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Greg Odorizzi
Curriculum Vita

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Education:

Texas Tech University, B.S., Biology, 1991
University of California, San Diego, Ph.D., Biology, 1996

Research and Professional Experience:

1991-1996	Graduate Student with Dr. Ian Trowbridge, The Salk Institute for Biological Studies, San Diego, California
1996-2000	Postdoctoral Fellow with Dr. Scott Emr, School of Medicine, University of California, San Diego
2000-2007	Assistant Professor, Department of Molecular, Cellular, and Developmental Biology, University of Colorado, Boulder
2007-present	Associate Professor, Department of Molecular, Cellular, and Developmental Biology, University of Colorado, Boulder

Academic Honors:

1991	Highest Ranking Graduate, College of Arts & Sciences, Texas Tech University
1994-1996	Chapman Charitable Trust Graduate Research Fellowship, The Salk Institute for Biological Studies
1997-2000	Postdoctoral Fellowship, American Cancer Society
2003-2006	Arnold and Mabel Beckman Foundation Young Investigator Award

Research Grant Support:

Current:

1. National Institutes of Health, NIGMS
   Grant number: R01 GM065505
   Principal Investigator: Greg Odorizzi
   Title: Molecular analysis of multivesicular body formation
   Duration: 04/01/02 - 03/31/14

2. National Institutes of Health, NIGMS
   Grant number: 3R01GM065505-06A1S1 (ARRA supplement to R01 GM065505)
   Principle Investigator: Greg Odorizzi
   Title: Molecular analysis of multivesicular body formation
   Duration: 09/30/09 - 08/31/11

Past:

1. American Cancer Society
   Grant number: RSG-02-147-01-CSM
   Principal Investigator: Greg Odorizzi
   Duration: 07/01/02 - 06/30/07

2. Arnold and Mabel Beckman Foundation
   Grant number: Beckman Young Investigator Award
   Principal Investigator: Greg Odorizzi
   Duration: 09/01/03 - 08/31/07

Teaching Experience:

Non-Classroom Teaching:

1. Mentor for Undergraduate Research Students

David Mellman, 2001
Axel Laurer, 2001
Drew Goldberg, 2001
Sarah Altschuler, 2002
Johanna Weigert, 2002-03
Douglas Burch, 2003-04
Jeff Kimes, 2003-04
Kristy Freeman, 2003-04
Hunter Moore, 2004-05
Caitlin White-Root, 2004-2007
Sabine Abke, 2004-05
Derek Hagood, 2005
Michael Kaempf, 2006
Justin Hiezer, 2006-2007
Nicole Stutzman, 2006-2007
Sara Smedra, 2006-2007
Kathryn Flynn, 2007
Timothy Hall, 2007-2008
Jonathan Troncoso, 2007-2008
Martin Guess, 2007-2008
Matthew Miller, 2008
Ashley Grimaldi, 2008-2010
Jill Terry, 2008-2009
Amy Lassen, 2008-2010
David Seghetti-Hebble, 2009-2010
Ian Smith, 2009-present
Niles Sulkko, 2010-present
Christine Crotzer, 2010-present
Dustin Chernik, 2010-present

2. Principal Dissertation Advisor for Ph.D. Students:

Matthew McNatt, 2002-2007
Daniel Nickerson, 2003-2008
Caleb Richter, 2004-2009
Megan Wemmer, 2005-present
Therese Shideler, 2008-present

Non-Classroom Teaching (continued):

3. Principal Thesis Advisor for M.S. Students:

Julie Weidner, 2005-2007

4. Mentor for Postdoctoral Research Associates:

Sujatha Sitaraman, 2002-05
Marisa Otegui, 2003-04
Victoria Kelley, 2004-06
Matthew Russell, 2005-present

5. Rotation Advisor for Ph.D. Students:

Kellie Hazell, 2000-01
Kelly Geiger, 2001
Matthew McNatt, 2001-02
Monica Darland, 2002-03
Daniel Nickerson, 2003
Liang Zhang, 2003
Caleb Richter, 2003
Aaron Donner, 2003
Tom Armel, 2003-04
Megan Wemmer, 2004
Christopher Wrobel, 2004-05
Julie Weidner, 2005
Ryan Henry, 2005-06
Amber Bilak, 2006
Ian Ross, 2006-07
Norma Sanchez, 2007
Therese Shideler, 2007
Kyle Webster, 2008-2009
Jonathan Langberg, 2009
Natalie Johnson, 2010

6. Member of Dissertation Committee for Ph.D. Students:

Jay Parrish, 2001-02
Dennis Eastburn, 2001-04
Bryon Donohoe, 2001-05
Mark Robida, 2002-06
Kristina Murphy, 2003-05
Dong Kyun Woo, 2003-06
Liang Zhang, 2004-2008
Monica Darland, 2004-2008
Evan Trudeau, 2004-2007
Chandra Kilburn, 2006-2008
Toby Franks, 2006-2009
Stacy Erickson, 2007-2009
Nesia Zurek, 2008-present
Amber Rex, 2008-present
Julia Cope, 2008-present
Pippa Cosper, 2008-present
James Mapes, 2009-2010
Christopher Wrobel, 2009-present
Ian Ross, 2009-present
Jonathan Friedman, 2009-present
Michael Sfregola, 2009-present
Rencheng Wang, 2009-present
Eric Davis, 2009-present
Katherine Wright, 2007-present

Teaching Experience (continued):

Classroom Teaching (continued):

F 2001 MCDB3120:Cell Biology
Undergraduate Course
13 lecture hrs, 178 students

S 2002 MCDB5210:Cell Structure/Function
Graduate Course
3.75 lecture hrs, 9 students

F 2002 MCDB3120:Cell Biology
Undergraduate Course
19 lecture hrs, 167 students

S 2003 MCDB5210:Cell Structure/Function
Graduate Course
5 lecture hrs, 15 students

F 2003 MCDB3120:Cell Biology
Undergraduate Course
35 lecture hrs, 175 students

S 2004 MCDB5210:Cell Structure/Function
Graduate Course
2.5 lecture hrs, 12 students

F 2004 MCDB3120:Cell Biology
Undergraduate Course
40 lecture hrs, 209 students

S 2005 MCDB5210:Cell Structure/Function
Graduate Course
2.5 lecture hrs, 17 students

F 2005 MCDB3120:Cell Biology
Undergraduate Course
45 lecture hrs, 209 students

S 2006 MCDB5210:Cell Structure/Function
Graduate Course
4 lecture hrs, 18 students

S 2006 CHEM5801:Adv Signal Transduction
Graduate Course
2.5 lecture hrs, 20 students

F 2006 MCDB3120:Cell Biology
Undergraduate Course
45 lecture hrs, 219 students

S 2007 MCDB5210:Cell Structure/Function
Graduate Course
2.5 lecture hrs, 22 students

F 2007 MCDB3120:Cell Biology
Undergraduate Course
22 lecture hrs, 241 students

S 2008 MCDB5210:Cell Structure/Function
Graduate Course
3.75 lecture hrs, 10 students

S 2008 CHEM5801:Adv Signal Transduction
Graduate Course
2.5 lecture hrs, 19 students

F 2008 MCDB3120:Cell Biology
Undergraduate Course
23 lecture hrs, 215 students

F 2008 MCDB5220:Molecular Genetics
Graduate Course
22 lecture hrs, 12 students

S 2009 MCDB5210:Cell Structure/Function
Graduate Course
3.75 lecture hrs, 11 students

F 2009 MCDB3120:Cell Biology
Undergraduate Course
23 lecture hrs, 215 students

F 2009 MCDB5220:Molecular Genetics
Graduate Course
22 lecture hrs, 14 students

S 2010 MCDB5210:Cell Structure/Function
Graduate Course
3.75 lecture hrs, 14 students

Presentations at National Scientific Meetings:

August 2001	Poster: Yeast Cell Biology Meeting Cold Spring Harbor Laboratory, NY
June 2002	Poster: Gordon Research Conference on Lysosomes and Endocytosis Proctor Academy, Andover, NH
August 2003	Poster: Beckman Young Investigator Symposium Beckman Center of the National Academies of Sciences and Engineering Irvine, CA
August 2003	Speaker: Yeast Cell Biology Meeting Cold Spring Harbor Laboratory, NY
June 2004	Session Chair, Endocytic Pathway in Disease: Gordon Research Conference on Lysosomes and Endocytosis Proctor Academy, Andover, NH
June 2004	Poster: Gordon Research Conference on Lysosomes and Endocytosis Proctor Academy, Andover, NH
August 2004	Poster: Beckman Young Investigator Symposium Beckman Center of the National Academies of Sciences and Engineering Irvine, CA
December 2004	Poster: Annual Meeting of the American Society for Cell Biology Washington, D.C.
February 2005	Speaker: Keystone Symposium on Ubiquitin and Signaling Taos, NM
July 2005	Speaker: Gordon Research Conference on Molecular Membrane Biology Proctor Academy, Andover, NH
August 2005	Poster: Beckman Young Investigator Symposium Beckman Center of the National Academies of Sciences and Engineering Irvine, CA
July 2006	Poster: FASEB Summer Research Conference on Ubiquitin and Cellular Regulation Vermont Academy, Saxtons River, VT
August 2006	Speaker: Beckman Young Investigator Symposium Beckman Center of the National Academies of Sciences and Engineering Irvine, CA
December 2006	Poster: Annual Meeting of the American Society for Cell Biology San Diego, CA

Presentations at National Scientific Meetings (continued):

December 2008	Minisymposium Co-Chair, Membrane Heterogeneity and Trafficking Annual Meeting of the American Society for Cell Biology San Francisco, CA
August 2009	Speaker: Yeast Cell Biology Meeting Cold Spring Harbor Laboratory, NY
October 2010	Speaker: Biochemistry and Cell Biology of ESCRTs in Health and Disease ASBMB Special Symposium Snowbird, UT

Invited Seminars at Other Institutions:

February 2001	Department of Cell and Developmental Biology University of Colorado Health Sciences Center
February 2002	Department of Biology Brandeis University
April 2002	Department of Molecular Biology University of Wyoming
October 2002	Department of Molecular, Cellular, and Developmental Biology University of California, Santa Cruz
February 2004	Department of Biochemistry University of Colorado Health Sciences Center
April 2006	Department of Molecular and Cellular Pharmacology University of Wisconsin, Madison
November 2006	Department of Biology University of Denver
May 2007	Minisymposium on Membrane Trafficking University of Utah
September 2010	University of Liverpool Electron Microscopy Minisymposium University of Liverpool, UK
December 2010	Department of Cell and Developmental Biology University of Colorado, Denver

Service:

Department:

MCDB Seminars Committee, 2001-04
MCDB Faculty Search Committee, 2001-02, 2003-04, 2006-07
MCDB Academic Program Review Procedures Committee, 2003, 2011
MCDB Retreat Committee, 2003, 2005
MCDB Graduate Student Comps Exam Committee, Regular Member 2004-06, Ad-hoc 2007, 2010
MCDB Committee for Graduate Student Affairs, Regular Member 2004-2007, Chair 2007-2010
MCDB Executive Committee, 2007-2010
MCDB Junior Faculty Mentoring Committee for Gia Voeltz, 2007-present
MCDB Junior Faculty Mentoring Committee for Jingshi Shen, 2008-present
MCDB Junior Faculty Mentoring Committee for Robin Dowell-Dean, 2010-present

University:

CU Radiation Safety Committee, 2003-present

Scientific Community:

1. Peer Reviewer for Scientific Journals

EMBO Journal	*Proceedings of the National Academy of Sciences*
Journal of Cell Biology	*Journal of Cell Science*
Molecular Biology of the Cell	*Molecular and Cellular Biology*
Nature Structural and Molecular Biology	*Trends in Cell Biology*
Traffic	*Biochemical Journal*
Genetics	*Eukaryotic Cell*
Journal of Molecular Biology	*Biology of the Cell*
PLoS One	*PLoS Biology*
Chemical Reviews	*FEBS Journal*
Molecular Microbiology	*Nature Cell Biology*

2. Peer Reviewer for Grant Applications
   Cancer Research UK, 2006, 2007
   The Wellcome Trust, 2006, 2007, 2009
   Biotechnology and Biological Sciences Research Council, 2006, 2007
   American Cancer Society (Study Section: Cell Structure and Metastasis), 2007-present
   National Institutes of Health (Study Section: MBPP), Ad hoc 2010

Publications:

1. Odorizzi, C.G., Trowbridge, I.S., Xue, L., Hopkins, C.R., Davis, C.D., and Collawn, J.F. (1994) Sorting signals in the MHC class II invariant chain cytoplasmic tail and transmembrane region determine trafficking to an endocytic processing compartment. *J. Cell Biol.* 126, 317-30.
2. Odorizzi, G., and Trowbridge, I.S. (1994) Recombinant Rous sarcoma virus vectors for avian cells. *Methods Cell Biol.* 43, 79-97.
3. Odorizzi, G., Pearse, A., Domingo, D., Trowbridge, I.S., and Hopkins, C.R. (1996) Apical and basolateral endosomes of MDCK cells are interconnected and contain a polarized sorting mechanism. *J. Cell Biol.* 135, 139-52.
4. Odorizzi, G., and Trowbridge, I.S. (1997) Structural requirements for basolateral sorting of the sorting of the human transferrin receptor in the biosynthetic and endocytic pathways of Madin Darby canine kidney cells. *J. Cell Biol.* 137, 1255-64.
5. Odorizzi, G., and Trowbridge, I.S. (1997) Structural requirements for major histocompatibility complex class II invariant chain trafficking in polarized Madin-Darby canine kidney cells. *J. Biol. Chem.* 272, 11757-62.
6. Cowles, C.R.*, Odorizzi, G.*, Payne, G.S., and Emr, S.D. (1997) The AP-3 adaptor complex is essential for cargo-selective transport to the yeast vacuole. *Cell* 91, 109-18. *co-first authors
7. Gibson, A., Futter, C.E., Maxwell, S., Allchin, E.H., Shipman, M., Kraehenbuhl, J.P., Domingo, D., Odorizzi, G., Trowbridge, I.S., and Hopkins, C.R. (1998) Sorting mechanisms regulating membrane protein traffic in the apical transcytotic pathway of polarized MDCK cells. *J. Cell Biol.* 143, 81-94.
8. Futter, C.E., Gibson, A., Allchin, E.H., Maxwell, S., Ruddock, L.J., Odorizzi, G., Domingo, D., Trowbridge, I.S., and Hopkins, C.R. (1998) In polarized MDCK cells basolateral vesicles arise from clathrin-gamma-adaptin-coated domains on endosomal tubules. *J. Cell Biol.* 141, 611-23.
9. Odorizzi, G., Babst, M., and Emr, S.D. (1998) Fab1p PtdIns(3)P 5-kinase function essential for protein sorting in the multivesicular body. *Cell* 95, 847-58.
10. Odorizzi, G., Cowles, C.R., and Emr, S.D. (1998) The AP-3 complex: a coat of many colours. *Trends Cell Biol.* 8, 282-8.
11. Odorizzi, G., Babst, M., and Emr, S.D. (2000) Phosphoinositide signaling and the regulation of membrane trafficking in yeast. *Trends Biochem. Sci.* 25, 229-35.
12. Babst, M., Odorizzi, G., Estepa, E.J., and Emr, S.D. (2000) Mammalian tumor susceptibility gene 101 (TSG101) and the yeast homologue, Vps23p, both function in late endosomal trafficking. *Traffic* 1, 248-258.
13. Darsow, T., Odorizzi, G., and Emr, S.D. (2000) Invertase fusion proteins for analysis of protein trafficking in yeast. *Methods Enzymol.* 327, 95-106.
14. Katzmann, D.J., Odorizzi, G., and Emr, S.D. (2002) Receptor downregulation and multivesicular-body sorting. *Nat. Rev. Mol. Cell Biol.* 3, 893-905.

Publications, continued:

15. Odorizzi, G., Katzmann, D.J., Babst, M., Audhya, A., Emr, S.D. (2003) Bro1 is an endosome-associated protein that functions in the MVB pathway in *Saccharomyces cerevisiae*. *J Cell Sci.* 116, 1893-903.
16. Luhtala, N., and Odorizzi, G. (2004) Bro1 coordinates deubiquitination in the multivesicular body pathway by recruiting Doa4 to endosomes. *J. Cell Biol.* 166, 717-29.
17. Kim, J., Sitaraman, S., Hierro, A., Beach, B.M., Odorizzi, G., and Hurley, J.H. (2005) Structural basis for endosomal targeting by the Bro1 domain. *Dev. Cell* 8, 937-47.
18. Nickerson, D.P., West, M., and Odorizzi, G. (2006) Did2 coordinates Vps4-mediated dissociation of ESCRT-III from endosomes. *J. Cell Biol*, 175, 715-20.
19. Russell, M.R.G., Nickerson, D.P., and Odorizzi, G. (2006) Molecular mechanisms of late endosome morphology, identity, and sorting. *Curr. Opin. Cell Biol.* 18, 422-28.
20. Odorizzi, G. (2006) The multiple personalities of Alix. *J. Cell Sci.* 19, 3025-32.
21. McNatt, M.W., McKittrick, I.B., West, M., and Odorizzi, G. (2007) Direct association with Rsp5 mediates ubiquitin-independent sorting of Sna3 via the multivesicular body pathway. *Mol. Biol. Cell*. 18, 697-706.
22. Richter, C.M., West, M., and Odorizzi, G. (2007) Dual mechanisms specify Doa4-mediated deubiquitination in the multivesicular body pathway. *EMBO J*. 26, 2454-2464.
23. Haas, T.J., Sliwinski, M.K., Martínez, D.E., Preuss, M., Ueda, T., Nielsen, E., Odorizzi, G., and Otegui, M.S. (2007) The Arabidopsis AAA ATPase SKD1 is involved in multivesicular endosome function and interacts with LIP5. *Plant Cell* 19, 1295-1312.
24. Nickerson, D.P., Russell, M.R.G., and Odorizzi, G. (2007) A concentric circle model of multivesicular body cargo sorting. *EMBO Rep.* 8, 644-650.
25. Odorizzi, G., and Rehling, P. (2009) Membranes and organelles. *Curr. Opin. Cell Biol.* 21:481-83.
26. Nickerson, D.P., West, M., Henry, R., and Odorizzi, G. (2010) Regulators of Vps4 ATPase activity at endosomes differentially influence the size and rate of formation of intralumenal vesicles. *Mol. Biol. Cell* 21:1023-32.
27. Wemmer, M., Azmi, I., West, M., Davies, B., Katzmann, D., and Odorizzi, G. Bro1 binding to Snf7 regulates ESCRT-III membrane scission activity in yeast. *J. Cell Biol.* 192:295-306.