

*Curriculum Vitae*

**Timothy L. Domeier, Ph.D**

*Instructor*

*Department of Molecular Biophysics and Physiology  
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**Personal Information**

Date of Birth: May 29, 1978  
Place of Birth: Henderson, Nebraska  
Family: Wife: Nicole, Daughter: Isabelle



**Education**

**Doctor of Philosophy**, Cellular and Molecular Physiology, Yale University, New Haven, CT, 2006

Dissertation Title: *Multiple Signaling Pathways for Conducted Vasodilation*

Dissertation Advisor: Dr. Steven S. Segal, Ph.D

**Bachelor of Science**, Biochemistry, University of Nebraska, Lincoln, NE, 2001

**Research Experience**

Postdoctoral Research, Rush University, Chicago, IL, 2008-current

Project: IP<sub>3</sub>-dependent Calcium signaling in ventricular myocytes

Mentor: Dr. Lothar A. Blatter, M.D., Dr. med

Postdoctoral Research, Loyola University, Chicago, IL, 2006-2008

Project: IP<sub>3</sub>-dependent Calcium signaling in ventricular myocytes

Mentor: Dr. Lothar A. Blatter, M.D., Dr. med

Doctoral Research, Yale University, New Haven, CT, 2001-2006

Project: Signaling Pathways underlying Conducted Vasodilation

Mentor: Dr. Steven S. Segal, Ph.D

Undergraduate Research, University of Nebraska, Lincoln, NE, 1998-2001

Project: Shuttle Vector Transfection of *Euglena*

Mentor: Dr. Steven Schwartzbach, Ph.D

## **Teaching Experience**

Physiological Systems (CMP550a), Yale University, 2002, 2003

Head Teaching Fellow (Responsible for 12 classes per year)

\*Awarded Yale University Prize Teaching Fellowship for 2003

## **Research Interests**

Cardiovascular Physiology

Calcium signaling pathways in vascular endothelium, vascular smooth muscle, cardiac muscle

Ion Channels

## **Publications**

### Peer-reviewed Publications:

**Domeier, T.L.**, Zima, A.V., Maxwell, J.T., Huke, S., Mignery, G.A., and Blatter, L.A. IP<sub>3</sub> receptor-dependent Ca<sup>2+</sup> release modulates excitation-contraction coupling in rabbit ventricular myocytes. *Am J Physiol Heart Circ Physiol*. 2008 Feb;294(2):H596-604. Epub 2007 Nov 30

**Domeier, T.L.**, Segal, S.S. Electromechanical and pharmacomechanical signaling pathways for conducted vasodilation along endothelium of hamster feed arteries. *J Physiol*. 2007 Feb 15;579 (Pt 1):175-86. Epub 2006 Nov 30

Uhrenholt, T.R.\* , **Domeier, T.L.**\* , and Segal, S.S. Propagation of calcium waves along endothelium of hamster feed arteries. *Am J Physiol Heart Circ Physiol*. 2007 Mar;292(3):H1634-40. Epub 2006 Nov 10. \* contributed equally

### Abstracts:

**Domeier, T.L.**, and Blatter, L.A. Intra-SR [Ca] measurements in rabbit cardiomyocytes during Ca transients and waves. Poster Abstract. Biophysical Society, Long Beach, CA 2008. ("In Press", *Biophysical Journal*)

**Domeier, T.L.**, Zima, A.V., Florea, S.M., and Blatter, L.A. IP<sub>3</sub>-dependent calcium signaling in rabbit ventricular myocytes. Poster Abstract. Biophysical Society, Baltimore, MD 2007. *Biophys J* 92, 446a, 2007

**Domeier, T.L.**, and Segal, S.S. Multiple pathways for conducted vasodilation. Poster Abstract. Federation of American Societies for Experimental Biology, San Francisco, CA. *FASEB J*. 20, A276, 2006

Uhrenholt, T.R., **Domeier, T.L.**, and Segal, S.S. Resolution of Ca<sup>2+</sup> dynamics underlying conducted vasodilation: The Ca<sup>2+</sup> wave. Poster Abstract. Federation of American Societies for Experimental Biology, San Francisco, CA. *FASEB J*. 20, A277, 2006

## **Grant Funding**

NIH Individual Postdoctoral National Research Service Award (F32HL090211), 2007-current

Title: *IP<sub>3</sub>R-Dependent Signaling in Excitation-Contraction Coupling during Heart Failure*

American Heart Association Postdoctoral Fellowship (0725724Z), 2007

Title: *IP<sub>3</sub> Receptor-Dependent Signaling in Excitation-Contraction Coupling during Heart Failure*

\*Awarded then returned in favor of NIH F32HL090211

NIH Institutional Postdoctoral National Research Service Award (T32HL07692) 2006-2007

NIH Individual Predoctoral National Research Service Award (F31NS053186) 2005-2006

Title: *K<sub>Ca</sub> Channels and Conducted Vasodilation*

NIH Institutional Predoctoral National Research Service Award (T32GM007527) 2002-2005

NIH Institutional Predoctoral National Research Service Award (T32GM007223) 2001-2002

Pepsi UCARE Undergraduate Research Grant, 2000

Title: *Gene Expression in the Algae Uglenum*

## **Awards and Honors**

The Microcirculatory Society Zweifach Student Award, 2006

Yale University Prize Teaching Fellowship, 2003

Howard Hughes Medical Institute Undergraduate Research Program, 1998

University of Nebraska Regents Scholar

University of Nebraska Superior Scholar

Phi Beta Kappa, Golden Key Honor Societies

## **Professional Affiliations**

American Physiological Society

Biophysical Society

Microcirculatory Society