

# Curriculum Vitae

## Daniel DeWitt Brown

### Current Address

6711 Banks Rd.  
Mebane, NC 27302  
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### EDUCATION

**Doctorate of Philosophy, Biology**, Expected May 2007  
University of North Carolina at Chapel Hill, Chapel Hill, NC  
**Dissertation:** Characterization of the role of *Tbx20* in vertebrate heart development  
Graduate Advisor: Dr. Frank L. Conlon

**Bachelor of Arts, Biology**; May 2000  
Distinction in Biology  
Hendrix College, Conway, AR

### HONORS/AWARDS

UNC Graduate School Dissertation Completion Fellowship, 2006-present  
National Science Foundation Graduate Research Fellowship, 2002-2005  
Best Presentation, UNC Genetics/Duke Cell Biology Retreat, Wilmington, NC, 2004  
Best Student Presentation Award, UNC Cellular and Molecular Biology (CMB) Annual Retreat, 2003  
Spessard Award in Biology (Highest Biology Honor), Hendrix College, 2000  
Chairman's Scholarship (Academic Scholarship), Hendrix College, 1996-2000

### RELATED EXPERIENCE

#### *Research*

Pre-Doctoral Fellow/Ph.D. Research, Department of Biology, University of North Carolina at Chapel Hill, Chapel Hill, NC,  
August 2001 - present

Research Technologist, Division of Toxicology, University of Arkansas for Medical Sciences (UAMS), Little Rock, AR  
April 2000 – June 2001

- Studied the role of  $\gamma$ -aminobutyric acid receptor type A (GABAA-R) subunits in the rat kidney.

Field Researcher, Department of Biological Sciences, University of Arkansas, Fayetteville, AR  
June 1999 - September 1999

- Tracked the seasonal movement patterns and habitat uses of the Timber Rattlesnake (*Crotalus horridus horridus*) using radio-telemetry

Research Technician, Department of Physiology, University of Arkansas for Medical Sciences (UAMS), Little Rock, AR  
June 1998 - September 1998

- Studied the rates of influx and efflux through the Na<sup>+</sup>/K<sup>+</sup> pump and the K<sup>+</sup>/Cl<sup>-</sup> co-transporter of rabbit erythrocytes using Rubidium-86.

#### *Teaching*

Laboratory Assistant, Department of Biology, Hendrix College, Conway, AR  
September 1998 – May 2000

- Assisted undergraduates in General Zoology, General Physiology, and General Ecology labs

Teaching Assistant, Department of Biology, University of North Carolina at Chapel Hill, Chapel Hill, NC,

January 2002 – May 2002

- Held recitations twice a week and hosted exam review sessions for Cell and Developmental Biology course

## PUBLICATIONS

**Brown D.D.**, Binder O., Pagratis M., Parr B.A., Conlon F.L. (2003) Developmental expression of the *Xenopus laevis* *Tbx20* orthologue. *Dev Genes Evol.* Jan; 212(12): 604-7.

**Brown, D. D.**, Martz, S. N., Binder, O., Goetz, S. C., Price, B. M. J., Smith, J. C. and Conlon, F. L. (2005). *Tbx5* and *Tbx20* act synergistically to control vertebrate heart morphogenesis. *Development* 132, 553-563. ([Recommended read by Faculty of 1000 Biology](#))

**Brown, D.D.**, Davis, A.C., Conlon, F.L., (2006) *Xtn3* is a developmentally expressed cardiac and skeletal muscle-specific novex-3 titin isoform. *Gene Expression Patterns.* (in press)

Goetz, S.C., **Brown, D.D.**, Conlon, F.L., (2006) TBX5 is required for embryonic cardiac cell cycle progression. *Development.* (in press)

Feduccia, A. and Nowicki, J. (2002). The hand of birds revealed by early ostrich embryos. *Naturwissenschaften* 89, 391-3. (I took a picture for the article which was used as the cover for the journal)

## CONFERENCES

“The Requirement for *Tbx20* in Vertebrate Heart Morphogenesis“. UNC Cellular and Molecular Biology (CMB) Annual Retreat, 4-28-2003

“*Tbx5* and *Tbx20* act synergistically to control vertebrate heart morphogenesis“. UNC Genetics/Duke Cell Biology Retreat, Wilmington, NC, 9-17-2004

“*Tbx5* and *Tbx20* act synergistically to control vertebrate heart morphogenesis“. 13th International Conference of the International Society of Differentiation (ISD), Honolulu, Hawaii, USA, 9-5-2004

“Estimated Kernel Home Ranges, Seasonal Movements, and Habitat Uses of the Timber Rattlesnake“. National Conference for Undergraduate Research (NCUR) in Missoula, Montana, April 27, 2000 and at the Arkansas Academy of Sciences, Little Rock, Arkansas April 7-8, 2000