitability in the Axon*. Curr Opin Neurobiol. 2019 Feb 19;57:117-125. doi: 10.1016/j.conb.2019.01.020. PMID: 30784979. PMID: 30784979

16: Alpizar SA, Baker AL, Gulledge AT, **Hoppa MB***. *Loss of Neurofascin-186 Disrupts Alignment of AnkyrinG Relative to Its Binding Partners in the Axon Initial Segment*. Front Cell Neurosci. 2019 Jan 22;13:1. doi: 10.3389/fncel.2019.00001. PMID: 30723396.

15: Cho IH, Panzera LC, Chin M**, **Hoppa MB***. Sodium Channel β2 Subunits Prevent Action Potential Propagation Failures at Axonal Branch Points. J Neurosci. 2017 Sep 27;37(39):9519-9533. PMID: 28871036

14: Kyung JW, Cho IH, Lee S, Song WK, Ryan TA, **Hoppa MB***, Kim SH*. Adaptor Protein 2 (AP-2) complex is essential for functional axogenesis in hippocampal neurons. Sci Rep. 2017 Jan 31;7:41620. (*Co-corresponding authors) PMID: 28139716

13: Baumgart JP, Zhou ZY, Hara M, Cook DC, **Hoppa MB**, Ryan TA, Hemmings HC Jr. Isoflurane inhibits synaptic vesicle exocytosis through reduced Ca2+ influx, not Ca2+-exocytosis coupling. Proc Natl Acad Sci U S A. 2015 Sep 22;112(38):11959-64. doi: 10.1073/pnas.1500525112. Epub 2015 Sep 8. PMID: 26351670.

12: **Hoppa MB**, Gouzer G, Armbruster M, Ryan TA. Control and plasticity of the presynaptic action potential waveform at small CNS nerve terminals. Neuron. 2014 Nov 19;84(4):778-89. doi: 10.1016/j.neuron.2014.09.038. Epub 2014 Oct 30. PMID: 25447742.

11: Ariel P, **Hoppa MB**, Ryan TA. Intrinsic variability in Pv, RRP size, Ca(2+) channel repertoire, and presynaptic potentiation in individual synaptic boutons. Front Synaptic Neurosci. 2013 Jan 11;4:9. doi: 10.3389/fnsyn.2012.00009. eCollection 2012. PMID: 23335896.

10: **Hoppa MB**, Lana B, Margas W, Dolphin AC, Ryan TA. α2δ expression sets presynaptic calcium channel abundance and release probability. Nature. 2012 May 13;486(7401):122-5. doi: 10.1038/nature11033. PMID: 22678293.

*** Cited Faculty of 1000

9: **Hoppa MB**, Jones E, Karanauskaite J, Ramracheya R, Braun M, Collins SC, Zhang Q, Clark A, Eliasson L, Genoud C, Macdonald PE, Monteith AG, Barg S, Galvanovskis J, Rorsman P. Multivesicular exocytosis in rat pancreatic beta cells. Diabetologia. 2012 Apr;55(4):1001-12. doi: 10.1007/s00125-011-2400-5. Epub 2011 Dec 22. PMID: 22189485.

*** Highlighted Article with Preview

8: Collins SC, **Hoppa MB**, Walker JN, Amisten S, Abdulkader F, Bengtsson M, Fearnside J, Ramracheya R, Toye AA, Zhang Q, Clark A, Gauguier D, Rorsman P. Progression of diet-induced diabetes in C57BL6J mice involves functional dissociation of Ca2(+) channels from secretory vesicles. Diabetes. 2010 May;59(5):1192-201. doi: 10.2337/db09-0791. Epub 2010 Feb 11. PMID: 20150285.

7: Collins JM, Neville MJ, **Hoppa MB**, Frayn KN. De novo lipogenesis and stearoyl-CoA desaturase are coordinately regulated in the human adipocyte and protect against palmitate-induced cell injury. J Biol Chem. 2010 Feb 26;285(9):6044-52. doi: 10.1074/jbc.M109.053280. Epub 2009 Dec 23. PMID: 20032470.

6: **Hoppa MB**, Collins S, Ramracheya R, Hodson L, Amisten S, Zhang Q, Johnson P, Ashcroft FM, Rorsman P. Chronic palmitate exposure inhibits insulin secretion by dissociation of Ca(2+) channels from secretory granules. Cell Metab. 2009 Dec;10(6):455-65. doi: 10.1016/j.cmet.2009.09.011. PMID: 19945403;

5: Cnop M, Hughes SJ, Igoillo-Esteve M, **Hoppa MB**, Sayyed F, van de Laar L, Gunter JH, de Koning EJ, Walls GV, Gray DW, Johnson PR, Hansen BC, Morris JF, Pipeleers-Marichal M, Cnop I, Clark A. The long lifespan and low turnover of human islet beta cells estimated by mathematical modelling of lipofuscin accumulation. *Diabetologia*. 2010 Feb;53(2):321-30. doi: 10.1007/s00125-009-1562-x. Epub 2009 Oct 24. PMID: 19855953.

4: Li DQ, Jing X, Salehi A, Collins SC, **Hoppa MB**, Rosengren AH, Zhang E, Lundquist I, Olofsson CS, Mörgelin M, Eliasson L, Rorsman P, Renström E. Suppression of sulfonylurea- and glucose-induced insulin secretion in vitro and in vivo in mice lacking the chloride transport protein ClC-3. Cell Metab. 2009 Oct;10(4):309-15. doi: 10.1016/j.cmet.2009.08.011. PMID: 19808023.

3: Pigeau GM, Kolic J, Ball BJ, **Hoppa MB**, Wang YW, Rückle T, Woo M, Manning Fox JE, MacDonald PE. Insulin granule recruitment and exocytosis is dependent on p110gamma in insulinoma and human beta-cells. Diabetes. 2009 Sep;58(9):2084-92. doi: 10.2337/db08-1371. Epub 2009 Jun 23. PMID: 19549714.

2: Karanauskaite J, **Hoppa MB**, Braun M, Galvanovskis J, Rorsman P. Quantal ATP release in rat beta-cells by exocytosis of insulin-containing LDCVs. Pflugers Arch. 2009 Jun;458(2):389-401. doi: 10.1007/s00424-008-0610-6. Epub 2008 Nov 19. PMID: 19018564.

1: Eliasson L, Abdulkader F, Braun M, Galvanovskis J, **Hoppa MB**, Rorsman P. Novel aspects of the molecular mechanisms controlling insulin secretion. J Physiol. 2008 Jul 15;586(14):3313-24. doi: 10.1113/jphysiol.2008.155317. Epub 2008 May 29. Review. PMID: 18511483.

PREPRINTS

1: Ryan J. Farrell, Kirsten G. Bredvik, **Michael B. Hoppa**, S. Thomas Hennigan, Timothy A. Brown, Timothy A. Ryan. A ratiometric ER calcium sensor for quantitative comparisons across cell types and subcellular regions. bioRxiv 2024.02.15.580492; doi: https://doi.org/10.1101/2024.02.15.580492

2: Ulku Cuhadar, Lorenzo Calzado-Reyes, Carlos Pascual-Caro, Aman S. Aberra, Andreas Ritzau-Jost, Abhi Aggarwal, Keiji Ibata, Kaspar Podgorski, Michisuke Yuzaki, Christian Geis, Stefan Haller man, **Michael B. Hoppa**, Jaime de Juan-Sanz. Activity-driven synaptic translocation of LGI1 controls excitatory neurotransmission. bioRxiv 2022.07.03.498586; doi: https://doi.org/10.1101/2022.07.03.498586

3: Margarita Anisimova, Paul J. Lamothe-Molina, Andreas Franzelin, Aman S. Aberra, **Michael B. Hoppa**, Christine E. Gee, Thomas G. Oertner. Neuronal FOS reports synchronized activity of presynaptic neurons. bioRxiv 2023.09.04.556168; doi: https://doi.org/10.1101/2023.09.04.556168

CURRENT FUNDING

Agency:	National Institute of Health
ID#:	1R01NS112365-01A1 –
Project Title:	Neuronal Cell Biology of Kv2.1-induced Endoplasmic Reticulum/Plasma Membrane Contact Sites
P.I.:	Michael Hoppa (MPI with Michael Tamkun)
Project Period:	04/01/2020-03/31/2025
Agency:	National Science Foundation – CAREER Award
Project Title:	CAREER - Modulation of the Presynaptic Action Potential Shape and Impact on Synaptic Function
ID#	1750199
P.I.:	Michael Hoppa
Project Period:	06/01/2018-07/01/24

Agency: National Institute of Health
ID#: R44 MH116748-02A1
Project Title: High Spatiotemporal Resolution Neural Recording System Using Active Sensing
P.I.: Zhao, Youbo (Physical Sciences, Inc.) Co-I Hoppa
Project Periods: 04/2022 – 03/2025

PAST FUNDING

Agency: National Institute of Health
Project Title: Remote Neurostimulation with Ultrasound-activated Piezoelectric Nanoparticle
Direct Costs: $44,000
Indirect Costs $27,280
P.I.: Geoffrey Luke
Project Period: 06/01/2018-07/01/2021

Agency: National Institute of Health
ID#: 5F31NS110192
Project Title: The Action Potential as a Modulator of Synaptic Transmission
Direct Costs $59,000
Indirect Costs $32,000

P.I.: Lauren Panzera (Mentor: Hoppa)
Project Period: 09/19-09/21
Agency: National Institute of Health –P20 BioMT
ID#: GM13132
Project Title: Project 4 PI: Electrogenic Modulation of Signal Decoding in Presynaptic Terminals.
Direct Costs $480,000
Indirect Costs $297,600
P.I.: Michael Hoppa
Project Period: 03/01/18-02/28/22

Agency: Klingenstein Simons Foundation
ID#: FP00003669
Project Title: Mechanisms of Action Potential Modulation of Synaptic Transmission
Direct Costs: $225,000
P.I.: Michael Hoppa
Project Period: 07/01/17-07/01/20

Agency: Brain Research Foundation
ID#: BRFSG-2015-05
Project Title: Ion Channel Trafficking at the Axon Initial Segment
Direct Costs: $80,000
P.I.: Michael Hoppa

Project Period: 06/01/15-07//01/17

PENDING FUNDING

Agency: NIH
ID#: 1 R21 NS135304-01

Agency: NIH
ID# 1R44MH136879 - 01A1

EXTERNAL TALKS

2024 University of Georgia, *Optical approaches to decode synaptic transmission*, April 23, 2024

2024 University of Toledo, *Optical approaches to decode synaptic transmission*, April 18, 2024

2023 ASCB, *New Roles for the ER in synaptic transmission*, Boston MA. December 2nd 2023.

2023 University of Wisconsin, *Optical approaches to decode synaptic transmission. Dec. 5th 2023*

2023 Invited Speaker, Klingenstein-Simons Foundation, Simons Flatiron, New York, NY, May 8th 2023. *Optical approaches to decode synaptic transmission*.

2023 Invited Speaker, Department of Biomedical Sciences, Colorado State University, March 8th 2023. *Optical approaches to decode synaptic transmission*.

2023 Invited Speaker, Department of Biology, New England College, February 14th 2023. *Inside the axon.*

2022 Invited Speaker, Department of Physiology, UC Davis, December 1st, 2022. *Optical approaches to decode synaptic transmission*.

2022 Invited Speaker, Department of Neuroscience, Einstein University, October 12th, 2022. *Optical approaches to decode synaptic transmission*.

2021 Invited Speaker, Cellular and Molecular Basis of Disease Seminar, University of New Mexico, February 5th, 2021. *Decoding Synaptic Transmission with Light*

2020 Keynote Speaker, Dutch Neuroscience Meeting, Netherlands, June 12th, 2020 Using Optical Physiology to Reveal New Mechanisms of Synaptic Facilitation. *(postponed – COVID)*

2020 Invited Speaker, Klingenstein-Simons Foundation, May 19th 2020 (*postponed – COVID*)

2020 Invited Speaker Cornell University, May 18th 2020 *(postponed – COVID; rescheduled and delivered virtually September 21, 2020)*

2020 Invited Speaker Yale University Neuroscience Department, May 4th 2020. "Decoding Potassium Channel Function in Nerve Terminals with Light" *(postponed – COVID)*

2020 Invited Speaker Bates College Biology Department, March 2nd, 2020. "Decoding Potassium Channel Function in Nerve Terminals with Light"

2020 Invited Speaker Winter Brain Conference2020, "Kv2's non-canonical function in synaptic transmission" January 25th

2020 Invited Speaker Columbia University Department of Physiology, January 21st, 2020

2019 Integrative Physiology Initiative in Ion channels and Diseases of Electrically Excitable Cells (OXION) Conference, Oxford University UK, Keynote Speaker. September 29th, 2019 "Decoding Potassium Channel Function in Nerve Terminals with Light"

2019 Janelia Conference Presenter, Cell Biology of Neurons and Circuits II September 23rd 2019, "Presynaptic Kv1beta subunits are necessary for synaptic facilitation in hippocampal neurons"

2019 NERIC Keynote Talk August 15th, 2019 "Decoding Potassium Channel Function in Nerve Terminals with Light"

2019 Invited Speaker to Communicate Science at Richmond Middle School, Hanover NH, Optogenetics a New Technique to Understand the Brain. May 13th, 2019.

2018 Action Potentials are not Binary Signals at the Synaptic Terminal, Max Planck Society, Matter to Life Symposium, Schloss Ringberg, Germany. December 2018.

2018 Mechanisms of Electrogenic Plasticity in Synaptic Transmission, Cornell Medical. New York, NY. October 2018.

2018 FASEB Calcium and Cell Function 2018 Meeting Invited Speaker "New and Notable"; Regulation of presynaptic Ca^{2+} microdomains and synaptic transmission by K^{+} channel variants; Lake Tahoe, CA June, 2018

2018 *Mechanisms Of Electrogenic Plasticity In The Axon And Synaptic Terminals*. Tufts Medical School, Boston MA. April 2018

2018 *Synaptic Transmission New Types of Plasticity*. New England College. April 2018

2017 *Excitement about Presynaptic Action Potentials.* Korean Brain and Neural Science Annual Symposium, Seoul, Korea, September 1st, 2017.

2017 *Excitement about Presynaptic Action Potentials.* Gwangju Institute of Science and Technology, Gwangju, Korea. Aug 29th 2017.

2016 *Excitement about Presynaptic Action Potentials.* Vollum Institute, Oregon Health and Sciences University. Portland, Oregon. Nov. 3rd 2016

2015 *Action potential waveforms and analog modulation of synapses.* Keynote Speaker, Brazilian. Society of Physiology 2015 Bridge to the Future Physiology Symposium SBFis

2014 *Control and plasticity of the presynaptic action potential waveform at small CNS nerve terminals.* University of Alberta, Edmonton, Canada.

2014 *Control and plasticity of the presynaptic action potential waveform at small CNS nerve terminals.* University of Illinois, Il.

2014 *Control and plasticity of the presynaptic action potential waveform at small CNS nerve terminals.* Washington University, St Louis, MO.

2014 *Control and plasticity of the presynaptic action potential waveform at small CNS nerve terminals.* University of British Columbia, Vancouver, Canada.

2011 $\alpha 2\delta$ *Ca^{2+} channel subunits control release probability at central synapses.* Presynaptic Mechanisms Symposia, Society for Neuroscience Meeting, Washington, DC

2010 *Changes in Ca^{2+} influx and impaired insulin release after chronic palmitate exposure observed Ins-1 cells by TIRF microscopy*. Eurodia Integrated Meeting, University of Hannover, Germany

2008 *Chronic exposure to lipids alters CaV distribution and inhibits insulin secretion.* 66th Annual Harden Conference, Biochemistry Society, University of Chester, UK

2007 *TIRF Microscopy and its use to study individual proteins and organelles in live cells*. Weatherall Institute of Molecular Medicine, University of Oxford

PROFESSIONAL SERVICE

Non-Dartmouth Teaching/Mentoring

2022- Present	Director, Summer Neurobiology Course, Marine Biological Laboratory, Woods Holes , MA
2019	Summer iSURF mentor for Joshua Chandler (Plymouth State)
2018	Summer Mentor for Under represented minority high school student Nina Rhone (currently at MIT)
2016-2022	Faculty, Principal Investigator, Summer Neurobiology Course, Marine Biological Laboratory, Woods Hole, MA
2012-2014	Faculty, Summer Neurobiology Course, Marine Biological Laboratory, Woods Holes , MA
2011	Instructor, Mind Brain Course, Weill Cornell Medical College, New York, NY

Dartmouth Teaching (Last 3 yr)

2023 (F/W/S)	Advances in Integrative Neuroscience (IND 600)
2023 (Fall)	Molecular and Cellular Neurobiology (Bio35/Psyc35/IND101)
2023 (Fall)	Advanced Techniques in Neuroscience (IND103)
2022 (Fall)	Molecular and Cellular Neurobiology (Bio35/Psyc35)
2022 (Spring)	Research Colloquium: Cell Biology of the Brain (Bio 274)
2022 (Winter)	Advanced Neurobiology (Bio74/174)
2021 (Year)	Advances in Integrative Neuroscience (IND 600)
2021 (Fall)	Molecular and Cellular Neurobiology (Bio35/Psyc35)
2021 (Spring)	Molecular and Cellular Neurobiology (Bio35/Psyc35)
2020 (Fall)	Research Colloquium: Cell Biology of the Brain (Bio 274)
2020 (Fall)	Advanced Neurobiology (Bio74/174)
2020 (Spring)	Molecular and Cellular Neurobiology (Psych46/Bio49) **74 students enrolled (COVID)*
2020 (Spring)	Research Colloquium: Cell Biology of the Brain (Bio 274)

Dartmouth College Standing Committee Work

2023/24	Committee on Standards (COS)
2018	ad hoc "Shop" Committee for Science Division
2016/17	Committee on Student Life (Winter Term)

Dartmouth Faculty Mentoring:

2023-Present	Chair of Robert Hill's Mentoring Committee
2024-Present	Member of Dipon Ghosh's Mentoring Committee

Dartmouth PhD Thesis Committee Work – *Past*

2018	Stephanie Getz
2019	Arielle Baker
2019	Balint Kacsoh
2019	Cassandra Burke
2021	Stephanie Lee
2021	Katie Edwards
2023	Timothy Chapman

Dartmouth PhD Thesis Committee Work - *Current*

2020-Present	Genaro Olveda
2021-Present	Ziwei She
2021-Present	Nicole Desmet
2021-Present	Xhoela Bame
2022-Present	Lisa Marie Francomacaro
2022-Present	Alicia Pietramale
2023-Present	Megan Doty

Dartmouth Graduate Mentoring Service

2023	Center for the Improvement of Mentored Experiences in Research (CIMER) training
2017	Organized and spoke at a Career Symposium at Dartmouth Neuroscience Day
2015	PIT (MCB Talk) "How to get a job in academia" Organizer: Kurt Dahlstrom
2015	Judge for Fall 2015 Graduate student Research Day

Search Committee Work

2023/2024	Behavioural Neuroscience Faculty Search Committee, Psychology and Brain Sciences Department
2022/2023	Molecular and Cellular Biology Faculty Search Committee, Biology Department
2019/2020	Molecular and Cellular Biology Faculty Search Committee, Biology Department
2015/2016	Neurobiology Faculty Search Committee, Biology Department

Other Dartmouth Service Work

2021-Present	Co-Director Integrative Neuroscience at Dartmouth
2022	co-organizer Dartmouth Neuroscience Day with Robert Hill
2021	Chair of Curriculum Committee, Graduate Program in Neuroscience (PIN)
2019/20	Tri-Chair Dartmouth Neuroscience Day (Robert Hill and Kate Nautiyal) *4/4 cancel COVID*
2018/19	Chair Dartmouth Neuroscience Day
2017/18	Taught an Arthur Vining Davis Foundation Seminar for School House "Become Scientifically Literate! Arm Yourself to Find a Future Career."
2017	Organizer, Young Mind and Brain Symposium Fall 2017
2016-Present	Steering Committee Neuroscience Day (Speaker 2016)
2016-Present	Committee Advising the Chair (CAC) Biology Department
2015/2016	Head Organizer of MCB Graduate Student Recruitment Weekend
2014/2015	Assistant Organizer of MCB Graduate Student Recruitment Weekend

Scientific Service (External)

2024	Ad Hoc NIH Study Section February NDRP study section.
2023	Served ad hoc reviewer for NIH study section April ZRG1 BN R 06 Topics in Neurobiology and Neuropharmacology
2022	Served as Tenure Letter Writer (Bates College)
2021	Served ad hoc reviewer for NIH SYN study section in November
2021	Served ad hoc reviewer for NIH F32/K99 Study Section
2020	Served ad hoc reviewer for NIH NTRC (neurotransporters, receptors and channels) study section in February 2020

2018- Present	Referee for Journal of Neuroscience, FASEB, Neuroscience, Cell Reports, E-Lifein Neuroscience, Neuron, EMBO, Nature Reviews Neuroscience
2018-20	Off-site ad hoc reviewer for NSF CAREER IOS grants
2018	Served ad hoc reviewer for NIH NTRC (neurotransporters, receptors and channels) study section in Fall of 2018
2017/2018	External Grant Reviewer - Neurobiology/Ion Channel Grant Reviewer Austrian Science Fund
2017-current	Reviewer Cell Reports, Journal of Neuroscience, Neuron, J. Physiology, Elife

RESEARCH TRAINING/MENTORSHIP

Current Postdoctoral Members and Senior Researchers

2018-Present	Michelle Gleason, PhD	Senior Researcher
2021-Present	Aman Aberra, PhD	Postdoctoral Fellow/Neukom Fellow

Current Graduate Students

2022-Present	Cameron Paton ('21)	MCB
2020-2024	Amelia Ralowicz ('19)	IND (PhD defended, graduating June 2024)

Rotation Students 2023/24

Fall 2023	Sasipha Hokeness	MCB
Winter 2024	Mizuki Tojo	IND
Winter 2024	Matthew Ciolkowski	IND

Current Undergraduate Students

2022-Present	Emma Hochberg	Class of 2025
2021-Present	Luke Miles (accepted into PhD)	Class of 2024

Past Laboratory Members

2021-2023	Samuel Bergerson ('20)	Cedar Circle Education
2016-2022	Lauren Panzera PhD ('15)	Postdoc, Yale, Lab of Michael Higley
2018-2020	Kelly Forest, PhD	Scientific Officer at FBI
2014-2021	In Ha Cho, PhD	Senior Scientist at Adimab
2014-108	Ryan O'Toole MS	Survey Research Analyst TRAILS
2014-2019	Scott Alpizar, PhD	Senior Venture Associate (FVGG/NNJF)

Past Undergraduate Research Students

2021-2023	Michael Del Sesto (Currently MS)	Engineering Major - Thesis 2023
2021-2022	Rim Bozo (WISP	Biology Major 2025
2018-2020	Lorna McElrath (Currently PhD)	Neuroscience Major - Thesis 2020

2019-2020	Seysha Mehta (MD)	Biology Major2022
2019-2020	Sophie Kodak (WISP)	Biology Major 2023
2019-2021	Fatema Begum (Fullbright)	Biology Major 2022
2017-2018	Mia Drury	Neurosci Major 2020
2017-2018	Jun Ho Lee	Neurosci Major 2018
2017-2018	Sabrina Straus	Neurosci Major 2020
2015-2018	Morven Chin (Currently PhD)	Biology Major - Thesis 2018
2016	Song Cho (Currently MD)	Biology Major 2016

Mentoring Letters 2023/24

2024	Felix Rawlinson	MS Oxford (successful – Genomic Medicine)
2024	Sarah Watson	Goldwater (successful)
2024	Cameron Paton	NIH NRSA
2024	Elizabeth Chamiec-Case	NIH NRSA (scored 30)
2024	Chin Patel	NIH NRSA (successful)
2024	Michael Del Sesto	MS
2023	Hanieh Falahati	Faculty Position (interviewed)