**CURRICULUM VITAE**

**Robert J. Deschenes, Ph.D.**

**Department of Molecular Medicine**

**Professor and Chair**

**Sr. Associate Dean of Graduate Education and Research**

**(Updated 080124)**

**Office Address:** Department of Molecular Medicine

 Morsani College of Medicine

 USF Health

 University of South Florida

 12901 Bruce B. Downs Blvd. MDC07

 Tampa, FL 33612

 813-974-6393

 rdeschen@usf.edu

**Place of Birth:** Lynn, Massachusetts

**Education:**

 1973-1977 B.A. St. Michael's College, Vermont (Biology)

 1975-1976 McGill University, Montreal (Biology)

 1977-1980 M.S. Tufts University (Biochemistry)

 1981-1984 Ph.D., Purdue University (Biochemistry)

 1984-1989 Postdoctoral Fellow, Molecular Biology Princeton University

 2006-2007 Faculty Leadership Program Lubar School of Business University of Wisconsin, Milwaukee

**Appointments:** 1989-2004 Assistant, Associate, and Professor

 Department of Biochemistry

 University of Iowa

 2002-2004 Vice Chair

 Department of Biochemistry

 University of Iowa

 1999-2004 Director

 Genetics Interdisciplinary Program

 University of Iowa

 2004-2008 Professor and Chairman

 Department of Biochemistry

 Joseph F. Heil, Jr. Professor

 Medical College of Wisconsin

 2007-2009 Director of Research - Cancer Center

 Medical College of Wisconsin

 2009-present Professor and Chairman

 Department of Molecular Medicine

 Associate Dean of Research

 Morsani College of Medicine

 University of South Florida

 2009-present Member Drug Discovery Program

 Moffitt Cancer Center

 2015-present Sr. Associate Dean of Graduate Education and Research

 Morsani College of Medicine, University of South Florida

**Awards and Honors:**

1981-1983 David Ross Research Fellow

1983 American Diabetes Association Summer Research Fellow

1985-1987 Anna Fuller Cancer Fund Postdoctoral Research Fellow

1987-1989 Postdoctoral Research Fellow, National Institutes of Health

1989-1992 Basil O'Connor Scholar, March of Dimes

2004-2008 Joseph Heil, Jr. Endowed Chair of Cancer Research

2009 Outstanding Service Award, Medical College of Wisconsin

2009 Fred Wright Endowed Professor

2009 Member, National Academy of Inventors

2011 Robert J Grasso Award for Outstanding Dedication to Graduate Education

2013 Elected Fellow, American Association Advancement of Science

2013 Outstanding Faculty Award, USF

2014 Robert J Grasso Award for Outstanding Dedication to Graduate Education

2016 Robert J Grasso Award for Outstanding Dedication to Graduate Education

2017 Purdue University, Distinguished Alumni Award

**Editorial Boards/Study Sections:**

1992-1997 Journal of Biological Chemistry, Editorial Board

2003-Present Eukaryotic Cell, Editorial Board

1997-2003 NIH Study Section: Microbial Physiology and Genetics

2006-2009 NIH Study Section: Membrane Biology and Protein Processing

2006 St Louis University, Biochemistry Department External Review

2010 Purdue Biochemistry Department External Review

2012-present Peer J Editorial Board

2013-present Editorial Board: PLOS One

**Other Review Activity:**

 Journals

 Science, J. Biological Chemistry, Molecular Cell Biology, EMBO, Cancer Research, Traffic, Molecular Biology of the Cell. FASEB Journal, Physiological Genetics, J Lipid Research, Biochemistry, FEBS LETT, J. Cellular Physiology, PNAS, Nature Cell Biology, Molecular Parasitology, Bio techniques, J. Molecular Biology, BBA, Analytical Biochemistry, J. Am Chem. Society, PLOS Pathogens, PLOS Biology, Nature Chemical Biology, PeerJ, Biochemical Journal, PLOS One

 Grants

 NSF

 NIH

 American Cancer Society

 Israel Bi-National Science Foundation

 Medical Research Council (UK)

**Research Grants, Contracts, Awards, Projects:**

**Active**

**None**

**Completed:**

R01EY024232 Deschenes (PI) 09/30/14-08/31/19

*Grp94-selective inhibitors to treat heredity glaucoma*

This project seeks to validate and improve upon this Grp94 inhibitor for the treatment of myocilin-associated POAG by establishing structure-activity relationships of Grp94 inhibitors to elucidate mechanisms of misfolded myocilin triage. These studies will result in a new suite of Grp94 modulators and demonstrate that Grp94 is a novel clinical target to treat glaucoma caused by misfolded myocilin. In addition, mechanisms identified herein that clarify how Grp94 regulates myocilin triage could provide new insights for other proteostasis diseases.

**1R21NS090160-01A1 Deschenes (PI) 07/01/16- 6/31/19 (NCE)**

***Protein Palmitoylation and the Etiology of X-Linked Intellectual Disabilities***

**The development of a functional neural synapse is essential for intellectual development. The study of gene mutations that lead to intellectual disabilities provide insights into the underlying mechanism and suggest potential interventions to reduce the burden of this problem that affects 1-3% of the population. This proposal is to study the molecular mechanism by which mutations in the X linked gene, zDHHC9, leads to a form of X-linked Intellectual Disability (XLID).**

**R01HL070752-12A1 Yuan (PI); Deschenes (5% effort) 12/01/15-11/30/18**

***Microvascular barrier dysfunction in thermal injury***

**The goal of this long- standing project is to elucidate the endothelial-specific mechanisms of microvascular hyperpermeability following burns. Two of the three aims of this project are to characterize the molecular basis of palmitoylating enzyme (DHHC PAT)-mediated permeability responses in vivo and in vitro; and to identify molecular targets of palmitoylation in endothelial cell- cell adherens junction barrier that regulate microvascular permeability.**

 **Submitted**

NIGMS R01GM136746 (PI: Yang)

*Proteome-scale Understanding of the Regulation of Protein Degradation by Palmitoylation*

The goal is to test the central hypothesis that protein palmitoylation significantly suppresses the degradation of a large number of cellular proteins by inhibiting their ubiquitination and proteasomal/lysosomal degradation. The specific aims are determining the extent to which protein palmitoylation 1) reduces protein degradation rates, 2) prohibits protein ubiquitination, and 3) inhibits proteasomal or lysosomal degradation.

**R21CA204712-01 Deschenes (PI)**

***Identification of chemical modulators of protein palmitoylation***

**This proposal tests the hypothesis that plasma membrane localization of activated N-Ras requires the Ras PAT, zDHHC9, to promotes Ras-dependent tumor growth. The goal of this study is to identify and validate inhibitors of the enzyme activity of zDHHC9.**

**Status: Impact score 54 (47%)**

 **Prior grant support**

 *Countermeasures to Combat Protozoan Parasites*

Defense Advanced Research Projects Agency (DARPA)

 8/24/11-8/23/13

 R. Deschenes (PI)

 **Prior grant support (cont)**

 *Structural Modifications and the Function of RAS Oncogene Proteins*

 NIH RO1-CA50211

 03/01/90-02/28/12

 R Deschenes (PI)

 *Endomembrane targeting and signaling of Ras proteins*

 NIH RO1-GM073977

 02/01/08-01/31/12

 R Deschenes (PI)

 *Regulation of eukaryotic histidine kinases*

 NIH R01- GM068746

 08/1/03 - 7/30/08

 R Deschenes (PI)

 FASEB Conference Support: *“Protein Lipidation and Membrane Microdomains”*

 NIH

 09/05/09-06/30/10

  *“Methods to identify chemotherapeutic lead inhibitors for protein palmitoyltransferases”*

 Biomedical Technology Alliance

 04/01/06-03/31/07

 *“Protein palmitoylation and the regulation of signal transduction pathways in breast cancer”*

 Breast Cancer Showhouse Award

 04/1/05-03/31/07

 *“Structural Modifications and the Function of RAS Oncogene Proteins”*

 NIH

 07/01/90-07/01/2005

 *The Function of RAS Oncogenes in Eukaryotic Signal Transduction*

 Basil O'Connor Starter Scholar 09/01/89-06/30/92

 Research Award (March of Dimes)

 *Function of RAS oncogenes in yeast*

 American Cancer Society 07/1/89-6/30/90

 *“Growth suppressors and cellular transformation”*

 Elsa U. Pardee Foundation 01/01/91-12/31/92

 *Yeast transport systems and function of CFTR*

 Pilot and Feasibility Project; Cystic Fibrosis 07/01/91-06/30/92

 Research Center

 *The role of G proteins in the yeast mating pheromone signal transduction pathway”*

 Diabetes and Endocrinology Seed Grant 09/01/89-06/30/91

 *A Model for the Control of Proliferation of Eukaryotic Cells*

University of Iowa Strategic Plan Initiative

 03/01/90-02/28/91 Co-I with Dr. Soura Dasgupta, Dept. of Computer Science

 **Prior grant support (cont)**

 *Isolation and characterization of genes involved in growth suppression*

 Univ. of Iowa Cancer Center Seed Grant

 01/01/89-12/31/89

 *Binding properties of a truncated G protein induced upon growth arrest of medullary thyroid*

 *carcinoma cells.*

 Univ. of Iowa Cancer Center

 10/01/93-06/30/94

 *“The role of protein tyrosine phosphatases in cellular growth regulation”*

 Elsa U. Pardee Foundation 01/01/93-12/31/97

 *“Genetic and biochemical analysis of cystic fibrosis mutations in yeast”*

 National Institutes of Health SCOR: Subproject, Mike Welsh (PI) 0

 9/30/93-09/29/98

**Postdoctoral Fellowships (supervised)**

 *Identification and characterization of regulators of the Sln1 osmosensor in yeast*

 American Heart – Heartland Affiliate

 7/01/00-6/30/02

 Mei-Yeh (Jade) Lu, Postdoctoral fellow

 *Characterization of an ER membrane complex required for the palmitoylation of Ras*

 American Heart – Heartland Affiliate

 6/30/01-7/01/03

 Sandra Lobo, Postdoctoral fellow

**Patents**

US Patent 7,883,860 Human protein acyl transferases and methods of uses. Issued 2009

 [7,488,592](http://www.patentgenius.com/patent/7488592.html) Human protein acyl transferases and methods of uses (amended). Issued 2011

 10,085,981 Protein Acyl Transferase inhibitors and methods of treatment. Issued 2018

**Invited Talks:**

UC-Irvine, Genetics (1988)

UT- Austin, Microbiology (1988)

Univ. of Vermont, Microbiology (1988)

Rice University, Biochemistry and Cell Biology (1988)

Boston University, Biology (1988)

Brandeis University, Biochemistry (1988)

University of Minnesota, Biochemistry (1988)

Purdue University, Biochemistry Program - Cancer Seminar Series (1989)

University of Chicago, Department of Biochemistry and Molecular Biology (1989)

Fels Institute, Temple University (1990)

Cold Spring Harbor Conference, "The Structure and Evolution of *RAS* ". (1990)

Burroughs Wellcome Research Laboratories, Research Triangle Park, N.C. (1991)

San Francisco Bay Area Yeast Meeting- UCSF (1992)

Loras College, Dubuque, Iowa (1992)

Midwest yeast meeting, University of Chicago (1992)

University of Michigan, Department of Biochemistry (1992)

Indiana University School of Medicine (Indianapolis) (1992)

Department of Microbiology, University of Iowa (1993)

Loyola University, Department of Biochemistry, Chicago (1993)

Seattle, Wash., Yeast Genetics and Molecular Biology Meeting (1994)

University of New Hampshire, Department of Biochemistry and Mol. Biology (1994)

Iowa State University, Department of Molecular Biology, Ames, IA. (1994)

Midwest yeast meeting, University of Chicago (1995)

Medical College of Wisconsin Dept. of Biochemistry (1995)

Pharmaceutical Research Institute, Johnson and Johnson, N.J. (1996)

 Wolkhart Pharmaceutical Research Center, Aurangabad, India (1997)

FASEB Research Conference, Ras GTPase Superfamily (1997)

University of Wisconsin, Madison- Dept. of Pharmacology (1997)

Cold Spring Harbor, Yeast Cell Biology Meeting (1997)

Bristol-Myers Squibb Research Institute, Connecticut (1997)

Univ. of Maryland, Yeast Genetics and Molecular Biology Meeting (1998)

Pharmaceutical Research Institute, Johnson and Johnson, N.J. (1998)

Louisiana State University Med Ctr, Dept. of Biochemistry (1998)

Purdue University, Dept. of Biochemistry (1999)

Iowa State Univ., Molecular Biology Program (1999)

ASBMB meeting, San Francisco (1999)

University of Miami, Dept. of Physiology and Biophysics (1999)

Cold Spring Harbor Yeast Cell Biology Meeting (2001)

Washington University, Department of Cell Biology (2001)

Syracuse University, Dept of Cell and Molecular Biology (2002)

FASEB Research Conference, Tucson, AZ Lipid Modification and Signaling (2002)

University of Toledo, Department of Biological Sciences (2002)

University of Michigan, Department of Biochemistry (2002)

Yeast Genetics Meeting, Madison University, Molecular and Cell Biology (2002)

Dept of Chemistry, Augustana College (2003)

Viterbo University, Dept. of Chemistry (2003)

Gordon Conference: Second Messenger and Prot. Phosphorylation (2003)

Gordon Conference: Mechanosensory Signal Transduction (2003)

Dept. of Chemistry and Biochemistry, University of Oklahoma (2003)

Dept. of Biochemistry, University of Georgia (2003)

Dept. of Biochemistry, University of Indiana School of Medicine (2004)

FASEB meeting Lipid protein modifications – Tucson, AZ (2004)

Biochemical Society Focused Meeting, Royal Agriculture College, UK (2005)

Center of Membrane Biology, UT-Houston (2005)

Dept. of Pharmacology, Thomas Jefferson University (2005)

Sigman Symposium, UCLA (2005)

Department of Biology Sciences, Marquette (2005)

Tata Institute of Fundamental Research; Mumbai, India (2006)

Indian Institute of Science; Bangalore, India (2006)

National Center for Biological Research (NCBS) Bangalore, India (2006)

Department of Microbiology, San Francisco State University (2006)

Blood Research Institute, Milwaukee, WI (2006)

Department of Pharmacology, University of North Carolina, Chapel Hill (2006)

Academia Sinica, Taiwan (2007)

National Health Research Institute, Taipei, Taiwan (2007)

Symposium Keynote, National Pingtung University, Pingtung, Taiwan (2007)

National Taiwan University, Taipei, Taiwan (2007)

Gordon Conference, Biddeford, Maine (2007)

Dept. of Medical Microbiology, Immunology, and Cell Biol, Southern Illinois Univ. (2007)

Human Biology & Chemistry, University of Wisconsin-Green Bay (2007)

Cancer Center, University of Southern Illinois, Springfield (2007)

Dept. of Cell Biology, Edmonton, Alberta, Canada (2008)

Department of Chemistry, Lawrence University, Appleton, WI (2008)

FASEB Meting – GTPases Saxtons River, VT (2008)

Dept. of Molecular Medicine, Univ. South Florida (2008)

Midwest Yeast Meeting, Northwestern University, Evanston, Illinois (2008)

The Lipid Group/ French Society of Biochemistry and Molecular Biology(GERLI), Renne, France (2009)

Moffitt Cancer Center, Univ. South Florida (2009)

Medical College of Georgia (2010)

Southern Medical College, Quangzhou, China (2011)

FASEB Protein Lipidation Conference (2011)

Medical College of Georgia-Augusta (2011)

Dept. of Molecular Medicine, Univ. South Florida (2012)

Indian Institute of Science; Bangalore, India (2012)

National Center for Biological Science; Bangalore (2012)

Dept. of Cell Biology, Edmonton, Alberta, Canada (2013)

FASEB Protein Lipidation Conference (2013)

FASEB Protein Lipidation Conference (2015)

Department of Pharmacology, National Univ of Ireland- Galway (2016)

Purdue University, Distinguished Alumni Award Lecture (2017)

University of Kentucky (2107)

FASEB Protein Lipidation Conference (2017)

UCSD Symposium to Honor Jack Dixon (2018)

**Bibliography: (h-index 45)**

**A. Publications**

1. Deschenes, R.J., Hilt, D.C., Marquis, J.K., and Mautner, H.G. (1981) Terbium binding to axonal membrane vesicles from lobster (Homarus americanus) peripheral nerve. A probe of calcium binding sites. Biochem. Biophys. Acta ***641(1)***: 166-172.

2. Deschenes, R.J., Mautner, H.G., and Marquis, J.K. (1981) Local anesthetics noncompetitively inhibit terbium binding to the exterior surface of nerve membrane vesicles. Biochem. Biophys. Acta ***649(3)***: 515-520.

3. Marquis, J.K., and Deschenes, R.J. (1982) A reevaluation of calcium-local anesthetic antagonism. Exp. Neurol. ***76(3)***: 547-552.

4. Taylor, W.L., Collier, K.J., Deschenes, R.J., Weith, H.L., and Dixon, J.E. (1981) Sequence analysis of a cDNA coding for a pancreatic precursor to somatostatin. Proc. Natl. Acad. Sci. USA ***78(11)***: 6694-6698.

5. Magazin, M., Minth, C.D., Funckes, C.L., Deschenes, R.J., Tavianini, M.A., and Dixon, J.E. (1982) Sequence of a cDNA encoding pancreatic preprosomatostatin-22. Proc. Natl. Acad. Sci. USA ***79(17)***: 5152-5156.

6. Funckes, C.L., Minth, C.D., Deschenes, R.J., Magazin, M., Tavianini, M., Sheets, M., Collier, K.J., Weith, H.L., Aron, D., Roos, B., and Dixon, J.E. (1983) Cloning and characterization of a mRNA-encoding rat preprosomatostatin. J. Biol. Chem. ***258(14)***: 8781-8787.

7. Deschenes, R.J., Lorenz, L., Haun, R., Roos, B., Collier, K., and Dixon, J.E. (1984) Cloning and sequence analysis of a cDNA encoding rat preprocholecystokinin. Proc. Natl. Acad. Sci. USA ***81(3)***: 726-730.

8. Deschenes, R.J., Haun, R.S., Sunkel, D., Roos, B.A., and Dixon, J.E. (1985) Modulation of cholecystokinin gene expression. Ann. N Y Acad. Sci. ***448***: 53-60.

9. Deschenes, R.J., Narayana, S.V.L., Argos, P., and Dixon, J.E. (1985) Primary structural comparison of the preprohormones cholecystokinin and gastrin. FEBS Lett. ***182(1)***: 135-138.

10. Deschenes, R.J., Haun, R.S., Funckes, C.L., and Dixon, J.E. (1985) A gene encoding rat cholecystokinin. Isolation, nucleotide sequence, and promoter activity. J. Biol. Chem. ***260(2)***: 1280-1286.

11. Deschenes, R.J., and Broach, J.R. (1987) Fatty acylation is important but not essential for *Saccharomyces cerevisae RAS* function. Mol. Cell. Biol. ***7(7)***: 2344-2351.

12. Duchemin, A.M., Quach, T.T., Iadarola, M.J., Deschenes, R.J., Schwartz, J.P., and Wyatt, R.J. (1987) Expression of the cholecystokinin gene in rat brain during development. Dev. Neurosci. ***9(1)***: 61-67.

13. Clarke, S., Vogel, J.P., Deschenes, R.J., and Stock, J. (1988) Posttranslational modification of the Ha-*ras* oncogene protein: Evidence for a third class of protein carboxyl methyltransferases. Proc. Acad. Sci. USA ***85(13)***: 4643-4647.

14. Deschenes, R.J., Stimmel, J.B., Clarke, S., Stock, J., and Broach, J.R. (1989) *RAS2* protein of *Saccharomyces cerevisiae* is methylesterified at its carboxy terminus. J. Biol. Chem. ***264***: 11865-11873.

15. Fedor-Chaiken, M., Deschenes, R.J., and Broach, J.R. (1990) SRV2, A gene required for *RAS* activation of adenylate cyclase in yeast. Cell ***61(2)***: 329-340.

16.Deschenes, R.J., Resh, M., and Broach, J.R. (1990) Acylation and prenylation of proteins. Curr. Opin. Cell Biol. ***2(6)***: 1108-1113.

17.Stimmel, J.B., Deschenes, R.J., Volker, C., Stock, J., and Clarke, S. (1990) Evidence for an S-farnesylcysteine methyl ester at the carboxyl terminus of the Saccharomyces cerevisiae RAS2 protein. Biochemistry ***29(41)***: 9651-9659.

18. Broach, J.R., and Deschenes, R.J. (1990) The function of *ras* genes in *Saccharomyces cerevisiae*. Adv. Cancer Res. ***54***: 79-139.

19.Guan, K.L., Deschenes, R.J., Qui, H., and Dixon, J.E. (1991) Cloning and expression of a yeast protein tyrosine phosphatase. J. Biol. Chem. ***266***: 12964-12970.

20.Guan, K., Deschenes, R.J., and Dixon, J.E. (1992) Isolation and characterization of a second protein tyrosine phosphatase gene, *PTP2*, from Saccharomyces cerevisiae. J. Biol. Chem. ***267(14)***: 10024-10030.

21.Guan, K., Farh, L., Marshall, T.K., and Deschenes, R.J. (1993) Normal mitochondrial structure and genome maintenance in yeast requires the dynamin-like product of the MGM1 gene. Curr. Genet. ***24(1-2)***: 141-148.

22.Mitchell, D.A., Marshall, T.K., and Deschenes, R.J. (1993) Vectors for the inducible overexpression of glutathione S-transferase fusion proteins in yeast. Yeast ***9(7)***: 715-723.

23.Mitchell, D.A., Farh, L., Marshall, T.K., and Deschenes, R.J. (1994) A polybasic domain allows nonprenylated Ras proteins to function in *Saccharomyces cerevisiae.*  J. Biol. Chem. ***269(34)***: 21540-21546.

24.Farh, L., Mitchell, D.A., and Deschenes, R.J. (1995) Farnesylation and proteolysis are sequential, but distinct steps in the C*aaX* box modification pathway. Arch. Biochem. Biophys. ***318(1)***: 113-121.

25.Yu, G., Deschenes, R.J., and J.S. Fassler, J.S. (1995) The essential transcription factor, Mcm1, is a downstream target of Sln1, a yeast "two-component" regulator. J. Biol. Chem. ***270(15)***: 8739-8743.

26.Mitchell, D.A., and Deschenes, R.J. (1995) Characterization of protein prenylation in Saccharomyces cerevisiae. Methods Enzymol. ***250***: 68-78.

27. Quinby, G.E., and Deschenes, R.J. (1997) An amino terminal prosequence is required for efficient synthesis of *S. cerevisiae* **a**-factor Biochim. Biophys. Acta ***1356(1)***: 23-34.

28. Fassler, J.S., Gray, W.M., Malone, C.L., Tao, W., Lin, H., and Deschenes, R.J. (1997) Activated alleles of yeast SLN1 increase Mcm1-dependent reporter gene expression and diminish signaling through the Hog1 osmosensing pathway. J. Biol.Chem. ***272***: 13365-13371.

29. Zhan, X.L., Deschenes, R.J., and Guan, K.L. (1997) Differential regulation of *FUS3* MAP kinase by tyrosine-specific phosphatases *PTP2/PTP3* and dual-specificity phosphatase *MSG5* in *Saccharomyces cerevisiae*. Genes Dev. ***11(13)***: 1690-1702.

30. Kurth, D.D., Farh, L., and Deschenes, R.J. (1997) Functional consequences of mutating conserved residues of the yeast farnesyl-protein transferase beta-subunit Ram1(Dpr1). Biochemistry ***36(50)***: 15932-15939.

31. Li, S., Ault, A., Malone, C.L., Raitt, D., Dean, S., Johnston, L.H., Deschenes, R.J., and Fassler, J.S. (1998) The yeast histidine protein kinase, Sln1p, mediates phosphotransfer to two response regulators, Ssk1p and Skn7p. EMBO J. ***17(23)***: 6952-6962.

32. Quinby, G.E., Dean, J.P., and Deschenes, R.J. (1999) Expression of *MFA1* and *STE6* is sufficient for mating type-independent secretion of yeast a-factor, but not mating competence. Curr. Genet. ***35(1)***: 1-7.

33. Tao, W., Deschenes, R.J., and Fassler, J.S. (1999) Intracellular glycerol levels modulate activity of Sln1p, a *Saccharomyces cerevisiae* two-component regulator. J. Biol. Chem. ***274(1)***: 360-367.

34. Deschenes, R.J., Lin, H., Ault, A.D., and Fassler, J.S. (1999) Antifungal properties and target evaluation of three putative bacterial histidine kinase inhibitors. Antimicrob. Agents Chemother. ***43(7)***: 1700-1703.

35. Bartels, D.J., Mitchell, D.A., Dong, X., and Deschenes, R.J. (1999) Erf2, a novel gene product that affects the localization and palmitoylation of Ras2 in *Saccharomyces cerevisiae.*  Mol. Cell. Biol. ***19(10)***: 6775-6787.

36. Zhan, X.L., Hong, Y., Zhu, T., Mitchell, A.P., Deschenes, R.J., and Guan, K.L. (2000) Essential functions of protein tyrosine phosphatases PTP2 and PTP3 and RIM11 tyrosine phosphorylation in *Saccharomyces cerevisiae* meiosis and sporulation*.*  Mol. Biol. Cell. ***11(2)***: 663-676.

37. Tao, W., Malone, C.L., Ault, A.D., Deschenes, R.J., and Fassler, J.S. (2002) The cytoplasmic coiled-coil domain is required for histidine kinase activity of the yeast osmosensor, SLN1. Mol. Microbiol. ***43(2)***: 459-473.

38. Li, S., Dean, S., Li, Z., Horecka, J., Deschenes, R.J., and Fassler, J.S. (2002) The eukaryotic two-component histidine kinase Sln1p regulates *OCH1* via the transcription factor, Skn7p. Mol. Biol. Cell ***13(2)***: 412-424.

39. Ault, A.D., Fassler, J.S., and Deschenes, R.J. (2002) Altered phosphotransfer in an activated mutant of the Saccharomyces cerevisiae two-component osmosensor, Sln1p. Eucaryot. Cell ***1(2)***: 174-180.

40. Lobo, S., Greentree, W.K., Linder, M.E., and Deschenes, R.J. (2002) Identification of a Ras palmitoyltransferase in *Saccharomyces cerevisiae*. J. Biol. Chem. ***277(43)***:41268-41273.

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42. Linder, M.E., and Deschenes, R.J. (2003) New insights into the mechanisms of protein palmitoylation. Biochemistry ***42(15)***: 4311-4320.

43. Dong, X., Mitchell, D.A., Lobo, S., Zhao, L.,Bartels, D.J., and Deschenes, R.J. (2003) Palmitoylation and plasma membrane localization of Ras2p by a nonclassical trafficking pathway in *Saccharomyces cerevisiae.* Mol. Cell. Biol. ***23*(18)**: 6574-6584.

44. Lu, J.M., Deschenes, R.J., and Fassler, J.S. (2003) *Saccharomyces cerevisiae* histidine phosphotransferase Ypd1p shuttles between the nucleus and cytoplasm for *SLN1*-dependent phosphorylation of Ssk1p and Skn7p. Eukaryot. Cell ***2(6)***: 1304-1314.

45. Linder, M.E., and Deschenes, R.J. (2004) Model organisms lead the way to protein palmitoyltransferases. J. Cell Sci. ***117(Pt 4)***: 521-526.

46. Babu, P., Deschenes, R.J., and Robinson, L.C. (2004) Akr1p-dependent palmitoylation of Yck2p yeast casein kinase 1 is necessary and sufficient for plasma membrane targeting. J. Biol. Chem. ***279(26)***: 27138-27147.

47. Lu, J.M., Deschenes, R.J., and Fassler, J.S. (2004) Role for the Ran binding protein, Mog1p, in Saccharomyces cerevisiae SLN1-SKN7 signal transduction. Eukaryot. Cell. ***3(6)***: 1544-1556.

48. Swarthout, J.T., Lobo, S., Farh, L., Croke, M.R., Greentree, W.K., Deschenes, R.J., and Linder, M.E. (2005) DHHC9 and GCP16 constitute a human protein fatty acyltransferase with specificity for H- and N-Ras. J. Biol. Chem. 280:31141-31148.

49. Wang, G. and Deschenes, R.J. (2006) Plasma membrane localization of Ras2 requires Class C Vps proteins and functional mitochondria in *Saccharomyces cerevisiae*. Mol. Cell. Biol. ***26***:3243-3255.

50. Mitchell, D.A., Vasudevan, A., Linder, M.E., and Deschenes, R.J. (2006) Protein palmitoylation by a family of DHHC protein S-acyltransferases. J. Lipid Res. ***47(6)***: 1118-1127.

51, Linder, M and Deschenes, R (2006) Protein Palmitoylation. Methods 40(2): 125-6.

52. Budde, C., Schoenfish, M.J., Linder, M.E., and Deschenes, R.J. (2006) Purification and characterization of recombinant protein acyltransferases. Methods ***40(2)***: 143-150.

53. Linder, M.E., and Deschenes, R.J. (2007) Palmitoylation: policing protein stability and traffic. Nat. Rev. Mol. Cell Biol. ***8(1)***: 74-84.

54. Narang, S.S., Malone, C.L., Deschenes, R.J., and Fassler, J.S. (2008) Modulation of yeast Sln1 kinase activity by the Ccw12 cell wall protein. J. Biol. Chem. ***283(4)***: 1962-1973.

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**Education and Mentoring**

 **Courses Taught:**

 **University of Iowa (1990-2004)**

Cell Biology

 Cellular and Molecular Biology of Neoplasia

 Experimental Biochemistry

 Foundations of Clinical Practice

 Biochemistry and Molecular Biology

 Genetic Analysis of Biological Systems

 Principles of Cell and Molecular Biology

 **Medical College of Wisconsin (2004-2009)**

Techniques in Mol and Cell Biology

 Biochemistry of the Cell

 Medical Biochemistry

 Cellular Signal Transduction

 Molecular Genetics

 Molecular Biology of the Cell

 Advanced Molecular Genetics

 **University of South Florida (2009-present)**

Proteomics and Structural Biology

 Molecular Medicine

 Molecular Basis of Disease (course director)

 Medical Sciences 1B, Cancer Biology (medical school preclerkship Yr 1)

 Scientific Communications and Grant Writing (course director)

 Medical Biochemistry

 Medical Sciences 4; Renal, Endocrine (medical school preclerkship Yr 2)

 Bioethics

 Structural Biology

 Methods in Molecular Biology

**Personnel Supervised**

 ***Research Assistants:***

 *Name Title Support Time in lab*

 Hong Lin RAI NIH RO1 03/01/94-11/99

 Cherie Malone RAIII NIH RO1 04/01/96-present

 Tricia Marshall RAII NIH R01 07/01/91-03/01/94

 Karla Hemesath RA I March of Dimes/NIH 02/15/89-06/31/91

 Angie Ghrist RA II NIH RO1 04/2000-04/19/2001

 Cheryl Budde RAIII NIH RO1 04/2002-2008

 Laura Motran RAI NIH RO1 6/09-5/10

 Missy Nydick RAI NIH RO1 6/10-7/11

 Logan Schafer DARPA 7/11-2013

 ***Undergraduate Research Students:***

Michael Clark 07/01/89-06/31/91 USA Undergraduate (Biochemistry)

Katayoun Chamany Sr. Undergraduate (Biology)

Jim Adams 09/01/89-08/01/90 Sr. Undergraduate (Biochemistry)

Cheryl Olson 01/01/90-06/31/91 Sr. Undergraduate (Biology)

Sigrid Berg Summers 1989-1991 SSTP

Joe Harrington 07/01/95-06/31/96 USA Undergraduate (Biochemistry)

Doug Hobson 09/01/95-08/01/96 Sr. Undergraduate (Biochemistry)

Tom Stricker 09/01/96-06/01/97 Sr. Undergraduate (Biochemistry)

Tricia Fairbanks 1997-98 Sr. Undergraduate (Biochemistry)

La Yi 1998-99 Sr. Undergraduate (Biochemistry)

Linda Bullinger 2000-01 Sr. Undergraduate (Biochemistry)

Graziella Mendonsa Summer 2001 Biochem summer fellowship

Jeanette Waltner Summer 2001 Genetics summer fellowship

Suzie Hight 2001-2002 Sr. Undergraduate (Biochemistry)

Tim Waganer 2002-2004 Undergraduate (Biochemistry)

Liz Dietrich 2002-2003 Undergraduate (Biochemistry)

Mike Durkin Summer 2005 MSSRP Student (Biochemistry)

Aparna Bhaduri Summer 2007 Undergraduate (Biochemistry)

John Miura Summer 2007 Medical Student Summer Research Award

Rachel Danowitz Summer 2008 Medical Student Summer Research Award

Philip Sanchez 2010-present USF Honors Student

Sasha Schuler 2011-2013 Undergraduate (Biology)

Osiris Johnson 2013-2014 Undergraduate (Chemistry)

Monic Amin 2015-17 Undergraduate, now USF Medical School

Karisa Serraneau 2015-17 Undergraduate, now USF Medical School

Abha Banerjee 2017-18 MS in Biotechnology Internship in our lab

Sydni Schlosser 2017- Undergraduate (CMMB)

Medina Dzaferi 2017- Undergraduate (Biomedical Sci/Anthropology)

***Ph.D. Theses Directed and Postdoctoral Fellows mentored***

 Lynn Farh 07/01/89-2/95 Ph.D. Student (Biochemistry)

 David Mitchell 07/01/90-1/95 Ph.D. Student (Biochemistry)

 Gary Quinby 08/28/90-7/95 MSTP Student (Biochemistry)

 David Kurth 07/01/95-1998 MS Student (Biochemistry)

 James Dean 08/20/93-1999 MSTP Student (Biochemistry)

 Doug Bartels 07/01/95-10/1/99 Ph.D. Student (Biochemistry)

 Xiangwen Dong 07/01/96-8/00 Ph.D. Student (Biochemistry)

 Tad Ault 07/01/96-3/01 Ph.D. Student (Biochemistry)

 Lihong Zhou 07/01/97-2004 Ph.D. Student (Genetics)

 Geng Wang 05/2001-2007 Ph.D. Student (Biochemistry)

 Kay Ishizuka 2004-2009 Ph.D. Graduate Student (Biochemistry)

 Hong Guan 2005-2008 MS Graduate Student (Biochemistry)

 Jerry Molitor 06/28/93-7/94 Ph.D. Postdoctoral Fellow

 Jade Lu 07/1998-2004 Post Postdoctoral Fellow

 Sandra Lobo 08/2000-2004 Post Postdoctoral Fellow

 Vipin Paliwal 2006-2007 Post Visiting Scientist-MSOE

 Yiping Ling 2004-2012 Post Postdoctoral Fellow

 Vladimir Valdez 2009-2013 MS Graduate Student (Molecular Medicine)

 Laura Hamel 2010-2015 Ph.D. Graduate Student (Molecular Medicine)

 Yiru Qin 2012-2016 Ph.D. Graduate Student (Molecular Medicine)

 Krishna Reddy 2011-2016 Ph.D. Graduate Student (Molecular Medicine)

 Jeremy Baker 2015-2019 Ph.D. Graduate Student (Molecular Medicine)

 Ahmed Ramadan 2017-2022 Ph.D. Graduate Student (Molecular Medicine)

 Lisa Kirouac 2016-2018 Post Postdoctoral Fellow

 Malathi Narayan 2017-2018 Post Postdoctoral Fellow

***PhD Thesis Committtee (USF):***

 **Department of Molecular Medicine:**

Hercules Apostolatos 2009-2010

 Jesse Arbuckle 2011-2012

 Ruan Cox 2011-2015

 Erica Fratz 2011-2014

 MJ Holloway 2009-2011

 Vladimir Valdez 2009-2013

 Nadine Nelson 2010-2014

 Thomas Hayman (NCI/MM) 2010-2013

 Laura Hamel 2010-2015

 Krishna Reddy 2011-2016

 Angela Holton 2010-2017

 Shelly DeForte 2012-2016

 Rezaul Karim (Said Sebti) 2014-2021

 Helena Hernandez-Cuervo (NK) 2014-2021

 Thomas Parks (Taylor-Clark) 2015-2021

 Kyle Kroeck (Yu Chen) 2015-2020

 Robert Vander Velde (Murisyk) 2016-2021

 Michael Sacco (Yu Chen) 2016-2021

 April Darling (Uversky) 2016-2020

 Yan Yan 2016-present

 Taylor Harris (Chemistry) 2016-2023

 Santiago Rodriguez Ospina 2018-2022

 **Department of Cell Biology, Microbiology, and Molecular Biology**

Bi Zhao 2016-2020

 **Department of Chemistry**

Grant Lawrence 2019-2023

 **Signature Interdisciplinary Program in Allergy, Immunology & Infectious Disease**

 Amorce Lima 2010-2015

 Nhan Tu 2010-2016

 Yvonne Davis 2010-2014

 Sasha Siegel 2011-2016

 Udoka Okaro 2016-2020

 **Signature Interdisciplinary Program in Neuroscience**

 John Koren 2010-2012

 Lisa Kirouac 2012-2016

 **Signature Interdisciplinary Program in Cardiovascular Research**

 Ricci Thompson 2011-2013

 **Biomicroelectromechanical Systems**

 Kevin Luongo 2011-2013

**University Committee Service (recent):**

**Medical College of Wisconsin**

2004-2009 Executive Committee of the Cancer Center

2006-2007 Chair, Graduate Dean Search Committee

2005-2007 Executive Committee Representative to the Faculty Council

2005-2009 MSTP Executive Committee

2005-2006 Strategic Planning Committee Graduate Education

2006-2009 IDP Curriculum Committee

2006-2009 Executive Committee- Curriculum (CEC)

**University of South Florida**

2009-Present Byrd Scientific Advisory Committee

2009-present AIMS for Chairs Committee

2009-present Executive Committee for Research Co-Chair

2009-2011 Chair, Molecular Pharmacology Chair Search Committee

2009-2011 Clinical and Translational Science Awards (CTSA) Planning Committee

2010-2017 Center for Drug Discovery and Innovation (CDDI) Advisory Board

2010-present USF Health Space Committee

2011-2016 University Distinguished Professor Recommending Committee

2013-2014 Academic Performance Review- Dean’s Appeal Committee

2017-Present Neuroscience Executive Board

2018 College of Nursing Vice Dean of Research Search Committee

2018 STEM communication summit committee

2018 Chair, Muma Chair Search Committee (Pediatrics)

2018-2019 Chair, USF Campus Consolidation; Research Subcommittee

2020-21 College of Nursing Vice Dean of Research Search Committee

2020 F&A Committee

2021 Search Committee, Sr VP of Faculty Affairs, MCOM

2021 Search Committee, VP of Research, USF

2021 USF Research Budget Planning Committee

2021-present MCOM Financial Oversight Committee (FOC)

2020-present Medical School Continuous Quality Improvement (CQI) Committee

2023 Search Committee for Chair of Medicine

2023 Search Committee for Breast Cancer Surgery Chair