

CURRICULUM VITAE

Name: Joey Victor Barnett, Ph.D.

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Vanderbilt University Medical Center
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Nashville, TN 37232-6600

Date of Birth: June 18, 1958; Evansville, Indiana

Education and Professional Experience:

2014- Assistant Dean of Physician-Researcher Training, Director of the Office of Medical Student Research, Vanderbilt University School of Medicine, Nashville, TN

2013-2016 Acting Chair, Department of Pharmacology, Vanderbilt University School of Medicine, Nashville, TN

2008- Professor of Pharmacology, Medicine, Pediatrics, and Pathology, Microbiology & Immunology, Vanderbilt University School of Medicine, Nashville, TN

2005-2013; 2016- Vice Chair, Department of Pharmacology

2005- Adjunct Associate Professor of Biomedical Sciences, Meharry Medical College, Nashville, TN

2002-2008 Associate Professor of Pharmacology, Medicine, and Microbiology & Immunology (tenure in Pharmacology)
Vanderbilt University School of Medicine, Nashville, TN

1999-2002 Associate Professor of Medicine, Pharmacology, and Microbiology and Immunology (tenure in Medicine)
Vanderbilt University School of Medicine, Nashville, TN

1992-1999 Assistant Professor of Medicine and Pharmacology
Vanderbilt University School of Medicine, Nashville, TN

1989-1992 Instructor in Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA

1986-1989 Research Fellow in Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA
Advisor: Dr. Jonas B. Galper

1981-1986 Department of Pharmacology, Vanderbilt University, Nashville, TN
Ph.D., Pharmacology, 1986
Advisor: Dr. Ronald T. Kuczenski

1981 Undergraduate Research Fellow, Argonne National Laboratories and the University of Chicago, Argonne, IL
Advisor: Dr. Charles F. Ehret

1976-1980 University of Southern Indiana, Evansville, IN
B.S., Biology, 1980

Awards and Honors:

Louis B. Russell, Jr. Memorial Award, American Heart Association, 2017
Master Science Teacher, Vanderbilt University School of Medicine, 2016
Member, Amer. Heart. Assoc. Funding Subcommittee (National subcommittee of the Amer. Heart Assoc. Research Committee), 2016-2018
Honoree Faculty Inductee, Alpha Omega Alpha Honor Medical Society, 2016
Elected Fellow, American Association for the Advancement of Science, 2015
Gerald S. Gotterer Award for Innovation in Education Programming, 2015
Reviewer, Howard Hughes Medical Institute Medical Fellows Program, 2015-2017
Member, Executive Committee, Division of Pharmacology Education, ASPET 2014-
Ambassador in the United States, Organization for Ph.D. Education in Biomedicine and Health Sciences in the European System (ORPHEUS), 2014-
Past President, Amer. Heart Assoc. Greater Southeast Affiliate (2013-2014)
Delegate, ASPET-IUPHAR, Capetown, South Africa (2014)
Member, National Diversity Leadership Comm., Amer. Heart Assoc. (2013-2017)
Member, Greater Southeast Affiliate Multicultural Initiatives Committee, Amer. Heart Assoc., (2013-2018)
President, Amer. Heart Assoc. Greater Southeast Affiliate (2012-2013)
Member, FASEB Subcommittee on Training and Career Opportunities for Scientists, 2012-
Chair, Special Emphasis Panel ZGM1 MORE-2, NIGMS IRACDA Program Review, 2012.
Co-Director, Howard Hughes Medical Institute, Training Program in Molecular Medicine, 2009-2015
Chair, Public Affairs Committee, American Association of Anatomists (2010-2014)
Member, FASEB Public Policy Committee, (2010-2014)
President-elect, Amer. Heart Assoc. Greater Southeast Affiliate (2012)
Co-Chair, Graduate Education Comm., Amer Soc for Pharm & Exper Therapeutics, 2011-2013.
Delegate, ASPET-IUPHAR, Copenhagen, Denmark (2010)
Member, Biomedical Research & Research Training Review Subcommittee A, NIH (2009-2014)
Member, Web design committee, ASPET, 2009
Invited Member, ASPET Strategic Planning Retreat, 2008
Amer. Heart Assoc. South East Affiliate Science Integration Award, 2008
Member, Public Affairs Committee, American Association of Anatomists, 2008-2011
Elected to Vanderbilt Academy for Excellence in Teaching, 2008
Invited Reviewer, Pfizer Australia Research Fellowships, 2007
Elaine Sanders-Bush Award for Mentoring Graduate and Medical Students, 2007
Representative, AAMC GREAT Group, 2007-2010.
Member, Tennessee State University MARC Advisory Board, 2006-2014
Chair, Graduate Education Comm., Amer Soc for Pharm and Exper Therapeutics, 2007-2010
Vice Chair, American Heart Association Greater Southeast Affiliate Research Comm. (2007)
Chair, American Heart Association Southeast Affiliate Research Comm. (2006)
Member, Committee on Graduate Education, ASPET, 2005
Organizer, National Meeting for Directors of Graduate Study in Pharmacology, 2005, 2007, 2009, 2011, 2013, 2015
Member, Special Study Section (PPG Review), NHLBI. 2005
Member, Special Emphasis Panel, NHLBI. 2005
Co-Organizer, Updates in Genetics and Development, Harvard Med Sch, Boston, MA (2004)
Member, Special Study Section (PPG Review), NHLBI. 2004
Co-Organizer, Coronary Vasculogenesis Meeting, Estes Park, CO 2004
Charter Member, Development 1 (DEV-1) NIH Study Section, 2003-2006

Member, Cardiovascular Development Study Section, National American Heart Assoc., 2003
Member, American Heart Association Peer Review Steering Committee, 2001-2002
Chair, Cardiovascular Development Study Section, Nat American Heart Assoc., 1999-2000
Member, Review Panel for Centers of Biomedical Research Excellence, National Center for Research Resources NIH 2000
Department of Pharmacology Teaching Award, 1996, 2000, 2006, 2008.
Member, NHLBI Working Group, Res. Opportunity Meeting for Cardiovascular Dev., 2000
Ad Hoc Reviewer, Animal Growth, Development, and Nutrient Utilization Program, USDA National Research Initiative Program, 2000
Member, NHLBI Working Group, The Role of Cholesterol and Lipids in Embryonic Development and Congenital Disease, 1998
Executive Committee, Weinstein Cardiovascular Development Meeting, 1998-2000
Co-Organizer, Weinstein Cardiovascular Development Meeting, 1998
Co-Chair, Cardiovascular Development Study Section, National Amer Heart Assoc., 1997-1998
Sigma Xi, 1997
Member, Lung and Development Study Section, National American Heart Association, 1996
Member, Developmental Mechanisms Study Section, National Science Foundation, 1996-1999
Individual National Research Service Award, 1988-1990
Fellow, American Heart Association, Massachusetts Affiliate 1986-1988
Student Travel Award, Amer. Society for Pharmacology and Experimental Therapeutics, 1985
Undergraduate Fellow, United States Dept. of Energy, Argonne National Laboratory, 1981
Sigma Zeta, 1980

Professional Affiliations:

American Association for the Advancement of Science
Council on Basic Cardiovascular Sciences, American Heart Association
Society for Developmental Biology
American Association of Anatomists
American Society for Pharmacology and Experimental Therapeutics
New York Academy of Sciences
Indiana Academy of Science
American Heart Association, Expert Speaker and Media Consultant

License Agreements:

VU 9702; Bionostics, Inc., chick Type II TGF β receptor fusion proteins
Pending; Bionostics, Inc., chick Type III TGF β receptor fusion proteins, chick Type I receptor isoforms ALK2 and ALK5 fusion proteins

Editorial Responsibilities:

Ad Hoc Reviewer, Editor, Explore Pharmacology: Graduate Studies in Pharmacology, ASPET 2012
Member, Editorial Board, Developmental Dynamics, 2005-2013
Reviewer, American Heart Assoc. Scientific Sessions, 2000-2009
Ad Hoc Reviewer, PLUS One 2011-
Ad Hoc Reviewer, Carcinogenesis
Ad Hoc Reviewer, BBA
Ad Hoc Reviewer, Journal of Clinical Investigation
Ad Hoc Reviewer, Nature Cell Biology
Ad Hoc Reviewer, Anatomical Record, 2002-
Ad Hoc Reviewer, Development, 2001-

Ad Hoc Reviewer, Proceedings of the National Academy of Sciences USA, 2000
 Ad Hoc Reviewer, Genes and Development, 2000
 Ad Hoc Reviewer, Cell and Tissue Research, 2000
 Ad Hoc Reviewer, Cytokine, 2000
 Ad Hoc Reviewer, Developmental Biology, 2000-
 Ad Hoc Reviewer, Acta Anatomica, 1995-
 Ad Hoc Reviewer, Developmental Dynamics, 1995-2005
 Ad Hoc Reviewer, Cardiovascular Research, 1998-
 Ad Hoc Reviewer, Circulation Research, 1999-

Invited Program Reviews:

The Cellular and Molecular Pharmacology and Physiology Graduate Program, University of Nevada, 2008
 The Department of Pharmacology and Toxicology Graduate Program, University of Utah, 2012
 The Department of Pharmacology, University of Pennsylvania, 2014
 The Department of Pharmacology, Saint Louis University, 2014
 The Department of Pharmacology, Case Western Reserve, 2016

Funding:

Active:

AHA 18SFRN33900069 (Beckman)	04/01/2018-03/31/2022	0.9 calendar months
AHA	Total Award \$3,709,200	

Microvascular Disease Determines Limb Outcomes in PAD

This is a Strategically-Focused Research Network Center grant has a basic, translational, and population project joined by a postdoctoral training program that is focused on interdisciplinary training. Efforts address the role of the microcirculation in the pathology of peripheral artery disease. Dr. Barnett's role is as the director of the training program and collaborator at 7.5% effort.

1R01 HL133127-01A1 (Murray)	04/01/2017-03/31/2022	0.24 calendar months
NHLBI	\$18,596	

Novel Pathophysiological Targets in Atrial Fibrillation Susceptibility

The proposed studies have substantial significance for the general population, given that the hypotheses we are testing may not only provide mechanistic links between common diseases such as hypertension and obesity with atrial fibrillation, but they may also provide novel therapeutic targets for the prevention and/or treatment of this common and difficult to treat arrhythmia.

2T32 GM007628-36 (Barnett)*	07/01/2014-06/30/2019	0.60 calendar months
NIH/NIGMS	\$1,084,754	(No salary support)

Training in Pharmacological Sciences

This is a training grant in pharmacological sciences.

*2016 Awarded supplement to develop a course in "Enhancement of Rigor and Reproducibility" for all Vanderbilt NIGMS trainees at Vanderbilt. Program developed highlighted in a Nature article entitled "Seek out stronger science". Nature 537: 703-704, 2016.

1R13 GM108284-01 (Barnett)	05/15/2014-05/15/18	0.3 calendar months
NIH	\$46,158	(No salary support)

National Pharmacology Directors of Graduate Programs Meeting

This grant provides support of educational programming sessions for the national meeting of Ph.D. program directors in pharmacology and physiology. This includes an every other year stand-alone meeting as well as a single session at Experimental Biology.

Past:

1R01 HL115103-01 (Merryman) 07/01/2012-06/30/2017 1.20 calendar months
NIH \$268,432

Serotonergic Receptor Targeted Therapy for Degenerative Aortic Valve Disease

The goal of this project is to develop serotonergic receptor targeted therapy that prevents aortic valve cells from becoming myofibroblasts, which are the hallmark of degenerative aortic valve disease.

13GRNT16690001 (Barnett) 07/01/2013-06/30/2015 1.2 calendar months
AHA \$82,000 (No salary support)

Mechanisms of Transforming Growth Factor Beta Type III Receptor-Dependent Epicardial Cell Invasion

Completion of these studies will reveal the role of TGFB in regulating cell invasion and identify the components of the TGFBeta R3 complex required for invasion. The attainment of these goals is essential to effectively develop and use drugs that target this pathway.

Howard Hughes (Muglia) 04/01/2010-03/31/2014 0.24 calendar months
Howard Hughes Project \$211,152

Certificate Program in Molecular Medicine

The educational intent is to integrate doctoral thesis research with relevant clinical experiences

W81XWH-12-1-0489 (Perrien) 09/30/2012-03/29/14 0.60 calendar months
Department of Defense

PR110718 TGFbeta receptor 3/Betaglycan as a target for hypogonadal bone loss

Uses mouse model of osteoporosis to investigate the role of the Type III receptor in bone loss.

5R25 GM086771 (McGuinness) 04/01/2009-03/31/2013 0.12 calendar months
NIH/NIGMS \$97,153

A short course: An organ systems approach to target the metabolic syndrome

Support for one of 4 NIH-sponsored, hands on, whole animal biology summer short courses.

5T32 GM007628 (Barnett) 07/01/2008-06/30/2013 0.60 calendar months
NIH/NIGMS \$421,000 (No salary support)

Training in Pharmacological Sciences

This is a training grant in pharmacological sciences.

5RL1 HL092551 (Baldwin & Barnett) 09/30/2007-07/31/2012 1.80 calendar months
NIH/NHLBI \$382,756 (\$25,000 for project)

Systems-based consortium for organ design and engineering

Experiments use several approaches to develop and in vitro matrix and cell system to support generation of heart valve tissue.

5R01 HL085708 (Barnett) 02/01/2008-01/31/2012 6.57 calendar months
NIH/NHLBI (NCE until 01/31/13)

Type III transforming growth factor beta receptor in coronary vessel development

Experiments will determine the tissues that require the Type III receptor for normal coronary vessel development.

0855039E (Barnett) 07/01/2008-06/30/2010 0.58 calendar months
AHA \$75,000

Role of the Type III TGF-beta receptor in Outflow tract development

Experiments explore the role of the Type III TGF β receptor in heart valve and outflow tract development in the mouse. The receptor will be conditionally deleted from the secondary heart field, neural crest, and endothelium to define the cell populations that require the receptor.

5T32 HL076133-05 Barnett (PI) 05/01/2004-04/30/2010
NIH/NHLBI \$236,728

"Training in Cardiovascular Pharmacology"

Postdoctoral training program in cardiovascular pharmacology.

Role: Principal Investigator Director of Program

1R13 GM087797 (Barnett) 03/01/2009-02/28/2010
NIH/NIGMS \$6,000

National Pharmacology Directors of Graduate Programs Meeting

American Heart Association 0655129B "Role of the Type III TGF-beta receptor in coronary vessel development" (Joey V. Barnett, Principal Investigator)

07/01/2006-06/30/2008 \$140,000 (total direct)

NIH/NIGMS 1R13 GM080977 "National Pharmacology Directors of Graduate Program Meeting" (Joey V. Barnett, Principal Investigator)

03/01/2007-02/28/2008 \$8,000 (total direct)

NIH/NHLBI 1 PO1 HL67105; "Molecular Regulation of Coronary Development" (David Bader, Principal Investigator)

NIH/NHLBI 1 PO1 HL67105; "TGF β and Coronary Vessel Development" (Joey V. Barnett, Principal Investigator)

06/01/01-05/31/06 \$1,046,979 (total direct)

NIH/NHLBI 1 PO1 HL67105; "Molecular Regulation of Coronary Development" (David Bader, Principal Investigator) Core Facilities "Morphology Core Laboratory" (Joey V. Barnett, Core Director)

06/01/01-05/31/06 \$921,008 (total direct)

NIH/NCI 5P50 CA098131 "SPOR in Breast Cancer" Arteaga (PI)

Pilot Project "Role of the Type III TGF β Receptor in Breast Development and Cancer" (Joey V. Barnett, PI)

01/01/05-12/31/06 \$50,000 (total direct)

March of Dimes Grant Research Grant 1-FY98-1-0621; "Function of the Type III TGF β Receptor in Development" (Joey V. Barnett, Principal Investigator)

06/01/00-05/31/03 \$163,635 (total direct)

Pharmaceutical Manufacturers Foundation Fellowship; "Role of Type I TGF β Receptor in Signaling Atrioventricular Cushion Transformation" (Joey V. Barnett, Sponsor; Jay Steven Desgrosellier, Fellow)

07/01/00-06/30/02 \$25,000 (total direct)

American Heart Association Established Investigator Award 96001380; "Functional Analysis of Transforming Growth Factor Beta Receptors in Heart Development" (Joey V. Barnett, Principal Investigator)

07/01/96-06/30/01 \$262,750 (total direct)

VUMC Intramural Discovery Grants Program; "Type III TGF β receptor ligand binding specificity" (Joey V. Barnett, Principal Investigator; Andrzej Krezel, Co-investigator)

07/01/99-06/30/01 \$50,482 (total direct)

NIH/NHLBI 1RO1 HL52922; "TGF β Receptor Expression and Function in Cardiogenesis" (Joey V. Barnett, Principal Investigator)

12/01/95-11/30/00 \$679,449 (total direct)

NIH/NHLBI 1RO1 HL52922; (Minority Supplement) "TGF β Receptor Expression and Function in Cardiogenesis" (Joey V. Barnett, Principal Investigator)

12/01/98-11/30/00 \$84,436 (total direct)

March of Dimes Grant Research Grant 1-FY98-1-0621; "Function of the Type III TGF β Receptor in Development" (Joey V. Barnett, Principal Investigator)

06/01/98-06/01/00 \$104,373 (total direct)

Howard Hughes Medical Research Institute, Research Training Fellowship for Medical Students; "Role of the Type I Transforming Growth Factor Beta Receptor in Signaling Atrioventricular Cushion Transformation" (Joey V. Barnett, Sponsor; Yen-Tsun Lai, Fellow)

07/01/97-06/30/98 \$26,000 (total direct)

Vanderbilt Cancer Center Gene Therapy Pilot Project; "Shell-less Chick Embryo Culture: An Experimental System to Evaluate p53 as a Gene Therapy Target in Tumor Angiogenesis and Metastasis" (Thomas Daniel, Principal Investigator; Joey V. Barnett and Jennifer Pietenpol, Co-investigators)

04/01/96-03/31/97 \$ 68,500 (total direct)

Vanderbilt Cancer Center Gene Therapy Pilot Project; "Endothelial-Cell Targeted Expression of Genes by Retroviruses" (Larry Kerr, Principal Investigator; Joey V. Barnett, Co-investigator)

04/01/96-03/31/97 \$ 40,000 (total direct)

American Heart Association Grant-in-Aid 95008240; "Functional Role of the Type I TGF β Receptor in Chick Cardiogenesis" (Joey V. Barnett, Principal Investigator)

07/01/95-06/30/98 Award Declined

NIH/NHLBI F32-HL09221 Individual NRSA; "Function of the Type I TGF β Receptor in AV Cushion Transformation" (Joey V. Barnett, Sponsor; Gregory P. Brames, Fellow)

07/01/95-6/30/97 \$63,100 (total direct); Second year declined

American Heart Association Tennessee Affiliate Grant-in-Aid TN95G30; "The Role of the Type II and Type III TGF β Receptors in Cardiovascular Development" (Joey V. Barnett, Principal Investigator)

07/01/95-07/01/97 \$ 50,000 (total direct)

Second year of the award was declined

University Research Council Direct Support Research Grant; "Role of the Type I TGF β Receptor in Heart Development" (Joey V. Barnett, Principal Investigator)

07/01/95-12/31/95 \$ 19,594 (total direct)

American Heart Association Tennessee Affiliate New Investigator Award TN93G28; "Role of the Type II and Type III TGF β Receptors in Epithelial-Mesenchymal Transformation in the Atrioventricular Cushion" (Joey V. Barnett, Principal Investigator)
07/01/93-06/31/95 \$ 80,000 (total direct)

American Heart Association Massachusetts Affiliate Grant-in-Aid 13527890; "A Coculture System for Examining the Development of Muscarinic Responsiveness of the Heart" (Joey V. Barnett, Principal Investigator)
07/01/90-07/01/92 \$ 90,000 (total direct)

Invited Lectures:

Symposia:

Invited Speaker, "Establishing Cross-Institutional Partnership: Pharm.D.,-Ph.D. Partnership Pathway", American Association of Colleges of Pharmacy meeting, Los Angeles, CA (February 2018)

Member, Planning Committee and Workshop Facilitator, "Navigating New NIGMS Training Guidelines" co-sponsored by FASEB, HHMI, and AAMC with support from NIGMS, Washington, DC (February 2018)

Session Co-Chair, Cardiovascular Developmental Biology Center Symposium. Charleston, SC (August 2017)

Invited Speaker, ORPHEUS (Organisation for PhD Education in Biomedicine and Health Sciences in the European System), Efforts to enhance rigor and reproducibility in science in the United States. Klaipeda, Lithuania (May 2017)

Organizer and Chair, ASPET Teaching Institute, Supporting Experiment Design and Rigor in Graduate Training, Exp. Biol. Chicago IL (April 2017)

Co-organizer and Co-chair, Amer. Assoc. Anatomy Symposium, Novel Function of Fibrinolysis in Tissue Repair, Exp. Biol. Chicago IL (April 2017)

Invited Speaker, NIGMS Symposium on Catalyzing the Modernization of Graduate Education, Rigor and Reproducibility, Bethesda MD (April 2016)

Invited Speaker, Experimental Biology Meeting Workshop ORPHEUS: Developing Best Practices for Graduate Education in Europe (April 2016).

Invited Speaker, ORPHEUS (*Organisation for **PhD** Education in Biomedicine and Health Sciences in the **European System***), Lost in Translation? From medical studies to clinical research. NIH-sponsored initiatives in Ph.D. training in the US – enhancing outcome and impact. Colonge, Germany (March 2016)

Invited Speaker, ORPHEUS (*Organisation for **PhD** Education in Biomedicine and Health Sciences in the **European System***), Lost in Translation? From medical studies to clinical research. M.D., Ph.D. training in the USA. Colonge, Germany (March 2016)

30th Annual Ralph J. Cazort Heritage Lecture, Meharry Medical College, April 2015

Invited Speaker, IUPHAR WorldPharma 2014 workshop on " ORPHEUS PhD Standards: bridging PhD programs to promote global", Do we need international Standards: US position. Capetown, South Africa (July 2014)

Session Chair, ORPHEUS (*Organisation for **PhD** Education in Biomedicine and Health Sciences in the **European System***), Ph.D.s around the world, Laussane, Switzerland (April 2014)

Invited Speaker, Cardiovascular Developmental Biology Center Symposium, Charleston, SC (March 2014)

Invited Speaker, ORPHEUS (*Organisation for **PhD** Education in Biomedicine and Health Sciences in the **European System***), Prague, Czech Republic (April 2013)

Organizer/Invited Speaker FASEB Symposium on Training Models, Boston, MA (April 2013)

Invited Speaker, Association for Medical Education in Europe, Lyon, France (August 2012)
 Session Chair, Cardiovascular Development, FASEB, San Diego, CA (April 2012)
 Invited Speaker, Association of Med Sch Pharmacology Chairs, Maui, HA (Feb 2012)
 Co-Organizer, National Directors of Graduate Study in Pharmacology and Physiology Meeting, East Lansing MI (July 2011)
 Invited Speaker, ORPHEUS Report, National Directors of Graduate Study in Pharmacology and Physiology, East Lansing MI (July 2011)
 Symposium Co-Organizer, Science, Scientist, Advocate: Making the case for increased funding for biomedical research. FASEB, Washington, DC (April 2011)
 Symposium Co-Organizer, The ASPET Teaching Institute, "Creating Educational Partnerships from High School to Graduate School", FASEB, Washington, DC (April 2011)
 Session Chair, Cardiovascular Development, FASEB, Washington, DC (April 2011)
 Invited Speaker, ORPHEUS (*Organisation* for *PhD* Education in Biomedicine and Health Sciences in the *European System*) 6th meeting, Izmir, Turkey (April 2011)
 Invited Speaker, Association of Med Sch Pharmacology Chairs, Cancun, Mexico (Jan 2010)
 IUPHAR WorldPharma2010 workshop on "Standards for Ph.D. Education in Pharmacology", Copenhagen, Denmark (July 2010)
 Invited Speaker, Association of Med Sch Pharmacology Chairs, Tampa, Florida (Feb 2009)
 Brody Lectureship, Michigan State University, East Lansing, MI (Oct 2009)
 Invited Speaker, 4th EMT International Association Meeting, Tucson, AZ (Sept 2009)
 Invited Speaker, Louisiana State University Health Sciences Center, New Orleans, LA (Nov 2008)
 Invited Speaker, Association of Med Sch Pharmacology Chairs, Ixtapa, Mexico (Feb 2008)
 Co-Chair, Pharmacology Education for the next 100 years: preparing the next generation of pharmacologists, San Diego, CA (April 2008).
 Invited Speaker, ASPET Teaching Institute, San Diego, CA (April 2008)
 Invited Speaker, ASPET Graduate Student Colloquium, San Diego, CA (April 2008)
 Invited Speaker, Association of Med Sch Pharmacology Chairs, Newport Beach, CA (Feb 2008)
 Invited Speaker, National Directors of Graduate Study in Pharmacology Meeting, Salt Lake City UT (July 2007)
 Invited Speaker, Association of Med Sch Pharmacology Chairs, Quito Ecuador (Feb 2007)
 Keynote Speaker, Thirty Third Annual Pharmacology Colloquium, Michigan State University, East Lansing, MI (June 2006)
 Invited Speaker, Association of Med Sch Pharmacology Chairs, Tucson, AZ (Feb 2006)
 Invited Speaker, Association of Medical School Pharmacology Chairs, Panama (Feb 2005)
 Co-Organizer, Updates in Genetics and Development, Harvard Med Sch, Boston, MA (2004)
 Speaker and Co-Organizer, Coronary Vessel Development, Estes Park, CO (April 2004)
 Invited Speaker, Gordon Conference on Vascular Biology, Ventura, California (Jan 2003)
 Invited Speaker, Etiology and Morphogenesis of Congenital Cardiovascular Disease in the Post-Genomic Era, Tokyo Women's Medical Univ., Tokyo, Japan (Dec 2002)
 Invited Speaker, FASEB National Meeting, TGF β Minisymposia, New Orleans, LA (April 2002)
 Invited Speaker, 3rd Annual Spring Symposium of the Cardiovascular Developmental Biology Center at the Medical University of South Carolina, Valvuloseptal Development and Disease, Charleston, SC (March 2002)
 Session Moderator, Weinstein Cardiovascular Development Meeting, Dallas, TX (May 2001)
 Session Moderator, Weinstein Cardiovascular Development Meeting, St. Louis, MO (June 2000)
 Invited Speaker, Res Opportunity Meeting for Cardiovascular Dev., Saint Louis, MO (2000)
 Invited Speaker, American Heart Association Research Symposium, Dallas, TX (May 2000)
 Invited Speaker (declined), Weinstein Cardiovascular Development Meeting, Tucson, AZ (1999)

Invited Speaker, The Role of Cholesterol and Lipids in Embryonic Development and Congenital Disease, Nashville, TN (1998)

Invited Participant, Sarnoff Foundation Annual Meeting, Washington, DC (1996)

Invited Participant, NHLBI Workshop "From Developmental Biology to Molecular Medicine", Bethesda, MD (1996)

Invited Speaker, Weinstein Cardiovascular Development Meeting, Philadelphia, PA (1996)

Invited Speaker of the Councils on Cardiovascular Disease in the Young and Basic Science, American Heart Association, 68th Scientific Sessions, Anaheim, CA (1995)

Invited Speaker, Weinstein Cardiovascular Development Meeting, Rochester, NY (1995)

Invited Speaker, Weinstein Cardiovascular Development Meeting, Charleston, SC (1994)

Research Seminars:

Invited Speaker, Grand Rounds for the Institute for Excellence in Education, Johns Hopkins University School of Medicine, Baltimore, MD (January 2018)

MARC Program, University of Arizona, (Nov 2016)

MARC Program, Tennessee State University, (Nov 2014)

MARC Program, Tennessee State University, (Sept 2013)

Dept of Pharmacology, Eastern Virginia Medical School, Norfolk, VA (April 2013)

Division of Biomedical Sciences, Florida Atlantic University, Boca Raton (Nov 2012)

MARC Program, Tennessee State University, (Oct 2012)

University of Cincinnati, Cincinnati, OH (Oct 2011)

State University of New York, Stony Brook (Oct 2011)

MARC Program, Tennessee State University, (Oct 2011)

Molecular and Cellular Biology, University of Arizona, Tucson, AZ (May 2011)

Indiana University Sch of Med. Northwest Center, Gary IN (March 2011)

Institute of Pharmacology and Toxicology, Univ. of Bonn, Bonn, Germany (February 2011)

MARC Program, University of Arizona, Tucson, AZ (Nov 2010)

Dept of Pharmacology, St. Louis University, St. Louis, MO (Oct 2010)

MARC Program, Winston Salem State University, Winston Salem, NC (Nov 2009)

Div of Cardiovascular Biology, Meharry Medical College, Nashville, TN (Dec 2008)

Indiana University School of Medicine, Evansville Center, Evansville, Indiana (Nov 2008)

MARC Program, Tennessee State University (September 2008)

Dept. of Anatomy and Cell Biology and Sarver Heart Center, Univ. of Arizona (Oct 2007)

Dept. of Neurobiology and Anatomy, University of Utah, (July 2007)

Cardiology Grand Rounds, University of Chicago, (December 2006)

MARC Program, Tennessee State University (November 2006)

Department of Biology, Belmont College (October 2006)

Department of Biology, Spelman College (October 2006)

School of Science and Engineering Colloquia, University of Southern Indiana (Sept 2006)

Dept of Cell Biology and Anatomy and University Heart Center, Univ of Arizona, (Feb 2006)

Department of Biology, Middle Tennessee State University (November 2005)

MARC Program, Tennessee State University (October 2005)

Department of Molecular Medicine, Tufts-New England Medical Center (April 2005)

Department of Pharmacology, Meharry Medical College (January 2005)

Dept of Cell Biology and Anatomy and University Heart Center, Univ of Arizona, (Oct 2004)

Developmental Biology Colloquium Series, Duke University (April 2004)

Dept of Biochemistry and Cell Biology, State University of New York Stony Brook (April 2004)

Austin Peay State University, (April 2004)

University of Kansas Medical Center, Dept of Cell Biology and Anatomy (September 2002)

University of Tennessee-Memphis, Department of Pharmacology (March 2002)

University of Pennsylvania, Departments of Medicine and Pharmacology (April 2001)
University Heart Center, University of Arizona, (February 2001)
Children's Research Center, University of Arizona, (February 2001)
Department of Cell and Molecular Biology, Tulane University, (November 2000)
Department of Cell Biology and Anatomy and the Cardiovascular Developmental Biology Center, Medical University of South Carolina (October 1999)
Institute of Molecular Medicine and Genetics, Medical College of Georgia (December 1998)
Graduate Program in Molecular Biology, Loyola University-Chicago (October 1998)
Department of Cell Biology and Anatomy and the Cardiovascular Developmental Biology Center, Medical University of South Carolina (January 1998)
Department of Cell Biology and Anatomy, University of Arizona (October 1997)
Indiana University School of Medicine-Evansville Center (December 1996)
Cardiovascular Division, Brigham and Women's Hospital and Harvard Med Sch (March 1996)
Austin Peay State University (March 1996)
Department of Cell Biology and Anatomy and the Cardiovascular Developmental Biology Center, Medical University of South Carolina (August 1995)
Longwood Area Heart and Muscle Development Group, Brigham and Women's Hospital and Harvard Medical School (August 1994)
University of Southern Indiana (April 1994)
Austin Peay State University (November 1993)

Vanderbilt University

Vanderbilt Vascular Biology Center, "How to" series. Rigor and Reproducibility (Sept 2016)
Pediatric Research Rounds, (January 2013)
Bone Center, Division of Clinical Pharmacology (March 2010)
1st Annual Samuel S. Riven Cardiovascular Research Day (March 2009)
Dept. of Microbiology & Immunology Research Conference (Oct 2007)
Bone Research Center Conference (May 2007)
Pediatric Research Conference (2007)
Div. of Neonatology, Dept. Pediatrics (2006)
Department of Pathology (2005)
Lung Research Conference (2005)
Vanderbilt-Ingram Cancer Center (2005)
Vascular Biology Retreat (2002)
Host-Tumor Interaction Program (2002)
Renal Research Conference (2001)
Cardiology Grand Rounds (2001)
Vascular Biology Center Retreat (2000)
Vanderbilt-Ingram Cancer Center Retreat (1999)
Molecular Biology (1999)
Endocrine Grand Rounds (1999)
Host-Tumor Interaction Group, Cancer Center (1999)
Renal Research Conference (1999)
Medicine Research Seminar (1997)
Molecular Biology (1996)
Cardiology Grand Rounds (1996)
Pharmacology (1996)
Cell Biology (1995)
Vascular Biology Training Program (1995)
Medicine Research Seminar (1994)

Cardiology Grand Rounds (1993)
Neonatology, Topics in the Biology of Growth and
Development (1993)
Pediatric Cardiology Research Conference (1993)
Cardiology Grand Rounds (1993)

Teaching Experience:

Vanderbilt University

Director, Office of Medical Student Research, Oversee Research Course 1 & 2, 2014-

Director, Third year Research Clerkships, 2013-

Member, Undergraduate Medical Education Committee

Section leader, Targets, Systems, and Drug Action (Pharm 320), 2011

Director, Targets, Systems, and Drug Action (Pharm 320), 2008-2010

Lecturer, NIGMS short course: Organ systems approaches to metabolic syndrome, 2009-2012

Director, Principles of Drug Action (Pharm 324-5), 2003-2008

Lecturer, Molecular Dev Biology-Stem Cells and Organogenesis (Cell Biol 341), 2002

Lecturer on Molecular Biology of Development for the Molecular Medicine Course for the
Master's of Clinical Investigation Program, 2001-2006

Co-Director, Section on Cardiovascular Development (Cell Biol 399), 2000

Lecturer, The Nature of Discovery from America to Mars, Coll of Arts and Sciences
(undergraduate course), (AST 115W), 2000-2006

Co-Director, Principles of Drug Action (Pharm 324-5), 1997-2002

Co-Director, Pharmacological Targets and Mechanisms (Pharm 324-5), 1997-2002

Lecturer on Cardiovascular Dev, Cellular and Molecular Basis of Vascular Disease (Path 337),
1997-2005

Section Coordinator, Molecular Cardiology, MSTP Journal Club, 1997

Bioregulation II, Discussion leader, signal transduction section, 1997

Coordinator, Cardiovascular and Autonomic Systems Section, Pharmacological Targets and
Mechanisms (Pharm 324-5), 1997

Director, Principles of Drug Action (Pharm 324-5), 1996

Director, Cardiovascular Pharmacology, (Pharm 325), 1996-

Coordinator, Sections on the Autonomic, Cardiovascular, and Renal Systems, Principles of
Drug Action (Pharm 324-5), 1996

Bioregulation II, Lecturer, Cardiac Development 1994,1995

Harvard University

Metabolism and Function of Human Organ Systems, Conference leader, Biochemistry section,
1988-1990

Community Education:

Founder, Greater Southeast Affiliate, Amer. Heart Assoc., HBCU Scholars Program, 2015-

Member, National Funding Subcommittee, Amer. Heart Assoc., 2013-2017

Member, National Diversity Leadership Committee, Amer. Heart Assoc., 2013-2017

Member, Greater Southeast Affiliate Nomination Committee, Amer. Heart Assoc., 2013-2018

Member, Greater Southeast Affiliate Multicultural Initiatives Committee, Amer. Heart Assoc.,
2013-2018

Past President, Greater Southeast Affiliate, Amer. Heart Assoc. Board of Directors, 2013-2014

President, Greater Southeast Affiliate, Amer. Heart Assoc. Board of Directors, 2012-2013

President-elect, Greater Southeast Affiliate, Amer. Heart Assoc. Board of Directors, 2010-2012

Vice President, Greater South East Affiliate Amer. Heart Assoc. Board of Directors, 2009-11
Scientific Advisor, Greater South East Affiliate American Heart Assoc. Board of Directors, 2008
Member, South East Affiliate American Heart Association Board of Directors, 2005-2007
Member, Advisory Board of Pott School of Science and Engineering, USI, 2007-
Expert Opinion, Provided testimony to Tennessee State Senate on trans fat legislation. 2007-
Prepared grant proposal (funded at \$3,000) to American Association of Anatomists to support postdoctoral fellows and graduate students to teach cardiovascular health in Nashville area High Schools

Teaching Volunteer 2000-present, Prepared and delivered program for high school students on cardiovascular health. Presentations given to local schools with the assistance of graduate students and postdoctoral fellows.

Member, Cumberland Science Museum Health Hall Redesign Comm, Nashville, TN 2002-2003

Executive Advisory Board Member, Amer. Heart Assoc., Nashville., TN 2001-

President, Amer Heart Assoc Board of Directors, Nashville and Davidson County, TN 2001

Prepared grant proposal (funded at \$10,000) to American Heart Association for a tobacco informational exhibit directed at English and Spanish speaking elementary school students for the Cumberland Science Museum in Nashville, TN

President-Elect, AHA Board of Directors, Nashville and Davidson County, TN 2000

Prepared and Featured in Educational Videotapes for American Heart Association Southeast Affiliate, Heart Disease: In Search of a Cure and Your Money at Work: Research, A Path to a Cure, 2000.

Member, Amer Heart Assoc Board of Directors, Nashville and Davidson County, TN 1998-2001

Director, University of Southern Indiana Foundation, Evansville, IN 1997-

Expert Speaker and Media Consultant for American Heart Association since 1997

Presented lay research summaries to over 100 groups ranging from corporate boards to Metro teachers and students and community groups.

Multiple local network television interviews to publicize American Heart Association research support

Multiple interviews for local newspapers, regional magazines, and inhouse American Heart Association publications.

University Service:

Co-Chair, Medical School Admissions Committee, 2016-

Member, Search Committee for Vice-Provost for Equity, Diversity, and Inclusion, 2016

Member, Selection Committee, Vanderbilt Faculty Research Scholars Program, 2016

Member, Internal Advisory Board, Training Program in Clinical Pharmacology, 2015-

Member, Search Committee for Director of the Medical Scientist Training Program, 2015

Member, Search Committee for Chair of Obstetrics and Gynecology, 2015

Member, Search Committee for Dean of the Graduate School, 2015

Member, Exploratory Committee for Ph.D. to M.D. Program, 2014

Member, Training Advisory Group, Biomedical Research and Training (BRET) Office, 2014

Director, Office of Medical Student Research, 2014-

Director, Research Clerkship for Third Year Medical Students, 2013-2014

Acting Chair, Department of Pharmacology, 2013-2016

Member, Standardization of Student Evaluations across Med School & IGP Retreat, 2011

Member, Working Group on Graduate Accreditation, BRET, 2010

Member, Working Group on Responsible Conduct in Research Recommendations, BRET, 2010

Member, Review of the Vanderbilt Biomedical Research Education and Training Office, 2009
 Member, Ad Hoc Committee on Standardization of Educator Portfolios, Medical School, 2009
 Member, Biological and Biomedical Sciences Sub-committee of the Task Force on Graduate Education (University-wide Review), 2008
 Co-chair, Graduate & Post Doc Education Committee of the Basic Science Strategic Plan, 2008
 Appointed representative to AAMC GREAT Group, 2007-2012
 Institutional Minority Scientist Development Program Admissions Committee, 2007-
 Member, Advisory Board, MARC Program, Tennessee State University (2006-2011)
 Member, Disease, Diagnoses, and Therapy course development team for second year curriculum, 2006-2007
 Member, Strategic Plan Committee on Graduate Education, 2005
Chair, University Senate Faculty Life Committee, 2005
 Elected Member, University Senate, 2004-2007
 Member, Neuroscience Program Evaluation Committee, 2004-
 Member, Department of Pharmacology Development Committee, 2003-
 Member, Graduate Faculty Council, 2003-2004
 Member, Emphasis Program Advisory Committee, Laboratory Sciences Section, 2003-
Chair, Emphasis Medical School Curriculum Comm, Laboratory Sciences Section, 2002-2003
 Member, Laboratory Security and Accountability Work Group, 2002
Director, Graduate Studies in Pharmacology, 2001-2011
 Member, Search Committee for Chair of Cell Biology, 2001
 Member, Department of Medicine Taskforce on Acquiring and Developing Trainees for Research, 2000
Director, Morphology Core Laboratory, Cardiovascular Division, 1999-2002
Basic Science Consultant for the Fetal Diagnosis and Therapy Center planning comm, 1999
Coordinator, Division of Cardiology Bridge Lecture Program, 1999-
 Member, Examination Committee, Department of Pharmacology, 1998-1999
 Member, Liaison Committee on Medical Education Self-Study Task Force, Subcommittee on Resources for the Educational Program: Faculty, 1998
 Panelist, Graduate Education Day, Vanderbilt University, 1999
 Member, Vanderbilt-Ingram Cancer Center, Host-Tumor Interaction Program, 1997-
Coordinator, Division of Cardiology participation in Heart Walk, 1997-2000
 Member, Medical Scholars Program Advisory Committee, 1997-
Author, Medical Scholars Program, 1997
Faculty Judge, Cell and Molecular Biology Section, Graduate Student Research Day, Vanderbilt University, 1997-
Graduate Faculty Marshall, Investiture Ceremony, Vanderbilt University, 1997-
Chair, Pharmacology Curriculum Committee, 1996-2001
 Member, Medical Scientist Training Program Advisory Committee, 1996-2000
 Member, Task Force on Graduate (Ph.D. and M.D., Ph.D.) and Postgraduate Education in the Biomedical Sciences, 1996
 Member, Selection Committee, Lamson Lecture, 1996
 Member, Conference Committee, Division of Cardiology, 1995-1996
Coordinator, American Heart Association Practice Sessions Division of Cardiology, 1995-1998
Chair, Division of Cardiology Retreat Planning Committee, 1994
Scientific Sessions Coordinator, Department of Pharmacology Retreat, 1994-1996

Trainees:

Graduate Students:

Jamille Robinson, 2009-2012 (Masters)
Cyndi Hill, 2009-2012
Daniel DeLaughter (co-mentor), 2008-2013
Nora Sanchez, 2006-2012
Todd Townsend, 2004-2009
Brian Culbreath, 2002-2007 (Masters)
Leigh Compton, 1999-2006
Jay Desgrosellier, 1998-2004
Harold Olivey, 1996-2003
Paul Bushdid, Ph.D. 1998-2000
Chris Brown, Ph.D., 1992-1997; 1997-1998

Postdoctoral Fellows:

Joseph Prinsen, D.O., Ph.D. (co-mentor with Kathy Murray), 2014-
Joseph Prinsen, D.O., Ph.D. (fall 2013)
Young Wok Chun, Ph.D. (co-mentor with David Merryman), 2010-2012
Jon Soslow, M.D., 2009-2010
Anita Austin, Ph.D., 2003-2009
Michael Marlow, Ph.D., 2002-2003
Bettye Ridley, Ph.D., 1998-2002
K. Beth Beason, Ph.D., 1996-1998
Brenda Rongish, Ph.D., 1996-1997
Marlene V. Shaw, Ph.D., Visiting Scholar: summers of 1994,
1995, 1996, 1997, 1998
Gregory P. Brames, M.D., 1993-1995

Undergraduate Students:

Joey Love (University of Southern Indiana) Summers 2003-2007
Robert Garza (University of Tennessee), Summer 1997
Alfredo Ceballos (Duke University), Summer 1998
Heather Crawford (Xaiver University), Summer 1999
Efrain Garcia (Barry University), Summer 2000
Kelie Tipton (Kentucky State University), Summer 2001
Shannan Hill (Northern Illinois University), Summer 2001
Alec Peterson (Vanderbilt University) 2006
Gary Wilson (Vanderbilt University) 2007
Christopher Deig (Wabash College) 2009
Alex Bick (Harvard College) 2009
Christopher Thomas (Lipscomb College) 2009
Julian Arrieta (Vanderbilt University) 2011
Mark Crowder (Fisk University) 2014
Darian Williams (Tennessee State University) 2015-2017

Medical Students (IBR-Introduction to Biomedical Research):

Yokko Tamura, Spring 1996; IBR
Robert Garza, Spring 1998; IBR; Summer 1998
Andy Lai, 1996-1998; Howard Hughes Fellow 1997-1998
Jon Shin, 2003
Vorannaddha (Bim) Vacharith, 2011

High School Students

Joey Love, 2001-2003

Ryan Mundry, 2004
Will Sugg, 2004
Anh Pham 2009-1010
Paula Jones, 2011
Jonathan Keefe, 2011
Jasmine Martin, 2014
Cody Kennedy, 2014

Rotation Students

(IGP-Interdisciplinary Graduate Students; MSTP-Medical Scientist Training Program):

TK Feaster, Pharm admit, 2010
Kristi Aarnodt, MSTP, 2009
Jeff Bylund, IGP, 2009
Jamilie Robinson, IMSD, 2008
Dario Gutierrez, IGP 2007
Amir Agribata, MSTP 2007
Nora Sanchez, IGP 2006
Mike Casha, IGP 2005
Christopher Barton, IGP 2004
Todd Townsend, IGP 2003
Jennifer Rosenbluth, MSTP 2003
Lauren Manderfield, IGP 2002
Melissa Barty, IGP 2002
Brian Culbreath, Meharry 2001
Sue Buckheister, IGP 2001
Scott Boyle, IGP 2001
Elizabeth Hamilton, IGP 2001
Leigh Carmody, IGP 2000
Efrain Garcia, IGP 2000
Heather Farmer, IGP 2000
Yi Ling, IGP 1999
Victor Sokuolis, MSTP 1999
Leigh Compton, MSTP 1999
Katie Whittinghill, IGP 1998
Stephanie Sherck, IGP 1998
Jay Desgrosellier, IGP 1997
Chris Samsan, IGP 1997
Harold Olivey, IGP 1996
Amanda Carmondy, IGP 1996
Caroline Erter, IGP 1995
Kim Leiktag, IGP 1995
Kim Fekany, IGP 1995
Christopher Brown, IGP 1993

Dissertation Committees:

Elke Stein, (Daniel, Pharmacology)
Kim Fekany, (Solnica-Krezel, Molecular Biology)
Amanda Frisch, (Wright, Cell Biology)
Paul Bushdid, (Kerr, Microbiology and Immunology)
Maureen McDonnell, (Moses, Cell Biology)
Heather Tynes-Roselli, (Vaughan, Pharmacology)

Eric Barker, (Dermody, Microbiology and Immunology)
Jongho Lee, (Emeson, Pharmacology)
April Bragg, (Moses, Cell Biology)
Michael Marlow, (Krezel, Molecular Biology)
David Reese, (Bader, Cell Biology)
Harris Smith, (Vaughan, Pharmacology)
Robert Carson, (Robertson, Pharmacology)
Chris Samsan, (Emeson, Pharmacology)
John Schoenhard, (Vaughan, Pharmacology)
Erika Nurmi, (Blakely, Pharmacology)
Nicholas Chim, (Krezel, Molecular Biology)
Jamie McConnell (Wadzinski, Pharmacology)
Scott Miller, (Wiley, Neuroscience)
Eric Barton (Dermody, Microbiology & Immunology)
Elizabeth Forrester (Moses, Cancer Biology)
Scott Myers (Chung, Pharmacology)
Amanda Antons (Unamutz, Microbiology & Immunology)
Sameer Chopra (Roden, Pharmacology)
Brian Bierie (Moses, Cancer Biology)
Nathan Mundell (Barnett, Pharmacology)
Josh Barnett (Penn, Pharmacology)
Cindy Hill (Barnett, Pharmacology)
Sara Savage (Penn, Pharmacology)
Bojana Jovanovic (Moses, Cancer Biology)
Celestial Jones-Paris (Hudson, Pathology)
LeShanna Sanders (Hatzopoulos, Cell and Developmental Biology)
Josh Hutchinson (Merryman, Biomedical Engineering)
Bryan Fioret (Hatzopoulos, Pharmacology)
Jeff Bylund (Hatzopoulos, Pharmacology)
MK Sewell (Merryman, Biomedical Engineering)
Dikshya Bastakoty (Young, Pathology)
Ebrahim Tahaei (Elefteriou, Pharmacology)
Stephanie Moore (Schoenecker, Pharmacology)
Michele Salzman (Riess, Pharmacology)
ex officio on an all Pharmacology Student Committees 2000-2011

Medical Scientist Training Program Advisees:

Dan Ebert, 1996-1998
Franklin Mullens, 1997-1999
William Tu, 1998-2000
Christopher Barbieri, 1999-2000
Alexander Eshaghian, 2000-2001
Scott Miller, 2002-2004

Faculty Mentoring Committees

Michelle Southard-Smith (medicine)
Tom Kume (medicine)
Richard Nass (anesthesia)
Kevin Currie (anesthesia)
Tina Iverson (pharmacology)
Yangli Elefteriou (medicine)

Rob Caldwell (orthopedics)
 Steve McElroy (pediatrics)
 Steve Goudy (pediatric surgery)
 David Merryman (biomedical engineering)
 Ben Spiller (Pharmacology)
 Jon Schoenecker (orthopedics)
 Jon Soslow (pediatrics)

Publications:

1. Barnett, J.V., Kuczenski, R.T. Desensitization of rat striatal dopamine-stimulated adenylate cyclase following acute amphetamine administration. *J. Pharmacol. Exp. Therap.* 237:820-825, 1986.
2. Barnett, J.V., Segal, D.S., Kuczenski, R.T. Repeated amphetamine pretreatment alters the responsiveness of striatal dopamine-stimulated adenylate cyclase to amphetamine induced desensitization. *J. Pharmacol. Exp. Therap.* 242:40-47, 1987.
3. Chen, C.J., Barnett, J.V., Congo, D.A., Brown, E.M. Divalent cations suppress cyclic adenosine monophosphate accumulation by stimulating a pertussis toxin-sensitive guanine nucleotide-binding protein in cultured bovine parathyroid cells. *Endocrinology.* 124:233-239, 1989.
4. Barnett, J.V., Haigh, L.S., Marsh, J.D., Galper, J.B. Effects of low density lipoproteins and mevinolin on sympathetic responsiveness in cultured chick atrial cells: regulation of beta-adrenergic receptors and α_s . *J. Biol. Chem.* 264:10779-10786, 1989.
5. Barnett, J.V., Shamah, S.M., Lassegue, B., Griendling, K.K., Galper, J.B. Muscarinic cholinergic stimulation of the production of inositol phosphates in cultured embryonic chick atrial cells: evidence for a role of two G-proteins. *Biochem. J.* 271:437-442, 1990.
6. Barnett, J.V., Shamah, S.M., Lassegue, B., Griendling, K.K., Galper, J.B. The development of muscarinic cholinergic stimulation of inositol phosphate production in cultured embryonic chick atrial cells: evidence for a switch in G-protein coupling. *Biochem. J.* 271:443-448, 1990.
7. Tan, W., Barnett, J.V., Hehn, G.M., Quay, S.C., Galper, J.B. Effect of manganese(II)bis(glycinate)dichloride on Ca channel function in cultured chick atrial cells. *Toxicology* 68:63-73, 1991.
8. Ogawa, S., Barnett, J.V., Sen, L., Galper, J.B., Smith, T.W., Marsh, J.D. Sympathetic innervation in vitro increases L-type calcium channel expression in rat myocytes. *J. Clin. Inves.* 89:1085-1093, 1992.
9. Barnett, J.V., Taniuchi, M., Yang, M.B., Galper, J.B. Co-culture of embryonic chick heart cells and ciliary ganglia induces parasympathetic responsiveness in embryonic chick heart cells. *Biochem. J.* 292:395-399, 1993.
10. Tan, W., Barnett, J.V., Pietrobon, D., Hehn, G., Grieser, C., Marsh, J., Galper, J.B. Effect of low density lipoproteins, mevinolin, and G-proteins on calcium response in cultured chick atrial cells. *American Journal of Physiology* 265:H191-H197, 1993.
11. Barnett, J.V., Moustakas, A., Lin, W., Fang, X-F., Lin, H.Y., Galper, J.B., Maas, R.L. Cloning and developmental expression of the chick Type II and Type III TGF β receptors. *Developmental Dynamics* 199:12-27, 1994.

12. Loh, E., Barnett, J.V., Couper, G.S., Vatner, D. S., Feldman, A.M., Colucci, W.S., Galper, J.B. Decreased levels of Gs and adenylate cyclase activity in human myocardium following orthotopic cardiac transplantation. *Circulation Research* 76:852-860, 1995.
13. Brown, C.B., Boyer, A., Runyan, R.B., Barnett, J.V. Antibodies to the Type II TGF β receptor block cell activation and migration during atrioventricular cushion transformation in the heart. *Developmental Biology* 174:248-257, 1996.
14. Brown, C.B., Drake, C.J., Barnett, J.V. Antibodies directed against the chicken Type II TGF β receptor identify endothelial cells in the developing chicken and quail. *Developmental Dynamics* 215: 79-85, 1999. (Cover)
- 15*. Brown, C.B., Boyer, A., Runyan, R.B., Barnett, J.V. Requirement of the Type III TGF β receptor for endocardial cell transformation in the heart. *Science* 283:2080-2082, 1999.
* Profiled in "This week in *Science*". A Heartfelt Role.
16. Lai, Y-T., Beason, K.B., Brames, G.P., Desgrosellier J.S., Shaw, M.V., Brown, C.B., Barnett, J.V. Activin receptor-like kinase 2 (ALK2) can mediate atrioventricular cushion transformation. *Dev. Biol.* 222: 1-11, 2000.
17. Marlow, M.S., Chim, N., Brown, C.B., Barnett, J.V., Krezel, A., ¹H, ¹³C, and ¹⁵N backbone assignments of the ligand binding domain of the Type II TGF-beta receptor. *Journal of Biomolecular NMR* 17: 349-350, 2000.
18. Bulus, N.M., Sheng, H-M., Sizemore, N., Oldham, S.M., Barnett, J.V., Coffey, R.J., Beauchamp, R.D., Barnard, J.A. Ras-Mediated Suppression of TGF β RII Expression in Intestinal Epithelial Cells Involves Raf-independent Signaling. *Neoplasia* 2: 357-364, 2000.
19. Shin, H-G., Barnett, J.V., Wiley, R.G., Murray, K.T. Molecular heterogeneity of protein kinase C expression in human heart. *Cardiovascular Research* 48: 285-299, 2000.
20. Jeyakumar, L.H., Ballester, L., Cheng, D.S., McIntyre, J.O., Chang, P., Olivey, H.E., Rollins-Smith, L., Barnett, J.V., Murray, K., Xin, H.B., Fleischer, S. FKBP binding characteristics of heart microsomal fractions from diverse animals. *BBRC* 281: 979-986, 2001.
21. Bushdid, P.B., Chen, C., Brantley, D.M., Yull, F., Raghov, R.J., Kerr, L.D., Barnett, J.V. NF- κ B mediates FGF signal regulation of msx-1 expression. *Dev. Biol.* 237: 107-115, 2001.
22. Ward, S.M., Gadbut, A.P., Tang, D., Wu, L., Li, G., Barnett, J.V., Galper, J.B. Regulation of the farnesylation and membrane localization of ras: a mechanism for TGF β signaling. *Journal of Molecular and Cellular Cardiology* 34: 1217-1226, 2002.
23. Ward, S.M., Desgrosellier, J.S., Zhuang, X., Barnett, J.V., Galper, J.B. TGF β Signaling via Differential Activation of Activin Receptor-Like Kinases 2 and 5 during Cardiac Development: Role in Regulating Parasympathetic Responsiveness. *J Biol Chem* 277: 50183-50189, 2002.
24. Jeyakumar, L., Gleaves, L.A., Ridley, B.D., Chang, P., Atkinson, J., Barnett, J.V., Fleischer, S. The skeletal muscle ryanodine receptor isoform 1 is found at the intercalated discs in human and mouse hearts. *The Journal of Muscle Research and Cell Motility* 23: 285-292, 2002.
25. Marlow, M.S., Brown, C.B., Barnett, J.V., Krezel, A, Solution structure of the TGF β Type II receptor ligand binding domain. *Journal of Molecular Biology* 326: 989-997, 2003.
26. Olivey, H.E., Ridley, B.D. Barnett, J.V. Expression of the Type III TGF β Receptor During Chick Organogenesis. *Anatomical Record* 272A: 383-387, 2003.

27. Desgrosellier, JS, Mundell, NA, McDonnell, MA, Moses, HL, Barnett, JV. Activin receptor-like kinase 2 and Smad6 regulate epithelial-mesenchymal transformation during cardiac valve formation. *Dev. Biol.* 280: 201-210, 2005.
28. Olivey, HO, Mundell, NA, Austin, AF, Barnett, JV. Transforming Growth Factor beta stimulates epithelial-mesenchymal transformation in the proepicardium. *Dev. Dyn.* 235:50-59, 2006.
29. Compton, LA, Potash, D, Mundell, NM, Barnett, JV. TGF β induces loss of epithelial character and smooth muscle cell differentiation in epicardial cells. *Dev. Dyn.* 235: 82-93, 2006.
30. Barnett, JV. Directors of Pharmacology Graduate Programs: Pharm Phorum. *Molecular Interventions* 6, 4-7. 2006.
31. Park, H-J, Ward, SM, Desgrosellier, JS, Georgescu, S, Papageorge, AP, Zhuang X, Barnett, JV, Galper, JB. p190RhoGAP mediates TGF β signaling in atrial myocytes. *Journal of Biological Chemistry* 281:19995-20002, 2006.
32. James FD, Hietala KA, Eldar D, Guess TE, Cone C, Mundell N, Barnett JV, Raju R. Efficient replication, and evolution of Sindbis virus genomes with non-canonical 3'A/U-rich elements (NC3ARE) in neonatal mice. *Virus Genes.* 35:651-662, 2007.
33. Compton, LA, Potash, DA, Brown, CB, Barnett, JV. Coronary Vessel Development is Dependent on the Type III Transforming Growth Factor Beta Receptor. *Circulation Research* 101: 784-791, 2007.
34. Austin, AF, Compton, LA, Love, JD, Brown, CB, Barnett, JV. Primary and immortalized mouse epicardial cells undergo differentiation in response to TGF β . *Dev. Dyn* 237:366-376, 2008.
35. Kirkbride, KC, Townsend, TA, Bruinsma, MW, Barnett, JV, Blobe, GC. Bone morphogenetic proteins signal through the transforming growth factor- β type III receptor. *J. Biol. Chem* 283:7628-7637, 2008.
36. Townsend, TA, Wrana, JL, Davis, GE, Barnett, JV. TGF β -stimulated endocardial cell transformation is dependent on Par6C regulation of RhoA. *J. Biol. Chem* 283:13834-13841, 2008.
37. Criswell, TL, Dumont, N, Barnett, JV, Arteaga, CL. Knock down of the TGF β type III receptor impairs motility and invasiveness of metastatic breast cancer cells. *Cancer Research* 68: 7304-7312, 2008.
38. Karunamuni, G, Yang, K, Doughman, YQ, Wikenheiser, J, Bader, D, Barnett, JV, Austin, AF, Parsons-Wingeter, P, Watanabe, M.V. Expression of lymphatic markers during avian and mouse cardiogenesis. *Anatomical Record* 293: 259-270 2010.
39. Craig, EA, Parker, P, Austin, AF, Barnett, JV, Camenisch, TD. Involvement of the MEKK1 Signaling Pathway in the Regulation of Epicardial Cell Behavior by Hyaluronan. *Cellular Signaling* 22: 968-976, 2010.
40. Craig, EA, Austin, AF, Vaillancourt, R, Barnett, JV, Camenisch, TD. TGF β 2-Mediated Production of Hyaluronan is Important for the Induction of Epicardial Cell Differentiation and Invasion. *Experimental Cell Research*: 316: 3397-3405, 2010.
41. Frieden, L, Townsend, TA, Vaught, D, DeLaughter, D., Hwang, Y, Barnett, JV, Chen, J. Regulation of heart valve morphogenesis by Eph receptor ligand, ephrin-A1. *Dev. Dyn.* 239:3226-3234, 2010.

42. Angel, PM, Nusinow, D, Brown, CB, Tompkins, K, Violette, K, DeLaughter, D, Barnett, JV, Zhang, B, Baldwin, HS, Caprioli, RM. Networked-based Characterization of Extracellular Matrix Proteins from the Adult Mouse Aortic and Pulmonary Valve Proteomes. *The Journal of Proteome Research* 10: 812-823, 2010.
 43. Townsend, TA, Misfeldt, A, Robinson, JY, Deig, CR, Blobe, GC, Barnett, JV. BMP-2 and TGF β 2 shared pathways regulate endocardial cell epithelial-mesenchymal transformation. *Cells, Tissues, and Organs* 194: 1-12, 2011.
 44. Barnett, JV. Ph.D. education for biomedical scientists in the United States. Proceedings, of the 6th ORPHEUS Conference, Izmir Turkey. *Turkish Journal of Biochemistry* 36: 9-12, 2011.
 45. Sánchez, NS, Hill, CR, Love, JD, Soslow, JH, Craig, E, Austin, AF, Brown, CB, Czirok, A, Camenisch, TD, Barnett, JV. The cytoplasmic domain of TGF β R3 through its interaction with the scaffolding protein, GIPC, directs epicardial cell behavior. *Dev. Biol.* 358: 331-343, 2011.
 46. Townsend, TA, Robinson, JY, How, T, DeLaughter, DM, Blobe, GC, Barnett, JV. Endocardial cell epithelial-mesenchymal transformation requires Type III TGF β Receptor Interaction with GIPC. *Cellular Signaling* 24:247-256, 2012.
 47. Sánchez, NS, Barnett, JV. TGF β and BMP-2 regulate epicardial cell invasion via TGF β R3 activation of the Par6/Smurf1/RhoA pathway. *Cellular Signaling* 24:539-548, 2012.
 48. Hill, CR, Sanchez, NS, Love, JD, Arrieta, JA, Hong, CC, Brown, CB, Austin, AF, Barnett, JV. BMP-2 signals loss of epithelial character in epicardial cells but requires the Type III TGF β receptor to promote invasion. *Cellular Signaling* 24:1012-1022, 2012.
 49. Zhang, HF, Lin, X, Yang, H, Zhou, LC, Love, JD, Barnett, JV, Guo, ZM. Regulation of the Activity and Expression of Aryl Hydrocarbon Receptor by Ethanol in Mouse Hepatic Stellate Cells. *Alcoholism: Clinical and Experimental Research* 36:1873-1881, 2012.
 50. DeLaughter, DM, Christodoulou, DC, Robinson, JY, Seidman, CE, Baldwin, HS, Seidman, JG, Barnett, JV. Spatial Transcriptional Profile of the Chick and Mouse Endocardial Cushions Identify Novel Regulators of Endocardial EMT *in vitro*. *Journal of Molecular and Cellular Cardiology* 59:196-204, 2013. PMC3659811
 51. Allison, P, Huang T, Derrick, B, Parker, P, Barnett, JV, Camenisch, TD. Disruption in Canonical TGF β -signaling in Coronary Progenitor Cells by Low Level Arsenic. *Toxicology and Applied Pharmacology* 272:147-153, 2013.
 - 52*. Sewell-Loftin, MK, DeLaughter, DM, Peacock, JR, Brown, CB, Barnett, JV, Merryman, WD. Mechanical regulation of endocardial EMT by collagen-hyaluronic acid hydrogels. *Biomaterials* 35: 2809-2815, 2014.
- * Highlighted in AAAS EurekAlert!
53. Sidorova, T, Mace, LC, Wells, KS, Yermalitskaya, LV, Su, P-F, Shyr, Y, Byrne, JG, Petracek, MR, Greelish, JP, Hoff, SJ, Ball, SK, Glabe, CG, Brown, NJ, Barnett, JV, Murray, KT. Quantitative Imaging of Preamyloid Oligomers, a Novel Structural Abnormality, in Human Atrial Samples. *Journal of Histochemistry & Cytochemistry* 62:479-487, 2014. (Cover)
 54. Yuasa, M, Mignemi, NA, Barnett, JV, Cates, JMM, Nyman, JS, Okawa, A, Schwartz, HS, Stutz, CM, Schoenecker, JG. The Temporal and Spatial Development of Vascularity in a Healing Displaced Fracture. *Journal of Bone and Joint Surgery* 67: 208-221, 2014. (Cover)
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