

Membership in Professional Societies

American Association for the Advancement of Science (current)
Vermont Chapter of the Society for Neuroscience (current)
Society for Developmental Biology (current)
Society for Neuroscience (past)
American Chemical Society (past)
American Society for Mass Spectrometry (past)
American Society for Biochemistry and Molecular Biology (past)
International Society for Blood Transfusion (past)
Human Proteome Organization (past)

Journal Referee and Grant Reviewer

Journal Referee for the following journals: *ACS-Chemical Biology*, *Analytical Chemistry*, *Biochemical Journal*, *Bioinformatics*, *Bioscience Reports*, *EMBO Journal*, *EMBO Molecular Medicine*, *European Journal of Pharmacology*, *Review of Proteomics*, *Genes to Cells*, *International Society for Microbial Ecology Journal*, *Journal of Cellular Biochemistry*, *Journal of Drug Targeting*, *Journal of Proteome Research*, *Journal of Proteomics*, *Mass Spectrometry Reviews*, *Molecular and Cellular Biology*, *Molecular and Cellular Proteomics*, *Neuroscience*, *Nucleic Acids Research*, *Parasite Epidemiology and Control*, *Proteomics*, *Proteomics-Clinical Applications*, *Scientific Reports*.

NSF Proposal Panelist; Ad Hoc Grant Referee for: Netherlands Innovational Research Incentives Scheme (Veni), NSF IOS-Neuroscience, BBSRC, UVM REACH, CASIS, MMC Cardiovascular Institute, Canada Research Chair, Rhode Island INBRE faculty research awards study section

Mentoring/Training (†co-advised)

<u>Graduate Students</u>	<u>Year and Degree</u>	<u>Position(s) since leaving UVM</u>
Violet Roskens†	'10 Biology M.S.	Res. Assoc. MBL, U. CO-Boulder, ArcherDx, CO
Madhurima Saha	'11 Biology Ph.D.	Postdoc. Dartmouth/U. Florida; Sen. Sci., Lacerta, FL
Mujeeburahiman Cheerathodi	'12 Biology Ph.D.	Postdoc. MD-Anderson/FL State U., FL
Bior Bior	'13 Biology Ph.D.	Asst. Prof. John Garang Mem. University; Postdoc. UVM; Dir. Natl. Health Lab, and NIHE, South Sudan
Ryan Joy	'15 Biology M.S.	Instructor and Faculty Coord., CCV, Winooski, VT
Federico Lopez-Osorio†	'16 Biology Ph.D.	Postdoc. AMNH, NY; Queen Mary U. of London, UK
Marion Weir	'16 Biology Ph.D.	Prod. Sci., CST, MA; Res. Sci., Mosaic Biosciences, CO
Brendan Chandler	'18 Biology M.S.	Senior Scientist, Q2 solutions, Ithaca, NY
Judith Keller†	'18 Biology Ph.D.	Senior Scientist, Sanofi Genzyme, Framingham, MA
Riley St. Clair	'19 Neurosc. Ph.D.	Postdoc. University of British Columbia, B.C., Canada
Anna Schmoker	'20 Biology, Ph.D.	Research Scientist, Dana Farber Cancer Inst./Harvard
<u>Amanda Northrop†</u>	'20 Biology Ph.D.	<u>Lecturer, Norwich University, Northfield, VT</u>
Caroline Dumas†	'24 exp. Biology Ph.D.	(current student)
Steven Fortucci	'25 exp. Biology Ph.D.	(current student)

Shorter Term Graduate Rotation Students: Anish Ali Sarkar, Jesse Sheehe, Emily Joyce

<u>Undergraduates</u>	<u>Year and Degree</u>	<u>Position(s) since leaving UVM:</u>
Gwen Buel	'09 Honors Biochemistry	

Zach Gottlieb '21 Biological Sciences
Lyucheng Zou '21 Neuroscience and Biology
Maeve Dillon-Martin

(current student)
(current student)

2011 Honors Thesis Advisor, Biochemistry Major, Anh-Thu Lam
 2011 Honors Thesis CAS Advisor, Biology Major, Lauren Perry
 2012 Honors Thesis CAS Advisor, Biology Major, Luke Neill
 2012 Honors Thesis Advisor, Political Science Major, Miranda Redmond
 2012 Honors Thesis CAS Advisor, Biological Sciences Major, Krist Aploks
 2012 Honors Thesis Member, Biology Major, Margaux McConn
 2012 Honors Thesis Member, Biology Major, Steven Philbin
 2013 Honors Thesis CAS Advisor, Biological Sciences Major, Jenny Klein
 2013 Honors Thesis Member, Biology Major, Alexandra Beattie
 2013 Honors Thesis CAS Advisor, Biology Major, Jackie Mann
 2013 Honors Thesis Advisor, Biology Major, Peter Doubleday
 2014 Honors Thesis Advisor, Biological Sciences Major, Zach Silberman
 2014 Honors Thesis CAS Advisor, Biological Sciences Major, Katie Bedard
 2014 Honors Thesis CAS Advisor, Biological Sciences Major, Samantha Bissonette
 2015 Honors Thesis Advisor, Biological Sciences Major, Jonathan Karp
 2015 Honors Thesis CAS Advisor, Biological Sciences Major, Jordan Munger
 2015 Honors Thesis Advisor, Biological Sciences Major, Hannah Johnson
 2015 Honors Thesis Member, Neuroscience Major, Sarah Light
 2015 Honors Thesis Member, Biology Major, Carlie Wilson
 2015 Honors Thesis Member, Biochemistry Major, Ben Flinn
 2016 Honors Thesis CAS Advisor, Biological Sciences Major, Jenna Todero
 2016 Honors Thesis Advisor, Biochemistry Major, Jaye Grundy
 2016 Honors Thesis Advisor, Biochemistry Major, Liam Kelley
 2016 Honors Thesis CAS Advisor, Biology Major, Austin Merrill
 2016 Honors Thesis Member, Neuroscience Major, Micaila Baroffio
 2017 Honors Thesis CAS Advisor, Biology Major, Elise Mitchell
 2017 Honors Thesis Advisor, Biological Sciences Major, Sarah Bullock
 2017 Honors Thesis CAS Advisor, Biology Major, Sam Barritt
 2017 Honors Thesis Member, Biology Major, Emi Eakin
 2017 Honors Thesis Member, Neuroscience Major, Mickayla Royer
 2017 Honors Thesis Member, Biology Major, Jenny Michael
 2017 Honors Thesis Member, Biology Major, Matt Goldstein
 2018 Honors Thesis Advisor, Biological Sciences Major, Stefi Geiger
 2018 Honors Thesis CAS Advisor, Biology Major, Annie Glessner-Fischer
 2018 Honors Thesis CAS Advisor, Biological Sciences Major, Claire Wilcox
 2018 Honors Thesis Member, Biological Sciences Major, Claire Wilcox
 2018 Honors Thesis Member, Neuroscience Major, Connor
 2018 Honors Thesis Member, Biochemistry Major, Gabriel Cohn
 2019 Honors Thesis Advisor, Biological Sciences Major, and/F1 11.04 Tf1 0 0 1kJETQq0.00000912 0 612 792 reW* nBT/F1 11.04 Tf1 0 0 1 194.5

- 2007 Speaker, Vermont Chapter of the Society for Neuroscience, University of Vermont.
- 2006 Speaker, Department of Molecular Biology, Princeton University, Princeton, NJ.
- 2006 Speaker, Department of Biochemistry, University of Wisconsin-Madison, Madison, WI.
- 2006 Speaker, Department of Biochemistry and Molec. Biology, University of Mass.-Amherst, Amherst, MA.
- 2006 Speaker, Department of Biology, University of Vermont
- 2005 Speaker, Department of Physiology, Tufts University School of Medicine, Boston, MA.
- 2005 Speaker, Department of Pharmacol. and Therapeutics, McGill University Med. School, Montreal, Canada.
- 2005 Speaker, Neurovascular Seminar Series, Massachusetts General Hospital, Boston, MA.
- 2004 Speaker, Norris Cotton Cancer Center, Dartmouth Medical School, Lebanon, NH.
- 2002

- 2019 Northeast Regional IDeA Conference (Bretton Woods, NH). Mechanisms of Semaphorin6A/PlexinA2 signaling in zebrafish nervous system development. Emerson SE, St Clair RM, Waldron AL, Dumas CM, Williams KS, Goldstein MT, Stant EA, D'Elia KP, Weir ME, Schmoker AM, **Ballif, BA**, Ebert AM (*Regional, Selected*).
- 2019 Northeast Regional IDeA Conference (Bretton Woods, NH). An *in silico* proteomics screen to predict and prioritize protein-protein interactions dependent on post-translationally modified motifs. Anna M. Schmoker, Heather E. Driscoll, Stefanie R. Geiger, James J. Vincent, Alicia M. Ebert and **Bryan A. Ballif**. (*Regional, Selected*).
- 2019 College of the Holy Cross Undergraduate Research Forum. Characterizing Novel Protein-Protein Interactions Regulating Brain Development. Charlotte A. Kearns, Warren T. Yacawych, Brendan W. Chandler,

- Samacoits, Christophe Zimmer, Daniel Zenklusen, Florian Mueller, **Bryan A. Ballif**, Jason Botten. Key LCMV-host interactions required for defective interfering particle production and the highly dynamic state of viral replication and transcription during persistence. (*International, selected*)
- 2018 Ecological Society of America. New Orleans, LA. Amanda Northrop, Nicholas Gotelli, **Bryan Ballif**, and Aaron Ellison. Hysteresis in a teapot: organic enrichment and eutrophic collapse of the pitcher-plant foodweb. (*International, selected*)
- 2018 UVM NBH Forum. Burlington, VT. Helaina Stergas, Riley St. Clair, **Bryan Ballif**, and Alicia Ebert. Characterization of Crk and Crkl in zebrafish eye development. (*Local, contributed*)
- 2018 UVM NBH Forum. Burlington, VT. Riley M. St. Clair, Sarah E. Emerson, Marion E. Weir, Anna M. Schmoker, Alicia M. Ebert, **Bryan A. Ballif**. Biochemical and Functional Characterization of PlexinA Phosphorylation Events in Zebrafish Eye Development. (*Local, contributed*)
- 2018 UVM NBH Forum. Burlington, VT. Brendan W. Chandler, Ashley L. Waldron, Jaye L. Weinert, James J. Vincent, Alicia M. Ebert and **Bryan A. Ballif**. The Adaptor Protein SHD Reversibly Binds to the CrkL-SH2 Domain and is Required for Proper Eye Formation in the Zebrafish. (*Local, contributed*)
- 2017 ABRCMS 2017 Research Symposium. Phoenix, AZ. Leishla M. Pérez, Anna M. Schmoker, and **Bryan A. Ballif**. Identification of phosphophorylation sites on TREM-Like-Transcript-1. (*National, Peer-reviewed*)
- 2017 SACNAS 2017 Research Symposium. SLC, UT. Leishla M. Pérez, Anna M. Schmoker, and **Bryan A. Ballif**. Identification of phosphophorylation sites on TREM-Like-Transcript-1. (*National, Peer-reviewed*)
- 2017 AGMUS 2017 Research Symposium. San Juan, Puerto Rico. Claudia Cruz, Camille Collazo, Leishla M. Pérez, Anna M. Schmoker, and **Bryan A. Ballif**. Analysis of phosphorylation and signaling mechanisms of DCBLD2 in adult zebrafish. (*National, Contributed*)
- 2017 Ana G. Mendez University System AGMUS 2017 Research Symposium. Leishla M. Pérez, Anna M. Schmoker, and **Bryan A. Ballif**. Identification of phosphophorylation sites on TREM-Like-Transcript-1. (*National, Contributed*)
- 2017 XIX International Botanical Congress (Shenzhen, China). Amanda C. Northrop. *Sarracenia Purpurea* Microecosystem as a Model System for Understanding and Predicting Aquatic Ecosystem Dynamics and Tipping Points. (*International, selected speaker, peer-reviewed*)
- 2017 Summer Neuroscience Undergraduate Research Fellowship (SNURF) Symposium (UVM, Burlington, VT). Caroline Dumas, Lizzy Stant, nBT/F1 11.04 Tf1 0 0 1 86.424 391.63 Tm0 d1 11.5W* nBT/F1 11.04 TfB0 g020

- 2017 Northeast Society for Developmental Biology Meeting (Woods Hole, MA). Sarah Emerson, Sarah Light, **Bryan A. Ballif**, Alicia Ebert. Investigating the roles of Plexin A1 and Plexin A2 receptors during early eye development in zebrafish. (*Regional, Contributed*)
- 2017 Northeast Society for Developmental Biology Meeting (Woods Hole, MA). Ryan M. Joy, Ashley L. Waldron, Helaina R. Stergas, Kyle J. Kellett, **Bryan A. Ballif**, and Alicia M. Ebert. Dcbl2 is Essential for the Development of the Zebrafish Retina and Optic Tract. (*Regional, Contributed*)
- 2017 Northeast Society for Developmental Biology Meeting (Woods Hole, MA). Riley St. Clair, Sarah Emerson, Marion Weir, Anna Schmoker, Alicia Ebert, and **Bryan A. Ballif**. The Biochemistry of PlexinA Signaling in Zebrafish Eye Development. (*Regional, Contributed*)
- 2017 UVM Student Research Conference. Kyle Kellett, Heather E. Driscoll, and **Bryan A. Ballif**. An identification and comparison of Crk/CrkL binding partners at the rostral and caudal ends of *Danio rerio* (*Local, Contributed*)
- 2017 UVM Student Research Conference. Marjorie DesLauriers, Riley M. St. Clair, Alicia M. Ebert and **Bryan A. Ballif**. Investigation of Semaphorin6A Induced Phosphorylation of PlexinA2 and Neuropilin 1. (*Local, Contributed*)
- 2017 UVM Student Research Conference. Emi Eakin, Judith Keller, **Bryan A. Ballif** and Lori Stevens. Chagas Disease Transmission: Protein Identification and Analysis of Triatominae Blood Meal Digestion Over Time. (*Local, Contributed*)
- 2017 UVM Student Research Conference. Judith I. Keller, M. Carlotta Monroy, James J. Vincent, Carlotta, Riley M. St. Clair, **Bryan A. Ballif** and Lori Stevens. From Bug to Blood to Protein: Identifying blood sources in a Chagas Disease vector feeding experiment with protein mass spectrometry. (*Local, Contributed*)
- 2017 UVM Student Research Conference. Matt Goldstein, Kori S. Williams, Riley M. St. Clair, Bryan A. Ballif, and Alicia M. Ebert. Investigation of a Novel Secreted Semaphorin (*Local, Contributed*)
- 2017 UVM Student Research Conference. Samuel Barritt, Marion Weir, **Bryan A. Ballif** and Paula Deming Fyn regulates cyclic-AMP dependent protein kinase A binding interaction (*Local, Contributed*)
- 2017 UVM NBH Forum, Burlington, VT. Riley M. St. Clair, Sarah E. Emerson, Marion E. Weir, Anna M. Schmoker, Alicia M. Ebert, and **Bryan A. Ballif**. The Biochemistry of PlxnA Signaling in Zebrafish Eye Development. (*Local Contributed*)
- 2017 UVM NBH Forum, Burlington, VT. Anna M. Schmoker, Jaye L. Weinert †, Ryan M. Joy, Kyle J. Kellett, Marion E. Weir, Alicia M. Ebert and **Bryan A. Ballif**. Biochemical characterization of the phospho-dependent interaction of Dcbl1 and 2 with the adaptor protein CrkL: Implications for a novel signaling pathway governing the development of the neural retina. (*Local Contributed*)
- 2017 UVM NBH Forum, Burlington, VT. Brendan W. Chandler, Ashley L. Waldron, Jaye L. Weinert, James J. Vincent, Alicia M. Ebert and **Bryan A. Ballif**. The adaptor protein Src Homology 2 Domain Containing Protein D (SHD) reversibly binds CrkL and iTm 612 792 reW* nBT917(ai)TQq0 1 86.424 274.73 Tm24/s74.73 Tm24.

- 2015 Ecological Society of America (Baltimore, MD). Metaproteomic survey reveals differences in composition and function between microbial communities in detritus-enriched and unmanipulated ecosystems. Amanda Northrop (talk by graduate student of **B.A. Ballif**). (*International, peer-reviewed*)
- 2015 UVM Student Research Conference. A Novel Role for Collapsin Response Mediator Protein 2 (CRMP2) in the Development of the Vertebrate Visual System. Riley St. Clair (talk by graduate student of **B.A. Ballif**). (*Local, Contributed*)
- 2015 UVM Student Research Conference. Novel Tyrosine Phosphorylation Sites Fine Tune the Activity and Substrate Binding of the Src Family Kinase Fyn. Marion E. Weir (talk by graduate student of **B.A. Ballif**). (*Local, Contributed*)
- 2015 UVM Student Research Conference. Delineation of ESDN-Dependent Signaling Mechanisms Required for Zebrafish Eye Development. R.M. Joy, E.E. Wysolmerski, B.A. Ballif and A.M. Ebert. (*Local, Contributed*)
- 2015 UVM Student Research Conference. Characterization of the Effects of the Anti-Tumorigenic Drug TPCK on the Substrates of the Pro-Proliferative Kinase PDK1. Rana Anjum, Jaye L. Grundy, John Blenis and **Bryan A. Ballif**. (*Local, Contributed*)
- 2015 UVM Student Research Conference. Molecular Characterization of Biochemical and Immunogenic Roles of SMIM1. Liam P. Kelley, Lionel Arnaud, Virginie Helias, Jean-Pierre Cartron, and **Bryan A. Ballif**. (*Local, Contributed*)
- 2015 UVM Student Research Conference. *In Silico* Identification and Biochemical Characterization of Novel CrkL-SH2 Binding Partners. Hannah E. Johnson, Ryan M. Joy, Marion E. Weir, James J. Vincent and **Bryan A. Ballif**.
- 2015 UVM Student Research Conference. The Northern Pitcher Plant as a model system for identifying proteomic predictors of aquatic ecosystem tipping points. Amanda Northrop, Rachel K. Brooks, Aaron M. Ellison, **Bryan A. Ballif**, and Nicholas J. Gotelli.
- 2015 UVM Student Research Conference. Identification of Hexamerin Storage Proteins in the *Aphaenogaster rudis* Species Complex. Amanda S. Meyer, Katie A. Miller, Sara Helms Cahan and **Bryan A. Ballif**.
- 2015 Experimental Biology (Boston, MA). Novel Tyrosine Phosphorylation Sites Fine Tune the Activity and Substrate Binding of Src Family Kinases. K. Hinkle, M. Weir, Z. Fulton, J. Hao, J. Mann, A. McGehee, T. Corwin, U. Stelzl, P. Deming, P. Juo and **B. Ballif**. (*International, peer-reviewed*)
- 2015 Experimental Biology (Boston, MA). Identification of Fyn-Induced PKA Binding Partners Using Quantitative Proteomics M.E. Weir, J.E. Mann, **B.A. Ballif** and P.B. Deming. (*International, peer-reviewed*)
- 2015 Experimental Biology (Boston, MA). Delineation of ESDN-Dependent Signaling Mechanisms Required for Zebrafish Eye Development R.M. Joy, E.E. Wysolmerski, B.A. Ballif and A.M. Ebert. (*International, peer-reviewed*)
- 2015 Experimental Biology (Boston, MA). ent R Weir

2014

- 2013 American Society for Mass Spectrometry. Global quantitative phosphoproteomic analysis of RSK-dependent signal transduction. J.A. Galan, K.M. Geraghty, E. Kanshin, J. Tcherkezian, G. Lavoie, B.E. Turk, **B.A. Ballif**, J. Blenis, P. Thibault, P.P. Roux (*International, peer-reviewed*)
- 2013 UVM Student Research Conference. Retinal Expression of key players in the growth cone collapse pathway. M. Weir (talk by graduate student of **B.A. Ballif**) (*Local, Contributed*)
- 2013 UVM Student Research Conference. A Large-Scale Phosphoproteomic Comparison of the Developing Mouse Brain. P. Doubleday (talk by undergraduate student of **B.A. Ballif**) (*Local, Contributed*)
- 2013 UVM Student Research Conference. Identification of Novel RSK-Dependent 14-3-3 Binding Proteins and Their Potential Role in Ras-MAPK Signaling. M. Saha, J. Karp and **B.A. Ballif**) (*Local, Contributed*)
- 2012 Human Proteome Organization Conference. The Quantification of Tissue-Specific CrkL-SH3 Binding Proteins Highlights Caveats to the Quantification of Protein Variants in Bottom-Up Proteomics. M. Cheerathodi and **B.A. Ballif**. (*International, peer-reviewed*)
- 2012 Human Proteome Organization Conference. Identification and Characterization of CIN85 Binding Proteins in Cultured Cells and Murine Brain. B.K. Bior and **B.A. Ballif**. (*International, peer-reviewed*)
- 2012 Human Proteome Organization Conference. Comparative Phosphoproteomic Analysis of Neonatal and Adult Murine Brain. P. F. Doubleday, T. Goswami, X. Li, A.M. Smith, E.M. Luderowski, R.M. Joy, J. Rush and **B.A. Ballif**. (*International, peer-reviewed*)
- 2012 Phosphoinositide Biology, Signaling and Cancer, Institute for Research in Immunology and Cancer, University of Montréal, TPCK inhibits AGC kinases by direct activation loop adduction at phenylalanine-directed cysteine residues. Anjum R, Pae E, Blenis J, **Ballif BA**. (*International, Peer-Reviewed*)
- 2012 UVM Student Research Conference. Identification and Characterization of a Novel, Isoform-Specific Phosphorylation Site of Collapsin Response Mediator Protein 1. M.E. Weir, G.R. Buel, J. Rush, and **B.A. Ballif**. (*Local, contributed*)
- 2012 UVM Student Research Conference. Comparative Phosphoproteomic Analysis of Neonatal and Adult Murine Brain. Tapasree Goswami, X. Li, A.M. Smith, E.M. Luderowski, P.F. Doubleday, R.M. Joy, J. Rush and **B.A. Ballif** (*Local, contributed*)
- 2012 UVM Student Research Conference. Identification and Characterization of a Novel Cooperative Activity between the Protooncogenic SFKs and Crk/CrkL Signaling Protein Families. M.M. Redmond, T.M. Aten, S. Weaver and **B.A. Ballif**. (*Local, contributed*)
- 2012 Vermont Chapter of the Society for Neuroscience and NBH meeting. Comparative Phosphoproteomic Analysis of Neonatal and Adult Murine Brain. Tapasree Goswami, X.Li, A.M. Smith, E.M. Luderowski, P.F. Doubleday, R.M. Joy, J. Rush and **B.A. Ballif** (*Local, contributed*)
- 2011 VGN Proteomics Open House. Proteomic Approaches Identify Novel RSK-Dependent 14-3-3 Interactions. M. Saha (talk by graduate student of **B.A. Ballif**) (*Local, invited*)
- 2011 11th International Congress on Toxoplasmosis. Strategies for target identification of tachypleglinA, a small-molecule inhibitor of T. gondii motility and invasion. J.M. Leung, R. Pathak, A.T. Heaslip, D.M. Warsaw, **B.A. Ballif**, N.J. Westwood and G.E. Ward. (*International, peer reviewed*)
- 2011 Gordon Research Conference, Mechanisms of Cell Signaling. The identification and characterization of novel MEK- and RSK-dependent 14-3-3 interactions using quantitative proteomics. M. Saha and **B.A. Ballif**. (*International, peer reviewed*)
- 2011 Gordon Research Conference, Mechanisms of Cell Signaling. RSK phosphorylates SOS1 inducing 14-3-3 binding and negatively regulating Ras-MAPK signaling. M. Saha and **B.A. Ballif**. (*International, peer reviewed*)
- 2011 American Society for Mass Spectrometry. Identification of CrkL-SH3 binding proteins from embryonic murine brain: Implications for Reelin signaling during brain development. M. Cheerathodi and **B.A. Ballif**. (*International, peer reviewed*)
- 2011 UVM Student Research Conference. Disabled-1 Functions as a Dynamic Switch Regulating Reelin Receptor Endocytic Machinery. B. Bior and **B.A. Ballif**. (*Local, contributed*)
- 2011 Vermont Chapter of the Society for Neuroscience. Disabled-1 Functions as a Dynamic Switch Regulating Reelin Receptor Endocytic Machinery. B. Bior and **B.A. Ballif**. (*Local, contributed*)
- 2010 Gordon Conference on Protein Phosphorylation and G Protein Coupled Receptors. G.B. Caldwell, A.K. Howe, **B.A. Ballif**, P.B. Deming. Functional interaction between platelet-derived growth factor beta

- receptor and the catalytic subunit of cAMP-dependent protein kinase A. Burlington, VT. (*International, peer reviewed*)
- 2010 NIH, NCRR Third Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE). The ER-Golgi intermediate compartment 53-kDa protein associates with hantavirus and arenavirus glycoproteins and is important for viral replication. Klaus, J., Eisenhauer, P., Russo, J., Do, D., Cornillez-Ty, C., **Ballif, BA.**, Lao, L., and Botten, J. (*National, peer reviewed*)
- 2010 UVM Student Research Conference. The ER-Golgi intermediate compartment 53-kDa protein associates with hantavirus and arenavirus glycoproteins and is important for viral replication. Klaus, J., Eisenhauer, P., Russo, J., Do, D., Cornillez-Ty, C., **Ballif, BA.**, Lao, L., and Botten, J. (*Local, contributed*)
- 2010 American Society for Mass Spectrometry. Fyn Promotes Phosphorylation of Collapsin Response Mediator Protein 1 at Tyrosine 504, a Novel, Isoform-Specific Regulatory Site. G.R. Buel, John Rush and **B.A. Ballif**. (*International, peer reviewed*)
- 2010 UVM Student Research Conference. Identification of a Novel Cooperative Activity between the Proto-oncogenic Src Family Kinases and Crk/CrkL Signaling Protein Families. Tyler M. Aten (talk by undergraduate student of **B.A. Ballif**). (*Local, organizer selected*)
- 2010 UVM Student Research Conference. M. Cheerathodi and **B.A. Ballif**. Proteomic Identification of CrkL-SH3 Binding Proteins from Embryonic Murine Brain: Implications for Multiprotein Complexes in Reelin Signaling. (*Local, contributed*)
- 2010 Vermont Chapter of the Society for Neuroscience. Fyn Promotes Phosphorylation of Collapsin Response Mediator Protein 1 at Tyrosine 504, a Novel, Isoform-Specific Regulatory Site. G.R. Buel and **B.A. Ballif**. (*Local, contributed*)
- 2009 Vermont Cancer Center Symposium. G.B. Caldwell, A.K. Howe, **B.A. Ballif**, P.B. Deming. Functional interaction between platelet-derived growth factor beta receptor and the catalytic subunit of cAMP-dependent protein kinase A. (*Local, contributed*)

- 2009 UVM Student Research Conference. Fyn Promotes Phosphorylation of Collapsin Response Mediator Protein 1 at Tyrosine 504, a Novel, Isoform-Specific Regulatory Site. G.R. Buel and **B.A. Ballif**. (*Local, contributed*)
- 2009 UVM Student Research Conference. T. Aten and **B.A. Ballif**. An Investigation of Tyrosine Kinase Tnk1 Substrates and Function. (*Local, contributed*)
- 2008

mechanisms responsible for disruption of cell-cell adhesion mediated by activation of the CSF-1R in

Grant Title: Elucidating Mechanistic Connections Between Guidance Signaling, Microtubule Regulation, and Growth Cone Steering. **PI: Laura-Anne Lowery; Role of Ballif: subcontract PI**; Total Subcontract Direct \$50,000; Commitment of Ballif—0.6 calendar month (6/1/16-1/31/20)

08/01/15-7/31/19 National Science Foundation Grant IOS 1625154
Grant Title: Delineation of Semaphorin6a/PlexinA2 Signaling in Zebrafish Eye Development. **PI: Alicia Ebert; Role of Ballif: Co-PI**; Total: \$ 520,000

05/15/16-4/30/20 National Science Foundation Grant DBI 1560180
Grant Title: REU Site: Summer Neuroscience Undergrad. Research Fellowship Program at UVM. **PI: Bryan A. Ballif** (assumed PI status after retirement of former PI, Felix Eckenstein); Total: \$278,728

06/01/14-5/31/17 Beckman Scholar's Program
PI: Jim Vigoreaux; Role of Ballif: Key Personnel; Direct: \$130,000

9/1/12-8/31/17 National Science Foundation Grant DEB 1144045
Grant Title: Collaborative Research: Forecasting and Forestalling Tipping Points in an Aquatic Ecosystem. **PI: Nicholas Gotelli; Role of Ballif: Co-PI**; Total: \$547,191

1/1/2012-12/31/16 National Science Foundation Grant DEB 136703
Grant Title: Dimensions:nBT/F1 11.04 Tf4dation Gra6TQq0.00000912 0 612 e2 0 61r3226.97ions:nBTntion Gra6TQq0.00000

Grant Title: Vermont Genetics Network—Vermont INBRE

Excellence (INBRE) Graduate Student Assistantship (**Mujeeburahiman Cheerathodi**). Proposal Title: Delineation of a Reelin-Regulated Signaling Pathway to the Actin Cytoskeleton. **PI: Judith Van Houten**. **Faculty Mentor: Bryan A. Ballif**. Award Amount: \$30,000

6/1/09-8/31/09 UVM URECA! Undergraduate Student Summer Research Award (**Tyler Aten**). Proposal Title: Src-Family Kinase Global Phosphorylation Analysis. **Faculty Mentor: Bryan A. Ballif**. Award Amount: \$4,000

6/1/09-8/31/09 UVM Neuroscience Undergraduate Student Summer Research Fellowship (**Eva Luderowski**)—

9/1/95-8/31/97 NIH Pharmacological Sciences Training Grant T32 GM07306 graduate student assistantship, Harvard Medical School, Boston, MA. **PI: Don Cohen**

Peer-Reviewed Publications (99 articles published, 1 book chapter)

10. #Schmoker, AM*, Ebert, AM and **Ballif, BA***. The DCBLD receptor family: emerging signaling roles in development, homeostasis and disease. *Biochemical Journal*. 2019 Mar 22;476(6):931-950.***Corresponding Authors**.

11. Christopher M. Ziegler, Philip Eisenhauer, Inessa Manuelyan, #Marion E. Weir, Emily A. Bruce, **Bryan A. Ballif** and Jason Botten. Host-driven phosphorylation appears to regulate the budding activity of the Lassa virus matrix protein. *Pathogens*. 2018 Dec 9;7(4). pii: E97.

12.

34. Xie Y, Jin Y, Merenick BL, Ding M, Fetalvero KM, Wagner RJ, Mai A, Gleim S, Tucker DF, Birnbaum MJ, **Ballif BA**, Luciano AK, Sessa WC, Rzucidlo EM, Powell RJ, Hou L, Zhao H, Hwa J, Yu J, Martin KA. Akt2-specific phosphorylation of GATA-6 is required for vascular smooth muscle cell differentiation after mTORC1 inhibition. *Science Signaling*. 2015 May 12;8(376):ra44.
35. Daniels G, **Ballif BA**, Helias V, Saison C, Martin P, Grimsley S, Mannessier L, Bonny M, Hustinx H, Lee E, Cartron J-P, Peyrard T and Arnaud L. Lack of the nucleoside transporter SLC29A1/ENT1 is responsible for the Augustine-null blood type and is associated with ectopic mineralization. *Blood*. 2015 Jun 4;125(23):3651-4.
36. Perlini LE, Szczurkowska J, **Ballif BA**, Piccini A, Giovedì S, Benfenati F and Cancedda L. Synapsin III Acts Downstream of Semaphorin 3A/CDK5 to Regulate Radial Migration and Orientation of Pyramidal Neurons *in vivo*. *Cell Reports*. 2015 Apr 14;11(2):234-48.
37. Alayev A, @Doubleday PF, Berger SM, **Ballif BA***, Holz MK*. Phosphoproteomics Reveals Resveratrol-Dependent Inhibition of Akt/mTORC1/S6K1 Signaling. *Journal of Proteome Research*. 2014 Dec 5;13(12):5734-42. ***Corresponding Authors.**
38. @Doubleday PF, **Ballif BA***. Developmentally-

46. @Aten TM, @Redmond MM, Weaver SO, @Love CC, #Joy RM, @Lapp AS, @Rivera OD, Hinkle KL, **Ballif BA***. Tyrosine phosphorylation of the orphan receptor ESDN/DCBLD2 serves as a scaffold for the signaling adaptor CrkL. *FEBS Letters*. 2013 Aug 2;587(15):2313-8. ***Corresponding Author**

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