

CURRICULUM VITAE

David D. Markwardt
Associate Professor
Department of Zoology
Ohio Wesleyan University
Delaware, OH 43015

Education:

- B.S.* Zoology, University of Wisconsin-Madison (1991)
- Ph.D.* Pharmaceutical Sciences (Pharmacology), University of Wisconsin-Madison (2000)

Professional Experience and Appointments:

- 2003-present* Assistant/Associate Professor, Department of Zoology, Ohio Wesleyan University
- 2000-2003* Postdoctoral Fellow, Department of Genetics, University of Wisconsin-Madison (with Dr. Philip Anderson).
Global studies of eukaryotic mRNA decay pathways using high density DNA microarrays.
- 1992-2000* Graduate Research Assistant, Division of Pharmaceutical Sciences, School of Pharmacy, University of Wisconsin-Madison (with Dr. Warren Heideman).

Doctoral Dissertation: *Coordination of growth and division in Saccharomyces cerevisiae by the G₁ cyclin, CLN3.*

Teaching Experience:

- 2003-present* Associate Professor, Department of Zoology, Ohio Wesleyan University. Courses taught include Introduction to Cell Biology (ZOOL.BOMI 120), Advanced Cell & Molecular Biology (ZOOL/BOMI 351), and Immunology (ZOOL/BOMI 356). Seminars include Neuropharmacology, Cancer Biology, and The Molecular Biology of Aging (ZOOL 499).

- 1999-2002 Lecturer, Division of Pharmaceutical Sciences, School of Pharmacy, University of Wisconsin-Madison
- 1998 Instructor, Department of Life Sciences, Edgewood College, Madison, WI.
- 1998 Teaching Assistant, Department of Zoology, University of Wisconsin-Madison.
- 1992-1999 Teaching Assistant in the Division of Pharmaceutical Sciences, School of Pharmacy, University of Wisconsin-Madison.

Grants and Awards:

- 2012 *Great Lakes Colleges Association (GLCA) New Directions Initiative Grant: "A New Research Program Investigating the Effects of Exercise on Tumor Incidence and Progression in the Mouse"*
- 2012 *Sherwood Dodge Shankland Award for the Encouragement of Teachers (Ohio Wesleyan University)*
- 2008-2012 *Ohio Wesleyan University Thomas E. Wenzlau (TEW) Grant. "Needles and Haystacks: A Global Hunt Regulated Genes in Yeast Using DNA Microarrays"*
- 2001-2003 Individual National Research Service Award (NRSA): National Institute of General Medical Sciences, NIH. "A genome-wide screen for targets of mRNA surveillance".
- 2001 *Rennebohm Dissertator Award - Outstanding Dissertation in Pharmaceutical Sciences, University of Wisconsin-Madison.*
- 1999 *UW-Madison, Vilas Travel Award*
- 1998 *Zaman-Saroya Outstanding Graduate Student, School of Pharmacy, University of Wisconsin-Madison.*
- 1993 *Rennebohm Teaching Award - Outstanding Teaching Assistant in Pharmaceutical Sciences, University of Wisconsin-Madison.*

Publications:

- Carreno, R. A., Caporossi, D., Beade, M. S., Marull, C. A., Uhart, M. M., **Markwardt, D. D.**, and Nadler, S. A. (2012) Discovery of an undescribed protostrongylid nematode from the endangered Pampas deer (*Ozotoceros bexoarticus celer*) in Argentina. *Journal of Wildlife Diseases*. **48**(3):724-31.
- Laabs, T. L.*, **Markwardt, D. D.***, Slattery, M. G., Newcomb, L. L., Stillman, D. J., and Heideman, W. (2003) *ACE2* is required for daughter cell-specific G₁ delay in *Saccharomyces cerevisiae*. *Proc. Natl. Acad. Sci.* **100**:10275-10280.
*T.L.L. and D.D.M. contributed equally to this work
- Hall, D. D., **Markwardt, D. D.**, Parviz, F., and Heideman, W. (1998) Regulation of the Cln3-Cdc28 kinase by cAMP in *Saccharomyces cerevisiae*. *EMBO J.*, **17**(15); 4370-4378.
- Parviz, F., Hall, D. D., **Markwardt, D. D.**, and Heideman, W. (1998) Transcriptional regulation of CLN3 expression by glucose in *Saccharomyces cerevisiae*. *J. Bacteriol.*, **180**(17); 4508-4515.
- Markwardt, D. D.**, Garrett, J. M., Eberhardy, S., and Heideman, W. (1995) Activation of the Ras/cyclic AMP pathway in the yeast *Saccharomyces cerevisiae*. *J. Bacteriol.*, **177**(23); 6761-6765.
- Russell, M., Bradshaw-Rouse, J., **Markwardt, D. D.**, and Heideman, W. (1993) Changes in gene expression in the Ras/adenylate cyclase system of *Saccharomyces cerevisiae*: correlation with cAMP levels and growth arrest. *Mol. Biol. Cell*, **4**; 757-765.

Presentations, Abstracts, and Invited Talks:

- 2010 Rust Belt Regional RNA Conference, Cleveland, OH
(Poster)
"A microarray and RT-PCR-based screen for alternatively-spliced targets of the Nonsense-Mediated mRNA Decay (NMD) pathway in *Schizosaccharomyces pombe*."
- 2010 Invited Panelist-Kenyon College (Gambier, OH)
"Interdisciplinarity at a Liberal Arts College"

- 2008 XXIII International Conference on Yeast Genetics and Molecular Biology, University of Toronto (Poster)
“A microarray and RT-PCR based screen for alternatively-spliced targets of the Nonsense-Mediated mRNA Decay (NMD) pathway in *Schizosaccharomyces pombe*.”
- 2007 Biology Seminar Series, Kenyon College, Gambier, OH (Invited Talk)
“Here, There, and Everywhere: Searching the Genome for Natural Targets of mRNA Surveillance”
- 2005 All-Ohio *Caenorhabditis elegans* Meeting, Ohio Wesleyan University, Delaware, OH (Invited Talk)
“mRNA Surveillance in *C. elegans*: Emerging Roles”
- 2005 The Ohio branch of the American Society for Microbiology (OBASM) Regional Meeting, Ohio Wesleyan University, Delaware, OH (Invited Talk)
“Alternative Splicing and RNA Surveillance: Regulating Gene Expression in *Schizosaccharomyces pombe*?”
- 2004 Science Seminar Series, Ohio Wesleyan University, Delaware, OH (Invited Talk)
“RNA Surveillance and Alternative Splicing: A Partnership for Regulating Gene Expression”
- 2002 RNA 2002. Seventh Annual Meeting of the RNA Society, University of Wisconsin-Madison (Poster)
"Natural targets of nonsense mediated mRNA decay identified using *C. elegans* microarrays"
- 2001 13th Biennial International *Caenorhabditis elegans* Conference, University of California-Los Angeles (Poster)
"A screen for natural targets of NMD using *C. elegans* whole genome microarrays"
- 2000 XV International Conference on Yeast Genetics and Molecular Biology, University of Washington, Seattle, WA (Poster)
"Loss of upstream *CLN3* and *BCK2* regulatory sequences produces cells that cannot regulate G₁"

1996

XI International Conference on Yeast Genetics and
Molecular Biology, University of Wisconsin-Madison
(Poster)

"Development of a yeast assay system to study
activation properties of the zebrafish (*Danio rerio*) aryl
hydrocarbon (Ah) receptor"