

# Alicia M. Ebert

## Contact Information

Department of Biology  
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University of Vermont  
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## Education

PhD Zoology, Colorado State University July, 2004 - October, 2008  
Molecular, Cellular and Integrative Neurosciences Program  
Mentor: Dr. Deborah Garrity  
Title: "New Roles for Calcium Channel Beta Subunits in zebrafish Development"

B.S. Molecular Biology, University of Wyoming August, 1998 - May, 2002  
Minors: Chemistry and Psychology

## Professional Experience

Director Undergraduate Neuroscience Program August, 2019 - Present  
University of Vermont

Associate Professor July, 2018 - Present  
Department of Biology, University of Vermont

Co-Director Undergraduate Neuroscience Program August, 2017 - August, 2019  
University of Vermont

Assistant Professor July, 2012 - July 2018  
Department of Biology, University of Vermont

Postdoctoral Fellow October, 2008 - July, 2012  
Department of Cell Biology and Anatomy, University of Calgary  
Mentor: Dr. Sarah McFarlane

Professional Research Assistant July, 2002 - September, 2003  
Department of Neuroscience, University of Colorado Health Sciences Center  
Employer: Dr. Nicholas Seeds

## Publications (\* undergraduate author)

Emerson SE, Stergas HR, Bupp-Chickering SO, Ebert AM. 2020 Shootin-1 is required for nervous system development in zebrafish. *Oct:249(10):1285-1295. PMID: 32406957*

Schmoker AM, Weinert JL, Markwood JM, Albretsen KS, Lunde ML, Weir ME, Ebert AM, Hinkle KL, Ballif BA. 2020. FYN and ABL regulate the interaction networks of the DCBLD receptor family. *L Oct:19(10):1586-1601. PMID: 32606017*

Mullen P, Abbott JA, Wellman T, Aktar M, Fjeld C, Demeler B, Ebert AM, Francklyn CS. 2020. Neuropathy-associated histidyl-tRNA synthetase variants attenuate protein synthesis in vitro and disrupt axon outgrowth in developing zebrafish. *BA OF Jan;288(1):142-159. PMID: 32543048*

Mead AF, Kennedy GG, Palmer BM, Ebert AM, Warshaw DM. 2020 Mechanical characteristics of ultrafast zebrafish larval swimming muscles. *F Aug 18;119(4):806-820 PMID: 32755560*

St Clair RM, Dumas CM, Williams KS\*, Goldstein MT\*, 0 1 10 00000912 0 612 79 5F2 11 Tf1 0 0 1 2

development and disease. *F* 476:931-950 PMID: 30902898

Emerson SE, Grebber BK\*, Orr A\*, Gonzalez J\*, Deming PB, Ebert AM. 2018. Developmental Expression patterns of Protein Kinase A catalytic subunits in zebrafish. *C A L* Jan;3:1-6 PMID: 30468770

Schmoker AM, Driscoll HE, Geiger SR\*, Vincent JJ, Ebert AM, Ballif BA. 2018. An proteomics screen to predict and prioritize protein-protein interactions dependent on post-translationally modified motifs. *15:34(22):3898-3906* PMID: 29868839

St. Clair RM, Emerson SE, D'Elia KP\*, Weir ME, Schmoker AM, Ebert AM, Ballif BA. 2017. Fyn-dependent phosphorylation of PlexinA1 and PlexinA2 at conserved tyrosines is essential for zebrafish eye development. *BA OF* Jan;285(1):72-86. PMID: 29091353

Emerson SE, Light SE\*, Ballif BA, Ebert AM. 2017. PlexinA family expression patterns in zebrafish development. *C A L* Oct 28;27:56-66. PMID: 29107805

Schmoker AM, Weinert JL\*, Kellett KJ\*, Johnson HE\*, Joy RM, Weir ME, Ebert AM, Ballif BA. 2017. Dynamic multi-site phosphorylation by Fyn and Abl drives the interaction between CrkL and the novel scaffolding receptors Dcbld1 and Dcbld2. *F* Nov 21;474(23) 3963-3984. PMID: 29025973

Waldron AL, Helms Cahan S, Francklyn CS, Ebert AM. 2017. A single gene encodes both cytoplasmic and mitochondrial histidyl-tRNA synthetases. *L O* . September 12(9): e0185317. PMID: 28924268

Emerson SE, St Clair RM, Waldron AL, Bruno SR\*, Duong A\*, Driscoll HE, McFarlane S, Ballif BA, Ebert AM. 2017. Identification of target genes downstream of Semaphorin6A/PlexinA2 signaling. *April* 246:539-549. PMID: 28440030

Mirando AC, Fang P, Williams TF, Baldor LC, Howe AK, Ebert AM, Wilkinson B, Lounsberry K, Guo M, Francklyn CS. 2015. Aminoacyl-tRNA synthetase dependent angiogenesis revealed by a bioengineered macrolide inhibitor. *J O N* Aug 14;5:13160. PMID: 2671225

Ebert AM, Childs SJ, Hehr C, Cechmanek PB, McFarlane S. 2014. Sema6a and Plxna2 mediate spatially regulated repulsion within the developing eye to promote eye vesicle cohesion. *141(12):2473-2482*. PMID: 24917502

Rohs P\*, Ebert AM, Zuba A\*, McFarlane S. 2013. Neuronal expression of fibroblast growth factor receptors in zebrafish. *C A L* Jul 9;13(8):354-361 PMID: 23850987

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Ebert AM,



George Chrisafis - CAS Honors Biology 2017  
 Jenny Michael - CAS Honors Biological Science 2017  
 Samuel Raszka - CAS Honors Biology 2016  
 Jenna Toderò - CNHS Honors MLRS 2016  
 Austin Merrill - CAS Honors Biology 2016  
 Dan Peipert - CAS Honors Neuroscience 2016  
 Jon Karp - CALS DUR/Honors Biological Science 2015  
 Hannah Johnson - CAS Honors Biological Science 2015  
 Ben Flinn - CAS Honors Biochemistry 2015  
 James Contompassis - CAS Honors Biology 2015  
 Hannah Rickner - CAS Honors Biology 2014  
 Jacqueline Mann - CAS Honors Biology 2014

Graduate Trainees

Jacqueline Guillemin - PhD Biology		8/20 - present
Helaina Stergas - PhD Biology		8/19 - present
Caroline Dumas - PhD Biology (Co-advised)		6/1 - present
Theresa Legan - PhD Neuroscience rotation		2/18 - 4/18
Helaina Stergas - MS Biology	PhD Biology UVM	6/17 - 5/18
Patrick Mullen - PhD Neuroscience (Co-advised)		8/16 - present
Alisha Linton - PhD Neuroscience rotation		3/15 - 5/15
Ashley Waldron - PhD Biology	Postdoctoral Fely0 G( )JTJET@F2 11 Tf1 0 0 1 352	

March 13, 2020 (Cancelled due to COVID)

"Semaphorin/Plexin Signaling mechanisms and their role in zebrafish nervous system development."  
Northeast Society for Developmental Biology, Woods Hole, MA, April 2019.

Dumas CM, St. Clair RM, Ballif BA, Ebert AM "Characterization of Sema6A forward and reverse signaling in zebrafish eye development."

Markwood J, Hinkle K, Ballif BA, Joy R, Waldron AL, Schmoker AM, Stergas HR, Kellet K, Ebert AM, Albrechtsen "Essential retinal, optic tract, and vascular developmental regulator DCBLD2 interacts with Ras-signaling member GRB2 in a phosphorylation-dependent manner."

Waldron AL, Francklyn CS, Ebert AM "Compilation of Aminoacyl-tRNA synthetase expression patterns in development"

Yacawych W, Chandler B, Schmoker AM, Weinhart J, Kearns C, Hinkle K, Ebert AM, Ballif BA "Abl introduces the binding of SH2 domain-containing family members to the CrkL-SH2 domain via phosphorylation in YxxP motifs"

Neuroscience Behavior and Health Research Forum, UVM, February 8-9, 2019

Ashley Waldron "Knock-down of histidyl-tRNA synthetase causes cell cycle arrest and apoptosis of neural progenitor cells"

Sarah Emerson "The role of Shootin-1 in zebrafish neurodevelopment"

Chandler BW, Schmoker AM, Weinhart JL, Kearns CA, Yacawych WT, Ebert AM, Ballif BA. "Abl-dependent phosphorylation of SH family adaptors promotes their interaction with the CrkL-SH2 domain."

Dumas CM, St. Clair RM, Ballif BA, Ebert AM. "Characterization of Sema6A forward and

Schmoker AM, Weinert J, Kellett K, Johnson H, Joy RM, Weir ME, Ebert AM, Ballif BA.  
 "Dynamic multi-site phosphorylation by Fyn and Abl drives the interaction between Crk and the novel scaffold receptors DCBLD1 and DCBLD2."

Awards and Honors

UVM College of Arts and Science Dean's Lecture Award	2019
Faculty Advisor of the Year, UVM Graduate Student Senate	2019
Nominated for Undergraduate Advisor of the year award, UVM	2019
Nominated for Vermont Society for Neuroscience President	2017
Nominated for the Kroepsch-Maurice Excellence in Teaching Award	2016, 2017, 2018
Canadian Institutes for Health Research Postdoctoral Fellowship Award	2010 - 2012
Alberta Innovates Health Solutions/ Foundation Fighting Blindness Postdoctoral Fellowship Award	2010 - 2012
Hotchkiss Brain Institute Postdoctoral Fellowship Award	2009 - 2010
CIHR Training Grant in Genetics, Child Health and Development Postdoctoral Fellowship Award	2008 - 2009

Service and Scholarly Activities

Pivotal Pedagogy facilitator (Center for Teaching and Learning)	5/20
Chair, Biology Tenure Track Neuroscience Faculty Search	8/19 – 4/20
Director of UVM Undergraduate Neuroscience Program	2019 - present
Co-Director of UVM Undergraduate Neuroscience Program	2017 – 2019
UVM Faculty Representative VT Society for Neuroscience (3 year term)	2016 - 2019
Steering Committee member UVM Undergraduate Neuroscience Program	2016 - present
Steering Committee member UVM Neuroscience Graduate Program	2016 - present
Grant Reviewer Rhode Island INBRE	2020, 2021
Faculty mentor for Vermont Genetics Network Dr. Ruth Fabian Fine, St Michaels College	2016 - 2017
Journal Reviewer: Developmental Biology Gene Expression Patterns Experimental Biology and Medicine	
Session Chair, Northeast Society for Developmental Biology Meeting	2014, 2018
Grant reviewer for Vermont Genetics Network	