

Hilary Highfield Nickols, MD, PhD

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EDUCATION

1998-2006

Vanderbilt University School of Medicine, Medical Scientist Training Program, MD/PhD

August, 2004 PhD in Pharmacology, with Lee E. Limbird, Ph D, "Appropriate Cell Surface Localization and Interaction of the V2 Vasopressin Receptor with Calmodulin: Mutations of the C-terminus that Eliminate Calmodulin Binding also Eliminate AVP-Mediated Increases in Intracellular Calcium."

1993-1997

Washington University in St. Louis

May, 1997 Bachelor of Arts
Chemistry with Honors, summa cum laude
Minors in Fine Arts and Dance

ACADEMIC CAREER

2008- Present

Fellow, Neuropathology, AP/NP Program,
Vanderbilt University Medical Center.

2006-Present

Resident, Department of Pathology, AP/NP Program
Vanderbilt University Medical Center.

1997-1998

Research Assistant: Philip Stahl, PhD, Department of Cell Biology; Role of Rab11 and Rab5 in endocytosis and intracellular trafficking.

1996-1997

Research Assistant: K. D. Moeller, Department of Chemistry; Synthesis of conformationally-restricted thyrotropin releasing hormone peptidomimetics.

PUBLICATIONS

Mason WJ, Nickols HH. Images in Clinical Medicine. Crystalluria from acyclovir use. N Engl J Med. 2008 Mar 27; 358 (13): e14.

Nickols HH, Shah VN, Chazin WJ, Limbird LE. "Calmodulin interacts with the V2

vasopressin receptor: elimination of binding to the C-terminus also eliminates arginine vasopressin-stimulated elevation of intracellular calcium." *Journal of Biological Chemistry*. 2004 279(45): 46969.

Tan CM, Brady AE, Nickols HH, Wang Q, Limbird LE. "Membrane trafficking of G protein-coupled receptors." *Annual Review of Pharmacology and Toxicology*. 2004 44:559-609.

Tan, CM‡, Nickols, HH‡, Limbird, LE. "Appropriate polarization following pharmacological rescue of V2 vasopressin receptors encoded by X-linked nephrogenic diabetes insipidus alleles involves a conformation of the receptor that also attains mature glycosylation." *Journal of Biological Chemistry*. 2003 12; 278(37):35678. (‡ these two authors contributed equally to this work)

Wilson, MH, Highfield, HA, Limbird LE. "The role of a conserved inter-transmembrane domain interface in regulating alpha 2a-adrenergic receptor conformational stability and cell-surface turnover." *Molecular Pharmacology*. 2001 59(4):929-38

Barbieri MA, Roberts RL, Gumusboga A, Highfield H, Alvarez-Dominguez C, Wells A, Stahl PD. "Epidermal growth factor and membrane trafficking. EGF receptor activation of endocytosis requires Rab5a." *Journal of Cell Biology*. 2000. 151(3):539-50.

PRESENTATIONS

2002 Gordon Research Conference, Molecular Pharmacology 2002, Poster Presentation, "Calmodulin Interacts with the V2 Vasopressin Receptor C-Terminus."

PROFESSIONAL SOCIETY MEMBERSHIPS

College of American Pathology
United States College of American Pathology

GRANTS AND ACADEMIC AWARDS

2008 Vanderbilt University Clinical Translation Research Award
1997 Sigma Xi
1997 Phi Beta Kappa
1996 Washington University Golden Key Society
1993-1997 Washington University Dean's List

SERVICE

2008 Member MSTP Advisory College
2003-4, 2004-5 Committee Member: MSTP Student Advisory Committee

**2001-2, 2002-3
2002**

Committee Member: MSTP Admissions Committee
Student Organizer: Joel G. Hardman Student-Invited
Pharmacology Forum. Mark Pittinger, PhD, Perry Bartlett,
PhD, Ronald Green, PhD. “Stem Cell Research – The
Promise and the Controversy”