
Robert H. Brown, M.D., M.P.H.

CURRICULUM VITAE

Robert H. Brown, M.D., M.P.H.
Professor
Johns Hopkins University

Johns Hopkins Outpatient Center
Room B-152
601 North Caroline Street
Baltimore, MD 21287
Hospital phone: 410-287-4582
Laboratory phone: 410-614-5451
FAX: 410-955-0299
e-mail: rbrown2@jhem.jhmi.edu

EDUCATION AND TRAINING:

<u>Degree/year</u>	<u>Institution</u>	<u>Discipline</u>
B.A./1981	University of Rochester, Rochester, NY.	Economics/Biology
M.D./1985	Univ. of Pennsylvania, Phila., PA.	Medicine
Internship/1986	Union Memorial Hospital, Balt., MD.	Internal Medicine
Residency/1988	The Johns Hopkins Hospital, Balt., MD.	Anesthesiology
Fellowship/1990	The Johns Hopkins Hospital, Balt., MD.	Chronic Pain
M.P.H./1992	The Johns Hopkins University, Balt., MD.	Epidemiology

PROFESSIONAL EXPERIENCE:

<u>Position</u>	<u>Institution</u>	<u>Dates</u>
Instructor	The Johns Hopkins University, Balt., MD. Department of Anesthesiology and Critical Care Medicine	7/90-9/90
Assistant Professor	The Johns Hopkins University, Balt., MD. Department of Anesthesiology and Critical Care Medicine	9/90-12/96
Joint Appointment	Johns Hopkins University, Balt., MD. Dept. of Environmental Health Sciences, Division of Physiology, School of Public Health	1991-present
Joint Appointment	Johns Hopkins University, Balt., MD. Department of Radiology	1992-present
Associate Professor	Johns Hopkins University, Balt., MD. Department of Anesthesiology and Critical Care Medicine	1/97-10/03
Joint Appointment	Johns Hopkins University, Balt., MD. Dept. of Medicine, Division of Pulmonary and Critical Care Medicine	2000-present
Professor	Johns Hopkins University, Balt., MD. Department of Anesthesiology and Critical Care Medicine	10/03-present
Adjunct Professor	University of Palermo, Palermo, Italy Department of Respiratory Medicine	9/05- present

RESEARCH ACTIVITIES:**PUBLICATIONS:****Peer Reviewed:**

- 1.) Robert H. Brown, Patricia A. Tewes: Cervical Sympathetic Blockade After Thoracic Intercostal Injection of Local Anesthetic. *Anesthesiology* 70:125-126, 1989.
- 2.) Stephen D. Parker, Robert H. Brown, Mark J. Darowski, Carol A. Hirshman: Differential Effects of Glucocorticoids on Basenji-Greyhound Dog Model of Airway Hyperreactivity. *Respir Physiol* 83:323-332, 1991.
- 3.) Robert H. Brown, Christian J. Herold, Carol A. Hirshman, Elias A. Zerhouni, Wayne Mitzner: In Vivo Measurements of Airway Reactivity Using High-Resolution Computed Tomography. *Am Rev Respir Dis* 144:208-212, 1991.
- 4.) Christian J. Herold, Robert H. Brown, Wayne Mitzner, Jonathan M. Links, Carol A. Hirshman, Elias A. Zerhouni: High Resolution Computed Tomography: A New Method to Assess Pulmonary Airway Reactivity. *Radiology* 181:369-374, 1991.
- 5.) Robert H. Brown, Christian J. Herold, Carol A. Hirshman, Elias A. Zerhouni, Wayne Mitzner: Individual Airway Constrictor Response Heterogeneity to Histamine Assessed by High Resolution Computed Tomography. *J Appl Physiol* 74(6):2615-2620, 1993.
- 6.) Robert H. Brown, Wayne Mitzner, Elias Zerhouni, Carol A. Hirshman: Direct In Vivo Visualization of Bronchodilation Induced By Inhalational Anesthesia Using High Resolution Computed Tomography (HRCT). *Anesthesiology* 78(2):295-300, 1993.
- 7.) Robert H. Brown, Elias A. Zerhouni, Carol A. Hirshman: Comparison of Low Concentrations of Halothane and Isoflurane as Bronchodilators. *Anesthesiology* 78(6):1097-1101, 1993.
- 8.) Christian J. Herold, Robert H. Brown, Randall C. Wetzel, Sigrid M. Herold, Elias A. Zerhouni: Functional HR-CT of the Lung. Experimental Studies of the Pulmonary Vascular and Airway Reactions. *Radiologie* 33(3):124-131, 1993.
- 9.) Elias A. Zerhouni, Christian J. Herold, Robert H. Brown, Randall C. Wetzel, Carol A. Hirshman, James L. Robotham, Wayne Mitzner: HRCT-Physiologic Correlations. *J Thoracic Imaging* 8(4):265-272, 1993.
- 10.) Robert H. Brown, James F. Schauble, Neil R. Miller: Anemia and Hypotension as Contributors to Perioperative Loss of Vision. *Anesthesiology* 80(1):222-226, 1994.
- 11.) Robert H. Brown, Christian Herold, Elias Zerhouni, Wayne Mitzner: Spontaneous Airways Constriction During Breath Holding Studied By High-Resolution Computed Tomography. *Chest* 106:920-924, 1994.

- 12.) Robert H. Brown, Elias Zerhouni, Carol Hirshman: Reversal of Bronchoconstriction by Inhaled Nitric Oxide: Histamine versus Methacholine. *Am J Respir and Crit Care Med* 150(1):233-237, 1994.
- 13.) Robert H. Brown, Elias A. Zerhouni, Wayne A. Mitzner: Variability in the Size of Individual Airways Over the Course of One Year. *Am J Respir and Crit Care Med* 151:1159-1164, 1995.
- 14.) Robert H. Brown, Elias A. Zerhouni, Wayne A. Mitzner: Visualization of Airway Obstruction In Vivo During Pulmonary Vascular Engorgement and Edema. *J Appl Physiol* 78 (3):1070-1078, 1995.
- 15.) Robert H. Brown, Wendye Robbins, Peter Staats, Carol Hirshman: Prevention of Histamine-Induced Bronchoconstriction by an Orally Active Local Anesthetic. *Am J Respir and Crit Care Med* 151:1239-1243, 1995.
- 16.) Reuven Pizov, Robert H. Brown, Yuval Weiss, Dimitry Baranov, Hans Hennes, Stuart Baker, Carol Hirshman: Wheezing During Induction of General Anesthesia in Patients with and Without Asthma: A Randomized Blinded Trial. *Anesthesiology* 82:1111-1116, 1995.
- 17.) Robert H. Brown, Elias Zerhouni, Wayne Mitzner: Airway Edema Potentiates Airway Reactivity. *J Appl Physiol* 79:1242-1248, 1995.
- 18.) Wayne Mitzner, Elizabeth Wagner, Robert H. Brown: Is Asthma a Vascular Disorder? *Chest* 107(3):97S-102S, 1995.
- 19.) Robert H. Brown, Wayne Mitzner: Effects of Lung Inflation and Airway Muscle Tone on Airway Diameter in Vivo. *J Appl Physiol* 80:1581-1588, 1996
- 20.) Harald Groeben, Michael Foster, Robert H. Brown: Intravenous Lidocaine and Oral Mexelitine Block Bronchoconstriction in Asthmatics. *Am J Respir Crit Care Med* 154:885-888, 1996.
- 21.) Yonca Bulut, Carol Hirshman, Robert H. Brown: Effects of Intravenous and Aerosol Lidocaine on Airway Caliber and on Preventing Bronchoconstriction. *Anesthesiology* 85:853-859, 1996.
- 22.) Harald Groeben, Robert H. Brown: Ipratropium Decreases Airway Size by Preferential M2 Muscarinic Receptor Blockade. *Anesthesiology* 85:867-873, 1996.
- 23.) Robert H. Brown, Wayne Mitzner, Yonca Bulut, Elizabeth M. Wagner: Effect of Lung Inflation in Vivo on Airways with Smooth Muscle Tone or Edema. *J Appl Physiol* 82:491-499, 1997.

- 24.) Robert H. Brown, Wayne Mitzner, Elizabeth M. Wagner: Interaction between Airway Edema and Lung Inflation on Responsiveness of Individual Airways in Vivo. *J Appl Physiol* 83:366-370, 1997.
- 25.) Robert H. Brown, James Georgeakopoulos, Wayne Mitzner: Individual Airway Responsiveness to Aerosol Histamine and Methacholine In Vivo. *Am J Respir Crit Care Med* 157:491-497, 1998.
- 26.) Robert H. Brown, James F. Schauble, Robert G. Hamilton: Prevalence of Latex Allergy Among High Risk American Health Care Workers: Identification of Sensitized but Asymptomatic Anesthesiologists. *Anesthesiology* 89:292-299, 1998.
- 27.) Robert H. Brown, Wayne Mitzner: The Myth of Maximal airway responsiveness in vivo. *J Appl Physiol*. 85:2012-2017, 1998.
- 28.) Robert H. Brown, Elias Zerhouni: New Techniques and Developments in Physiological Imaging of Airways, *Radiol Clin North Am*.36:211-230, 1998
- 29.) Robert H. Brown, Elizabeth Wagner: Mechanisms of bronchoprotection by anesthetic induction agents: propofol versus ketamine. *Anesthesiology*. 90: 822-829, 1999.
- 30.) Elizabeth M. Wagner, Wayne Mitzner, Robert H. Brown: Site of functional bronchopulmonary anastomoses in sheep. *Anat. Rec* 254:360-366, 1999.
- 31.) Robert S. Greenberg, Robert G. Hamilton, Robert H. Brown: Differential Latex Allergy Prevalence in Anesthesiology Subspecialties. *Anesthesiology*. 90:1238, 1999.
- 32.) Robert H. Brown, Wayne Mitzner: Mechanism of methacholine dose-response plateaus in normal subjects. *Am J. Respir Crit Care Med* 159:1684, 1999.
- 33.) Robert H. Brown, Dianne Walters, Robert S. Greenberg, Wayne Mitzner: A Method of Endotracheal Intubation and Pulmonary Functional Assessment for Repeated Studies in Mice. *J. Appl Physiol*. 87:2362-2365, 1999.
- 34.) Robert H. Brown, Pierre Croisille, Beatrice Mudge, Fiona Diemer, Solbert Permutt, Alkis Togias: Airway Narrowing in Healthy Humans Inhaling Methacholine without Deep Inspirations Demonstrated by HRCT. *Am J. Respir Crit Care Med* 161:1256-1263, 2000.
- 35.) Robert G. Hamilton, Robert H. Brown: Impact of Avoidance Practice on Healthcare Workers Sensitized to Natural Rubber Latex. *J. Allergy and Clin. Immunol*. 105:839-841, 2000.
- 36.) Wayne Mitzner and Robert H. Brown: Potential Mechanism of Hyperresponsive Airways in Asthma. *Am J. Respir Crit Care Med*. 161:1619-1623, 2000.
- 37.) Robert H. Brown and Wayne Mitzner: Airway Closure with High PEEP in vivo. *J. Appl Physiol*. 89:956-960, 2000

- 38.) Michael Foster, Robert H. Brown, Chris Macri, and Clifford Mitchell: Bronchial Reactivity of Healthy Subjects: 18-20 h Post-exposure to Ozone. *J. Appl. Physiol.* 89:1804-1810, 2000.
- 39.) Robert H. Brown and Wayne Mitzner: Delayed Distension of Contracted Airways with Lung Inflation in vivo. *Am J. Respir Crit Care Med* 162:2113-2116, 2000.
- 40.) Robert H. Brown. HRCT Imaging of Airway Responsiveness: Effects of Anesthetics. *J Clin. Monit* 16: 443-455, 2000.
- 41.) Wayne Mitzner, Robert H. Brown, Won Lee: In Vivo Measurement of Lung Volume in Mice. *Physiol. Genomics* 4:215-221, 2001.
- 42.) Robert H. Brown, Nicola Scichilone, Beatrice Mudge, Fiona Diemer, Solbert Permutt, Alkis Togias: HRCT Evaluation of Airways Distensibility and the Effects of Lung Inflation on Airway Caliber in Health and Asthmatic Individuals. *Am J Respir Crit Care Med* 163:989-993, 2001.
- 43.) Nicola Scichilone, George Pyrgos, Trigevgeni Kapsali, Christina Anderlind, Robert H. Brown, Solbert Permutt, Alkis Togias: Airways Hyperresponsiveness and the Effects on Lung Inflation. *Int. Arch Allergy and Immunol* 124:262-266, 2001.
- 44.) Robert H. Brown, Robert S. Greenberg, Elizabeth Wagner: Efficacy of Propofol to Prevent Bronchoconstriction: Effects of Preservatives. *Anesthesiology* 94: 851-855, 2001.
- 45.) Robert H. Brown and Wayne Mitzner: Effects of Tidal Volume Stretch on Airway Constriction in Vivo. *J. Appl Physiol.* 91:1995-1998, 2001.
- 46.) Robert H. Brown and Wayne Mitzner: Airway Response to Deep Inspiration: Role of Inflation Pressure. *J. Appl Physiol.* 91:2574-2578, 2001.
- 47.) Landon S. King, Soren Nielsen, Peter Agre, Robert H. Brown: Decreased Pulmonary Vascular Permeability In Aquaporin-1 Null Humans. *Proc. Natl. Acad. Sci.* 99:1059-1063, 2002
- 48.) Elizabeth Wagner and Robert H. Brown: Blood Flow Distribution Within the Airway Wall. *J. Appl Physiol.* 92:1964-1969, 2002.
- 49.) Robert H. Brown, Robert G. Hamilton, Mary A. McAllister: How Health Care Organizations Can Establish and Conduct a Program for a Latex-Safe Environment. *Joint Commission Journal on Quality and Safety* 29:113-123, 2003.
- 50.) Robert H. Brown and Wayne Mitzner: Duration of Deep Inspiration and Subsequent Airway Constriction in Vivo. *Am. J. Asthma.* 40:119-124, 2003.
- 51.) Robert H. Brown and Wayne Mitzner: Airway Responses to Deep Inspiration: Role of Nitric Oxide. *Eur Respir J.* 22:57-61, 2003.

- 52.) Robert H. Brown and Wayne Mitzner. Understanding Airway Pathology by Functional Imaging. *J. Appl. Physiol.* 95:854-862, 2003.
- 53.) Robert H. Brown, Wayne Mitzner, Elizabeth Wagner, Solbert Permutt, Alkis Togias. Airway Distension with Lung Inflation Measured by HRCT. *Acad. Radiol.* 10: 1097-1103, 2003.
- 54.) Robert H. Brown and Wayne Mitzner: Functional Imaging of Airway Narrowing. *Respir Physiol Neurobiol.* 137:327-337, 2003.
- 55.) Harald Groeben, Sascha Meier, Clarke Tankersley, Wayne Mitzner, Robert H. Brown. Heritable Differences in Respiratory Drive and Breathing Pattern in Mice during Anaesthesia and Emergence. *Brit J. Anaesth.* 91:541-545, 2003.
- 56.) Harald Groeben, Wayne Mitzner, Robert H. Brown. Effects of the Alpha2-Adrenoceptor Agonist Dexmedetomidine on Bronchoconstriction in Dogs. *Anesthesiology.* 100(2):359-63, 2004.
- 57.) Harald Groeben, Sascha Meier, Clarke Tankersley, Wayne Mitzner, Robert H. Brown. Influence of Volatile Anaesthetics on Hypercapnic Ventilatory Responses in Mice with Blunted Respiratory Drive. *Br J Anaesth.*92(5):697-703, 2004.
- 58.) Robert H. Brown, Kanika Taenkhum, Timothy Buckley, Robert Hamilton. Different Latex Aeroallergen Size Distributions Between Powdered Surgical and Examination Gloves: Significance for Environmental Avoidance in Healthcare Settings. *J. Allergy and Clin. Immunol.* 114(2):358-363, 2004.
- 59.) Harald Groeben, Sascha Meier, Robert H. Brown, Christopher P. O'Donnell, Wayne Mitzner, Clarke G. Tankersley. The Effect of Leptin on the Ventilatory Response to Hyperoxia. *Exper. Lung Res.* 30:559-570, 2004
- 60.) Robert H. Brown, Robert G. Hamilton, Margaret Mintz, Anne E. Jedlicka, Alan Scott, Steven R. Kleeberger. Genetic predisposition to latex allergy: role of *Interleukin13* and *Interleukin18*. *Anesthesiology* 102:496-502, 2005.
- 61.) Robert H. Brown, William Wizeman, Christopher Danek, Wayne Mitzner. In Vivo Evaluation of the Effectiveness of Bronchial Thermoplasty with Computed Tomography. *J. Appl Physiol.* 98:1603-6, 2005
- 62.) Robert H. Brown, William Wizeman, Christopher Danek, Wayne Mitzner. Effects of bronchial thermoplasty on airway distensibility. *Eur. Respir. J.* 26:277-282, 2005
- 63.) Robert G. Hamilton, Robert H. Brown, Michael A. Veltri, E. Robert Feroli, James F. Schauble, N. Franklin Adkinson. Administering Pharmaceuticals To Latex Allergic Patients from Vials Containing Natural Rubber Closures. *Am J Health Sys Pharm.* 62: 1-16, 2005.

- 64.) Harald Groeben, Sascha Meier, Clarke G. Tankersley, Wayne Mitzner, and Robert H. Brown. Heritable and Pharmacological Influences on Pauses and Apneas in Inbred Mice during Anesthesia and Emergence. *Exper. Lung Res.* 31:839-853, 2005.
- 65.) Brown, Robert H., David B. Pearse, George Pyrgos, Mark C. Liu, Alkis Togias, and Solbert Permutt. The Structural Basis of Airways Hyperresponsiveness in Asthma. *J Appl Physiol* 101: 30–39, 2006.
- 66.) Jeffrey B. Hoag, Robert H. Brown, Matthew Fuld, Brett A. Simon. Recirculation of Inhaled Xenon Does Not Alter Lung CT Density. *Academic Radiology* 14:81-84, 2007.
- 67.) Herng-Yu Sucie Chang, Alkis Togias, Robert H. Brown. Effects of Systemic Lidocaine on Baseline Airway Tone in Asthmatic Subjects . *Anesth Analg.*104:1109-15, 2007.
- 68.) Seow CY, An SS, Bai TR, Bates JHT, Black JL, Brown RH, et al. Airway smooth muscle dynamics: a final common pathway of airway obstruction in asthma. *Eur. Respir. J.* 29:834-60, 2007.
- 69.) Robert H. Brown, William Wizeman, Christopher Danek, Wayne Mitzner . Effects of Bronchial Thermoplasty on Airway Closure. *Clinical Medicine: Circulatory, Respiratory and Pulmonary Medicine* 1:1-6, 2007.
- 70.) Sascha Meier, Harald Groeben, Wayne Mitzner, Robert H. Brown. Genetic variability of induction and emergence times for inhalational anaesthetics. *Eur J Anaesthesiol.* 25:113-117, 2008
- 71.) Harald Groeben, Robert H. Brown, Shadi Kaba, Wayne Mitzner. Different Mechanisms of Atelectasis Formation Require Different Treatment Strategies. *Exp Lung Res.* 34:115-124, 2008
- 72.) Robert H. Brown, David W. Kaczka, Katherine Fallano, Sining Chen, Wayne Mitzner. Temporal variability in the responses of individual canine airways to methacholine. *J. Appl. Physiol.* 104:1381-1386, 2008.
- 73.) Robert H. Brown, Charles Irvin, Gil Allen, Steve Shapiro, William Martin, Martin Kolb, Dallas Hyde,, Gary Nieman, Dianna Cody, Masaru Ishii, Steve Kadlecek, Bastiaan Driehuys, Rahin Rizi, Anna Wu, Wolfgang Weber, David Stout. Advances in Small Animal Imaging- Application to Lung Pathophysiology: An ATS Conference Proceeding. *Proc. Am. Thor. Soc.* 5:591-600, 2008.
- 74.) Robert H. Brown, Robert G. Hamilton, Mary McAllister, Anne-Michele Gundlach. The Final Steps in the Conversion of a Health Care Organization to a Latex-Safe Environment: Changing Hospital Culture. *Joint Commission Journal on Quality and Safety* (In Press).

75.) Nicola Scichilone, Alba La Sala, Maria Bellia, Katherine Fallano, Alkis Togias, Robert Brown, Massimo Midiri, Vincenzo Bellia . The airway response to deep inspirations decreases with COPD severity. J. Appl. Physiol. (In Press)

76.) David W. Kaczka, Robert H. Brown, Wayne Mitzner. Assessment of heterogeneous airway constriction using forced oscillations and high-resolution CT: an inverse model analysis. J. Appl. Physiol. (In Review)

77.) Christopher Danek, William Wizeman; Robert Brown; Wayne Mitzner. Simulation of Radiofrequency Energy Delivery to the Airways by the Finite-Volume Approach. Annals of Biomedical Engineering. (In Review)

Non-Peer Reviewed Publications:

- 1.) Robert H. Brown, Carol A. Hirshman. Anaphylaxis. *Seminars in Anesthesia* 8(4): 285-290, 1989.
- 2.) Robert H. Brown. Short Review: Mechanisms of Limited Airway Distension with Lung Inflation. *Pulm. Pharm. & Ther.* 20:118-25, 2007.

Editorials:

- 1.) Robert H. Brown. Structure, Function, and Heterogeneity[Editorial]. *Eur. Respir. J.* 24:193-194, 2004.

Book Chapters:

- 1.) Robert H. Brown, Wayne Mitzner: Imaging Techniques to Assess Inflammation and Airway Responsiveness, in *Asthma*, Raven Press, 1997
- 2.) Robert H. Brown, Wayne Mitzner: Heterogeneity in Airways, in *Complexities in Structure and Function of the Lung*, Marcel Dekker, 1998.
- 3.) Robert H. Brown, Terence Risby: Monitoring Distant Organ Reperfusion Injury by Measurement of Volatile Organic Compounds, Marcel Dekker, 2002.
- 4.) Robert H. Brown: Functional Imaging of Airway Distensibility Springer-Verlag Italia. 2002
- 5.) Lee-Gardie Jean, Robert H. Brown: Should patients with asthma be given preoperative medications including steroids? In: *Evidence-Based Practice of Anesthesia*. W.B. Saunders Co. 2004
- 6.) George Pygros, Robert H. Brown: Should patients with asthma be given preoperative medications including steroids? In: *Evidence-Based Practice of Anesthesia, Second Edition*. W.B. Saunders Co. In Press.

Book Reviews:

- 1.) *Regional Anesthesia: An Illustrated Procedural Guide*. *Anesthesiology* 72(4):777-778, 1990
- 2.) *A Short Course in Epidemiology*. *Anesthesiology* 76(4):664, 1992
- 3.) *High-Resolution CT of the Lung*. *Anesthesiology* 76(5):871-872, 1992
- 4.) *Risk and Outcome in Anesthesia- Second Edition*. *Anesthesiology* 77(4):839, 1992

5.) Local Anesthetics. *Anesthesiology* 80(4):963-964, 1994.

6.) Handbook of Spinal Anesthesia and Analgesia. *Anesthesiology* 81(2):530, 1994.

EXTRAMURAL SPONSORSHIP:**Grants/Contracts:****Current:**

1 P50 HL084945-01 Mechanisms and Treatment of COPD Progression (Wise, PI), 9/14/07 – 8/31/12, NIH, \$1,957,401 (Brown PI Imaging Core)

H070365 The Study of HIV Infection in the Etiology of Lung Disease (Kirk, PI), 9/01/07 - 8/30/12 NIH/NHLBI, \$550,000 (Brown Co-I)

RO1 HL056177 Natural History of Asthma from Birth to Early Adult Life (Martinez, PI) 8/1/06 - 7/31/11; NIH/NHLBI, \$969,241 (Brown Co-I)

PO1 HL10342 Pathophysiologic Consequences of Lung Distension (Mitzner, PD) 4/1/05 - 3/31/10, NIH/NHLBI, \$1,114,007 (Brown PI Project 2)

RO1 HL66020 New Approaches for the Treatment of Asthma (Mitzner, PI), 9/30/07 - 8/31/12 NIH/NHLBI, \$646,131 (Brown Co-I)

Pending: none**Past:**

RO1 HL61277 Lung Inflation and Airway Hyperresponsiveness (Adkinson, PI), 10/01/03 - 8/31/08, NIH/NHLBI, \$300,438 (Brown Co-I)

PMERP 2004-2006 **Co-Investigator** 2162401 Irreversible Airway Disease in Young Adults with Moderate to Severe Childhood Asthma External Research

NIH/NHLBI; 2000-2005 **Principal Investigator** RO1HL62698 Structural Mechanisms Operating in Unresponsive Asthma

ASPH/CDC 2000-2004 **Principal Investigator** S1208-19/19 Assessing Latex Avoidance on Occupational Sensitization

NIH: 1998-2003 Co-investigator, HL61277, Lung Inflation and Airways Hyperresponsiveness

AstraZeneca: 2001 **Principal Investigator**, Effects of metabisulfites on ischemia/reperfusion injury

NIH: 2000 Co-investigator, HL62641: Genetic Regulation of O₃-Induced Inflammation in Humans

AstraZeneca: 2000 **Principal Investigator**, Anesthetic Preservatives and Airway Responsiveness

NIH: 1998-1999 Co-investigator, HL60183: Local Airway Mechanics In Vivo

NIH: 1998-2003 Co-investigator, HL61277: Lung Inflation and Airway Hyperresponsiveness

NIH: 1998-1999 Co-investigator, HL60118: Bronchial Vascular Control of Airways

International Anesthesia Research Society; 1997-1999 **Principal Investigator**, Clinical Scholar Research Award: Mechanisms of Stretch Relaxation in Normal and Asthmatic Human Airways Measured by High Resolution Computed Tomography (HRCT)

NIH: 1993-1998 Co-investigator, Program Project Grant HL 10342: Mechanical Interaction in Airways, Vessels & Parenchyma, Project 2

NIH: 1992-1997, HL 02795, **Principal Investigator**, Clinical Investigator Development Award: Pulmonary Airway and Vascular Function Assessed by HRCT

Johns Hopkins University, School of Medicine: 1992-1994 Sandoz Clinician Scientist Award **Principal Investigator**: Pulmonary Airway and Vascular Function Assessed by HRCT

Foundation for Anesthesia Education and Research: 1992 **Principal Investigator**, FAER Starter Grant Award: Anesthesia Induced Bronchodilation Assessed by High Resolution Computed Tomography

American Lung Association of Maryland: 1992-1994 **Principal Investigator**, Research Grant Award: Pulmonary Airway and Vascular Function Assessed by HRCT

EDUCATIONAL ACTIVITIES:

Teaching:

Classroom:

Epidemiologic Methods Course, Johns Hopkins School of Public Health, 1993-1995, instructor
 Clinical Epidemiology, Johns Hopkins School of Medicine, 1996-present, instructor
 Fundamentals of Physiology, Johns Hopkins School of Public Health, 1998-present, lecturer
 Medical Pharmacology, Johns Hopkins School of Medicine, 1999-present, lecturer
 Respiratory System Under Stress, Johns Hopkins School of Public Health, 2000, lecturer
 Introduction to Physiology, Johns Hopkins University, 2000- present, lecturer

Clinical Instruction:

Anesthesiology Department: 1989-present. Clinical and didactic resident teaching
 1 day/week Johns Hopkins Outpatient Center - teaching regional anesthetic techniques.

CME Instruction:

Eight Annual Update on Obstetric Anesthesia, JHMI, November 6, 1999, lecturer
 Tenth Annual Update on Obstetric Anesthesia, JHMI, September 22, 2001, lecturer

Workshops:

Advances in Small Animal Imaging: Application to Lung Pathophysiology,
 ATS, May 19, 2006, organizer

Mentoring:

Wendye Robbins, M.D.	July 1994-June 1995	Fellow, Anes., JHMI
Harald Groeben, M.D.	July 1994- June 1996	Faculty, Univ. Dusseldorf, Germany
Yonca Bulut, M.D.	July 1995- June 1996	Fellow, PICU, JHMI
Nicola Scichilone, M.D.	July 1998- June 2001	Research Fellow, Allergy, JHMI
George Pyrgos, M.D.	Jan. 2000- June 2001	Research Fellow, Allergy, JHMI
Lisa Rowen, R.N.	July 2000- June 2002	PhD candidate, Nursing , JHMI
Harald Groeben, M.D.	July 2001- April 2002	Vice -Chair, Univ. Essen, Germany
Vilasinee Morkjareonpong, M.D.	July 2001- Dec 2001	Fellow, Occupation Health, JHSPH
Alexander Meier	Aug 2001- Oct 2001	Medical Student, Essen, Germany
Lee-Gardie Jean, M.D.	Nov 2001- June 2003	Fellow, Pulm. Med, JHMI
Kannika Taenkhum, MHS	Jan 2002- June 2002	Fellow, Env. Health Sci., JHSPH
Shadi Kaba, M.D.	Feb 2002- June 2002	Medical Student,,Damascus Univ.
Thomas Glaab, M.D.	Mar 2002	Fellow, Pulm., Hanover, Germany
Joe John, M.D.	Mar 2004-June 2005	Faculty, Anes, JHMI
Tracy Stierer, M.D.	July 2004-June 2007	Faculty, Anes, JHMI
Walter Chou	Nov. 2004-Feb. 2005	Undergraduate, BME, JHU
Connie Monitto	Mar 2004-Dec.2007	Faculty, Anes, JHMI
George Pyrgos, M.D.	July. 2006- present	Fellow, Pulm. Medicine, JHMI
Kathrine Fallano	June 2006-June 2007	Undergraduate, JHU
Marissa Brunetti	Nov 2007-	PICU Fellow, JHMI

Editorial Activities:Editorial Board

2001-2005 The Journal of Applied Physiology, Associate Editor
 2005-2007 Anesthesiology, Associate Editor

Ad hoc reviewer:

American Journal of Respiratory and Critical Care Medicine
 Anesthesia & Analgesia
 Brazilian Journal of Medical and Biological Research
 British Journal of Pharmacology
 British Medical Journal
 Canadian Journal of Physiology & Pharmacology
 Chest
 European Respiratory Journal

Joint Commission Journal on Quality and Safety
 Journal of Allergy and Clinical Immunology
 Life Sciences
 Respiratory Physiology

CLINICAL ACTIVITIES:

Certification:

Maryland State Medical License, 1986-present #D33993
 Anesthesiology Board Certification, 1990 #17750

ORGANIZATIONAL ACTIVITIES:

Institutional Administrative Appointments:

1991-present Quality Assurance, Dept. of Anesthesiology, Johns Hopkins Hospital
 1997-present Credentials Committee, Dept. of Anesthesiology, Johns Hopkins Hospital
 1997-2000 Latex Task Force, Johns Hopkins Hospital
 1999-present Clinical Research Review Committee, Dept. of Anesthesiology, JHH
 2000-present Pharmacy Controlled Substances Committee, Johns Hopkins Hospital
 2000-present Chairman, Latex Task Force, Johns Hopkins Hospital
 2001-present Triad committee (Plastic Surgery) for OR performance improvement
 2003-2005 Johns Hopkins Benchmark Programming: Non-Invasive Imaging (Radiology)

Professional Societies:

Memberships:

American Physiological Society
 American Society of Anesthesiologists
 American Thoracic Society
 Association of University Anesthesiologists
 International Anesthesiology Research Society
 Maryland Society of Anesthesiologists

Committees:

1995-1998 Subcommittee on Respiration, American Society of Anesthesiology
 1998-2006 Latex Sensitivity Task Force, American Society of Anesthesiology
 2004-2007 Respiratory Structure and Function, American Thoracic Society
 2005-2007 Committee on Occupational Health, American Society of Anesthesiology
 2005-2007 Planning Committee, American Thoracic Society
 2006- RSF Programming Committee, American Thoracic Society

Advisory Committees, Review Groups:

2001-present NIH, The National Heart, Lung, and Blood Institute, "K-awards"
 2002-2004 The Canadian Lung Association National Grant Review Committee
 2003 NIH, The National Heart, Lung, and Blood Institute, T32 training grants
 2004 NIH, NHLBI, Idiopathic Pulmonary Fibrosis Clinical Research Network
 2008 NIH, NHLBI, SPIROMICS Contracts, Chair Radiological section

Ad hoc:

The Wellcome Trust, London, England
 The Health Research Board, Dublin, Ireland
 U.S. Civilian Research and Development Foundation for the Independent States of the Former Soviet Union
 The Asthma Foundation of Western Australia

RECOGNITION:**Awards/Honors:**

New York State; 1977-1981 Regents Scholarship
 Omicron Delta Epsilon; 1981
 University of Rochester; 1981 Magna cum laude
 Fleischner Society; 1994 Fleischner Memorial Award

Invited Talks (limited to the last 3 years):

The Structural Basis of Airway Hyperresponsiveness. September 24, 2005. The Ninth International Da Vinci Society Meeting. Camogli, Italy

The Structural Basis of Airway Obstruction. September 26, 2005. University of Palermo, Palermo, Italy

Anaphylactic Reactions. September 27, 2005, 19th International Congress of the Israeli Society of Anesthesiologists, Tel Aviv, Israel

Anaphylactic Reactions. December 8, 2005, Johns Hopkins Department of Anesthesiology and Critical Care Medicine, Grand Rounds, Baltimore, MD

The Structural Basis of Airway Hyperresponsiveness. March 28, 2006. The Vermont Lung Center, University of Vermont, Burlington, Vermont.

The Structural Basis of Airway Hyperresponsiveness. Sept. 14, 2006. The 2006 International Functional Lung Imaging Workshop at Penn. Philadelphia, PA

Leadership, Power and Political Behavior, November 27, 2007. Johns Hopkins Department of Health, Policy, and Management, Baltimore, MD

Phenotyping AHR in man and mouse: functional imaging of the airways in health and disease, May 19, 2008. The 2008 International American Thoracic Society Meeting, Toronto, Canada

Imaging Airway Distensibility, June 16, 2008. University of Palermo, Palermo, Italy

Imaging: Applications for Phenotyping Airway Hyper-responsiveness, June 16, 2008. University of Palermo, Palermo, Italy

Anaphylaxis. July 17, 2008, Johns Hopkins Department of Anesthesiology and Critical Care Medicine, Grand Rounds, Baltimore, MD