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JOHN M. ZABORSKE

EDUCATION

September 2004-June 2010 University Of Chicago
PhD Biochemistry and Molecular Biology

- Thesis: Regulation of Metabolism by Transfer RNA in *Saccharomyces cerevisiae*

September 2000-May 2004 Indiana University Bloomington
BS Biochemistry *3.7/4.0*
With Honors
Chemistry Departmental Honors Notation

RESEARCH EXPERIENCE

September 2004-June2010 Pan Laboratory University of Chicago
PhD Graduate Student in Biochemistry and Molecular Biology
Research focused on cell's use of tRNA as signaling molecules to respond to environmental stresses through the highly conserved Gcn2/Gcn4 stress response pathway and proteasome regulation.

May 2001-May 2004 Burke Laboratory Indiana University
Undergraduate Research Assistant
Used standard biochemical techniques to determine sequence and structure requirements of Ni^{2+}-RNA-amino acid complex.

PUBLICATIONS

John M. Zaborske, Xiaochen Wu, Ronald Wek , Tao Pan "Selective control of amino acid metabolism by the GCN2 eIF2 kinase pathway in Saccharomyces cerevisiae" BMC Biochemistry Submitted June 2010

John Zaborske, Tao Pan "Genome-wide analysis of aminoacylation (charging) levels of tRNA using microarrays" Journal of Visualized Experiments 40 http://www.jove.com/index/details.stp?id=2007, doi: 10.3791/2007, June 18, 2010

Tamir Tuller, Asaf Carmi, Kalin Vestsigian, Sivan Navon, Yuval Dorfan**, John Zaborske**, Tao Pan, Orna Dahan, Itay Furman, Yitzhak Pilpel "An evolutionarily

conserved mechanism for controlling the efficiency of protein translation" Cell Vol 141(2), 344-354, April 16, 2010

Kirk A. Staschke, Souvik Dey, **John M. Zaborske**, Jeanette N. McClintick, Tao Pan, Howard J. Edenberg, and Ronald C. Wek "Integration of general amino acid control and target of rapamycin (TOR) regulatory pathways in nitrogen assimilation in yeast" The Journal of Biological Chemistry Vol 285, 16893-16911, March 16, 2010

John M. Zaborske, Kimberly A. Dittmar, Tao Pan, Ronald Wek "GCN2 activation by non-histidyl-tRNAs in Saccharomyces cerevisiae" The Journal of Biological Chemistry Vol 284, 25254-25267, September 11, 2009
Chosen as Paper of the Week by JBC

Sanchita Hati, Amy R. Boles, **John M. Zaborske**, Brett Bergman, Amanda L. Posto and Donald H. Burke "Nickel 2^{+}- mediated assembly of an RNA-amino acid complex" Chemistry and Biology, Vol 10, 1129-1137, November 2003

PRESENTATIONS

"Charged tRNAs as Regulators of Metabolic State in *Saccharomyces cerevisiae*" Poster Chicago Biomedical Consortium Seventh Annual Symposium, The Biology of Non-Coding RNAs: Old Molecules, New Actions October 30, 2009 Chicago IL

"Selective control of tRNA charging by the GCN2 kinase pathway" Talk 2008 Molecular Biosciences retreat Nov 7-9, 2008 Galena IL

"Charged tRNAs as Regulators of Metabolic State in *S. cerevisiae*" Poster Cold Spring Harbor Translational Control Meeting September 3-7, 2008 Cold Spring Harbor NY

"Charged tRNAs as Regulators of Metabolic State in *S. cerevisiae*" Talk Molecular and Cellular Biology Training Grant Oct 17, 2007 University of Chicago

"A Ni(II) Dependent Ribozyme that Reacts with Biotinylated Lysine." Poster Rustbelt RNA Meeting November 1-2, 2002 Mt. Sterling OH

PROFESSIONAL MEMBERSHIPS

Alpha Chi Sigma (Reporter 2002-2003, President 2003-2004)

Student ACS chapter 2003-2004

TEACHING EXPERIENCE

Undergraduate research mentor 2008-2009 Pan Laboratory University of Chicago

Taught laboratory techniques, explained both mine and others' research, monitored her progress and worked with her to plan future experiments.

Teaching workshop "Syllabus Preparation" 2009

Discussed methods of preparing a syllabus to better maintain students' interest throughout the course.

Teaching Assistant "Introduction to Systems Biology I" 2008 University of Chicago

Presented a solo lecture, graded assignments and met with undergraduate students to discuss course material.

Teaching workshop "Fostering Critical Thinking in Science" by Craig Nelson 2008

Explored methods for better engaging students with a focus on active learning.

Teaching Assistant "Nucleic Acids Structure and Function" 2005 University of Chicago

Graduate student course where I ran discussion sections, graded assignments and met with students to discuss material.

COMMUNITY SERVICE AND OUTREACH

Science Olympiad State Tournament 2002-2004, 2003-2004 (Event Organizer)

Designed, moderated and graded a practical laboratory examination for high school students.

National Chemistry Day October 2001-2003, 2002 (Event Organizer)

Designed, moderated and explained a series of experiments for students in grades K-12.

Brownie Math and Science Day 2001-2003, 2002 (Event Organizer)

Designed, performed and explained a series of experiments to girls in grades 2 and 3.

Organized continuing undergraduate lecture series "What's going on Upstairs" 2003

Organized a lecture series given by faculty directed at undergraduate students.

Brownie Day Camp July 2002

Designed, performed, moderated and explained a series of experiments to girls in grades 2 and 3.

LEADERSHIP POSITIONS

Graduate Student Representative 2005-2008

AWARDS RECEIVED

Genomic Sciences Training Program Postdoctoral July 2010-Present

Cell and Molecular Biology Training Grant Predoctoral 2004-2008

Howard Hughes Medical Institute Capstone Grant Fall 2002, Spring 2003, Fall 2003

Harry G. Day Summer Research Scholarship 2003

Merck Index Award 2003

Votaw Summer Research Scholarship 2002

Honors College Research Grant 2002

R J Grim Memorial Scholarship in Chemistry 2001-2002

Earl G. Surdevant Summer Research Scholarship 2001