

# Michael B. Hoppa, D. Phil.

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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

2002	Summer Fellow, laboratory of Dr. James McGaugh, University of California, Irvine
2003	Undergraduate Research Assistant, laboratory of Dr. Oswald Steward, Reeve-Irvine Center, University of California, Irvine
2003-2004	Undergraduate Research Thesis, laboratory of Dr. Stephen Arch, Reed College,
2004-2005	Research Assistant, laboratory of Dr. Wolfhard Almers, Vollum Institute, Oregon Health & Science University
2005-2009	Graduate Student (D.Phil), laboratory of Dr. Patrik Rorsman, University of Oxford
2009-2014	Postdoctoral Fellow, laboratory of Dr. Timothy Ryan, Weill Cornell Medical College,
2012-2014	Faculty, Neurobiology Program, MBL, Woods Hole, MA
2014-Present	Assistant Professor, Department of Biology, Dartmouth College, Hanover, NH

## Honors

2003	Howard Hughes Undergraduate Research Fellowship
2007	Graduate Award for Academic Achievement, Trinity College, University of Oxford
2008-2009	Graduate Scholarship, Trinity College, University of Oxford
2012-2014	Charles H. Revson Senior Fellowship in Biomedical Sciences
2014-2017	Walter and Constance Burke Research Initiation Awards for Junior Faculty

## Professional Memberships

2004-present	Biophysical Society
2009-present	Society for Neuroscience

## External Talks

- 2007 *TIRF Microscopy and its use to study individual proteins and organelles in live cells.* Weatherall Institute of Molecular Medicine, University of Oxford
- 2008 *Chronic exposure to lipids alters CaV distribution and inhibits insulin secretion.* 66<sup>th</sup> Annual Harden Conference, Biochemistry Society, University of Chester, UK
- 2010 *Changes in Ca<sup>2+</sup> influx and impaired insulin release after chronic palmitate exposure observed in  $\beta$ -cells by TIRF microscopy.* Eurodia Integrated Meeting, University of Hannover, Germany
- 2011  *$\alpha 2\delta$  Ca<sup>2+</sup> channel subunits control release probability at central synapses.* Presynaptic Mechanisms Symposia, Society for Neuroscience Meeting, Washington, DC
- 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 Illinois, IL.

## Peer-reviewed Publications

1. **Hoppa MB**, Gouzer G, Armbruster M, Ryan TA. Control and plasticity of the presynaptic action potential waveform at small CNS nerve terminals. Neuron. *In press*.
2. 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. 2012;4:9.
3. **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.
  - **Faculty of 1000 Reviewed with citation score of 13**
4. **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
  - **Comment/Highlight in Diabetologia** Gaisano HY. Deploying insulin granule-granule fusion to rescue deficient insulin secretion in diabetes. Diabetologia. 2012 Apr;55(4):877-80.
5. Collins SC, **Hoppa MB**, Walker JN, Amisten S, Abdulkhader 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<sup>2+</sup> channels from secretory vesicles. Diabetes. 2010 May;59(5):1192-201.
6. 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. Journal of Biological Chemistry. 2010 Feb 26;285(9):6044-52.

7. 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.
8. **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 Metabolism. 2009 Dec;10(6):455-65.
9. 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 Metabolism. 2009 Oct;10(4):309-15.
10. 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.
11. Karanauskaite J, **Hoppa MB**, Braun M, Galvanovskis J, Rorsman P. Quantal ATP release in rat beta-cells by exocytosis of insulin-containing LDCVs. Pflugers Archives 2009 Jun;458(2):389-401.
12. Eliasson L, Abdulkader F, Braun M, Galvanovskis J, **Hoppa MB**, Rorsman P. Novel aspects of the molecular mechanisms controlling insulin secretion. Journal of Physiology. 2008 Jul 15;586(14):3313-24. (Review)