

Curriculum Vitae

PERSONAL DATA

Name: Adam Frost
Birth Place: Utah
Citizenship: United States

EDUCATION

<u>Years</u>	<u>Degree</u>	<u>Institution (Area of Study)</u>
2009 – 2011	Postdoctoral Fellow	University of California, San Francisco (Cellular and Molecular Pharmacology) San Francisco, CA Mentor: Jonathan S. Weissman
2000 – 2009	M.D.	Yale University School of Medicine (Medical Scientist Training Program), New Haven, CT
2003 – 2008	Ph.D.	Yale University (Interdepartmental Neuroscience Program), New Haven, CT Mentors: Pietro De Camilli and Vinzenz M. Unger
1996 – 2000	B.S.	Brigham Young University (Honors Biochemistry) Provo, UT

ACADEMIC HISTORY

University of California, San Francisco **Department of Biochemistry and Biophysics**
09/01/2014 Hire, Tenure Track, Assistant Professor

University of Utah **Department of Biochemistry**
07/01/2011 Hire, Tenure Track, Assistant Professor

PROFESSIONAL EXPERIENCE

Full Time Positions

2014 - Present	Assistant Professor, Department of Biochemistry and Biophysics University of California, San Francisco, CA
2014 - Present	Adjunct Assistant Professor, Department of Biochemistry University of Utah School of Medicine, Salt Lake City, UT
2011 - 2014	Assistant Professor, Department of Biochemistry and Huntsman Cancer Institute, University of Utah School of Medicine, Salt Lake City, UT
2009 - 2011	Post-Doctoral Scholar, University of California, San Francisco, CA Mentor: Jonathan Weissman, PhD
2000 - 2009	Medical Scientist Training MD/PhD Program, Yale University School of Medicine, CT Mentors: Vinzenz Unger, PhD and Pietro De Camilli, MD
1997 - 2000	Undergraduate Research Intern, Brigham Young University, UT Mentor: David Busath, MD

HONORS AND AWARDS

2017	Chan Zuckerberg Biohub Investigator
2016	Howard Hughes Medical Institute Faculty Scholar
2016	American Asthma Foundation Scholar
2015	Herbert Boyer Junior Faculty Endowed Chair
2013	NIH Director's New Innovator
2013	Searle Scholar
2009	Howard Hughes Medical Institute Fellow of the Life Sciences Research Foundation
2009	Yale University School of Medicine Dissertation Award & Farr Scholarship Lecture
2008	Sara and Frank McKnight Fellowship, UT Southwestern Medical Center (Declined)
2006	Epilepsy Foundation Pre-Doctoral Research Training Fellowship
2006	Invited Student Delegate to the 45th Annual International Academy of Achievement
2004	The Milton C. Winternitz Prize in Pathology, Yale School of Medicine
2000	NIH/NIGMS, Medical Scientist Training Program Grant GM-07205
2000	<i>Cum laude</i> in Honors Chemistry and Biochemistry, Brigham Young University
1999	Harry S. Truman Scholarship, Finalist
1999	Barry M. Goldwater Scholarship for Math, Science and Engineering
1995	Most Outstanding Inorganic Chemistry Undergraduate Student Award
1994	Mangum-Lewis Undergraduate Scholarship (full support)

Reviewer Experience

Reviewer for eLife, Science, Nature Press Group: Nature, Nature Cell Biology, Nature Communications, Nature Structural and Molecular Biology, Nature Methods, European Molecular Biology Organization (EMBO); Proceedings of the National Academy of Sciences (PNAS), Cell Press: Cell, Developmental Cell, Molecular Cell, Cell Reports, Biophysical Journal, Current Biology; Journal of Cell Biology, Journal of Molecular Biology, Current Opinion in Structural Biology, Nucleic Acids Research.

UNIVERSITY COMMUNITY ACTIVITIES

University of California, San Francisco

2014 - Present	Faculty Member, Summer Research Training Program (SRTP) Selection and Placement Committee, chaired by Carol Gross.
2014 - 2015	Faculty Member, Junior Faculty Search Committee, chaired by Wallace Marshall

University of Utah Health Sciences Level

2012 - Present	Faculty Member, Core Research Facilities, Cell Imaging/Fluorescence Microscopy Facility, Oversight Committee
2012 - Present	Faculty Member, Research Microscopy Facility, Center for Advanced Microscopy, Oversight Committee
2012 - Present	Faculty Chair, Core Research Facilities, Electron Microscopy Core Facility, Oversight Committee

University of Utah Programs, Centers & Institutes

2011 - 2013	Member, Biological Chemistry Graduate Program, Admissions committee
2013 - 2014	Chair, Biological Chemistry Graduate Program, Admissions committee

FUNDING

Active Grants

- 9/30/13 - 6/30/18 Toward Atomic Resolution of Membranes and Membrane-Associated Machines
1DP2GM110772-01
Principal Investigator: Adam Frost
Direct Costs: \$1,500,000 Total Costs: \$2,345,000
NIH/NIGMS New Innovators High Risk High Reward Director's Program
Role: Principal Investigator
- 9/01/14 - 8/31/17 Structure and Function of the Exocyst Complex
2R01GM068803-10
Principal Investigator: Mary Munson (UMASS)
Direct Costs: \$219,992 (Frost Lab), Total Costs: \$347,587 (Frost Lab, UCSF)
NIH/NIGMS
Role: Co-PI
- 6/01/16 - 5/30/18 Structural Basis of Heritable Human Asthma and Other Sphingolipid Diseases
2016 AAF Scholar Award (16-0052; Frost)
Direct Costs: \$300,000 (Frost Lab)
American Asthma Foundation
Role: Principal Investigator
- 11/01/16 - 10/31/21 Function Follows Form: Structural Cell Biology
HHMI Grant #55108523
2016 Howard Hughes Medical Institute Faculty Scholar Award (Frost)
Direct Costs: \$500,000 (Frost Lab)
Howard Hughes Medical Institute Faculty Scholar Program
Role: Principal Investigator
- 11/01/16 - 10/31/21 CAT Tail Synthesis and Quality Control in Pathogens: New Biological and
Therapeutic Concepts
2017 CZ Biohub Investigator Program (Frost)
Direct Costs: \$750,000 (Frost Lab)
Chan Zuckerberg BioHub
Role: Principal Investigator
- 8/01/17 - 7/31/22 Structural Biology Center for HIV/Host Interactions in Trafficking and Assembly
2P50GM082545-06
Principal Investigator: Wesley I. Sundquist
Direct Costs: \$150,000 Total Costs: \$237,000 (Frost)
National Institute of General Medical Sciences
Role: Project 1 Structural Biology of ESCRT-III lead (Frost, Investigator)

Past Grants

- 7/01/15 – 12/31/16 New Concepts for Understanding and Treating Neurodegenerative Disease
New Frontiers Research Program,
Direct Costs: \$150,000 (Frost Lab)
Sandler Foundation and UCSF Program for Breakthrough Biomedical Research
Role: Principal Investigator
- 7/01/13 - 6/30/16 Structural and Functional Characterization of the Ribosome Quality Control Complex
13SSP218
Principal Investigator: Adam Frost
Direct Costs: \$300,000, Total Costs: \$300,000

Searle Scholars Program
 Role: Principal Investigator
 9/01/14 - 8/31/16 Structure of srGAP Proteins
 BSF Grant #2013310
 Principal Investigators: Adam Frost, Yarden Opatowsky
 Direct Costs: \$120,000, Total Costs: \$120,000
 Binational United States – Israel Science Foundation
 Role: Principal Investigator
 2/01/13 - 6/30/14 Structural Biology Center for HIV/Host Interactions in Trafficking and Assembly
 2P50GM082545-06
 Principal Investigator: Wesley I. Sundquist
 Direct Costs: \$162,000 Total Costs: \$162,000 (Frost)
 National Institute of General Medical Sciences
 Role: Collaborative Development Grant Awardee (Frost, Investigator)
 1/01/12 - 12/31/12 Cell cycle control by a novel membrane protein complex of the Golgi
 Principal Investigator: Adam Frost
 Direct Costs: \$28,000 Total Costs: \$28,000
 University Of Utah Research Foundation Seed Grant
 Role: Principal Investigator
 7/01/11 - 6/30/12 Cell Response and Regulation Cancer Center Support Grant
 Principal Investigator: Adam Frost
 Direct Costs: \$21,000 Total Costs: \$21,000
 Huntsman Cancer Institute
 Role: Principal Investigator
 3/01/11 - 6/30/11 Acquisition of a Field Flow Fractionation Chromatography System
 Principal Investigator: Adam Frost
 Direct Costs: \$89,608 Total Costs: \$89,608
 University of Utah Vice President for Research
 Role: Principal Investigator
 12/01/10 - 6/30/11 Fellowship - Adam Frost
 Principal Investigator: Adam Frost
 Direct Costs: \$56,000 Total Costs: \$56,000
 Life Sciences Research Foundation
 Role: Principal Investigator

TEACHING RESPONSIBILITIES/ASSIGNMENTS

Course Lectures

2016 – present Course Director, Tetrad Program, Cell Biology
 2015 – present Lecturer, iPQB Biophysics Program, Structural Biology
 2014 – 2016 Lecturer, Tetrad Program, Cell Biology
 2012 – 2014 Instructor, BLCHM C 6400: Genetic Engineering, University of Utah, 2 credit hours
 2012 - 2014 Lecturer, M BIOL 6480: Cell Biology I, 1.5 credit hours
 2011 - 2014 Instructor, BIO C 7020: Biochem Research in Progress, University of Utah
 2011 - 2014 Instructor, MBIOL 6100: Seminar Journal Club, University of Utah

Small Group Teaching

2015 – present Medical School, M3 Molecular Biology
 2011 - 2014 Medical School, Third Year Internal Medicine Clerkship Facilitator and Lecturer

Trainee Supervision

Post-Doctoral Scholars

- 2011 - 2013 Supervisor, Marc Elgort, University of Utah.
Ph.D. University of Utah, 2010
Project: Cell cycle regulation by a tumor suppressive complex of the Golgi complex
Trainee's Current Career Activities: Research Scientist, Associated Regional and University Pathologists, Salt Lake City, UT
- 2012 - 2015 Supervisor, Peter Shen, University of Utah.
Ph.D. Brigham Young University, 2011
Project: Structure and function of the ribosome quality control complex
Trainee's Current Career Activities: Assistant Professor, Department of Biochemistry, University of Utah School of Medicine, Salt Lake City, UT
- 2015 - 2017 Co-Supervisor, Nicole Schirle, University of California, San Francisco
Ph.D. Scripps Research Institute, 2014
Project: The structure and function of the ER Membrane protein Complex (EMC)
Trainee's Current Career Activities: Research and Design Scientist, Pfizer, Rinat Campus of South San Francisco, CA
- 2011 - Present Supervisor, Mingyu Gu, University of Utah.
Ph.D. University of Utah, 2010
Project: The role of the ESCRT pathway in nuclear envelope integrity
- 2016 - Present Supervisor, Henry Nguyen, University of California, San Francisco
Ph.D. Yale University, 2015
Project: Membrane remodeling mechanisms and the ESCRT pathway
- 2016 - Present Supervisor, Alexander Von Appen, University of California, San Francisco
Ph.D. European Molecular Biology Laboratory (EMBL), 2015
Project: The role of the ESCRT pathway nuclear envelope integrity
- 2016 - Present Supervisor, Halil Aydin, University of California, San Francisco
Ph.D. University of Toronto, 2016
Project: The structural basis of sphingolipid homeostasis
- 2017 - Present Supervisor, Ming Sun, University of California, San Francisco
Ph.D. Columbia University, 2017
Project: The structural basis of lipid homeostasis
- 2017 - Present Supervisor, Rachael Di Santo, University of California, San Francisco
Ph.D. University of Dundee, 2017
Project: Translational quality control

Masters

- 2011 - 2012 Supervisor, Seth Lilavivat, University of Utah.
B.S. Georgia Institute of Technology, 2008
Project: A novel endo-lysosome homeostasis pathway

Trainee's Current Career Activities: R&D scientist, Illumina, San Diego, C

PhD/Doctorate

- 2011 - 2017 Supervisor, Raghav Kalia, University of Utah.
B.S. Hans Raj College, Delhi University, 2007
M.S. Jawaharlal Nehru University, 2010
Project: The structural basis of mitochondrial fission
- 2013 - 2018 Supervisor, Nathaniel Talledge, University of Utah.
B.S. University of Minnesota, Twin Cities, 2011
Project: Structural basis of membrane remodeling by Dynamin-family and ESCRT-family proteins
- 2013 - Present Co-Supervisor, Valentin Romanov, University of Utah.
B.S. University of South Australia, 2011
Project: Microfluidic control of size-, content-, and leaflet lipid-specific vesicles
- 2015 - Present Supervisor, Lillian Kenner, UCSF
B.S. University of California, Santa Cruz, 2007
Project: The structure and function of the exocyst complex
- 2016 - Present Supervisor, Isabel Johnson, UCSF
B.S. University of Wisconsin, Madison, 2015
Project: ESCRT-dependent mechanisms and nuclear envelope integrity
- 2016 - Present Supervisor, Paul Thomas, UCSF
B.S. University of Michigan, 2012
Project: Regulated mitochondrial morphology
- 2016 - Present Supervisor, Conor Howard, UCSF
B.S. University of California, Berkeley, 2014
Project: Ribosome-associated Quality Control

Graduate Student Committees

- 2011 - 2014 Member, Jason Nielson, University of Utah, PhD/Doctorate Committee
- 2011 - 2014 Member, Niladri Sinha, University of Utah, PhD/Doctorate Committee
- 2011 - 2014 Chair, Raghav Kalia, University of Utah, PhD/Doctorate Committee
- 2011 - 2014 Member, Yan Gao, University of Utah, PhD/Doctorate Committee
- 2011 - 2014 Member, John Schell, University of Utah, PhD/Doctorate Committee
- 2011 - 2012 Chair, Seth Lilavivat, University of Utah, PhD/Doctorate Committee
- 2012 - 2014 Member, Zhizhou Ye, University of Utah, PhD/Doctorate Committee
- 2012 - 2014 Member, T. Cameron Waller, University of Utah, PhD/Doctorate Committee
- 2012 - 2014 Member, Edward Hujber, University of Utah, PhD/Doctorate Committee
- 2012 - 2015 Member, Shigeki Watanabe, University of Utah, PhD/Doctorate Committee
- 2012 - 2013 Member, Brandon Henrie, University of Utah, PhD/Doctorate Committee
- 2013 - Present Chair, Nathaniel Talledge, University of Utah, PhD/Doctorate Committee
- 2013 - 2014 Member, Kristofor Olson, University of Utah, PhD/Doctorate Committee
- 2013 - 2013 Member, James Robertson, University of Utah, PhD/Doctorate Committee
- 2013 - 2013 Member, Sven Miller, University of Utah, PhD/Doctorate Committee

2013 - 2017	Member, Kyle Trettin, University of Utah, PhD/Doctorate Committee
2013 - 2017	Member, Kirsten Khoe, University of Utah, PhD/Doctorate Committee
2013 - Present	Member, Valentine Romanov, University of Utah, PhD/Doctorate Committee
2015 - Present	Member, Jessica Sherry, UCSF, PhD/Doctorate Committee
2015 - Present	Member, Jordan Tsai, UCSF, PhD/Doctorate Committee
2015 - Present	Chair, Lillian Kenner, UCSF, PhD/Doctorate Committee
2015 - Present	Member, Aditya Anand, UCSF, PhD/Doctorate Committee
2015 - Present	Member, Eugene Palovcak, UCSF, PhD/Doctorate Committee
2015 - Present	Member, Evan Green, UCSF, PhD/Doctorate Committee
2015 - Present	Member, Valentina Garcia, UCSF, PhD/Doctorate Committee
2015 - Present	Member, Adrienne Stormo, UCSF, PhD/Doctorate Committee
2016 - Present	Chair, Isabel Johnson, UCSF, PhD/Doctorate Committee
2016 - Present	Chair, Paul Thomas, UCSF, PhD/Doctorate Committee
2016 - Present	Chair, Conor Howard, UCSF, PhD/Doctorate Committee
2017 - Present	Member, Rachel Brunetti, UCSF, PhD/Doctorate Committee

PEER-REVIEWED PUBLICATIONS

1. Tsai, J.C. #, Miller-Vedam, Lakshmi #, Anand, A.A., #, Jaishankar, P., Nguyen. H., Renslo, A.R., **Frost, A.***, Walter. P.* (2017). Structure of the nucleotide exchange factor eIF2B reveals mechanism of memory-enhancing molecule. **Science in press** *Co-corresponding authors BIORXIV/2017/222257 doi: <https://doi.org/10.1101/222257>
2. Rendón, O.R. #, Fredrickson, E.K. #, Howard, C.J. #, Van Vranken, J., Fogarty, S., Tolley, N.D., Osuna, B.A., Shen, P.S., Hill, C.P., **Frost, A.***, Rutter, J.* (2017). Vms1p is a release factor for the Ribosome-associated Quality control Complex. **Nature under revision** *Co-corresponding authors
3. Kalia, R., Wang, R. Y., Yusuf, A., Thomas, P. V., Agard, D. A., Shaw, J. M., and **Frost, A.** (2017). Structural Basis of Mitochondrial Receptor Binding and GTP Driven Conformational Constriction by Dynamin-Related Protein 1. **Nature under revision** BIORXIV/2017/172809 doi: <https://doi.org/10.1101/172809>
4. Hohendahl, A. #, Talledge, N. # Galli, V. Shen, P.S., Humbert, F., De Camilli, P., **Frost, A.***, Roux, A.* (2017). Structural inhibition of dynamin-mediated membrane fission by endophilin. **Elife**, Sep 21;6. pii: e26856. PMCID: PMC5663480 *Co-corresponding authors
5. Osuna, B.A., Howard, C.J., Kc, S., **Frost, A.***, Weinberg, D.E.* (2017) In vitro analysis of RQC activities provides insights into the mechanism and function of CAT tailing. **Elife** Jul 18;6 pii: e27949. PMID: PMC5562442 *Co-corresponding authors.
6. Kostova, K.K., Hickey, K.L., Osuna, B.A., Hussmann, J.A., **Frost, A.**, Weinberg, D.E.*, Weissman, J.S.* (2017) CAT-tailing as a fail-safe mechanism for efficient degradation of stalled nascent polypeptides. **Science** Jul 28;357(6349):414-417. PMCID: PMC5673106
7. Gu, M., LaJoie, D., Chen, O.S., Von Appen, A. Ladinsky, M.S., Michael J. Redd, M.J., Nikolova, L. Bjorkman, P.J., Sundquist, W.I.* , Ullman, K.S.* , **Frost, A.*** (2017) LEM2 recruits CHMP7 for ESCRT-mediated nuclear envelope closure in fission yeast and human cells. **Proc Natl Acad Sci USA** Feb 27. *Co-corresponding authors. PMCID: PMC5358359
8. Antonny, B., Burd, C., De Camilli, P., Chen, E., Daumke, O., Faelber, K., Ford, M., Frolov, V.A., **Frost, A.**, Hinshaw, J.E., Kirchhausen, T., Kozlov, M.M., Lenz, M., Low, H.H., McMahon, H., Merrifield, C., Pollard, T.D., Robinson, P.J., Roux, A., Schmid, S. (2016) Membrane fission by dynamin: what we know and what we need to know. **EMBO J.**, Sep 26. PMCID: PMC5090216
9. Hwang, J., Ribbens, D., Raychaudhuri, S., Cairns, L., Gu, H., **Frost, A.**, Urban, S., Espenshade.P.J. (2016) A Golgi rhomboid protease Rbd2 recruits Cdc48 to cleave yeast SREBP. **EMBO J.**, March 2016 Sep 21. PMCID: PMC5090219

10. Heider, M.R., Gu, M. Duffy, C.M., Mirza, A.M., Marcotte, L.L., Walls, A.C., Farrall, N., Hakhverdyan, Z., Field, M.C., Rout, M.P., **Frost, A.**, Munson, M. (2016) Subunit Connectivity, Assembly Determinants, and Architecture of the Yeast Exocyst Complex. **Nature Structure and Molecular Biology** Jan 23(1):59-66. PMID: PMC4752824
11. McCullough J., Clippinger, A.K., Talledge, N. Skowyra, M.L., Saunders, M.G., Naismith, T.V., Colf, L.A., Afonine, P.A., Arthur, C., Sundquist, W.I.* , Hanson, P.I.* , **Frost A.*** (2015). Structure and Membrane Remodeling Activity of ESCRT-III Helical Polymers. **Science** 350, 1548–51. *Co-corresponding authors. PMID: PMC46847693.
12. Shen, S.S., Park, P., Qin, Y., Li, X., Parsawar, P., Larson, M.H., Cox, J., Cheng, Y. Lambowitz, A.L., Weissman, J.S.* , Brandman, J.* , **Frost, A.*** (2015) Rqc2p and 60S ribosomal subunits mediate mRNA-independent elongation of nascent chains. **Science** 347(6217), 75-78 *Co-corresponding authors. PMID: PMC4451101
13. Koirala S, Guo Q, Kalia R, Bui HT, Eckert DM, **Frost A***, Shaw JM*. (2013). Interchangeable adaptors regulate mitochondrial dynamin assembly for membrane scission. **Proc Natl Acad Sci USA**, 110(15), E1342-51. *Co-corresponding authors. PMID: PMC3625255
14. Brandman O, Stewart-Ornstein J, Wong D, Larson A, Williams CC, Li GW, Zhou S, King D, Shen PS, Weibezahn J, Dunn JG, Rouskin S, Inada T, **Frost A***, Weissman JS.* (2012). A ribosome-bound quality control complex triggers degradation of nascent peptides and signals translation stress. **Cell**, 151(5), 1042-54. *Co-corresponding authors. PMID: PMC3534965
15. **Frost A***, Elgort MG, Brandman O, Ives C, Collins SR, Miller-Vedam L, Weibezahn J, Hein MY, Poser I, Mann M, Hyman AA, Weissman JS. (2012). Functional repurposing revealed by comparing *S. pombe* and *S. cerevisiae* genetic interactions. **Cell**, 149(6), 1339-52. (Cover) *Corresponding author. PMID: PMC3613983
16. Mim C, Cui H, Gawronski-Salerno JA, **Frost A**, Lyman E, Voth GA, Unger VM. (2012). Structural basis of membrane bending by the N-BAR protein endophilin. **Cell**, 149(1), 137-45. PMID: PMC3319357
17. Guerrier S, Coutinho-Budd J, Sassa T, Gresset A, Jordan NV, Chen K, Jin WL, **Frost A**, Polleux F. (2009). The F-BAR domain of srGAP2 induces membrane protrusions required for neuronal migration and morphogenesis. **Cell**, 138(5), 990-1004. PMID: PMC2797480
18. **Frost A**, Unger VM, De Camilli P. (2009). The BAR domain superfamily: membrane-molding macromolecules. **Cell**, 137(2), 191-6. PMID: PMC4832598
19. **Frost A**, Perera R, Roux A, Spasov K, Destaing O, Egelman EH, De Camilli P, Unger VM. (2008). Structural basis of membrane invagination by F-BAR domains. **Cell**, 132(5), 807-17. PMID: PMC2384079
20. Roux A, Uyhazi K, **Frost A**, De Camilli P. (2006). GTP-dependent twisting of dynamin implicates constriction and tension in membrane fission. **Nature**, 441(7092), 528-31. PMID: 16648839
21. Lax I, Wong A, Lamothe B, Lee A, **Frost A**, Hawes J, Schlessinger J. (2002). The docking protein FRS2alpha controls a MAP kinase-mediated negative feedback mechanism for signaling by FGF receptors. **Mol Cell**, 10(4), 709-19. PMID: 12419216
22. *Cole CD, ***Frost AS**, Thompson N, Cotten M, Cross TA, Busath DD. (2002). Noncontact dipole effects on channel permeation. VI. 5F- and 6F-Trp gramicidin channel currents. **Biophys J**, 83(4), 1974-86. *these authors contributed equally to this work. PMID: PMC1302287
23. Jackson ME, **Frost AS**, Moghaddam B. (2001). Stimulation of prefrontal cortex at physiologically relevant frequencies inhibits dopamine release in the nucleus accumbens. **J Neurochem**, 78(4), 920. PMID: 11520912

INVITED PUBLICATIONS

1. McBride H. & **Frost, A** (2016) Double agents for mitochondrial division. **Nature**, PMID: 27880759 DOI: 10.1038/nature20482
2. **Frost A.** (2011). Membrane trafficking: decoding vesicle identity with contrasting chemistries. **Curr Biol**, 21(19), R811-3.
3. **Frost A,** De Camilli P, Unger VM. (2007). F-BAR proteins join the BAR family fold. **Structure**, 15(7), 751-3.

BOOK CHAPTERS

1. **Frost A,** Unger VM, De Camilli P. (2009) Boomerangs, Bananas and Blimps: Structure and Function of F-BAR Domains in the Context of the BAR Domain Superfamily.
<http://www.landesbioscience.com/curie/chapter/3985/>
<http://www.ncbi.nlm.nih.gov/bookshelf/br.fcgi?book=eurekah&ch3985>.
In *The Pombe Cdc15 Homology Proteins* (Pontus Aspenström). Landes Biosciences
2. Kalia, R., Talledge, N.T., and **Frost, A.** (2015) Structural and Functional Studies of Membrane Remodeling Machines. **Methods in Cell Biology**, Volume 128, ISSN 0091-679X.
<http://dx.doi.org/10.1016/bs.mcb.2015.02.007>

PRESENTATIONS

International Meeting Presentations (Not Abstracts, Not Posters)

- 2017 American Society for Biochemistry and Molecular Biology, COMBIO, Adelaide, Australia (Plenary Lecture)
- 2017 EMBO Endocytosis Conference, Warsaw, Poland
- 2017 American Society for Biochemistry and Molecular Biology, Structures and Functions of the Ribosome-associated Quality control Complex (RQC), Chicago, IL, USA
- 2016 American Society of Cell Biology, Non-Canonical ESCRT Structures and Functions Mini-Symposium, San Francisco, CA USA (Symposium co-chair and Speaker)
- 2016 3rdth Annual Bio-Membranes Symposium, Max Planck Society in Berlin-Dahlem, Berlin, Germany
- 2016 “Hey What’s the Big Idea?” Symposium for the Center for Cell and Genome Science, Salt Lake City, UT USA (Keynote)
- 2016 Mitochondrial Dynamics, Keystone Symposium, Steamboat Springs, CO USA
- 2015 How Do Large GTPases of the Dynamin Family Fission Membranes, Les Treilles, France
- 2015 Gordon Research Conference, Molecular Membrane Biology, NH USA
- 2015 Membrane Protein Structures Meeting (MPS 2015), Argonne National Lab, Chicago, IL USA
- 2014 Molecular Basis for Membrane Remodeling and Organization, Roscoff of Brittany, France
- 2014 Microscopy of Infectious Disease Agent Symposia (MIDAS), NIH Hamilton MT, USA
- 2014 Structural Biology Related to HIV/AIDS, NIH, Bethesda, MD USA
- 2014 Gordon Research Conference, Lysosomes and Endocytosis, NH USA
- 2014 American Society for Biochemistry and Molecular Biology, San Diego, CA USA
- 2014 Keystone Symposium, Aging: Pushing the Limits of Cellular Quality Control, Steamboat Springs, CO USA
- 2013 Synaptic Vesicle Biogenesis, Janelia Farm Research Campus, Virginia USA
- 2013 Structural Biology Related to HIV/AIDS, NIH, Bethesda, MD
- 2012 3rd Annual Delaware Membrane Protein Symposium, Newark, DE
- 2011 Sixth International Fission Yeast Meeting, Harvard University, Boston, MA USA

- 2008 4th International Conference on Structural Analysis of Supramolecular Assemblies by Hybrid Methods. Lake Tahoe, CA, USA
- 2007 1st International Conference on PCH/F-BAR Proteins: Adaptor Proteins for Macromolecular Complexes. Schloß Waldthausen, Mainz, Germany
- 2007 61st Annual Meeting of the Symposium of the Society of General Physiologists. Membrane Biophysics of Fusion, Fission, and Rafts in Health and Disease. Marine Biological Laboratory. Woods Hole, MA, USA

Invited/Visiting Professor Presentations

International

- 2017 Max-Delbrück Center for Molecular Medicine, Berlin, Germany
- 2016 Monash University, Melbourne, Australia
- 2016 University of Queensland, Brisbane, Australia
- 2015 12th Annual Horizons in Molecular Biology, Max Plank Institute for Biophysical Chemistry, Göttingen, Germany
- 2014 Bioimaging at the Nanoscale. Oregon Health Science and the FEI Living Labs 1st Annual Workshop and Conference. Portland, OR USA
- 2013 Department of Biochemistry Seminar Series, University of Geneva, Geneva, Switzerland
- 2013 1st Annual Workshop on Cryo-Techniques for Electron Microscopy. Department of Nanochemistry, Instituto Italiano Di Tecnologia, Genova, Italy

National

- 2017 Department of Pharmacology, University of Alabama Birmingham, Birmingham, AL (USA)
- 2017 Department of Biochemistry, University of California, Santa Cruz, Santa Cruz, CA (USA)
- 2017 Structural Biology Related to HIV/AIDS, NIH/NIGMS, Bethesda, MD, USA (Speaker)
- 2017 Annual Signaling and Cellular Regulation (SCR) Symposium, University of Colorado, Boulder CO USA (Keynote)
- 2017 Department of Cell Biology, Johns Hopkins School of Medicine, Baltimore, USA
- 2017 Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School, Boston, USA
- 2017 Division of Physical Biosciences, Lawrence Berkeley National Laboratory, Berkeley, USA
- 2016 Bay Area Membrane Traffic (BATS) Symposium, University of California, Berkeley, Berkeley, CA USA (Keynote)
- 2016 Department of Biochemistry and Molecular Biology, University of Chicago, Chicago, USA
- 2016 Department of Molecular Biology, Princeton University, Princeton, NJ USA
- 2016 Department of Cell Biology, University of Texas, Southwestern Medical Center, Dallas, Texas USA
- 2015 Department of Molecular Biology, Brigham Young University, Provo, UT USA
- 2015 Department of Biochemistry, University of Washington, School of Medicine, Seattle, WA USA
- 2015 Department of Cell Biology, Symposium to Honor James Jamieson, Yale University School of Medicine, New Haven, CT USA
- 2015 Department of Genetics, Cell & Developmental Biology, and Institute for Regenerative Medicine Seminar Series at the Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA USA
- 2015 Structural and Quantitative Biology (SQB) Seminar Series, University of California, Berkeley, Berkeley, CA USA
- 2015 Department of Biochemistry, Weill Medical College of Cornell University, NYC, NY USA
- 2014 Department of Biomolecular Chemistry, University of Wisconsin-Madison, Madison, WI USA

- 2014 Department of Biochemistry & Molecular Pharmacology, University of Massachusetts,
Worcester, MA USA
- 2014 Department of Molecular Biosciences, Northwestern University, Evanston, IL USA
- 2013 Weill Institute for Cell and Molecular Biology, Cornell University, Ithaca, NY
- 2012 Department of Cell Biology & Molecular Biology Seminar Series, University of Maryland,
College Park, MD
- 2011 Department of Cell Biology, Yale University, New Haven, CT

OTHER SCHOLARLY ACTIVITY

Other Scholarly Activities

- 2008 “Structural Basis of Bilayer Deformation by Membrane-Associated Scaffolds.”
Yale University, Department of Molecular Biophysics & Biochemistry,
Interdepartmental Neuroscience Program
Thesis Advisor: Vinzenz M. Unger, Ph.D., Thesis Co-Advisor: Pietro De Camilli, M.D.
Thesis Committee: Fred Sigworth, Ph.D., Steven Strittmatter, M.D. Ph.D.