BIOGRAPHICAL SKETCH

NAME **Ava J. Udvadia, Ph.D.**	POSITION TITLE **Assistant Professor, Biological Sciences & Great Lakes WATER Institute**

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
University of Michigan	B.S.	1989	Cell and Molecular Biology
Duke University	Ph.D.	1995	Molecular Cancer Biology
Duke University	Post doc.	1996-2001	Developmental Neurobiology

Graduate training in the laboratory of Dr. Jonathan M. Horowitz focused on transcriptional regulation by the Retinoblastoma Protein (Rb). Postdoctoral training in the laboratory of J. H. Pate Skene was conducted to bridge interests in transcriptional regulation to the area of axon growth and regeneration. Independent research was continued in the laboratory of Elwood Linney to further develop models for transcriptional regulation of axon growth and regeneration in the zebrafish.

A. Positions and Honors

Positions and Employment

2001-2004 Senior Investigator, Duke University Med. Center, Dept. of Molec. Genetics & Microbiology

2004-present Assistant Professor, University of Wisconsin, Milwaukee, Dept. of Biol. Sciences, Great Lakes WATER Institute

Other Experience and Professional Memberships

1998 Course on Neural Development and Genetics of Zebrafish, Marine Biological Laboratory (MBL), Woods Hole, MA

1999-present Member, Society for Neuroscience

1999-present Member, Society for Developmental Biology

2000 Grass Fellowship, MBL, Woods Hole, MA.

2008 NSF Organization Proposal Review Panel member

Honors

1989-1992 NRSA, National Institute of General Medical Sciences, pre-doctoral fellowship

1994 American Cancer Society award for outstanding research by a graduate student

1998-2001 NRSA, Natl. Inst. of Neurological Disorders and Stroke, individual postdoctoral fellowship

2000 Grass Fellowship for summer research in residence at the MBL, Woods Hole, MA

2006 Shaw Scientist Award, Greater Milwaukee Foundation, competitive research award for new faculty in University of Wisconsin Madison or Milwaukee (up to 2 awarded each year)

B. Peer-reviewed publications

1. **Ava J. Udvadia**, Kathleen T. Rogers, and Jonathan M. Horowitz, 1992. A Common Set of Nuclear Factors Bind to Promoter Elements Regulated by the Retinoblastoma Protein. Cell Growth and Differentiation, 3: 597-607.
2. **Ava J. Udvadia**, Kathleen T. Rogers, Peter D. R. Higgins, Yoshihiko Murata, Karen H. Martin, Peter A. Humphrey, and Jonathan M. Horowitz, 1993. Sp-1 Binds Promoter Elements Regulated by the Rb Protein

and Sp-1 Mediated Transcription is Stimulated by Rb Co-Expression. Proceedings of the National Academy of Science USA, 90: 3265-3269

3. Yoshihiko Murata, Hyung Goo Kim, Kathleen T. Rogers, **Ava J. Udvadia**, and Jonathan M. Horowitz, 1994. Negative Regulation of Sp1 Transactivation Is Correlated With the Binding of Cellular Proteins to the Amino Terminus of the Sp-1 Trans-Activation Domain. Journal of Biological Chemistry, 269: 20674-20681.
4. **Ava J. Udvadia**, Dennis J. Templeton, and Jonathan M. Horowitz, 1995. Functional Interactions Between the Retinoblastoma (Rb) Protein and Sp-Family Members: Superactivation by Rb Requires Amino Acids Necessary for Growth Suppression. Proceedings of the National Academy of Science USA, 92: 3953-3957.
5. Jonathan M. Horowitz and **Ava J. Udvadia**, 1995. Regulation of Transcription by the Retinoblastoma (Rb) Protein. Molecular and Cellular Differentiation, 3: 275-314
6. Sarah B. Kennet*, **Ava J. Udvadia***, and Jonathan M. Horowitz, 1997. Sp3 Encodes Multiple Proteins That Differ in Their Capacity to Stimulate or Repress Transcription. Nucleic Acids Research, 25: 3110-3117. *first and second authors contributed equally to this work.
7. **Ava J. Udvadia**, Reinhard W. Köster, and J. H. Pate Skene, 2001. GAP-43 Promoter Elements in Transgenic Zebrafish Reveal a Difference in Signals for Axon Growth During CNS Development and Regeneration. Development, 128: 1175-1182.
8. **Ava J. Udvadia** and Elwood Linney, 2003. Windows into Development: Historic, Current and Future Perspectives on Transgenic Zebrafish. Developmental Biology, 256: 1-17.
9. Linney, E., and **Udvadia, A. J.**, 2004. Construction and detection of fluorescent germ-line transgenic zebrafish. *In* "Methods in Molecular Biology" (H. Schatten, Ed.), Vol. 254, Germ Cell Protocols: Molecular Embyo Analysis, Live Imaging, Transgenesis, and Cloning, pp. 271-288. Humana Press Inc., Totowa, NJ.
10. J. Rudi Strickler, **Ava J. Udvadia**, John Marino, Nick Radabaugh, Josh Ziarek, Ai Nihongi, 2005. Visibility as a Factor in the Copepod – Planktivorous Fish Relationship. Scientia Marina 69 (supp. 1), 111-124.
11. Daniel N. Weber, Victoria Connaughton, John Dellinger, David Klemer, **Ava Udvadia**, Michael J. Carvan III, 2008. Selenomethionine reduces visual deficits due to developmental methylmercury exposures. Physiology and Behavior 93: 250-260.
12. **Ava J. Udvadia**, 2008. 3.6 kb genomic sequence from Takifugu capable of promoting axon growth associated gene expression in developing and regenerating zebrafish neurons. Gene Expression Patterns 8: 382-388.
13. Brandon W. Kusik, Michael J. Carvan III, **Ava J. Udvadia**, 2008. Detection of Environmental Oxidative Stress using EPRE reporter zebrafish. Marine Biotechnology 10: 750-757**.**
14. Angela Schmoldt, Jennifer Forecki, Dena R. Hammond, and **Ava J. Udvadia,** 2009. Exploring differential gene expression in zebrafish to teach basic molecular biology skills. Zebrafish 6: 187-199.
15. Brandon W. Kusik, Dena R. Hammond, and **Ava J. Udvadia,** 2010. Transcriptional regulatory regions of *gap43* needed in developing and regenerating retinal ganglion cells. Developmental Dynamics 239: 482-495.
16. Dena R. Hammond and **Ava J. Udvadia**. Cabin expression suggests roles in neuronal development. Developmental Dynamics, 239:2443-2451.