

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	YEAR(S)	FIELD OF STUDY
Reed College (Portland, OR)	B.A.	2000-2004	Biology
University of Oxford (Oxford, UK)	D.Phil.	2005-2009	Endocrinology
Weill Cornell Medical College (New York, NY)	PostDoc	2009-2014	Neurobiology

Positions and Employment

2020-Present	Associate Professor, Department of Biology, Dartmouth College, Hanover, NH
2020-Present	Co-Director of Graduate Program in Integrative Neuroscience at Dartmouth
2016 -Present	Faculty (Principal Investigator) of Neurobiology Program, MBL, Woods Hole MA
2014-2020	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

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

2009-present Society for Neuroscience

2004-present Biophysical Society

Peer-reviewed Publications

PEER-REVIEWED MANUSCRIPTS

<https://www.ncbi.nlm.nih.gov/pubmed/?term=hoppa+mb>

* = corresponding; ** undergraduate

- 21: IH Cho, LC Panzera, M Chin**, SA Alpizar, GE Olveda, RA Hill, **MB Hoppa***. *The Potassium Channel Subunit Kv β 1 serves as a major control point for synaptic facilitation.* PNAS. 2020 Nov 9;202000790. doi: 10.1073/pnas.2000790117.
- 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.
- 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.
- 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
- 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.
- 16: Alpizar SA, Baker AL, Gullledge 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 β 2 Subunits Prevent Action Potential Propagation Failures at Axonal Branch Points.* J Neurosci. 2017 Sep 27;37(39):9519-9533.
- 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)
- 13: Baumgart JP, Zhou ZY, Hara M, Cook DC, **Hoppa MB**, Ryan TA, Hemmings HC Jr. *Isoflurane inhibits synaptic vesicle exocytosis through reduced Ca $^{2+}$ influx, not Ca $^{2+}$ -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. PubMed 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. PubMed 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. PubMed PMID: 23335896.

10: **Hoppa MB**, Lana B, Margas W, Dolphin AC, Ryan TA. $\alpha 2\delta$ expression sets presynaptic calcium channel abundance and release probability. *Nature*. 2012 May 13;486(7401):122-5. doi: 10.1038/nature11033. PubMed 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. PubMed 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 Ca(2+) channels from secretory vesicles. *Diabetes*. 2010 May;59(5):1192-201. doi: 10.2337/db09-0791. Epub 2010 Feb 11. PubMed 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. PubMed 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. PubMed 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. PubMed 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. PubMed 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. PubMed 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. PubMed 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. PubMed PMID: 18511483.

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
Direct Costs: \$505,000
Indirect Costs \$323,000
P.I.: Michael Hoppa (MPI with Michael Tamkun)
Project Period: 04/01/2020-03/31/2025

Agency: National Institute of Health
ID#: COBRE Supplement
Project Title: Project Title: FIB-SEM ultrastructural analysis of Kv2 induced axonal Endoplasmic Reticulum/Plasma Membrane Contact Sites
Direct Costs \$100,000
Indirect Costs \$64,000
P.I.: Michael Hoppa
Project Period: 9/01/2020-8/30/2021

Agency: National Science Foundation – CAREER Award
Project Title: CAREER - Modulation of the Presynaptic Action Potential Shape and Impact on Synaptic Function
ID# 1750199
Direct Costs: \$544,336
Indirect Costs \$337,489
P.I.: Michael Hoppa
Project Period: 06/01/2018-07/01/23

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: 03/01/18-02/28/21

Agency: National Institute of Health
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

PAST FUNDING

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

Agency: Provost Seed Grant (Internal)
ID#:
Project Title: *Magnetic Nanoparticle Tags for Remotely Interfacing with Neuronal Circuits*
Direct Costs: \$30,000
P.I.: (Co PI) Michael Hoppa

Project Period: 06/01/16-06//30/17
Agency: American Cancer Society
ID#:
Project Title: *Physiology of Ion Channel Signaling Domains in CNS axons*
Direct Costs: \$30,000
P.I.: Michael Hoppa

PENDING FUNDING

Agency: National Institute of Health
ID#: 1R01NS117577- 01A1
Project Title: Regulation of Synaptic Transmission by Presynaptic Potassium Channels
Direct Costs: \$1250,000
Indirect Costs \$800,000
P.I.: Michael Hoppa
Project Period: 09/01/2021-08/31/2026

Agency: National Science Foundation
ID#: 2117148
Project Title: MRI: Acquisition of a Lattice Structured Illumination Microscope (Lattice SIM) to visualize and analyze cellular events with high temporal and spatial resolution at Dartmouth.
Direct Costs: \$466,361
P.I.: Michael Hoppa
Project Period: 09/01/2021

Agency: National Science Foundation
ID#:
Project Title: NRT: National Science Foundation Research Traineeship (NRT) Program.
Direct Costs: \$3,000,000
P.I.: Laura Ray
Project Period: 09/01/2021-08/31/2026

External Talks

- 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 Conference 2020, "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 Ca²⁺ 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 *α2δ Ca²⁺ channel subunits control release probability at central synapses.* Presynaptic Mechanisms Symposia, Society for Neuroscience Meeting, Washington, DC
- 2010 *Changes in Ca²⁺ influx and impaired insulin release after chronic palmitate exposure observed in 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

External Talks/Presentations by Laboratory Members (2019-2020)

- 2020 Poster Gordon Research Conference Cell Biology of the Neuron (Waterville Valley NH – COVID cancelled) Lauren Panzera
- 2020 Poster Gordon Research Conference Synaptic Transmission (Italy – COVID cancelled) Dr In Ha Cho
- 2020 Speaker Slot Dr. In Ha Cho Vermont Neuroscience – *Synaptic Plasticity and Kv1*
- 2020 Poster Lauren Panzera (*1st Prize, best student poster) Vermont Neuroscience – *Kv2 channels in presynaptic terminals*
- 2019 Poster Biophysical Society (Baltimore, MD) – Kv1 channels modulate Ca²⁺ microdomains
- 2019 Poster NERIC Conference (Mt Washington NH) Dr. In Ha Cho – Kv1 Channels
- 2019 Poster NERIC Conference (Mt Washington NH) Dr. Kelly Forest – K_{ATP} channels
- 2019 Poster NERIC Conference (Mt Washington NH) Lauren Panzera – Kv2 Channels
- 2019 Speaker NERIC Conference (Mt Washington NH) Undergraduate Josh Chandler – ER/PM junctions in neurons
- 2019 Poster Neuroscience Day (Chicago) Dr. In Ha Cho – Kv1 Channels and Synaptic Plasticity

Professional Service

Non-Dartmouth Teaching/Mentoring

- 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-Present 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 College Service Work

A) Graduate Thesis Committees

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|---------------------------------------|------------------------------|
| 1. Arielle Baker (class of 2014/15) | PEMM Gulledge/Mol. Systems |
| 2. Balint Kacsoh (class of 2013/14) | MCB Bosco/Mol. Systems |
| 3. Tim Gauvin (class of 2015/16) | MCB Griffin/Biology |
| 4. Katie Edwards (class of 2016/17) | MCB Bosco/Mol. Systems |
| 5. Cassandra Burke (class of 2013/14) | MCB Supattapone/Biochemistry |
| 6. Stephanie Lee (class of 2016/17) | PEMM Yeh/Mol. Systems |
| 7. Jeonghoon Lee (class of 2017/18) | PEMM Luikart/Mol. Systems |
| 8. Timothy Chapman (class of 2017/18) | MCB Hill/Biology |
| 9. Genaro Olveda (class of 2018/2019) | MCB Hill/Biology |

B) Graduate Qualifying Exam Committee

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|-------------------------|----------------------------|
| 1. Erin Langdon 2015 | MCB Gladfelter/Biology |
| 2. Kyla Rodgers 2015 | PEMM Chou/Physiology |
| 3. Pranay Baradwaj 2016 | MCB Ackerman/Thayer |
| 4. Katie Edwards 2017 | MCB Bosco/Mol. Systems |
| 5. Stephanie Lee 2017 | PEMM Yeh/Mol. Systems |
| 6. Andy Vacca 2017 | EEES Cottingham/Ecology |
| 7. Stephanie Lee 2018 | PEMM Yeh/ Mol. Systems |
| 8. Jeonghoon Lee 2019 | PEMM Luikart/Mol. Systems |
| 9. Elizabeth Bien 2020 | PEMM Gulledge/Mol. Systems |
| 10. Simone Evans 2021 | PEMM Hong/Medical Surgery |

C) Undergraduate Honors Thesis Committee

1. Tony Choi (2016)
2. Marielle Brady (2017)
3. Morven Chin (2018)
4. Katherine Kane (2020)
5. Lorna McElrath (2020)
6. Anna Brinks (2021)

Dartmouth Teaching

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| 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) <i>*74 students enrolled (COVID)</i> |
| 2020 (Spring) | Research Colloquium: Cell Biology of the Brain (Bio 274) |
| 2019 (Fall) | Research Colloquium: Cell Biology of the Brain (Bio 274) |
| 2019 (Fall) | Advanced Neurobiology (Bio74/174) |
| 2018 (Spring) | Graduate Neurobiology Research Colloquium (PEMM263) |
| 2018 (Spring) | Molecular and Cellular Neurobiology (Psych46/Bio49) |

2017 (Fall) Research Colloquium: Cell Biology (Bio 263)
 2017 (Fall) Advanced Neurobiology (Bio 74/174)
 2017 (Spring) Molecular and Cellular Neurobiology (Psych46/Bio49) co-taught with Bob Maue
 2016 (Fall) Research Colloquium: Cell Biology (Bio 263)
 2016 (Fall) Advanced Neurobiology (Bio 74/174)
 2016 (Spring) Molecular and Cellular Neurobiology (Psych46/Bio49) co-taught with Bob Maue
 2015 (Winter) Guest Lecture, Neuroengineering Eng170, Sol Diamond
 2015 (Fall) Advanced Neurobiology (Bio 74/174)
 2015 (Spring) Molecular and Cellular Neurobiology (Psych46/Bio49) co-taught with Bob Maue

Dartmouth College Standing Committee Work

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

Dartmouth Graduate Mentoring Service

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

2019/2020 Molecular and Cellular Biology Faculty Search Committee, Biology Department
 2015/2016 Neurobiology Faculty Search Committee, Biology Department

Other Dartmouth Service Work

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)

2020	Served ad hoc reviewer for NIH NTRC (neurotransporters, receptors and channels) study section in February 2020
2018-20	Referee for Journal of Neuroscience, FASEB, Neuroscience, Cell Reports, Frontiers in 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
2017/2018	Reviewer Cell Reports and Journal of Neuroscience
2015/2016	Reviewer for Journal of Neuroscience, Nature Neuroscience, Neuron, Cell Reports
2014/2015	Reviewer for Journal of Neuroscience, Journal of Biological Chemistry, Diabetologia

Research Training/Mentorship

Current Postdoctoral Members and Senior Researchers

2014-Present	In Ha Cho, PhD	Research Scientist
2018-Present	Michelle Gleason, PhD	Senior Researcher
2019-Present	Andrew Coleman, PhD	Postdoctoral Fellow
2021-Present	Aman Aberra, PhD	Postdoctoral Fellow/Neukom Fellow

Past Postdoctoral Members

2018-2020	Kelly Forest, PhD	Postdoctoral Fellow (employed by FBI)
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Current Graduate Students

2016-Present	Lauren Panzera ('15)	MCB **MENTORED NIH F31 Award**
2019-Present	Amelia Ralowicz ('19)	PEMM

PAST Graduate Students

2014-2019	Ryan O'Toole ('14)	PEMM
2014-2019	Scott Alpizar ('14)	MCB

Current Undergraduate Students

2019-present	Seysha Mehta	Biology Major 2022
2019-present	Sophie Kodak (WISP)	Biology Major 2023
2019-present	Fatema Begum	Biology Major 2022

Past Undergraduate Research Students

2015-2018	Morven Chin (Currently PhD)	Biology Major Thesis 2018
2016	Song Cho (Currently MD)	Biology Major 2016
2017-2018	Mia Drury	Neurosci Major 2020
2017-2018	Jun Ho Lee	Neurosci Major 2018
2017-2018	Sabrina Straus	Neurosci Major 2020
2018-present	Lorna McElrath	Neuroscience Major Thesis 2020

Dartmouth Undergraduate Mentoring

2015/16	First Year Advising to:
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1. Caroline E. Gonzalez;
2. Juliana C. Levy;
3. Morgan A. Sizemore;
4. Jacob S. Moen;
5. Julia E. Fissore-O'Leary

2016/2018 First and Second Year Advising to:

1. Edward Z. Mott
2. Emily Wang
3. Amy Frankel
4. Maxwell Bond
5. Julia Valenti

2017/2019 First and Second Year Advising to:

1. Kamran Husain
2. Caitlin Bowers
3. Reeham Choudhury
4. Hassan Bhatti
5. Yuvraj Mahadeshwar

2019/2020 First Year and Second Year Advising to:

1. Hannah Brookes
2. Margaret Moreland
3. Ananya Alleyne
4. Christian Antonio-Santiago
5. Theodore Castellani
6. Nolan Doherty

2020/2021 First and Second Year Advising to:

1. Andrew Q. Kotz
2. Penelope Tir
3. Anna Nolan
4. Sarah Kent
5. Ceclia Rafter

Past Graduate Training Members (Rotations)

2014	Pranay Bharadwaj ('14)	Fall Rotation (MCB)
2014	Nicholas Gill ('14)	Winter Rotation (MCB)
2014	Ryan O'Toole ('14)	Winter Rotation (PEMM)
2014	Scott Alpizar (('14)	Winter Rotation (MCB)
2015	Arielle Baker ('14)	Spring Rotation (PEMM)
2015	Taylor Harned ('15)	Fall Rotation (MCB)
2015	Katie Edwards ('15)	Fall Rotation (MCB)
2016	Lauren Panzera ('15)	Spring Rotation (MCB)
2016	Jianping Wu ('16)	Fall Rotation (MCB)
2016	Erik Brink ('16)	Winter Rotation (MCB)
2017	Eva Childers ('17)	Fall Rotation (MCB)
2018	Huanqing Guo ('17)	Spring Rotation (MCB)
2018	Haleema Sadia Malik	Fall Rotation (MCB)
2019	Amelia Ralowicz ('18)	Fall Rotation (PEMM)

2020	David Ritz ('19)	Winter Rotation (MCB)
2020	Genaro Olveda ('19)	Winter Rotation (MCB)
2020	Diana Hilpert (19)	Spring Rotation (MCB)
2020	Sarah Najera ('20)	Fall Rotation (MCB)
2020	Samuel Bergerson ('20)	Fall Rotation (PEMM)
2021	Ziwei She ('20)	Winter Rotation (MCB)