THOMAS M. NEWPHER, Ph.D.

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EDUCATION

Ph.D., Department of Molecular Biology and Microbiology, Case Western Reserve University, Cleveland, OH, 5/06.
Thesis: Characterizing the dynamics and function of clathrin during endocytosis in yeast
Advisor: Dr. Sandra K. Lemmon.

B.A., Biological Sciences, Thiel College, Greenville, PA, 5/00.

RESEARCH EXPERIENCE

Research Associate, Duke University Medical Center, 9/06-present.
Characterizing the endocytic zone in dendritic spines.
Laboratory of Dr. Michael D. Ehlers, HHMI, Department of Neurobiology

Postdoctoral Associate, University of Miami, 3/06-8/06.
Studied the dynamics of yeast endocytic proteins.
Laboratory of Dr. Sandra K. Lemmon, Department of Molecular and Cellular Pharmacology

Doctoral Student, Case Western Reserve University, 7/00-5/06.
Mapped the physical interactions between yeast clathrin and the actin-associated endocytic protein, Sla2p. Measured the temporal recruitment of cell surface clathrin and associated proteins by wide-field and total internal reflection fluorescence microscopy.
Laboratory of Dr. Sandra K. Lemmon, Department of Molecular and Cellular Pharmacology

Undergraduate Research Internship, TruGreen-Chemlawn Research and Development, 6/99-8/99.
Designed and organized experiments comparing the efficacy of several classes of pesticides on various insect pests during multiple stages of larval development.
Laboratory of Dr. Amy Suggars, Research and Development

Laboratory Assistant, Thiel College, 1/97-5/00.
Organized laboratory materials and prepared reagents for students.
Graded laboratory reports and supervised students during class.
Dr. Joyce Cuff, Department of Biology

PUBLICATIONS

T. Newpher, F. Idrissi, M. Geli and S. K. Lemmon, "Novel function of clathrin light chain in promoting endocytic vesicle formation", Mol. Biol. Cell, 17:4343-4352 (2006).

T. Newpher and S. K. Lemmon, "Clathrin is important for normal cortical actin dynamics and progression of Sla2p-containing patches during endocytosis in yeast", Traffic, 7:574-588 (2006).

T. Newpher, R. Smith, V. Lemmon and S. K. Lemmon, "In vivo dynamics of clathrin and its adaptor-dependent recruitment to the actin-based endocytic machinery in yeast", Developmental Cell, 9:87-98 (2005).

K. Henry, K. D'Hondt, J. Chang, **T. Newpher**, K. Huang, R. Hudson, H. Riezman and S. K. Lemmon, "Scd5p and clathrin function are important for cortical actin organization, endocytosis, and localization of Sla2p in yeast", Mol. Biol. Cell, 13:2607-25 (2002).

INVITED SPEAKER

T. Newpher and S. K. Lemmon, "Clathrin accumulates with endocytic factors at the cell cortex upon disruption of the actin cytoskeleton in yeast", Minisymposium speaker at the Cargo Selection and Vesicle Formation session, American Society for Cell Biology Washington, D.C., December 2004.

ABSTRACTS

T. Newpher and S. K. Lemmon, "Clathrin is important for normal cortical actin dynamics and progression of Sla2p containing patches in yeast", American Society for Cell Biology, San Francisco, December 2005.

T. Newpher and S. K. Lemmon, "Clathrin accumulates with endocytic factors at the cell cortex upon disruption of the actin cytoskeleton in yeast", American Society for Cell Biology, Washington, D.C., December 2004.

T. Newpher, K. Henry, K. Huang, R. T. Hudson and S.K. Lemmon, "Sla2p, a Hip1/R related protein, requires clathrin for association with the actin cytoskeleton in yeast", Gordon Research Conference on Membrane Molecular Biology, Proctor Academy, Andover NH, June, 2003.

T. Newpher, K. Henry, K. Huang, R. T. Hudson and S.K. Lemmon, "Sla2p, a Hip1/R related protein, requires clathrin for association with the actin cytoskeleton in yeast", Yeast Cell Biology, Cold Spring Harbor, NY, August 2003.

T. Newpher, K. Henry, K. Huang, R. T. Hudson and S. K. Lemmon, "Sla2p, a Hip1/R related Protein, requires clathrin for association with the actin cytoskeleton in yeast", American Society for Cell Biology, San Francisco, December, 2002.

S. K. Lemmon, K. Henry, J. Chang, **T. Newpher**, K. D'Hondt, and H. Riezman, "Clathrin and Scd5p are involved in Actin Organization and Endocytosis in Yeast", American Society for Cell Biology, San Francisco, December, 2002.

K. Henry, J. Chang, **T. Newpher**, K. D'Hondt, H. Riezman, K. Payne, C. Chan, and S. K. Lemmon, "Scd5p is involved in actin organization and endocytosis and is negatively regulated by the Prk1p kinase, Yeast Cell Biology Meeting, Cold Spring Harbor, NY, August, 2001.

PROFESSIONAL AFFILIATIONS

American Society for Cell Biology, 2004-present
American Chemical Society, 8/96-5/00
Beta Beta Beta, Honorary Biology Society, 8/99-5/00

HONORS/ AWARDS

National Research Service Award, Case Western Reserve University, Cell and Molecular Biology Training Grant, 6/02-7/03
Thiel College Merit and Leadership Award, 8/96-5/00
Dean's List eight consecutive semesters, graduated summa cum laude
Departmental Honors, Biology