

# Amaris R. Guardiola, Ph.D.

Assistant Professor

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## EDUCATION

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**Duke University**, Durham, North Carolina, December 2004

Ph.D. in Molecular Cancer Biology

Adviser: Tso-Pang Yao, Ph.D.

Thesis: Characterizing novel functions of the Class IIb deacetylases, HDAC6 and HDAC10

**University of Georgia**, Athens, Georgia, June 1997

B.S. in Biochemistry and Molecular Biology, with honors

Research Adviser: Kelley W. Moremen, Ph.D.

## PROFESSIONAL EXPERIENCE

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**Angelo State University**, San Angelo, TX

*Assistant Professor*: Fall 2008-present

**University of North Carolina at Chapel Hill**, NC and **Fayetteville State University**, Fayetteville, NC

*Seeding Postdoctoral Innovators in Research and Education (SPIRE) Fellow*: 2005-2008

Adviser: Stephen T. Crews, Ph.D.

- Awarded SPIRE fellowship from the National Institute of General Medical Sciences.
- SPIRE promotes involvement of underrepresented minorities in science through partnership between research-intensive institutions and minority serving institutions.
- Received training in gene regulation of neuronal development and science pedagogy at UNC-Chapel Hill.
- Taught at Fayetteville State University.

**University of Georgia**, Department of Biochemistry and Molecular Biology

*Research Technician*, 1997-1999

## FELLOWSHIPS AND AWARDS

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Faculty Research Enhancement Program Grant, Angelo State University

Optimizing Conditions for Visualizing the Development of a Dopamine-Producing Neuron,  
Summer 2010

Uncovering Gene Regulatory Networks of the Drosophila CNS Midline Cells, Summer 2009

Teaching Faculty Travel Grant, Society for Developmental Biology, July 2009

Predoctoral Traineeship Award, U.S. Dept. of Defense Breast Cancer Research Program, 2002-2004

Gates Millennium Scholar, Bill and Melinda Gates Foundation, 2000-2001

Predoctoral Fellowship, NIH training grant, Program in Molecular Cancer Biology, Duke University Medical Center, 1999-2001

## TEACHING EXPERIENCE

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### **Angelo State University**, San Angelo, TX

#### *Assistant Professor*

- Principles of Biology lecture and lab, 2008-present (every Fall and Spring)
- Developmental Biology lecture and lab, Spring 2009
- Seminar in Biology, Spring 2010

### **Fayetteville State University**, Fayetteville, NC

#### *Visiting SPIRE Fellow*

- Cellular Biology, Fall 2007 and Spring 2008
- Special Topics in Developmental Neurobiology, Spring 2008

#### *Guest lecturer: Cellular Biology, November 28, 2006*

- Lectured about my research in developmental neurobiology.

### **North Carolina Central University**, Durham, NC

#### *Guest lecturer: Developmental Biology, March 22, 2007*

- Lectured about my research and facilitated discussion about related primary literature article.

### **Duke University**

#### *Graduate teaching assistant: Experiments in Development and Molecular Genetics, Spring 2004*

- Gave 4 mini-lectures on different techniques in molecular genetics, graded assignments and assisted with lab preparation. Guided undergraduates as they created original experimental designs and helped them troubleshoot their experiments.

### **Elon University**, Elon, NC

#### *Guest lecturer: Cell and Molecular Biology, May 8, 2003*

- Lectured on apoptosis.

#### *Guest lecturer: Current Issues in Biology, January 17, 2003*

- Presented lecture and interdisciplinary learning activity about mammalian cloning to biology majors and non-majors.

## MENTORING EXPERIENCE

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### **Angelo State University**

Dara White, Gene regulation of a dopaminergic *Drosophila* CNS midline cell, Summer 2009-present  
Carr Student Research Scholar Fall 2010-present

**UNC-Chapel Hill**, Partnership for Minority Advancement in the Biomolecular Sciences (PMABS) Summer Research Program

Melissa Gottron, Clonal analysis of *Drosophila* CNS midline cell lineages, Summer 2006

## SERVICE

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### I. UNIVERSITY

#### Angelo State University

Responsible Conduct in Research Committee, spring 2010-present

Health Professions Advisory Committee, spring 2010-present

E. James Holland Symposium on American Values Committee, fall 2009-present

#### UNC-Chapel Hill

*Planning committee member and tour guide*, Distinguished Scholar Seminar, 2005-2008

- Helped plan a two day visit for undergraduates attending minority serving institutions in North Carolina that were interested in careers in the biomedical sciences and gave several lab tours.

*Application reviewer*, PMABS Summer Research Program, Spring 2006

#### Duke University, Biological Sciences Graduate Student Symposium

*Co-chair* 2002, *Program representative* 2001

### II. PROFESSIONAL

Association of American Medical Colleges' (AAMC) fifth comprehensive review of the MCAT exam

*Cellular Biology content survey participant*, April 2010

#### Duke University, Howard Hughes Medical Institute Undergraduate Summer Research Program

*Panelist*, July 19, 2006

### III. COMMUNITY

#### Angelo State University, Expanding Your Horizons

*Workshop leader*, Biobusiness Workshop, January 23, 2010

- Led an interactive workshop for middle school and high school girls to learn about biotechnology.

*Workshop co-leader*, Wearing Your Favorite Genes Workshop, February 28, 2009

- Helped plan a hands-on workshop for middle school and high school girls to learn about DNA.

#### Alamance-Burlington Middle College, Graham, NC (alternative high school)

*Biology tutor*, Spring 2007

#### Graham High School, Graham, NC

*DNA Day Ambassador*, April 25, 2007

- Facilitated learning activities to introduce 60 high school sophomores to the ethical, legal, and social implications of genetic diseases, genetic tests, and the Human Genome Project.

## **SELECTED PROFESSIONAL DEVELOPMENT**

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### ***I. TEACHING***

**Miami University**, Oxford, OH

29<sup>th</sup> Annual International Lilly conference on College Teaching, November 19-22, 2009

#### **UNC-Chapel Hill**

SPIRE teaching workshops (set of 11 workshops), Fall 2006

Ed Neal Ph.D., Director of Faculty Development, Center for Teaching and Learning

Effective Teaching: A Workshop, May 12-13, 2006

Richard M. Felder, Ph.D., Department of Chemical Engineering, North Carolina State University

Rebecca Brent, Ed.D., Education Designs Inc., Cary, NC

Exploring teaching careers at undergraduate institutions, April 28, 2006

Office of Postdoctoral Services and Cell and Molecular Biology Training Program

#### **Duke University**

Preparing Future Faculty Fellow, 2002-2003

Mentor: Douglas Stemke, Ph.D., Assistant Professor, Elon University (currently Assistant Professor, University of Indianapolis, Indianapolis, IN)

### ***II. RESEARCH***

#### **National Institutes of Health**

Regional Seminar on Program Funding and Grants Administration, Portland, OR, June 24-25, 2010

**Angelo State University**, Center for Innovation in Teaching and Research and Sponsored Projects  
Summer Research Institute, July 20-22 2009

**UNC-Chapel Hill**, Office of Postdoctoral Services

Finding Funding Sources for Research in the Physical and Life Sciences, February 2007

### ***III. EDUCATIONAL OUTREACH***

**UNC-Chapel Hill**, DESTINY (UNC-Chapel Hill's traveling science learning program for high school students)

From Finches to Fishes (laboratory module workshop), August 17, 2006

Biobusiness (laboratory module workshop), August 10, 2006

## **PROFESSIONAL ASSOCIATIONS**

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Society for Developmental Biology

National Science Teachers Association

Genetics Society of America

Sigma Alpha Iota

## PUBLICATIONS

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Wheeler SR, Kearney JB, **Guardiola AR**, and Crews ST. Single-cell mapping of neural and glial gene expression in the developing *Drosophila* CNS midline cells. *Dev Biol*. 2006. 294: 509-524

Brush MH, **Guardiola A**, Connor JH, Yao TP, and Shenolikar S. Deacetylase inhibitors disrupt cellular complexes containing protein phosphatases and deacetylases. *J Biol Chem*. 2003. 279(9): 7685-7691

**Guardiola AR**, and Yao TP. Molecular Cloning and Characterization of a Novel Class II Histone Deacetylase HDAC10. *J Biol Chem*. 2002. 5(1): 3350-3356

Hubbert C, **Guardiola A**, Shao R, Kawaguchi Y, Ito A, Nixon A, Yoshida M, Wang XF, and Yao TP. HDAC6 is a microtubule-associated deacetylase. *Nature*. 2002. 417: 455-458

## POSTER PRESENTATIONS (\*denotes undergraduate presenter)

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White DC\* and **Guardiola AR**. Identifying target genes of the transcription factor *SoxNeuro* in the development of a *Drosophila* dopaminergic neuron, the H-cell. Presented at: Beta Beta Beta Southcentral Regional Convention, Kingston, OK March 2010  
Texas Academy of Science 113<sup>th</sup> Annual Meeting. Stephenville, TX, March 2010

**Guardiola AR** and Crews ST. Uncovering gene regulatory networks in the *Drosophila* CNS midline. Society for Developmental Biology 68<sup>th</sup> Annual Meeting. San Francisco, CA, July 2009.

**Guardiola AR** and Crews ST. Uncovering gene regulatory networks in the *Drosophila* CNS midline. 48<sup>th</sup> Annual *Drosophila* Conference. Philadelphia, PA, March 2007

Wheeler, SR, Kearney JB, **Guardiola AR**, and Crews ST. High resolution mapping of neuronal and glial development and differentiation of the *Drosophila* CNS midline cells. *Neurobiology of Drosophila*. Cold Spring Harbor, NY, October 2005

**Guardiola AR**, Kearney JB, Wheeler SR, Estes P, Parente B, and Crews ST. A developmental CNS midline cell molecular map. IRACDA Conference. Tucson, AZ, June 2005

**Guardiola AR**, and Yao TP. Molecular Cloning and Characterization of a Novel Class II Histone Deacetylase HDAC10. Dynamics of Cellular Organization Keystone Symposia. Taos, NM, February 2003

## ORAL PRESENTATIONS

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**Guardiola, AR** and Crews, ST. The differentiation of cells in the central nervous system. SPIRE seminars for:

Winston-Salem State University, Department of Life Sciences, October 18, 2006

North Carolina Agriculture and Technical State University, Department of Biology, September 21, 2006

North Carolina Central University, Department of Biology, September 1, 2006

University of North Carolina at Pembroke, Department of Biology, April 25, 2006

Shaw University, Department of Natural Sciences and Mathematics, March 8, 2006

**Guardiola, AR** and Crews, ST. Gene expression profiling of the *Drosophila melanogaster* CNS midline cells. SPIRE seminar for Johnson C. Smith University, Department of Natural Sciences and Mathematics, February 22, 2006

**Guardiola, AR.** Teaching students with disabilities. SPIRE workshop. UNC-Chapel Hill, February 3, 2006

**Guardiola AR,** Kawagachi Y, Kovacs JJ, and Yao TP. A role for cytoplasmic deacetylases in the misfolded protein response. Department of Pharmacology and Cancer Biology Annual Retreat, Duke University Medical Center. Wrightsville Beach, NC, September 26-27, 2003