

Roger Anthony Johns, M.D., M.H.S.

(443) 287-6254 (work)

ACADEMIC POSITIONS:

Professor, Department of Anesthesiology and Critical Care Medicine. Johns Hopkins University School of Medicine, Baltimore, MD, 1999–present
Professor, Department of Medicine, Division of Pulmonary Critical Care Medicine. Johns Hopkins University School of Medicine, Baltimore, MD, 2006–present
Director, Anesthesiology and Critical Care Medicine, Johns Hopkins Hospital, Baltimore, MD, 1999–2003
Mark C. Rogers Professor and Chairman, Department of Anesthesiology and Critical Care Medicine Johns Hopkins University School of Medicine, Baltimore, MD, 1999–2003
Professor and Acting Chair of Anesthesiology, University of Virginia, Charlottesville, VA, July 1998–June 1999
Professor and Vice Chair of Anesthesiology, University of Virginia, Charlottesville, VA, April 1997–June 1998
Professor of Anesthesiology, University of Virginia, Charlottesville, VA, July 1995–June 1999
Associate Professor of Anesthesiology, University of Virginia, Charlottesville, VA, July 1991–June 1995
Assistant Professor of Anesthesiology, University of Virginia, Charlottesville, VA, August 1987–June 1991

EDUCATION AND TRAINING:

Robert Wood Johnson Health Policy Fellow of the Institute of Medicine, National Academy of Sciences. American Political Science Association Congressional Fellow (Senator Hatch), 109th Congress, 2005–2006
M.H.S. in Health Policy and Management. Johns Hopkins Bloomberg School of Public Health, 2005
Darden Graduate School of Business Administration Health Sciences Center Executive Management Program, December 1997–October 1998
Fellow in Cardiac Anesthesia, Department of Anesthesiology, University of Virginia, Charlottesville, VA, 1985–1986
Research Fellow in Pharmacology, Department of Pharmacology, University of Virginia, Charlottesville, VA (Michael J. Peach, Ph.D., Supervisor), June 1985–July 1987
Resident in Anesthesiology, University of Virginia, Charlottesville, VA, 1983–1985 (Robert M. Epstein, M.D., Chairman), July 1, 1983–June 30, 1985
Intern in Mixed Internal Medicine/Anesthesiology, University of Virginia, Charlottesville, VA, July 1, 1982–June 1983
M.D., Wayne State University School of Medicine, Detroit, MI, 1981
B.S., Stanford University, Palo Alto, CA, 1977

LICENSURE:

Maryland State Board of Physician Quality Assurance, License
National Board of Medical Examiners Parts I, II, III
Commonwealth of Virginia Board of Medicine, License
Diplomat of the American Board of Anesthesiology, 1986

GRANT SUPPORT:

2009-MSCRFII-0014-00 A novel stem cell therapy for spinal cord injury-induced chronic neuropathic pain. Roger A Johns, Principal Investigator. \$1,500,000 direct costs (1,725,000 total). July 1, 2009-June 30, 2014

2009- MSCRFII- Role of hypoxia-induced mitogenic factor in regulating proliferation and differentiation of human stem cells. Irina Kolosova, PI. Roger Johns co-investigator 5% effort \$200,000 July 1, 2009- June 30, 2011

P50 084946 Molecular Determinants of Pulmonary Arterial Hypertension. SCCOR, Co-Director with Paul Hassoun. 2006–2011 \$21,640,000 (total).

P50 084946 Molecular Determinants of Pulmonary Arterial Hypertension. SCCOR, Project 4: HIMF/FIZZ in Pulmonary Hypertension/Right Heart Failure. Roger A. Johns, Principal Investigator 2006–2011 \$21,640,000 (total).

RO1 GM49111 (yrs 14–18): Interaction of Anesthetics with Neuronal PDZ domains. Roger A. Johns, Principal Investigator. \$288,000 (direct, yr 14), \$1,868,000 (total) 2006–2010

RO1 NS44219 Role of PSD93/Chapsyn-110 in Chronic Pain. Roger A. Johns, Principal Investigator \$2,007,875 (total) 2002–2009.

RO1 HL39706-(yrs 15–19): NO, Hypoxia and Pulmonary Hypertension. Roger A. Johns, Principal Investigator, \$2,013,750 (total) 2002–2007 (renewal for yrs 20–24 pending review).

Robert Wood Johnson Health Policy Fellow Grant (PI) 2005–2009, \$155,000.

PGA HL99-024 Applied Genomics in Cardiopulmonary Disease. Co-Investigator (Joe Garcia, PI) \$16,000,000 (total) 2000–2005.

RO1 GM49111 (yrs 09–14): NO Signaling in Mechanisms of Analgesia and Anesthesia. Roger A. Johns, Principal Investigator. \$1,334,083 (total) 2000–2005.

RO1 HL39706 (yrs10-14): Regulation of NO Signaling in Pulmonary Vasculature. Roger A. Johns, Principal Investigator \$1,645,000 (total), 1997–2002.

RO1 HL39706 (yrs 06-09): Regulation of NO Signaling in Pulmonary Vasculature. Roger A. Johns, Principal Investigator. \$1,175,714 (total), 1993–1997.

Blaustein Pain Foundation Award. Specific Coupling of NMDA Receptor Activity to NO Signaling - Pathway in Spinal Nociceptive Mechanisms by PSD95. Roger A. Johns, Principal Investigator \$34,896 2000–2001.

RO1 GM49111 (yrs 04-08): Anesthetics and Nitric Oxide Signaling. Roger A. Johns, Principal Investigator. \$1,219,000 (total), 1996–2000.

RO1 GM49111 (yrs 01-03): Anesthetics and Nitric Oxide Signaling. Roger A. Johns, Principal Investigator. \$898,000 (total), 1993–1996.

NHLBI T32 HL07284-19 Training Program in Basic Cardiovascular Research. Program Preceptor, 1994–1999 (Brian Duling, P.I.).

Computers in Medical Education Grant from the University of Virginia Computers in Medical Education Committee for development of computer-based anesthesia simulation training for medical students and residents. 1992–1993.

American Heart Association Grant in Aid, Regulation of Nitric Oxide Synthase by Nitric Oxide. Roger A. Johns co-investigator \$57,000, 1992–1994.

American Heart Association Grant in Aid, Nitric Oxide as a Selective Pulmonary Vasodilator. Roger A. Johns co-investigator with George F. Rich. \$62,000, 1991–1993.

NHLBI P01 HL19242, Regulation of Vascular Smooth Muscle Growth and Function; Richard A. Murphy, Principal Investigator. Roger A. Johns, Principal Investigator on sub-project 8: Endothelium-Vascular Smooth Muscle Cell Interactions. \$127,530, 1990–1994.
NHLBI T32 HLO7355, Hypertension Training Grant; Program Preceptor, 1988–1999.
NHLBI R29 HL39706, Oxygen Tension and Endothelium-Dependent Vasodilation. Roger A. Johns, Principal Investigator. \$349,797, 1988–1993.
NHLBI P01 -HL19242 (yrs 01-05): Vascular Smooth Muscle Program Project; Richard A. Murphy, Principal Investigator. Co-investigator on sub-project: Spin-Trapping of Endothelium-Derived Free Radicals, 1987–1990.
Anesthesiology Young Investigator/Parker B. Francis Investigator. Hypoxia and EDRF Release from Pulmonary Artery Endothelium. Roger A. Johns, Principal Investigator. \$62,000, 1987–1989.
Individual National Research Service Award. Role of Arachidonate Metabolites in Endothelium-Dependent Vasodilation. \$56,000, 1985–1987.
American Heart Association Fellowship, \$20,000, 1985–1986.

GRANTS ON BEHALF OF POSTDOCTORAL TRAINEES:

NRSA: Mechanism of feedback regulation of nitric oxide synthase. Fellowship on behalf of Gregory C. Dailey, Ph.D. 1994–1995.
American Heart Association, Virginia Affiliate. Sterol regulation of endothelial nitric oxide synthase expression. Fellowship on behalf of Timothy D. Le Cras, Ph.D. 1994–1996.
American Heart Association, Virginia Affiliate. Regulation of NO-cGMP signaling by endothelium-vascular smooth muscle interaction. Fellowship on behalf of L.V. Ravichandran, Ph.D. \$59,000, 1995–1997.
American Heart Association, Virginia Affiliate. Etiology of NO signaling pathway in hypoxia induced pulmonary hypertension. Fellowship on behalf of Chun Xue, M.D., Ph.D. \$59,000, 1995–1997
American Heart Association, Virginia Affiliate. Regulation of nitric oxide synthase gene expression by nitric oxide, Fellowship on behalf of Lesley Millatt, Ph.D. \$59,000, 1996–1998.
NRSA: Regulation of nitric oxide expression and role in pulmonary vascular remodeling. Fellowship on behalf of Timothy Quinlan, Ph.D. \$39,400, 1996–1998.
NRSA: HIMF in Human Pulmonary Hypertension. Fellowship on behalf of Daniel Angelini, PhD, 2006–2008

PATENTS AND LICENSING:

- Use of nitric oxide signaling pathway inhibitors as novel analgesics and in decreasing anesthetic requirement (08/082,440).
- Novel monoclonal antibody to nitric oxide synthase (licensed).
- Pharmacological manipulation of cell protein turnover through the stimulation or inhibition of ubiquitin activating enzyme by s-nitrosylation.
- The analgesic and anesthetic roles of cGMP-dependent protein kinase I-alpha inhibition (DM-3612).
- The analgesic and anesthetic role of inhibiting interactions of PSD93 and PSD95 with NMDA receptors (DM-3699; licensed to Traxion Therapeutics).
- Novel Hypoxia Inducible Mitogenic Factor (HIMF; a novel, potent angiogenic, mitogenic and vasoconstricting protein/cytokine) (DM-4061).
- pTAT-PDZ2 construct as therapy for chronic pain
- pTAT-PDZ2 construct to reduce MAC for anesthesia

HONORS AND SCHOLARSHIPS:

Robert Wood Johnson Health Policy Fellow of the Institute of Medicine, National Academy of Sciences. 2005–2008
WTG Morton Society (1999–2003), President 2002–2003, Alumni member 2003-present
Association of University Anesthesiologists (elected 5/91)
American Society of Pharmacology and Experimental Therapeutics (elected 1990)
Anesthesia Young Investigator/Parker B. Francis Investigator Award (1987–1989)
Association of Cardiovascular Anesthesiologists (elected 10/89)
University of Michigan Regents Scholar
Evans Scholar
National Merit Scholarship, Commendation
Michigan Competitive Scholar
Eagle Scout, gold palm

ADDITIONAL TRAINING:

Darden Graduate School of Business Administration Health Sciences Center Executive Management Program, December 1997–October 1998
Financial Management - Darden School of Business Administration, Univ. of Virginia. Fall 1995
Fiberoptic Bronchoscopy and Intubation (one month clinical rotation, Bernie Marsh, M.D., and K.P. Wang, M.D., supervisors), Johns Hopkins University, 1984
Advanced Trauma Life Support, American College of Surgeons, 1985
Advanced Cardiac Life Support, American Heart Association, 1983, 2007

COMMITTEE AND ADMINISTRATIVE ACTIVITIES:

Departmental:

University of Virginia

Chair (Acting) University of Virginia Department of Anesthesiology, 1998–1999 (offered permanent position but accepted Chair at Johns Hopkins)
Chair's Advisory Committee, 1997–1999
Vice Chair, University of Virginia Department of Anesthesiology, 1997–1999
Chair, Clinical Research Committee, University of Virginia Department of Anesthesiology, 1997–1999
Chair, Committee to Select Department Business/Administrative Manager, University of Virginia Department of Anesthesiology, 1993
Coordinator of Cardiovascular Anesthesia Teaching Block, Department of Anesthesiology, University of Virginia, 1988–1999
Coordinator of Research Conference series, Department of Anesthesiology, University of Virginia, 1988–1999
Promotions Committee, University of Virginia, Department of Anesthesiology, 1995–1999
Education Committee, University of Virginia, Department of Anesthesiology, 1989–1999
Resident Selection Committee, University of Virginia, Department of Anesthesiology, 1988–1999
Coordinator of weekly Case Conference series, Department of Anesthesiology, University of Virginia Medical Center, 1984–85

The Johns Hopkins University:

Chair, Department of Anesthesiology and Critical Care Medicine, The Johns Hopkins University, 1999–2003
Executive OR Committee, Department of Anesthesiology, The Johns Hopkins University, 1999–2003 (Chair)
Quality Assurance Committee, Department of Anesthesiology, The Johns Hopkins University, 1999–2003
Service Executive Committee, Chair, Department of Anesthesiology, and The Johns Hopkins University, 1999–2003 (Chair)
Education Committee, Department of Anesthesiology, The Johns Hopkins University, 1999–present
Resident Selection Committee, Department of Anesthesiology The Johns Hopkins University 1999–2003
Operating Room Equipment and Supply Committee, Department of Anesthesiology The Johns Hopkins University 1999–2003
Program Director Residency Program, Department of Anesthesiology, Johns Hopkins University, 1999–2003
Promotion and Mentoring Committee, Department of Anesthesiology, The Johns Hopkins University, 1999–present (Chair 1999–2003)
Anesthesiologist and Society Program, Director 2006–present

Medical School/University:

Wayne State University Medical School Curriculum Redesign Committee, 1977–1981 (elected each year)
Stanford University Biological Sciences Undergraduate Curriculum Committee, 1975–1977 (elected each year)

University of Virginia:

Executive Committee NIH Training Program in Basic Cardiovascular Research, University of Virginia Health System 1996–1999
Dean’s Committee to review Department of Plastic Surgery, 1998
Dean’s Committee to review Department of Dentistry, 1997
Search Committee for Chairman, Department of Internal Medicine, University of Virginia Health Sciences Center, 1995–1997
Research and Development Committee, University of Virginia Health Sciences Center, 1995–1999
Dean’s Committee to Review Dentistry Department, University of Virginia, 1993
Faculty-Medical Student Advising Program, 1989–1999
Executive Committee, NIH Hypertension Training Program, University of Virginia, 1987–1999
Director and Developer of Translational Research Enhancement Program for Cardiovascular Research Training, University of Virginia Health System, 1995–1999
Executive Committee—Medical Scientist Training Program (MSTP), University of Virginia Health System, 1997–1999
Medical Policy Committee. University of Virginia Health System, 1998–1999
Graduate Medical Education Committee. University of Virginia Health System, 1998–1999
Operating room Executive Committee, University of Virginia Health system, 1998–1999
Medical Advisory Committee. University of Virginia Health System, 1998–1999
Clinical Chair’s Committee, University of Virginia Health System, 1998–1999
Dean’s Committee to review Department of Plastic Surgery Chair, University of Virginia Health System, 1998–1999

Johns Hopkins Medical Institutions:

Contracting Committee of the Clinical Practice Association 1999–2004
Executive Operating Room Committee (Co-chair) 1999-2003
Clinical Directors Communication Committee, Johns Hopkins Hospital, 1999–2003
Clinical Practice Association Advisory Board, Johns Hopkins Medicine, 1999–2003
Comprehensive Cancer Center Advisory Council Committee, Johns Hopkins Hospital, 1999–2003
The Johns Hopkins Hospital Medical Board Committee, Johns Hopkins Hospital, 1999-2003
The Advisory Board of the Medical Faculty, The Johns Hopkins University, 1999–2003
Search Committee for Chair, Department of Surgery, Johns Hopkins University, 2002–2003
Committee on Philanthropy, 2001-2003
Committee on Compliance Redevelopment of the Clinical Practice Association (Chair) 2002–2003
Committee on Operating Room Efficiency (co-Chair) 2001–2003
Innovations in Patient Care Fast Track Subcommittee on Training and Development, Johns Hopkins Hospital, 2001–2003 (Co-chair)
The Johns Hopkins Medicine United Way Campaign, Co-chairman 2000–2001; Chairman 2001–2002 and 2002–2003
Agenda Committee of the Advisory Board, The Johns Hopkins University, 2000–2002
Johns Hopkins Committee on Information Technology, 2000–2003
Innovations in Patient Care Executive Committee (Hopkins Program in Quality and Safety), 2002–present
X-Prize Committee, Johns Hopkins Medicine 2009-present
Health policy advisor to Johns Hopkins University Government Affairs Office, 2008-present

National:

National Coalition on Health Care, 2008–present, representing Johns Hopkins Medicine
Institute of Medicine, Roundtable on Evidence Based Medicine, invited contributor, 2007–2008
Academy of Academic Mentors, Foundation for Anesthesia and Education Research, 2004–present
(Founding Member), Elected to Council 2007, President 2009-present

American Society of Anesthesiologists Subcommittee on Experimental Circulation, 1991–1994,
2004–present
American Society of Anesthesiologists Committee on Research, 1992–present
WTG Morton Society (elected 1999; President, 2002–2003; Alumni member 2003–present)
Society of Academic Anesthesiology Chairs (1998–2003, elected to Council, 2001–2003)
American Society of Anesthesiologists Physician’s Resource Committee, 1999–2003
National Library of Medicine Adviser/Consultant, 1997
American Board of Anesthesiology, Associate Examiner, 1997–2001
See Anesthesiology, American Journal of Physiology, Journal of Vascular Research and Journal of
Cardiovascular Anesthesia Editorial Boards listed below
See NIH, NSF, AHA, MRC, Veterans Grant Review Committees below
Association of University Anesthesiologists, 1991–present
Scientific Advisory Board of the Association of University Anesthesiologists, 1992–1995
Society of Cardiovascular Anesthesiologists Research/Abstract Review Committee, 1991–1994
External Department Reviews/On-site consultations:
Ohio State University Department of Anesthesiology (2001)
Emory University Department of Anesthesiology (2001)
Brigham and Women’s Hospital Department of Anesthesiology (2002)
University of Pennsylvania Department of Anesthesiology (2003)

HEALTH CARE POLICY/HEALTH SYSTEMS RELATED:

X-Prize Committee, Johns Hopkins Medicine 2009-present
Health policy advisor to Johns Hopkins University Government Affairs Office, 2008-present
National coalition on Health Care representing Johns Hopkins Medicine, 2008–present
Robert Wood Johnson Health Policy Fellow of the Institute of Medicine, National Academy of
Sciences. American Political Science Association Congressional Fellow 2005–2008
MHS in Health Policy and Management, Johns Hopkins Bloomberg School of Public Health,
2004–2006
Innovations in Patient Care Committee, Johns Hopkins Hospital, 2001–present
Program for Chiefs of Clinical Service, Harvard School of Public Health, January 2000
Darden Graduate School of Business Administration Health Sciences Center Executive
Management Program, December 1997–October 1998
Strategic Planning Committee Clinical Program Task Force, University of Virginia Health
Sciences Center (Dean’s Office), 1994–1995
Health Policy Forum (Don Detmer) University of Virginia 1992–1995
Health Services Foundation Leadership Retreat, University of Virginia, September, 1994
Invited participant, AMSA Health Care Policy Program, Washington, DC, 1978
Stanford Students Studying the National Health Service, England, 1975 (15 credits related to
health economics and policy. Didactic series on health economics and policy with
lecturers from Stanford, London School of Economics, Oxford and Officials of the
National Health Service. Policy internship at Wexham Park Hospital, Slough, UK)
Economics of Health Care (Victor Fuchs, Ph.D., Professor) Stanford University, 1975–1976

SOCIETY MEMBERSHIPS:

American Society of Anesthesiologists
International Anesthesia Research Society
Society of Cardiovascular Anesthesiologists
Association of Cardiac Anesthesiologists
Association of University Anesthesiologists

American Association for the Advancement of Science
Federation of American Societies for Experimental Biology
American Society of Pharmacology and Experimental Therapeutics
American Thoracic Society
American Heart Association, Cardiopulmonary Council
American Medical Association
Virginia State Medical Society
Albemarle County Medical Society
Virginia Society of Anesthesiologists
American Society of Echocardiography
American Physiological Society
Baltimore County Medical Society
Johns Hopkins Medical-Surgical Association
Society for Neuroscience
Academy Health

EDITORIAL BOARD AND JOURNAL REVIEW:

Anesthesiology (Editor, 1996–2006)
Anesthesiology (Associate Editor, 1991–1996)
Journal of Vascular Research (Editor, 1995–2002)
American Journal of Physiology: Lung, Cellular, and Molecular Biology (Editor, 2000–present)
Journal of Cardiothoracic and Vascular Anesthesia (Editor, 1992–2000)
Intelligence Reports in Anesthesia (Editor, 1986, 1987)

Regular Invited Reviewer for:

American Journal of Physiology (Lung, Cell, Molecular Physiology)
American Journal of Physiology (Heart Circ Physiology)
American Journal of Physiology (Regulatory and Integrative Physiology)
Anesthesia and Analgesia
Archives of Otolaryngology—Head and Neck Surgery
Brain Research
British Journal of Pharmacology
Circulation Research
European Respiratory Journal
FEBS Letters
Investigative Urology
Journal of Applied Physiology
Journal of Clinical Anesthesia
Journal of Clinical Investigation
Journal of Neuroscience
Journal of Pharmacology and Experimental Therapeutics
Journal of Respiratory Cell and Molecular Biology
Journal of Vascular Research
Life Sciences
Lung Pharmacology
Neuroreport
Neuroscience
Neuroscience Letters
Respiratory Medicine
Trends in Neuroscience
Thrombosis and Hemostasis

GRANT REVIEW:

Foundation for Anesthesia Education and Research, ASA Research Study Section, 1992–2009
National Science Foundation, ad hoc reviewer (1992, 1993)
Veteran’s Administration, ad hoc reviewer (1992, 1993, 1994, 1995)
National Institutes of Health NHLBI Lung Biology and Pathology A Study Section, June 1994,
February 1995 (ad hoc)
National Institutes of Health NHLBI Lung Biology and Pathology A Study Section 1995–1999
(permanent member)
International Anesthesia Research Society Frontiers in Anesthesia Research Award Study Section,
1994–1995; 1996–1997 (Chairman); 1998–1999 (Chairman)
American Heart Association, Virginia Affiliate Peer Review Committee, 1995–1997
Medical Research Council, England, 1997; 1998 (ad hoc); 2001
National Institutes of Health – General Medicine: Surgery, Anesthesia and Trauma Study Section,
2000 (ad hoc)
National Institutes of Health—General Medicine: Surgery, Anesthesia and Trauma special study
section 2008

PUBLICATIONS IN REFEREED JOURNALS

- Johns RA, DiFazio CA, Longnecker DE: Lidocaine constricts or dilates rat arterioles in a dose-dependent manner. *Anesthesiology* 62:141-144, 1985.
- Lynch C, Johns RA: Diagnostic application of an axillary block in an infant. *Anesthesiology* 62:524-526, 1985.
- Berry FA, Lake CL, Johns RA, Rodgers BM: Mitral valve prolapse—another cause of intraoperative dysrhythmias in the pediatric patient. *Anesthesiology* 62:662-664, 1985.
- Johns RA, Finholt DA, Stirt JA: Anesthetic management of a child with dermatomyositis. *Can Anaesth Soc J* 33:71-74, 1986.
- Johns RA, Seyde WC, DiFazio CA, Longnecker DE: Dose-dependent effects of bupivacaine on rat muscle arterioles. *Anesthesiology* 65:186-191, 1986.
- DiFazio CA, Carron H, Grosslight KR, Moscicki JC, Bolding WR, Johns RA: Comparison of pH-Adjusted lidocaine solutions for epidural anesthesia *Anesth Analg* 65:760-764, 1986.
- Loeb AL, Johns RA, Milner P, Peach MJ: Endothelium-dependent relaxing factor in cultured cells. *Hypertension* 9(Suppl III):III 186-III 192, 1987.
- Johns RA, Stirt JA: Fat embolism syndrome. *Seminars in Anesthesia* 6:176-179, 1987.
- Loeb AL, Johns RA, Peach MJ: Extracellular calcium is not required for melittin-induced release of endothelium-derived relaxing factors from intact tissues or cultured endothelial cells, *Proceedings of Mechanisms of Vasodilation Symposium*. Edited by Vanhoutte PM. New York, Raven Press, 1988.
- Johns RA, Johnson A, Joob A, Peach MJ, Griffin E, Flanagan T, Kron IL: Internal manipulation of the canine mammary artery impairs endothelium-dependent vasodilation. *Surg Forum* 38:215-216, 1987.
- Johns RA, Kron IL, Carey RM, Lake CL: Atrial myxoma: Case report, brief review, and recommendations for anesthetic management. *J Cardiothorac Anesth* 2:207-212, 1988.
- Johns RA, Peach MJ: Para-bromophenacyl bromide inhibits endothelium-dependent arterial relaxation and cyclic GMP accumulation by effects produced exclusively in the smooth muscle. *J Pharmacol Exp Ther* 244:859-865, 1988.
- Johns RA, Izzo NJ, Milner PJ, Loeb AL, Peach MJ: Use of cultured cells to study the relationship between arachidonic acid and endothelium-derived relaxing factor. *Am J Med Sci* 31(4):287-292, 1988.
- Milner PG, Izzo NJ, Saye JA, Loeb AL, Johns RA, Peach MJ: Endothelium-dependent relaxation is independent of arachidonic acid release. *J Clin Invest* 81:1795-1803, 1988.
- D'Alauro FJ, Johns RA: Hypotension related to desmopressin administration following cardiopulmonary bypass. *Anesthesiology* 69:962-963, 1988.

PUBLICATIONS IN REFEREED JOURNALS (cont.):

Johns RA, Peach MJ, Flanagan T, Kron IK: Probing of the canine mammary artery damages endothelium and impairs vasodilation resulting from prostacyclin and endothelium derived relaxing factors. *J Thorac Cardiovasc Surg* 97:252-258, 1989.

Johns RA, Milner PJ, Izzo NJ, Saye J, Loeb AL, Peach MJ: EDRF release from cultured endothelial cells does not require phospholipase activation or arachidonate release. *Ann N Y Acad Sci* 559:455-456, 1989.

Johns RA: Local anesthetics inhibit endothelium-dependent vasodilation. *Anesthesiology* 70:805-811, 1989.

Johns RA, Linden JM, Peach MJ: Endothelium-dependent relaxation and cyclic GMP accumulation in the rabbit pulmonary artery are selectively impaired by hypoxia. *Circ Res* 65:1508-1515, 1989.

Wills MH, Johns RA, Stone DJ, Moscicki JC, DiFazio CA: Vascular effects of 2-chloroprocaine and sodium metabisulfite on isolated rat aortic rings. *Reg Anesth* 14:271-273, 1989.

Stone DJ, Johns RA: Endothelium-dependent effects of halothane, enflurane and isoflurane on isolated rat aortic vascular rings. *Anesthesiology* 71:126-132, 1989.

Johns RA: Desmopressin is a potent vasorelaxant of aorta and pulmonary vessels isolated from rabbit and rat. *Anesthesiology* 72:858-864, 1990.

Tracey WR, Linden JM, Peach MJ, Johns RA: Comparison of spectrophotometric and biological assays for nitric oxide and EDRF: Nonspecificity of the diazotization reaction for nitric oxide and failure to detect EDRF. *J Pharmacol Exp Ther* 252:922-928, 1990.

Johns RA, Peach MJ, Linden JM, Tichotsky A: N^G -monomethyl L-arginine inhibits endothelium-derived relaxing factor-stimulated cyclic GMP accumulation in cocultures of endothelial and vascular smooth muscle cells by an action specific to the endothelial cell. *Circ Res* 67:979-985, 1990.

Johns RA: Endothelium-derived relaxing factor: Basic review and clinical implications. *J Cardiothor Vasc Anesth* 5:69-79, 1991.

Frankville D, Harper B, Lake C, Johns RA: Hemodynamic consequences of desmopressin administration after cardiopulmonary bypass. *Anesthesiology* 74:988-996, 1991.

Linden J, Prater MR, Sullivan GW, Johns RA, Patel A: Contamination of adenosine deaminase by superoxide dismutase activity. Stabilization of endothelium-derived relaxing factor. *Biochem Pharmacol* 41:273-279, 1991.

Johns RA, Rengasamy A: Endothelium-derived relaxing factor (EDRF): production from L-arginine. *Adv Exp Med Biol* 301:215-227, 1991.

Tracey WR, Johns RA, Romero G, Peach MJ: Mechanism of phospholipase C-induced release of EDRF from pulmonary artery endothelium. *Am J Physiol* 261 (Cell Physiol 30):C927-C935, 1991.

Rengasamy A, Johns RA: Characterization of EDRF/NO synthase from bovine cerebellum and mechanism of modulation by high and low oxygen tensions. *J Pharmacol Exp Ther* 259:310-316, 1991.

Siragy HM, Johns RA, Peach MJ, Carey RM: Nitric oxide alters renal function and guanosine 3',5'-cyclic monophosphate. *Hypertension* 19:775-779, 1992.

PUBLICATIONS IN REFEREED JOURNALS (cont.):

- Uggeri MJ, Proctor G, Johns RA: Halothane, enflurane and isoflurane attenuate both receptor and nonreceptor mediated EDRF production in rat thoracic aorta. *Anesthesiology* 76:1012-1017, 1992.
- Brendel JK, Johns RA: Isoflurane does not vasodilate rat thoracic aortic rings by EDRF or other cyclic GMP mediated mechanisms. *Anesthesiology* 77:126-131, 1992.
- Johns RA, Moscicki J, Difazio C: Nitric oxide synthase inhibitor dose-dependently and reversibly reduces the threshold for halothane anesthesia: A role for nitric oxide in mediating consciousness? *Anesthesiology* 77(4):779-784, 1992.
- Park WK, Lynch C, Johns RA: Effects of propofol and thiopental in isolated rat aorta and pulmonary artery. *Anesthesiology* 77:956-963, 1992.
- Rengasamy A, Johns RA: Determination of nitric oxide synthase activity by measurement of the conversion of L-arginine to L-citrulline. *Neuroprotocols* 1:159-164, 1992.
- Rich GF, Murphy GD, Roos CM, Johns RA: Inhaled nitric oxide: Selective pulmonary vasodilation in cardiac surgical patients. *Anesthesiology* 78:1028-1035, 1993.
- Rich GF, Roos CM, Anderson SM, Urich DC, Johns RA: Inhaled nitric oxide: Dose-response and the effects of hemoglobin in the isolated lung. *J Appl Physiol* 75:1278-1284, 1993.
- Zelenkov P, McLaughlin T, Johns RA: Endotoxin enhances hypoxic constriction of rat aorta and pulmonary artery through induction of EDRF/NO synthase. *Am J Physiol Lung Cell Mol Physiol* 265:L346-L354, 1993.
- Rengasamy A, Johns RA: Inhibition of nitric oxide synthase by a superoxide generating system. *J Pharmacol Exp Ther* 267:1024-1027, 1993.
- Pollack SG, Dent J, Simek C, Gimple L, Johns RA, Kaul S, Spotnitz W: Starr-Edwards valve thrombosis detected preoperatively by transesophageal echocardiography. *Cathet Cardiovasc Diagn* 31:156-157, 1994.
- Rich GF, Lawson SM, Johns RA, Daugherty MO, Uncles DR: Inhaled nitric oxide selectively decreases pulmonary vascular resistance without impairing oxygenation during one-lung ventilation in patients undergoing cardiac surgery. *Anesthesiology* 80:57-62, 1994.
- Rengasamy A, Johns RA: Effect of hydrogen peroxide and catalase on rat cerebellum nitric oxide synthase. *Biochem Pharmacol* 48:423-425, 1994.
- Tracey WR, Xue C, Klinghofer V, Barlow J, Pollock J, Forstermann U, Johns RA: Immunochemical detection of inducible NO synthase in human lung. *Am J Physiol Lung Cell Mol Physiol* 266:L722-L727, 1994.
- Xue C, Rengasamy A, Le Cras TD, Koberna P, Dailey GC, Johns RA: Distribution of NOS in normoxic vs. hypoxic rat lung: upregulation of NOS by chronic hypoxia. *Am J Physiol Lung Cell Mol Physiol* 267:L667-L678, 1994.

PUBLICATIONS IN REFEREED JOURNALS (cont.):

- Rengasamy A, Xue C, Johns RA: Immunohistochemical demonstration of a paracrine role of nitric oxide in bronchial function. *Am J Physiol Lung Cell Mol Physiol* 267:L704-L711, 1994.
- Rengasamy A, Ravichandran LV, Reikersdorfer CG, Johns RA: Inhalational anesthetics do not alter nitric oxide synthase activity. *J Pharmacol Exp Ther* 273:599-604, 1995.
- Ravichandran LV, Johns RA, Rengasamy A: Direct and reversible inhibition of endothelial nitric oxide synthase by nitric oxide. *Am J Physiol (Heart Circ)*, 268:H2216-H2223, 1995.
- Zuo Z, Johns RA: Halothane, enflurane and isoflurane do not affect the basal or agonist-stimulated activity of partially isolated soluble and particulate guanylyl cyclases of rat brain. *Anesthesiology* 83:395-404, 1995.
- Ravichandran A, Johns RA: Up-regulation of endothelial nitric oxide synthase expression by cyclic guanosine 3'-5'-monophosphate. *FEBS Letters* 374:295-298, 1995. [Reprint](#)
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Inhalational Anesthetics: Pharmacodynamics. Medical student pharmacology course. University of Virginia, March, 1990.

N^G -monomethyl-L-arginine (LNMMA) impairs EDRF-stimulated cGMP accumulation in endothelial cell-vascular smooth muscle co-cultures by an action specific to the EC. Gordon Conference on Vascular Cell Biology. Meriden, NH, July, 1990.

Regulation of Endothelium-Derived Relaxing Factor and Inhibition by Hypoxia and Anesthetics. Symposium on Subcellular Mechanisms of Anesthetic Action in Muscle. Johns Hopkins University, Baltimore, MD, September, 1990 (Visiting Professor).

What is Relevant Anesthesia Research? (Workshop) American Society of Anesthesiologists Annual Meeting. Las Vegas, NV, October, 1990.

Endothelium-Derived Relaxing Factor: An Update. Association of Cardiac Anesthesiologists Annual Meeting. Las Vegas, NV, October, 1990.

Inhalational Anesthetics: Pharmacokinetics. Medical student pharmacology course. University of Virginia, January, 1991.

Inhalational Anesthetics: Pharmacodynamics. Medical student pharmacology course. University of Virginia, January, 1991.

Coronary Blood Flow and Cardiac Ischemia. Grand Rounds. Department of Anesthesiology, University of Pennsylvania, February, 1991 (Visiting Professor).

Endothelium-Derived Relaxing Factor. Research Seminar. Department of Anesthesiology, University of Pennsylvania, February, 1991 (Visiting Professor).

Hypoxia and Vascular Reactivity. Graduate Course in Vascular Cell Biology. Department of Physiology, University of Virginia, March, 1991.

What's New in Endogenous Vasodilators? The University of Chicago Department of Anesthesia and Critical Care Continuing Medical Education Conference. Chicago, IL, Dec 7, 1991.

Inhalational Anesthetics: Pharmacokinetics. Medical student pharmacology course. University of Virginia, January, 1992.

Inhalational Anesthetics: Pharmacodynamics. Medical student pharmacology course. University of Virginia, Charlottesville, VA, January, 1992.

EDRF/NO—A Novel Cell Messenger. Surgical Grand Rounds. University of Virginia, Charlottesville, VA, April 11, 1992.

Endothelium, Anesthetics and Vascular Control. Special Anesthesiology Symposium on Control of Vascular Tone. American Society of Anesthesiologists Annual Meeting. New Orleans, LA, October, 1992.

Reformation of a Noxious Gas: The Nitric Oxide Story. Joint Grand Rounds. Harvard Medical School, Beth Israel Hospital and Brigham and Women's Hospital. Boston, MA, November, 1992 (Visiting Professor).

Anesthesia and Major Noncardiac Surgery. Journal Club. Harvard Medical School, Beth Israel Hospital and Brigham and Women's Hospital. Boston, MA, November, 1992 (Visiting Professor).

The coronary circulation and myocardial ischemia. Grand Rounds. University of Michigan Department of Anesthesiology. Ann Arbor, MI, December, 1992 (Visiting Professor).

Reformation of a Noxious Gas: The Nitric Oxide Story. Research Conference. University of Michigan Department of Anesthesiology. Ann Arbor, MI, December, 1992 (Visiting Professor).

Endothelium and Cardiovascular Disease. Pediatric Cardiology Division, University of Virginia. Charlottesville, VA, December, 1992.

Nitric Oxide: Basic Mechanisms and Importance to the Anesthesiologist. Grand Rounds. Columbia University College of Physicians and Surgeons, Department of Anesthesiology, New York, January, 1993 (Visiting Professor).

Inhalational Anesthetics: Pharmacokinetics. Medical student pharmacology course. University of Virginia, Charlottesville, VA, January, 1993.

Inhalational Anesthetics: Pharmacodynamics. Medical student pharmacology course. University of Virginia, Charlottesville, VA, January, 1993.

Local Mediators in Vascular Control. Physiology Graduate Course 852. University of Virginia, Charlottesville, VA, March, 1993.

Regulation of Nitric Oxide—Guanylyl Cyclase Signaling in the Pulmonary Vasculature. Visiting Professor: Division of Pulmonary Medicine and Cardiovascular Pulmonary Research Laboratories. University of Colorado, August, 1993 (Visiting Professor).

The Nitric Oxide—Guanylyl Cyclase Signaling Pathway: Implications for the Gastroenterologist. Department of Gastroenterology. University of Virginia Charlottesville, VA, September, 1993.

Reform of a Noxious Gas: The Nitric Oxide Story. Robert M. Epstein Anesthesiology Symposium. University of Virginia. September, 1993.

Nitric Oxide in Pain and Anesthesia. Invited speaker and conference organizer. 6th International Congress on Pain, Anesthesia and Endocrinology. Chicago, IL, October, 1993.

Nitric Oxide and Cardiovascular Disease. Association of Cardiac Anesthesia Annual Meeting. Washington, D.C., October, 1993.

Nitric Oxide: Regulation, Interactions with Anesthetics and Clinical Implications. Ohmeda Pharmaceutical Division. New Jersey, December, 1993.

Inhalational Anesthetics: Pharmacokinetics. Medical student pharmacology course. University of Virginia, Charlottesville, VA, January, 1994.

Inhalational Anesthetics: Pharmacodynamics. Medical student pharmacology course. University of Virginia, Charlottesville, VA, January, 1994.

Nitric Oxide: Molecular Regulation and Role in the Pulmonary Circulation. Department of Anesthesiology Grand Rounds. Massachusetts General Hospital and Harvard Medical School. Boston, MA, April, 1994 (Visiting Professor).

Biochemical and Molecular Regulation of Nitric Oxide. Research Conference, Department of Anesthesiology. University of Pittsburgh. Pittsburgh, PA, April, 1994 (Visiting Professor).

Myocardial Stunning and Ischemia-Reperfusion Injury: New Concepts. Grand Rounds, Department of Anesthesiology. University of Pittsburgh. Pittsburgh, PA, April, 1994 (Visiting Professor).

Upregulation of Nitric Oxide Synthase Expression in Chronic Hypoxia-Induced Pulmonary Hypertension. FASEB Summer Research Conference on Endothelial Cell Biology. Copper Mountain, CO. June, 1994.

Nitric Oxide Signaling Pathway: Basic Mechanisms and Implications for Anesthesiologists. Grand Rounds, Department of Anesthesiology, Washington University. St. Louis, MO, July, 1994 (Visiting Professor).

Cell-Cell Interactions. NIH Conference: Male Infertility and Impotence. Charlottesville, VA, August, 1994

Nitric Oxide in Cardiovascular Physiology and Disease. Harvard Cardiothoracic Course. Boston, MA, September, 1994.

Reform of a Noxious Gas: The Nitric Oxide Story. Grand Rounds, Department of Anesthesiology. University of California at San Diego. November, 1994 (Visiting Professor).

New Concepts in Myocardial Stunning and Ischemia-Reperfusion Injury. Department of Anesthesiology. University of California at San Diego. November, 1994 (Visiting Professor).

Health Care Reform and the Academic Medical Center. Department of Anesthesiology. University of California at San Diego. November, 1994 (Visiting Professor).

Clinical Application of Inhaled Nitric Oxide. Department of Anesthesiology and San Diego Society of Anesthesiologists. University of California at San Diego. November, 1994 (Visiting Professor).

Nitric Oxide in the Cardiovascular System. Stengert Memorial Lecture. University of California at Davis. February, 1995 (Visiting Professor).

Regulation of the Nitric Oxide-Guanylyl Cyclase Signaling Pathway. Endocrinology Division, Department of Internal Medicine, University of Virginia. February, 1995.

Regulation of the Nitric Oxide Signaling Pathway and Its Role in the Pulmonary Vasculature. Department of Pathology, University of Virginia. March, 1995.

The Nitric Oxide Story. Japanese Society of Circulation Control (Keynote speaker), Kyoto, Japan. May, 1995.

Anesthesia and Nitric Oxide. New York Post-Graduate Assembly (organized session and presented lecture: A Nitric Oxide. A Goldilocks Perspective) New York, December, 1995.

Anesthetic Interactions with Nitric Oxide Signaling Pathway. (Keynote Speaker). Taiwan Society of Anesthesiologists. Taiwan, September, 1996.

Molecular Regulation of Nitric Oxide Synthase(s) and Applications to Lung Biology. Pfizer Pharmaceuticals Research and discovery Lecture Series. Groton, CT. August, 1996.

Nitric Oxide, Oxygen and Pulmonary Vascular Remodeling. Department of Anesthesiology, University of Alabama, March, 1997 (Visiting Professor).

Confessions of a Clinician Scientist. Department of Anesthesiology, University of Alabama, March, 1997 (Visiting Professor).

The NO Signal Transduction System in the Lung from Molecular Biology to Bedside Therapy. Invited Speaker FASEB Plenary Session entitled Nitric Oxide and the Lung. New Orleans, LA, April, 1997.

Nitric Oxide: Will the Molecule of the Year Change Anesthetic Practice? New York Post-Graduate Assembly (organized session and presented lecture: Nitric Oxide and Anesthetics) New York, December, 1997.

Nitric Oxide, Oxygen and the Lung. Department of Anesthesiology, Columbia Presbyterian Medical Center, March, 1998 (Visiting Professor).

How to Become a Successful Clinician-Scientist in Anesthesiology, Columbia Presbyterian Medical Center, March, 1998 (Visiting Professor).

Nitric Oxide, Oxygen and Pulmonary Vascular Remodeling. Department of Anesthesiology, Medical College of Wisconsin, April, 1998 (Visiting Professor).

Nitric Oxide in Anesthesia and Analgesia. Department of Anesthesiology, Medical College of Wisconsin, April, 1998 (Visiting Professor).

Effect of Anesthetics on NO Synthase Activity. Keynote Speaker at the 25th Anniversary of the Foundation of the Department of Anesthesiology and Resuscitation at the Johann Wolfgang Goethe University, Frankfurt am Main, Germany June 27, 1998.

Molecular Regulation of NO Synthases by Hypoxia. Department of Physiology, Johann Guttenberg University. Mainz, Germany, June 29, 1998 (Visiting Professor).

Role of Nitric Oxide in the Development of Pulmonary Hypertension. Invited Speaker, XXth Congress of the European Society of Cardiology. Vienna, Austria August 23, 1998.

NO/cGMP Signaling Pathway in the Mechanism of Spinal Hyperalgesia. Department of Anesthesiology, MD Anderson Hospital, Houston, TX, February 16, 2000 (Visiting Professor).

Nitric Oxide in Plasticity of Hyperalgesia. Department of Anesthesiology, University of Maryland, Baltimore, MD, 2000.

Disruption of Post Synaptic Density Protein Interactions: Novel Mechanisms of Anesthesia. Department of Anesthesiology, Brigham and Women's Hospital, Boston, MA, August 23, 2001 (Visiting Professor).

Disruption of Post Synaptic Density Protein Interactions: Novel Mechanisms of Anesthesia, Department of Anesthesiology, Massachusetts General Hospital, Boston, MA, August 24, 2001 (Visiting Professor).

Invited lecturer to honor Dr. Vainutis Vaitkevicius 50 years of Clinical Practice. Karmanos Cancer Center, Detroit, MI, November, 2001 (Keynote Address).

Anesthetic Interactions at the Post-Synaptic Density. Department of Anesthesiology, University of Pittsburgh, November, 2002.

Disruption of Post Synaptic Density Protein Interactions: Novel Mechanisms of Anesthesia. Department of Anesthesiology, University of Geneva, Geneva, Switzerland, June, 2002 (Visiting Professor).

WTG Morton Society. Developing Academic Anesthesiologists. Palm Desert, CA February 2003.

WTG Morton Society. Future Direction in Anesthesiology Practice. Naples, FL February 2003.

Visiting Professor, Department of Anesthesia University of Medicine and Dentistry, New Jersey, November 10, 2004.

Post-synaptic Density Proteins: Novel Therapeutic Targets for Hyperalgesia. Keynote address, 2004 Annual Meeting and Scientific Conference of The Chinese Association for the Study of Pain (CASP). April 10-11, 2004.

A Novel-Hypoxia-Induced Mitogenic Factor in Lung with Vasoconstrictive and Angiogenic Properties. Eighth Pan Arab Congress of Anesthesia, Beirut, Lebanon, September 23, 2004.

Impaired NMDA Receptor-Mediated Postsynaptic Function and Dependent Persistent Pain in Mice Lacking PSD-93. Eighth Pan Arab Congress of Anesthesia, Beirut, Lebanon, September 25, 2004.

Postsynaptic Density Proteins in Mechanisms of Anesthesia. National Institutes of Mental Health, Bethesda MD December, 2004.

New Concepts in the Etiology and Therapy of Pulmonary Hypertension. Visiting Professor, Yale University Department of Anesthesiology. May 31, 2005.

The Massachusetts Health Plan: A Model for National Health Care Reform? Institute of Medicine August 26, 2006.

Making Sausage in Health Policy—The 109th Congress, an Insider's Perspective. Seminar in Health Policy Series. Department of Health Policy and Management. Johns Hopkins Bloomberg School of Public Health. September 11, 2006.

Hypoxia Induced Mitogenic Factor in the Molecular Pathophysiology of Pulmonary Hypertension. Cardiac Anesthesiology Seminar. Johns Hopkins University. January 18, 2007.

Physicians and Advocacy: Embryonic Stem Cell Legislation in the 109th and 110th Congresses. Physician and Society Course, Johns Hopkins University School of Medicine. January 24, 31 and February 7, 2007.

Pay for Performance: What's an Anesthesiologist to Do? University of Utah 52nd Postgraduate Course in Anesthesiology. Salt Lake City UT, February 14, 2007.

Safety and Quality in the Operating Room. University of Utah 52nd Postgraduate Course in Anesthesiology. Salt Lake City UT, February 14, 2007.

Science Policy: Drugs, Bugs and Stem Cells. University of Utah 52nd Postgraduate Course in Anesthesiology. Salt Lake City UT, February 14, 2007.

The Massachusetts Health Plan and State Based Health Care Reform: Will It Work for You? University of Utah 52nd Postgraduate Course in Anesthesiology. Salt Lake City UT, February 14, 2007.

Politics and Health Policy on Capitol Hill—The Process of Advancing Legislation. For Course 308.602, The Role of Government in Health Policy. Department of Health Policy and Management. Johns Hopkins Bloomberg School of Public Health. April 4, 2007.

Development and Mentoring of Clinician Investigators in Anesthesiology: A Case History. Grand Rounds. Department of Anesthesiology and Critical Care Medicine. Johns Hopkins University. September 27, 2007.

Health Reform '08: What the candidates propose. Maryland Society of Anesthesiologists. Annapolis, MD, December 2007.

Case conference presentation. Johns Hopkins Department of Anesthesiology. December 2007.

Physicians and Advocacy: Embryonic Stem Cell Legislation in the 109th and 110th Congresses. Physician and Society Course, Johns Hopkins University School of Medicine. January 24, 31 and February 7, 2008 (6 hours teaching).

Presidential Candidates and Health Reform. Hospital Financial Management Association Annual Meeting, March 7, 2008.

Case conference. Johns Hopkins Department of Anesthesiology/CCM, March 10, 2008.

Hypoxia Induced Mitogenic Factor—a novel mediator of PAH and Asthma. Department of Medicine, Division of Allergy and Immunology. Johns Hopkins University. April 2008.

Health Reform '08: Home Run or Strikeout? Association of University Anesthesiologists Annual Meeting. Durham, NC, May 2008.

Johns RA: MAGUK proteins in chronic pain mechanisms. 12th World Congress on Pain. International Association for the Study of Pain. Glasgow, Scotland, August 2008 (invited lecture).

Health Reform and Health Policy Issues in the 2008 Election. American Society of Anesthesiologist's Annual Meeting. Orlando, FL October 2008.

A Novel Family of Pleiotropic Cytokines. Department of Pharmacology, Johns Hopkins University, November 6, 2008.

Intraoperative and didactic teaching of anesthesiology and critical care medicine at the medical school and two hospitals in Asmara, Eritrea, January 21-February 4, 2009

Hypoxia-Induced Mitogenic Factor. Department of Hygiene, Bloomberg School of Public Health. September 2009

Intraoperative and didactic teaching of anesthesiology and critical care medicine at Benin Teaching Hospital, Benin City, Nigeria. November 8-15, 2009

Intraoperative and didactic teaching of anesthesiology and critical care medicine at Korle Bu Hospital, Accra, Ghana November 16-20, 2009

Nitric Oxide/cGMP in Pulmonary Hypertension: Dead or Alive? Invited speaker. 4th International meeting Pulmonary Vascular Research International. Lisbon, Portugal, January 2010

INDIVIDUALS MENTORED BY DR. ROGER JOHNS WHO SPENT AT LEAST ONE YEAR WITH HIM AND ARE NOW INDEPENDENT INVESTIGATORS OR CURRENTLY IN HIS LABORATORY

MENTEE	TRAINING TIME IN JOHNS LABORATORY	CURRENT POSITION	COMMENTS
W. Ross Tracey, Ph.D.	1989-1991 Postdoctoral Fellow	Senior Research Scientist, Department of Cardiovascular and Metabolic Diseases, Pfizer Pharmaceuticals, Groton, CT	Leads a research team investigating ischemia-reperfusion and preconditioning in the heart. Directs research fellow grant program

Appavoo Rengasamy, Ph.D.	1989-1993 Postdoctoral Fellow	Senior Research Scientist, National Institute of Occupational Safety and Health, Pittsburgh, PA	Studies lung oxidant injury and ultrafine particle nanotechnology
George F. Rich, MD, PhD	1991-1994 Joined my laboratory as a new Assistant Professor where we developed his research program and independent funding in inhaled nitric oxide research	Professor and Chair of Anesthesiology, Professor of Bioengineering. Harrison Teaching Professor. University of Virginia, Charlottesville, VA	Studies lung physiology and the effects of anesthesia on endothelium and vascular smooth muscle
L.V. Ravichandran, Ph.D.	1992-1997 Postdoctoral Fellow	Senior Scientist, Invitrogen, LaJolla, CA	Leads a team developing siRNA and miRNA technologies
Xinhua Zhan, M.D.	1992-1998 Rockefeller Exchange Fellow, 2001-2003 Postdoctoral Fellow	Assistant Project Scientist, Department of Anesthesiology, UCSF	Studies anesthetic mechanisms and vascular biology with Philip Bickler. Recently accepted a research position at UC Davis
Timothy D. Le Cras, Ph.D.	1993-1996 Postdoctoral Fellow	Associate Professor (with Tenure) of Pediatrics, Children's Hospital, University of Cincinnati	Independent NIH RO1 funded research program studying lung injury and vascular remodeling molecular mechanisms
Thomas Pajewski, M.D., Ph.D.	1993-1996 Assistant Professor doing anesthetic mechanism research in my laboratory	Associate Professor (tenure) of Anesthesiology and Neurosurgery, Director of Neuroanesthesia, University of Virginia, Charlottesville, VA	Now studies clinical outcomes related to neuroanesthesia
Chun Xue M.D., Ph.D.	1993-1995 Postdoctoral Fellow	Senior Research Scientist, NOVARTIS Pharmaceuticals, Basel Switzerland.	Currently developing startup pharmaceutical company in Hong Kong

Zhiyi Zuo, M.D., Ph.D.	1994-1997 Postdoctoral Fellow, then resident in Anesthesiology 1997-2000	Professor of Anesthesiology, Neurosurgery and Neuroscience with tenure at University of Virginia. Robert M. Epstein Endowed Professor	FAER starter grant, multiple NIH RO1 grants, 2005 ASA Presidential Scholar Award, IARS Frontiers in Anesthesia Award. Research areas: 1) regulation of glutamate transporters; 2) preconditioning-induced neuroprotection; and 3) selective gene silencing for the treatment of Alzheimer's disease
Lesley Millatt, Ph.D.	1995-1999 Postdoctoral Fellow	Research Scientist, Faculte de Pharmacie, Universite de Lille II, Lille, France	Studies vascular biology, angiogenesis
Lisa Palmer, Ph.D.	1995-1999 Research Associate and Research Assistant Professor	Associate Professor of Anesthesiology and Pediatrics	AHA, NIH RO1 and Defense Department funding. Studies nitric oxide oxidative mechanisms in pulmonary hypertension and lung injury. Special expertise in transcriptional regulation
Elie Haddad, M.D.	1996-1999 Postdoctoral Fellow (following his Anesthesiology Residency)	Associate Professor of Anesthesiology, University of Lille, Lille, France	After several years as a clinician-scientist at the University of Lille, I have heard that he recently moved to a clinical practice position.
Dechun Li, M.D., Ph.D.	1997-1999 Postdoctoral Fellow at Virginia, 2000-2004 Assistant Professor at Johns Hopkins	Associate Professor, Pulmonary Medicine Division of Internal Medicine Department, St. Louis University, St. Louis, MO	NIH RO1-funded independent laboratory. Studies broncho-pulmonary dysplasia and lung development

Yuan Xiang Tao, Ph.D.	1997-1999 Postdoctoral Fellow at Virginia, 2000-2002 Instructor at Johns Hopkins	2002-2006 Assistant Professor at Johns Hopkins, 2006-2008 Associate Professor at Johns Hopkins	Multiple NIH awards (RO1, R21) and foundation grants supporting an independent laboratory program with 6 fellows. Has gained international recognition for his research in molecular mechanisms of chronic pain.
Frank Jung, M.D., Ph.D.	1997-1999 Performed research component of his Cardiology Fellowship in my lab	Assistant Professor of Cardiology, University of Frankfurt, Frankfurt Germany	Studied cardiac apoptosis and transcriptional oxidative mechanisms in the heart. Recently moved to the Dean Health System in Madison, WI
Gotaro Shirakami, M.D.	1998-1999 Visiting Research Fellow from Kyoto University	Professor and Chair of Anesthesiology at Kagawa University, Kagawa, Japan	Studies clinical and physiologic actions of vasoactive peptides and molecules. Appointed Chair of Anesthesiology 2008
Peizhong Mao, Ph.D.	2000-2003 Postdoctoral Fellow	Assistant Professor of Anesthesiology, Oregon Health Sciences University, Portland, OR	Funded by AHA. Molecular Biology and Gene Regulation
Xingwu Teng, Ph.D.	2000-2005 Postdoctoral Fellow	Research Scientist, Cell Biology, Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, Ohio	Currently considering a move to a Senior Research Scientist position in Dr. Victor Dzau's laboratory at Duke University
Klaus Wagner, M.D.	2002-2003 Research Sabbatical in my laboratory	Professor of Anesthesiology, University of Luebeck, Luebeck Germany	Interested in hypoxic gene regulation, lung development. Funded by German government.

<p>Feng Tao, M.D., Ph.D.</p>	<p>2000-2004 Postdoctoral Fellow, 2004-2006 Research Associate</p>	<p>2006-2008, Instructor, Johns Hopkins</p>	<p>Splits his time between working as a co-PI on my anesthetic mechanisms grant and my MAGUK protein chronic pain grant and developing his own program in pain research program in two areas: 1) Mechanism of Stargazin in mediating NMDA-AMPA interactions in neuropathic pain and 2) Stem cell therapy for chronic pain following spinal cord injury. Has applied for independent funding from NIH in 3 different RO1/R21s</p>
<p>Wen-Jinn Liaw, M.D., Ph.D.</p>	<p>2001-2002 Visiting Assistant Professor in my laboratory</p>	<p>Professor (tenure) of Anesthesiology and Director of Critical Care Medicine, Tri-Service General Hospital/National Defense Medical Center, Taipei 114, Taiwan, Republic of China</p>	<p>Independent, government-funded research program in pain biology and mechanisms of opiate tolerance based on work developed in my laboratory</p>
<p>Reda Girgis, M.D.</p>	<p>2001-2006 Developed and carried out his KO8 award in my laboratory.</p>	<p>Assistant Professor of Pulmonary Medicine</p>	<p>Recently received his first RO1 award and is a co-investigator on our SCCOR grant. Focus is basic and clinical aspects of pulmonary hypertension.</p>
<p>Qingning Su, Ph.D.</p>	<p>2003—March 31, 2009</p>	<p>Professor of Molecular and Cell Biology Biotechnology Research Center, Shenzhen University Building W2-A2, High-Tech Industrial Park Shenzhen, Guangdong, China 518057 (Beginning April 1, 2009)</p>	<p>Studying molecular mechanisms of chemotaxis by the HIMF/FIZZ family of proteins. Has independent institutional funding to study molecular mechanisms of mitochondrial transport along cytoskeleton and delivery of energy to allow certain cellular processes.</p>

Kazuyo Yamaji, Ph.D.	2004-2007 Postdoctoral Fellow	2007-present. Research Associate, Johns Hopkins.	Splits her time between my SCCOR grant in Pulmonary Hypertension and developing her own program based on studies of the role of HIMF/FIZZ1 in tumor growth
Daniel Angelini, Ph.D.	2005-present Postdoctoral Fellow		Working on my SCCOR grant studying HIMF/FIZZ in human pulmonary hypertension. Beginning his own research program on the role of HIMF/FIZZ in smoking-induced lung injury
Chun-Ling Fan, M.D., Ph.D.	2005-present. Postdoctoral Fellow		Studying cellular mechanisms of HIMF/FIZZ in vascular contractility and smooth muscle growth. Working with our Proteomics Core to lead our efforts in understanding the downstream proteome of HIMF/FIZZ
Blaine Easley, MD, PhD	2008-present New Assistant Professor	Assistant Professor, Department of Anesthesiology and Critical Care Medicine, Johns Hopkins University School of Medicine (Pediatric Cardiac and PICU)	Just starting his mentorship for a clinician scientist award and KO8 in my lab. Co-mentored with Brett Simon. Studying role of HIMF/FIZZ in lung stretch injury.

<p>Andres Poloczek, M.D, Ph.D.</p>	<p>2008-present. Postdoctoral Fellow</p>		<p>Working on our SCCOR grant studying the single nucleotide polymorphisms of RESISTIN and RELM-B in asthma and pulmonary hypertension. Additional clinical studies of HIMF/resistin in sepsis and asthma. Plans on starting Anesthesiology residency after one more year in lab. Long term academic clinician-scientist commitment.</p>
<p>Irina Kolosova, Ph.D.</p>	<p>2008-present. Research Associate</p>		<p>Working on our SCCOR grant and my RO1 investigating the effect of the HIMF/FIZZ family of proteins on stem cell growth, differentiation and tissue repair. Also developing her own research direction and submitting a stem cell grant as PI this winter.</p>

ALL LABORATORY TRAINEES (1 month or more):

Undergraduates:

David Swett (1988) Dental student, Medical College of Virginia,
 Richard Klass (1988) Medical student, University of Michigan
 Muraya Gathinji (2001–2003) Neurosurgery resident, UCLA
 Gregory Kapp (2004–2006) Postdoctoral Fellow UCSF Quantitative Biology Laboratory
 Noah Weiner (2008) Undergraduate, LeHigh University
 Dawn Zhu (2008) Applying to colleges.

Graduate Students:

Gwen Wise (1988–1991) Pharmacology Graduate Student, Research Scientist at Merck-Dupont

Medical Students:

George Proctor (1990–1991) Assistant Professor of Psychiatry, Loma Linda University
 James Spaeth (1990, 1992) Associate Professor and Director of Cardiac Anesthesia, University of Cincinnati Children’s Hospital
 Christian Reikersdorfer (1990) Anesthesiologist, Dean Health System, Madison, WI
 Eric Erenson (1991) fourth year medical student
 Mike Muro (1993–94) Anesthesiologist (Pain Medicine) Roswell, GA
 Bella Davi (1994) second year medical student
 Paul Reynolds (1994) Anesthesiology, (Pain Medicine), Stanford, CA
 Aalya Hassan (1998) Resident in Internal Medicine, University of Virginia, Charlottesville, VA
 Abere Karibi-Ikiriko (2002) Resident, Howard University, Washington DC

Post-Doctoral Fellows and Research Associates:

- W. Ross Tracey, Ph.D. (1989–1991) Senior Research Scientist, Department of Cardiovascular and Metabolic Diseases, Pfizer Pharmaceuticals, Groton, CT
- Appavoo Rengasamy, Ph.D. (1989–1993) Senior Research Scientist, National Institute of Occupational Safety and Health, Pittsburgh, PA.
- L.V. Ravichandran, Ph.D. (1992–1997) Senior Scientist, Invitrogen. La Jolla, CA
- Timothy D. Le Cras, Ph.D. (1993–1996) Associate Professor of Pediatrics Children's Hospital, University of Cincinnati
- Gregory C. Dailey Ph.D. (1993–1995) Physician Assistant, Trauma Surgery and Critical Care, Stigler, OK
- Paul Koberna, M.D. (1993–1994) Pulmonologist, Internal Medicine, State College, PA
- Chun Xue M.D., Ph.D. (1993–1995) Senior Research Scientist, NOVARTIS Pharmaceuticals Basel Switzerland
- Zhiyi Zuo, M.D., Ph.D. (1994–1996) Professor of Anesthesiology, University of Virginia
- Lesley Millatt, Ph.D. (1995–1999) Research Scientist, Faculte de Pharmacie, Universite de Lille II, Lille, France.
- Elie Haddad, M.D. (1996–1999) Associate Professor of Anesthesiology, University of Lille, Lille, France
- Dechun Li, M.D., Ph.D. (1997–1999) Associate Professor, Pulmonary Medicine Division of Internal Medicine Department, St. Louis University, St. Louis, MO
- Yuan Xiang Tao, Ph.D. (1997–1999) Associate Professor, Johns Hopkins University, Baltimore, Maryland
- Xinhua Zhan, M.D. (1997–1998; 2001–2003) Assistant Project Scientist, Department of Anesthesiology, UCSF, San Francisco, CA
- Frank Jung, M.D., Ph.D. (1997–1999) Assistant Professor of Cardiology, University of Frankfurt, Germany
- Gotaro Shirakami, M.D. (1998–1999) Professor and Chair of Anesthesiology, Kagawa University, Kagawa, Japan
- Peizhong Mao, Ph.D. (2000–2003) Assistant Professor, Department of Anesthesiology and Perioperative Medicine, Oregon Health and Science University, School of Medicine, Portland, Oregon
- Wen-Jinn Liaw, M.D., Ph.D. (2001–2003) Professor, Tri-Service General Hospital/National Defense Medical Center, Taipei 114, Taiwan, Republic of China
- Xingwu Teng, Ph.D. (2000–2005) Research Scientist, Cell Biology, Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, Ohio
- Ming Fang, M.D., Ph.D. (2000–2001) Assistant Professor, Johns Hopkins University, Baltimore, Maryland
- Feng Tao, M.D., Ph.D. (2000–present) Instructor, Johns Hopkins University, Baltimore, Maryland
- Qingning Su, Ph.D. (2003–present) Instructor, Department of Anesthesiology and Critical Care Medicine, Johns Hopkins University School of Medicine
- Ya-Chun Chu, M.D. (2004–2005) Associate Professor, Department of Anesthesiology, Veterans General Hospital, Taipei, Taiwan, ROC
- Kazuyo Yamaji, Ph.D. (2004–2007), Postdoctoral Fellow. (2007-present) Research Associate, Department of Anesthesiology and Critical Care Medicine, Johns Hopkins University School of Medicine
- Yuko Sato, Ph.D. (2004–2008) Research Scientist. Osaka Pharmaceutical Company, Osaka, Japan
- Daniel Angelini, Ph.D. (2005–present) Postdoctoral Fellow, Department of Anesthesiology and Critical Care Medicine, Johns Hopkins University School of Medicine
- Chun-Ling Fan, Ph.D. (2005–present) Postdoctoral Fellow, Department of Anesthesiology and Critical Care Medicine, Johns Hopkins University School of Medicine
- Andres Poloczek, M.D. (2008–present) Postdoctoral Fellow
- Irina Kolosova, Ph.D. (2008–present) Research Associate, Department of Anesthesiology and Critical Care Medicine, Johns Hopkins University School of Medicine

Anesthesiology Fellows and Residents:

- Michael Wills, M.D. (1988) Private practice
- Britton Harper, M.D. (1989) Private practice

David Frankville, M.D. (1989) Assistant Professor of Anesthesiology, University of California, San Diego
Mark Uggeri, M.D. (1991–92) Private practice
Tom Pajewski, M.D., Ph.D. (1990) Associate Professor of Anesthesiology, University of Virginia
John Brendel, M.D. (1991–1993) Private Practice Wisconsin
Thomas McLoughlin, M.D. (1991–1992) Uniformed Armed Services Medical School and Walter Reed Hospital
Paul Zelenkov, M.D. (1991–93) Private practice, Clinical Adjunct Professor of Anesthesiology, University of Colorado
Julio Gonzalez, M.D. (2000–2001) Assistant Professor, P. Universidad Catolica De Chile, Santiago, Chile
Pedro Mendez, M.D. (2000–2001) Assistant Professor, Department of Anesthesia and Critical Care Medicine, Johns Hopkins University School of Medicine
William Stotz, M.D. (2000–2003) Attending Physician, INOVA, Fairfax, VA
Adam Carinci, M.D. (2005–present) Resident in Anesthesiology, Johns Hopkins

Faculty:

David J. Stone, M.D. (1988–1989) Professor of Anesthesiology and Neurosurgery
George F. Rich, M.D., Ph.D. (1991–1994) Professor and Chair of Anesthesiology and BioMedical Engineering University of Virginia
Thomas Pajewski, M.D., Ph.D. (1993–1996) Associate Professor of Anesthesiology, University of Virginia
Lisa Palmer, Ph.D. (1995–1999) Associate Professor of Anesthesiology and Pediatrics, University of Virginia
Reda Girgis, M.D. (2001–2006) Assistant Professor of Pulmonary Medicine, Johns Hopkins University
Klaus Wagner, M.D. (2002–2003) Professor of Anesthesiology, University of Luebeck, Luebeck, Germany
Blaine Easley, MD, PhD (2008–present) Assistant Professor, Department of Anesthesiology and Critical Care Medicine. Johns Hopkins University School of Medicine

CLINICAL CARDIAC ANESTHESIA FELLOWS TRAINED:

Britton Harper, M.D. (1989) Private practice
Donald Raithel, M.D. (1989) Private practice
David Frankville, M.D. (1989) Associate Professor of Anesthesiology, University of California, San Diego
Ryan Lesh, M.D. (1990) Associate Professor of Anesthesiology and Physiology, Columbia University
Cathy Jo Wilson, M.D. (1990) Private practice
Robert Lubanski, M.D. (1990–1991) Private practice
Michael Hahn, M.D. (1990–1991) Private practice
Mark Uggeri, M.D. (1991–1992) Private practice
Thomas McLoughlin, M.D. (1991–1992) Uniformed Armed Services Medical School and Walter Reed Hospital
Steve Roberts, M.D. (1991–1992) Private practice
Elliot Williams, M.D. (1991–1992) Private practice
Paul Zelenkov, M.D. (1992–1993) Private practice, Adjunct Professor of Anesthesiology University of Colorado
Doug Murphy, M.D. (1992–1993) Private practice
Steven Holmes, M.D. (1992–1993) Private practice
Catherine Cooper, M.D. (1993–1994) Assistant Professor of Anesthesiology, Medical College of Virginia
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Christian Reikersdorfer, M.D. (1994–1995)
Eric Hansen, M.D. (1997–1998) Private practice
Chip Lanceolatta (1999–2000) Private practice
Steve Aufderheide (2000–2001) Private practice

Al Haddadin (2002–2003) Assistant Professor of Anesthesiology, Yale University

OTHER RESEARCH EXPERIENCE:

Development of computer analysis of visual evoked potentials, Holden Electrophysiology Lab, Department of Neurology, Wayne State University School of Medicine, 1978–1980 (Robert L. Maulsby, M.D. and John Gilroy, M.D., supervisors)

Enkephalin receptor assay applied to pain and stress studies, Nancy Pritzker Laboratory, Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine, 1976 (Huda Akil, Ph.D. and Jack Barchas, M.D., supervisors)

Circadian rhythms in neurospora, Department of Biological Sciences, Stanford University, 1975–1976 (Dow Woodward, Ph.D., supervisor)

CURRENT RESEARCH INTERESTS:

1. The cell and molecular regulation of the nitric oxide-guanylyl cyclase signaling pathway.
2. The role of the nitric oxide-guanylyl cyclase signaling pathway and hypoxia induced mitogenic factor (FIZZ1) in cellular mechanisms of lung and cardiac physiology and pathophysiology and the cell biology of vascular remodeling in pulmonary hypertension. Oxidative gene regulation.
3. The role of postsynaptic density molecular scaffolding proteins and NO signaling pathway in mechanisms of plasticity associated with hyperalgesia. Mechanisms of anesthesia. Cell biology of post-synaptic density proteins.
4. Health Services Research: International health system comparisons; tension between new technologies as drivers of innovation and drivers of cost in health care; implementation and diffusion of health information technology; viability of social insurance for the financing of health care; regional variation in health technology utilization.