
DAVID N. CORNFIELD, M.D.

Stanford University School of Medicine
Department of Pediatrics
Division of Pulmonary Medicine
770 Welch Road, Suite 350, Stanford, CA, 94304

Office: 650-498-0929
Email: cornfield@stanford.edu

PERSONAL DATA

Birthplace: Milwaukee, Wisconsin
Home Address: Stanford, CA 94305
Citizenship: USA
Marital Status: Married:

CURRENT POSITION

Anne T. and Robert M. Bass Professor in Pulmonary Medicine
Director-Center for Excellence in Pulmonary Biology
Chief of Pulmonary, Asthma, and Sleep Medicine
Director-Division of Pediatric Pulmonary Medicine
Medical Director-Respiratory Therapy at Lucille Packard Children's Hospital

EDUCATION

1978-1981 University of Wisconsin-Madison, B.A.
1982-1986 University of Wisconsin School of Medicine, MD
1982-1985 University of Wisconsin-Madison; Graduate Program in Philosophy

POSTGRADUATE TRAINING

1986 -1989 Pediatric House Officer, The Children's Mercy Hospital
University of Missouri-Kansas City Medical School
1989 - 1992 Fellow, Pediatric Pulmonology and Critical Care Medicine
University of Colorado School of Medicine

ACADEMIC POSITIONS

1992-1993 Instructor, Department of Pediatrics, University of Colorado, Denver
1993-1999 Assistant Professor, Department of Pediatrics, University of Minnesota
Medical School
1999-2003 Associate Professor (with tenure), Department of Pediatrics, University of
Minnesota Medical School

2001- 2003	Associate Professor, Department of Physiology, University of Minnesota Medical School
2002-2003	Associate Professor, Department of Surgery, University of Minnesota Medical School
2003-2005	Professor of Pediatrics, Physiology, and Surgery, University of Minnesota Medical School
2003-2004	Interim Head, Department of Pediatrics, University of Minnesota Medical School
2004-2005	Associate Dean for Clinical Research-University of Minnesota Medical School
2006-present	Bass Professor of Pulmonary Medicine and Director-Center for Excellence in Pulmonary Biology, Stanford University
2006-present	Professor of Pediatrics, Stanford University of Medicine, Stanford University
2008-present	Professor (by Courtesy) of Surgery, Stanford University School of Medicine

ADMINISTRATIVE APPOINTMENTS

1994-2005	Fellowship Director, Pediatric Critical Care Medicine University of Minnesota Medical School
1996-1997	Interim Division Head, Pediatric Pulmonary and Critical Care Medicine University of Minnesota Medical School
1997-2005	Medical Director - Transitional Care Unit, Fairview-University Medical Center, University of Minnesota Medical School
1997-2005	Medical Director - Pediatric Lung Transplantation Program, Fairview-University Medical Center, University of Minnesota Medical School
1997-2005	Medical Director - Pediatric Flexible Bronchoscopy Service, Fairview-University Medical Center, University of Minnesota Medical School
1998-2005	Medical Director- Pediatric Intensive Care Unit, Fairview-University Medical Center, University of Minnesota Medical School
1997-2005	Division Head - Pediatric Pulmonary and Critical Care Medicine, University of Minnesota Medical School
1998-2005	Board Member, Pediatric Clinical Service Unit, University of Minnesota Physicians
1999-2000	President, Pediatric Clinical Service Unit, University of Minnesota Physicians
2000-2003	Executive Board Member, University of Minnesota Physicians
2001-2004	Program Director, Pediatric Emergency Medicine, University of Minnesota Physicians, Fairview-Ridges Hospital
2004-2005	Program Director, Pediatric Sedation and Monitored Anesthesia, Fairview-University Medical Center
2006-present	Director-Center for Excellence in Pulmonary Biology, Stanford University School of Medicine
2006-present	Service Chief- Pulmonary, Asthma, and Sleep Medicine, Lucile Salter Packard Children's Hospital

2006-2014	Service Chief- Critical Care Medicine, Lucile Salter Packard Children's Hospital
2007-2014	Fellowship Director, Pediatric Critical Care Medicine, Stanford University School of Medicine
2007-2012	Medical Director-Pediatric Intensive Care Unit, Lucile Packard Children's Hospital
2007-present	Faculty Practice Organization, Stanford University
2011-present	Medical Director, Respiratory Therapy, Lucile Packard Children's Hospital

HONORS

1981	Graduate with Distinction in Major (Philosophy), Highest Honors
1979-1980	Outstanding Junior Honors Thesis, "Development of Exotic Medical Technology," Center for Biomedical Ethics
1980-1981	Outstanding Senior Honors Thesis, "Primary Prevention in Child Abuse and Neglect." Department of Philosophy, College of Letters and Sciences.
1980-1981	Senior Senator, University Wisconsin Student Senate
1980-1981	BioCore Honors Course Director; "Biology, Society, and Human Values"
1980-1981	Senior Senator, University Student Senate
1982-1985	University of Wisconsin School of Medicine Human Subjects Committee
1983-1984	University of Wisconsin School of Medicine Independent Study Program (competitive selection)
1988	Clark Seely Award for Excellence in Primary Care, Department of Pediatrics, University of Missouri-Kansas City
1989	Clark Seely Award for Excellence in Primary Care, Department of Pediatrics, University of Missouri-Kansas City
1989	Daniel C. Darrow Award as the Most Outstanding House Officer, Children's Mercy Hospital
1988	Richardson Resident Research Award: Renal Perfusion in ECMO,
1989	Pediatric Chief Resident, Children's Mercy Hospital
1990-1993	National Institutes of Health: National Research Service Award
1993-1998	American Heart Association: Clinician-Scientist Award
1994-1995	University of Minnesota Department of Pediatrics: University Children's Foundation Research Scholar Award
1994-1996	Minnesota Heart Association: Grant-in-Aid Recipient
1994	University of Minnesota Pediatric Residency Program Faculty Teacher of the Year Award
1995	Society for Pediatric Research Richard D. Rowe Award: Outstanding Young Investigator Award in Perinatal Cardiology
1995	University of Minnesota Pediatric Residency Program Outstanding Faculty Educator Award

1996	National Institutes of Health Child Health Research Center Pediatric Scholar Award
1996	Member, The Society for Pediatric Research
1998-1999	Outstanding Faculty Educator Award, University of Minnesota Medical School, Department of Pediatrics
1999-2000	Outstanding Faculty Educator Award, University of Minnesota Medical School, Department of Pediatrics
2000	Master Teacher of the Year Award, University of Minnesota Medical School, University of Minnesota
2000	Outstanding Clinical-Scholar Award, Fairview-University Medical Center and the University of Minnesota Medical School
2000	Established Investigator, American Heart Association
2000-2001	Outstanding Faculty Educator Award, University of Minnesota Medical School, Department of Pediatrics (no longer eligible for educator award, limited to 5 awards per faculty member)
2001	Award for Excellence, University of Minnesota Medical School (Awarded to a single Medical School faculty member annually)
2002-present	"America's Top Pediatricians," Consumer's Research Council of America, Washington, D.C. (recognized annually)
2003	Distinguished Alumni Lectureship, Cotton Club, University of Colorado Medical School, Division of Pediatric Pulmonary Medicine, Breckenridge, CO, February 6-9, 2003.
2000-2004	Established Investigator of the American Heart Association
2007-present	Best Pediatrician, San Jose Magazine (recognized annually)
2007	Vice-President Elect, Society for Pediatric Research
2006-2007	Pediatric Clerkship Faculty Honor Roll, Department of Pediatrics, Stanford University Medical School
2008-present	Best Physicians in America (recognized annually)
2008-present	Pediatric Clerkship Faculty Honor Roll for Teaching, Stanford University Medical School (recognized annually)
2007-present	Best Doctors in America (recognized annually)
2008-present	Top Pediatrician, San Francisco Magazine (recognized annually)
2010	President, Society for Pediatric Research
2010-present	Faculty Teaching Honor Roll, Department of Pediatrics

COMPLETED GRANTS

1993-1998	American Heart Association, Clinician-Scientist Award. "Ontogeny of pulmonary artery smooth muscle cell cytosolic calcium regulation."
1994-1996	Minnesota Heart Association, Grant-in Aid. "Ontogeny of pulmonary artery smooth muscle cell oxygen sensing."
1994-1995	University Children's Foundation "Developmental regulation of pulmonary

vascular tone.”

1994-1995 Viking Children's Fund "Ontogeny of pulmonary vascular tone regulation.”

1996-1997 National Institutes of Health: Child Health Research Center
"Molecular development of calcium channels in the pulmonary circulation.”

1996-1997 Viking Children's Fund "Randomized, controlled trial with low dose inhalational nitric oxide in near term infants with respiratory failure.”

1997-1998 Minnesota Medical Foundation, “Neonatal pulmonary artery smooth muscle cell K⁺ channel activity.”

1999-2001 American Heart Association, Northland Affiliate
“Developmental regulation of oxygen sensing in the lung.”

1998-2003 National Institutes of Health: R01 HL60784
“Developmental regulation of oxygen sensing in the lung.”

2000-2004 American Heart Association: Established Investigator Award. “Molecular regulation of vascular K_{Ca} channels in the developing lung.

2001-2002 University of Minnesota: Academic Health Center Development Grant.
"Regulation of ADP-ribosyl cyclase in smooth muscle, co-PI.

2000-2003 Parker B. Francis Foundation Grant for Fellowship in Pulmonary Research:
"NO and O₂ act through a common mechanism in isolated fetal pulmonary artery," Fellow: Valerie A. Porter, PhD.

2001-2002 Undergraduate Research Opportunities Program, University of Minnesota,
"Transcriptional Control of Potassium Channels in the Pulmonary Vasculature," Student Awardee: Rao Fu "

2002-2003 Minnesota Medical Foundation Special Grant "Ontogeny of pulmonary vascular barrier function."

2003-2004 Cystic Fibrosis Foundation Fellowship Award for Pediatric Pulmonary Fellow
"Regulation of pulmonary airway smooth muscle cell cytosolic calcium: Effect of Pseudomonas."
Fellow Awardee: Amy Harrison, M.D.

2003-2009 National Institutes of Health: R01 HL60784 “Molecular regulation of pulmonary vascular K_{Ca} channels"

2006-2011 National Institutes of Health: R01 HL 070628 “Developmental regulation of oxygen sensing in the lung.”

2005-2006 Pfizer Co. “Sildenafil in perioperative pulmonary hypertension in children and infants with congenital heart disease.”

2007 Pfizer Visiting Professorship in Pulmonary Medicine Host Faculty: David Cornfield, MD Visiting Professor: Fernando Martinez, MD,

2009-2011 Postnatal lung development: mechanisms of molecular and vascular development and long-term implications of preterm air breathing life
Recovery Act Limited Competition: Supporting New Faculty Recruitment to Enhance Research Resources through Biomedical Research Core Centers (1P30HL101315-01), National Heart Lung Blood Institute. Faculty Awardee: Cristina M. Alvira, M.D.

ACTIVE GRANTS

2013-2018	National Institutes of Health: 2R01 HL60784 "Molecular Regulation of Pulmonary Vascular KCa Channels."
2014-2018	Burroughs Wellcome Fund, Preterm Labor Initiative, "TRPV4 Channels, a target to prevent and treat preterm labor."
2014-2016	SEED Grant, Stanford Graduate School of Business, "Using microfinance as a tool to address intimate partner violence and increase financial empowerment."
2016-2017	Spectrum Medtech Translational Award: "Passive home monitor for early detection of asthma exacerbations in children."
2016-2021	National Institutes of Health T32 "Stanford Career Development Program in Pediatric Lung Diseases" Co-principal Investigator \$1,816,371

PENDING GRANTS

2018-2023	National Institutes of Health, NHLBI-R01 "Molecular regulation of vascular tone in the lung. Co-Principal Investigator 4 th Percentile, Anticipate funding as of 04/01/2018
2018	Spectrum Therapeutics Development Award: "Local delivery of a TRPV4 antagonist to prolong pregnancy." Co-Principal Investigator
2018	Spectrum Medtech Translational Award: "Passive home monitor for early detection of asthma exacerbations in children." Principal Investigator

PROFESSIONAL CERTIFICATIONS

1991	American Board of Pediatrics
1994	American Board of Pediatrics: Sub-board certification in Pediatric Pulmonology
1996	American Board of Pediatrics: Sub-board certification in Pediatric Critical Care Medicine
1999	American Board of Pediatrics, Recertification
2009, 2015	American Board of Pediatrics, Sub-board Recertification Pediatric Pulmonology
2004, 2013	American Board of Pediatrics, Sub-board Recertification Pediatric Critical Care Medicine

EDITORIAL AND CONSULTING POSITIONS

1994-present	Ad Hoc Reviewer, American Journal of Physiology
1996-present	Ad Hoc Reviewer, Circulation Research
1996-present	Ad Hoc Reviewer, Pediatric Research

1997-present	Ad Hoc Reviewer, Journal of Clinical Investigation
1998-present	Ad Hoc Reviewer, Journal of Pediatrics
1998 -present	Ad Hoc Reviewer, American Journal of Respiratory and Critical Care Medicine
1998-present	Ad Hoc Reviewer, Journal of Applied Physiology
1998-present	Ad Hoc Reviewer, Circulation
2008-present	Ad Hoc Reviewer, High Altitude Medicine & Biology
1996-1997	American Heart Association Peer Review Committee, Minnesota Affiliate.
1997-2001	American Heart Association Peer Review Committee, National Chapter
2001	Scottish Hospital Endowments Research Trust, External Reviewer, Research Scholarship Award
2001-2006	Scientific Advisory Board, Lilliehei Heart Institute, University of Minnesota Medical School
2001-present	Abstract referee, American Heart Association-Pulmonary Circulation, Respiratory Processes, and Lung Injury
2001-present	Abstract referee, Society for Pediatric Research
2001-2004	Chair, Richard D. Rowe Award Committee, Society for Pediatric Research
2002, 2008, 2010, 2014	Ad Hoc External Reviewer; Division of Biology and Medicine Swiss National Research Foundation
2001-2003	Peer Review Committee, Heart, Lung, and Resuscitation Study Section, American Heart Association
2003-2004	Co-chair, Peer Review Committee, Heart, Lung, and Resuscitation Study Section, American Heart Association
2003	Abstract Referee European Society for Cardiology Congress 2003
2004	Program Committee, Grover Conference on Pulmonary Hypertension, Sponsored jointly by AHA, ATS, NIH
2004-2006	Chair, Peer Review Committee, Heart, Lung, and Resuscitation Study Section, American Heart Association
2003	Member, Young Investigator Award Committee, Society for Pediatric Research
2004	External expert reviewer: Manitoba Medical Service Foundation
2005	Abstract Referee Society for Pediatric Research: Pulmonary Vascular Biology
2005-2008	Chair, Young Investigator Award Committee, Society for Pediatric Research

2005	Member, Pulmonary Circulation Council, American Thoracic Society
2006-2014	Editorial Board, American Journal of Physiology, Lung, Cell and Molecular Physiology
2006-2007	Special Emphasis Panel, Respiration, Integrative Biology and Translation, National Heart, Lung, Blood, Institute, National Institutes of Health
2007-2008	National Programs Representative, Peer Review Steering Committee Commission, American Heart Association
2007	Ad Hoc Study Section Member, Respiration, Integrative Biology and Translation, National Heart, Lung, Blood, Institute National Institutes of Health
2007-13	Peer Review Committee Member March of Dimes National Study Section
2008	Ad hoc Study Section Member: Special Emphasis Panel, Respiration, Integrative Biology and Translation, National Heart, Lung, Blood, Institute
2008-2012	Permanent Member, Peer Review Committee, Respiration, Integrative Biology and Translation, National Heart, Lung, Blood, Institute
2009-2012	Program Committee Member Pediatric Academic Societies Annual Meeting
2009-2010	Editorial Board Pediatrics in Review
2010-2016	Editorial Board Pediatrics
2011- present	Expert Panel, American Thoracic Society, American Heart Association, Consensus Commission to Develop Guidelines and Policies for Pediatric Pulmonary Hypertension
2014-present	External Review Committee Member, K12 award, Department of Pediatrics, University of Colorado
2014	Scoring normalization project review committee, National Heart, Lung, Blood Institute, National Institutes of Health
2015-2019	Permanent Member, Peer Review Committee, Pediatrics, National Institute of Child, Health Disease and Development, National Institutes of Health.
2015-2019	Executive Committee, Pulmonary Circulation, American Thoracic Society
2015-present	National Advisory Committee, Pediatric Critical Care and Trauma Scientist Development Program, National Institute of Child, Health Disease and Development, National Institutes of Health
2016	Peer Review Committee Member, NHLBI Emerging Investigator Award (EIA)
2016	Peer Review Committee Member, NHLBI Outstanding Investigator Award (OIA) - Heart, Lung and Sleep
2016	Invited External Reviewer, Division of Pulmonary Medicine, University of Alabama Birmingham

2017	Peer Review Committee Member, NHLBI Emerging Investigator Award (EIA)
2017	Peer Review Committee Member, NHLBI Outstanding Investigator Award (OIA) - Heart, Lung and Sleep
2017	Peer Review Committee Member, Pathophysiology Evaluation Committee, French National Research Agency, Paris, France.
2018	Peer Review Committee Member, Institutional Physician-Scientist Training Program, Burroughs Wellcome Foundation.
2018-Present	American Journal of Physiology, Lung, Cell and Molecular Physiology, Editorial Board

UNIVERSITY COMMITTEES

1997-1998	Center for Bioethics Faculty Search Committee
1997-1998	Department of Surgery, Division of Cardiothoracic Surgery Faculty Search Committee
1997-1998	Department of Pediatrics, Hematology/Oncology Division Faculty Search Committee
1997-1998	Department of Pediatrics Search Committee - Department Head
1996-2006	Undergraduate Research Opportunities Program Faculty Reviewer
1995-1996	Department of Pediatrics, Pulmonary/Critical Care Division Search Committee - Division Director
1996-1999	Developmental Biology Center, Planning Committee for Sixth Annual International Developmental Biology Symposium
1997-present	Faculty Development Committee
1997	Organization and Planning Committee Spring Departmental Retreat
1996-2005	Strategic Planning and Outreach Committee
1999-2000	Board member, Pediatrics Clinical Service Unit, University of Minnesota Physicians
1999	Department of Surgery, Faculty Search Committee- Pediatric Surgery
1999-2000	University of Minnesota Medical School, Alternate Member, Faculty Senate
2001-2004	University of Minnesota Medical School, Faculty Senator
2001-2002	Search Committee Member for Harrison Chair, Departments of Pediatrics and Cell, Development and Genetics
2002	Chair-Dean's Task Force on Clinical Research, University of Minnesota Medical School
2002-2006	Member, Budget and Finance Committee, University of Minnesota Physicians
2002-2006	Steering Committee Member, Combined M.D./PhD Training Program,

	Medical School
2002-2006	Member, External Review Board, Stem Cell Institute, University of Minnesota Academic Health Center
2003	Member-Dean's Budgetary Review Task Force
2003	Member-Search Committee for Head of Lilliehei Heart Institute
2004	Chair- Search Committee for Section Head, General Academic Pediatrics
2004-2006	Vice-President, Faculty Advisory Counsel, University of Minnesota
2004-2006	Board of Directors, University of Minnesota Physicians
2004-2006	Board of Directors, Lilliehei Heart Institute
2003-2005	Steering Committee Member, Medical Scientist Training Program, University of Minnesota
2003-2006	Invited Peer Reviewer, Academic Health Center Translational Research
2003-2006	Grant Program, University of Minnesota
2003-2005	Senate Member, University of Minnesota Faculty Senate
2007-present	Stanford Center for Sleep Sciences and Medicine Steering Committee
2008	Dean's Review Committee Wall Center
2011-2012	Search Committee Member, Pulmonary Division, University Tenure Line, Division of Pulmonary Medicine Internal Medicine
2009-2012	Chair, Committee to Establish Care of Adults with Cystic Fibrosis
2009-2014	Appointments and Promotions Committee, Department of Pediatrics
2014-present	Executive Committee, Children's Health Research Institute, Lucile Packard Foundation.
2017	Meeting Chair, Symposium in Recognition of the 50 th Anniversary of Bronchopulmonary Dysplasia, Stanford University.
2017-2018	Meeting Co-Chair, ChildX, Child Health Research Institute Annual Meeting.

<u>LOCAL COMMITTEES (DEPARTMENTS OF PEDIATRICS)</u>
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1997-present	Faculty Development Committee
1997	Organization and Planning Committee Spring Departmental Retreat
1996-2005	Strategic Planning and Outreach Committee
1999-2000	Board member, Pediatrics Clinical Service Unit, University of Minnesota Physicians
2000-2001	Department of Pediatrics Task Force for the Development of a Children's Hospital

2001	Planning Committee, Graduate Medical Education Retreat
2002	Chair, Dean's Task Force on Clinical Research, University of Minnesota Medical School
2003-2005	Member, Department of Pediatrics Promotions and Tenure Committee
2002-2005	Member, Department of Pediatrics Education Committee
2002-2005	President, Pediatrics Clinical Service Unit, University of Minnesota Physicians
2006	Co-chair Hospitalists Task Force, Lucile Packard Children's Hospital
2006	Search Committee Member, Cardiology Faculty Search
2007	Search Committee Member, General Academic Pediatrics
2006-2012	Chair, Administrative Committee, Department of Pediatrics
2006-present	Quality improvement committee, Lucile Packard Children's Hospital
2006-present	Faculty practice organization, Department of Pediatrics and Lucile Packard Children's Hospital
2007-2014	Appointments and Promotions, Department of Pediatrics
2009-2014	Chair-Clinical Resource Management Task Force Lucile Packard Children's Hospital
2015-2016	Member, Search Committee, Endocrinology Division Director
2016-2017	Member, Search Committee, Critical Care Medicine Division Director

<u>NATIONAL COMMITTEES</u>

1998	Invited Participant - Open Public Hearing - Inhaled Nitric Oxide Cardiovascular and Renal Drugs Advisory Committee Food and Drug Administration, Bethesda, MD
2000-2001	Richard D. Rowe Selection Committee, Society for Pediatric Research
2004	Chairperson- Richard D. Rowe Selection Committee Society for Pediatric Research
2001-2003	Special Task Force to Develop Position Paper for Inhaled Nitric Oxide, American Thoracic Society
2002-2005	Council Member, Society for Pediatric Research
2002-2005	Program Committee Grover Conference on the Pulmonary Circulation American Thoracic Society and American Heart Association

2007	Vice-President with ascension to Presidency Society for Pediatric Research
2004-2007	Chair, Young Investigator Award Committee, Society for Pediatric Research
2007	Invited presentation to National Institute of Health Task Force on Peer Review San Francisco, CA
2008-2012	Program Committee, Pediatric Academic Societies Annual Meeting
2009-2010	Steering Committee, Federation of Pediatric Organizations
2010-2014	Executive Committee, Pediatric Academic Societies
2009-2013	Committee on Pediatric Education, American Academy of Pediatrics
2011-present	Advocacy Committee, Pediatric Academic Societies
2012-present	Chair-Task Force on the Physician-Scientist, Federation of Pediatric Organization
2015-present	Chair-Nominating Committee, Pulmonary Circulation, American Thoracic Society
2015-present	Member, Executive Committee, Pulmonary Circulation, American Thoracic Society
2016-present	Member, External Review Committee, Gale and Ira Drukier Prize in Children's Health Research. Cornell University

MEDICAL SCHOOL TEACHING

1996-2000	Course Instructor: Clinical Medicine I, Professionalism Tutorial Group
1998-2000	Course Instructor Clinical Medicine IV, Asthma Education and Management
1999-2003	Lecturer: Clinical Medicine I, Ethics, Year 1 Medical School
1998-2005	Course Director: Pediatrics Elective in Critical Care Medicine
1998-2005	Advisor, Medical Students in Years 2-4
2006	Introduction to Clinical Medicine, Pediatrics, Stanford University School of Medicine
2008-present	Introduction to Clinical Medicine, Pediatrics, Stanford University School of Medicine
2007-present	Med 223, Cardiovascular Medicine, Stanford University School of Medicine
2010	Translating Discoveries Lecture Series, Stanford University School of Medicine, February 12, 2010
2010-present	Year 2 Lecturer, Introduction to Clinical Medicine, Pediatric Pulmonary

Exam (6 lectures/year)

2014-2016 Invited Master Clinician Lecture, Year 2 curriculum

CLINICAL ACTIVITIES	
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1993-1996	Pediatric Pulmonologist, Pediatric Intensivist, University of Minnesota Hospital and Clinics
1997-2005	Attending Physician, Pediatric Intensive Care Unit Fairview-University Medical Center
1997-2005	Pediatric Pulmonologist Fairview University Medical Center
2001-2005	Attending Physician, Pediatric Emergency Department, Fairview Ridges Hospital.
1997-2005	Pediatric Pulmonologist Fairview-University Medical Center
1999-2005	Pediatric Pulmonologist Hennepin County Medical Center
2001-2005	Attending Physician, Pediatric Intensive Care Unit Hennepin County Medical Center
1995-1997	Attending Physician, Pediatric Intensive Care Unit Hennepin County Medical Center
1994-2005	Attending Physician, Pediatric Intensive Care Unit Gillette Children's Specialty Healthcare/Regions Hospital
1993-1996	Attending Physician, Pediatric Intensive Care Unit University of Minnesota Hospital and Clinics
2005-2014	Service Chief-Pulmonary, Allergy, and Critical Care Medicine, Lucile Packard Children's Hospital, Stanford, CA
2005-2011	Attending Intensivist, Cardiovascular ICU, Lucile Packard Children's Hospital
2006-present	Attending Intensivist, Pediatric ICU, Packard Children's Hospital
2006-present	Lung Transplant Medical Attending, Packard Children's Hospital
2007-2012	Medical Director-Pediatric Intensive Care Unit, Lucile Packard Children's Hospital, Stanford, CA
2011-present	Medical Director-Respiratory Therapy, Lucile Packard Children's Hospital, Sanford University
2014-present	Pediatric Pulmonologist and Pediatric Intensivist, John Muir Medical Center,

PEER-REVIEWED PUBLICATIONS

1. **Cornfield, D.N.**, B.A. Chatfield, J.A. McQueston, I.F. McMurtry and S.H. Abman. Effects of birth-related stimuli on L-Arginine dependent vasodilation in ovine fetus. *Am J Physiol*, 262: H1474-H1481, 1992.
2. **Cornfield, D.N.**, J.A. McQueston, I. F. McMurtry, D.M. Rodman, and S. H. Abman. Role of ATP-sensitive potassium channels in ovine fetal pulmonary vascular tone. *Am J Physiol* 263 (Heart Circ. Physiol. 32): H1363-H1368, 1992.
3. McQueston, J.A., **D.N. Cornfield**, I.F. McMurtry, and S.H. Abman. Effects of oxygen and exogenous L-arginine on EDRF activity in fetal pulmonary circulation. *Am J Physiol* 264 (Heart Circ. Physiol. 33): H865-H871, 1993.
4. **Cornfield, D.N.**, T. Stevens, I.F. McMurtry, S.H. Abman, and D.M. Rodman. Acute hypoxia increases cytosolic calcium in fetal pulmonary artery smooth muscle cells. *Am J Physiol* 265 (Lung Cell. and Mol Physiol. 9) L53-L56, 1993.
5. Stevens, T., **D.N. Cornfield**, I.F. McMurtry, and D.M. Rodman. Acute hypoxia decreases cytosolic calcium in bovine pulmonary artery endothelial cells. *Am J Physiol* 266 (Heart Circ. Physiol. 35), H1416-H1421, 1994.
6. **Cornfield, D.N.**, T. Stevens, I.F. McMurtry, S.H. Abman, and D.M. Rodman. Acute hypoxia causes membrane depolarization and calcium influx in fetal pulmonary artery smooth muscle cells. *Am J Physiol* (Lung Cell. and Mol Physiol. 10) L469-L475, 1994.
7. Stevens, T., B. Fouty, **D.N. Cornfield**, and D.M. Rodman. Reduced PO₂ alters the behavior of Fura-2 and Indo-1 in bovine pulmonary artery endothelial cells. *Cell Calcium* 16, 404-412, 1994.
8. Stevens, T., Y. Nakahashi, **D.N. Cornfield**, I.F. McMurtry, D.M.F. Cooper, and D.M. Rodman. Ca²⁺-inhibitable adenylyl cyclase modulates pulmonary artery endothelial cells cAMP content and barrier function. *Proc Natl Acad Sci* 92, 2696-2700, 1995.
9. Hampl, V., **D.N. Cornfield**, N.J. Cowan, and S.L. Archer. Hypoxia potentiates nitric oxide synthesis and transiently increases cytosolic calcium levels in pulmonary artery endothelial cells. *European Resp Journal* 8:815-822, 1995.
10. **Cornfield, D.N.**, S. Tolarova, E.K. Weir, and S.L. Archer. Oxygen causes fetal pulmonary vasodilation through activation of a calcium-dependent potassium channel. *Proc Natl Acad Sci* 93: 8089-8094, 1996.
11. Tristani-Firouzi, M., E.B. Martin, S. Tolarova, E.K. Weir, S.L. Archer, and **D.N. Cornfield**. Ventilation-induced pulmonary vasodilation at birth is modulated by potassium channel activity. *Am J Physiol* 271 (Heart Circ. Physiol 40): H2353-H2359, 1996.
12. **Cornfield, D.N.**, and S.H. Abman. Inhalational nitric oxide in pulmonary parenchymal and vascular disease. *J Lab Clin Med* 127 (6): 530-539, 1996.
13. Weir, E.K., H.L. Reeve, **D.N. Cornfield**, M. Tristani-Firouzi, D.A. Peterson, and S.L.

- Archer. Diversity of response in vascular smooth muscle cells to changes in oxygen tension. *Kidney Internatl* 51(2):462-466, Feb 1997.
14. Anand, I.S., B.A.K.K. Prasad, S.S. Chugh, K.R.M. Rao, **D.N. Cornfield**, C.E. Milla, N. Singh, S. Singh, W. Selvamurthy. Effects of inhaled nitric oxide and oxygen in high altitude pulmonary edema. *Circulation* 98: 2441-2445, 1998
 15. Reeve, H.L., S.L. Archer, E.K. Weir, and **D.N. Cornfield**. Maturational changes in K⁺ channel activity and oxygen sensing in the ovine pulmonary vasculature. *Am J Physiol* 275 (Lung Cell. Mol. Physiol. 19): L1019-L1025, 1998.
 16. Storme, L., R.L. Rairigh, , T.A. Parker, **D.N. Cornfield**, J.P. Kinsella, and S.H. Abman. Potassium channel blockade inhibits shear stress-induced pulmonary vasodilation in the ovine fetus. *Am J of Physiol*, 276, L220-L228, 1999.
 17. Dobyns, E.L., **D.N. Cornfield**, N.G. Anas, J. Fortenberry, R.C. Tasker, A. Lynch, P. Liu, P.L. Eels, J. Griebel, M. Baier, J.P. Kinsella, S.H. Abman. Multicenter, randomized, controlled trial of inhaled nitric oxide therapy on gas exchange in children with acute hypoxemic respiratory failure. *J. Peds*, 134 (4), 406-412, 1999.
 18. **Cornfield , D.N.**, R. C. Maynard, R-A. O. deRegnier, S. F. Guiang III, J. E. Barbato, and C. E. Milla. Randomized, controlled trial of low dose inhaled nitric oxide in the treatment of term and near term infants with respiratory failure and pulmonary hypertension. *Pediatrics* 104, 1015-1022, 1999.
 19. Saqueton, C.B., R.B. Miller, C.E. Milla, V. Porter, and **D.N. Cornfield**. Nitric oxide causes perinatal pulmonary vasodilation through ryanodine-sensitive K⁺ channel activation. *Am J of Physiol*, (Lung Cell. Mol. Physiol. 20) L925-932, 1999.
 20. Haddad, I.Y., Panoskaltis-Mortari, A., Ingbar, D.H., Resnik, E.R., Yang, S., **Cornfield, D.N.**, and B.R. Blazar. The protective effect of keratinocyte growth factor are impaired during the generation of a nitrating species in the lungs of irradiated marrow recipient mice. *Am. J. Physiol.* 277 (Lung Cell. Mol. Physiol. 21): L391-400, 1999.
 21. **Cornfield, D.N.**, C.B. Saqueton, V. A. Porter, E.R. Resnik, J. Herron, I.Y. Haddad, and H.L. Reeve. Voltage-dependent K⁺ channel activity and expression increases with maturation. *Am J of Physiol* 278: L1297-L1304 (Lung Cell. Mol. Physiol.) 2000.
 22. **Cornfield, D.N.**, E.B. Martin, V. Hampl, and S.L. Archer. Aerosol delivery of DeTANO, a nitric oxide adduct, causes selective and sustained pulmonary vasodilation in perinatal lambs. *J Lab Clin Med*, 134; 419-425: 1999.
 23. Kinsella, J.P., Walsh, W.F., Bose, C.L., Gerstmann, D.R., Labella, J.J., Sardesai, S., Walsh-Sukys, M.C, McCaffrey, M.J., **Cornfield, D.N.**, Bhutanni, V.K., Cutter, G.R., Abman, S.H. Randomized, Controlled trial of inhaled nitric oxide in premature newborns with severe hypoxemic respiratory failure. *Lancet*, 354; 1061-1065, 1999.
 24. **Cornfield, D.N.**, E.R. Resnik, J.M. Herron, and S.H. Abman. Chronic intrauterine pulmonary hypertension decreases calcium-sensitive potassium channel expression. *Am J of Physiol*, 279 (Lung Cell. Mol. Physiol.) L857-L862, 2000.
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BOOK CHAPTERS

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NATIONAL ABSTRACT PRESENTATIONS

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- *105. Ying, L., Alvira, C.M., Cornfield, D.N. Pulmonary artery endothelial cell barrier function is developmentally regulated by focal adhesion kinase. **Poster Symposium Presentation**, American Thoracic Society Annual Meeting, San Diego, CA, May 2014
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- *107. Ying, L. Alvira, C.M., **Cornfield, D.N.** Uterine TRPV4 expression increases inflammation in pregnancy. Experimental Biology, Boston, MA, April, 2015.
- *108. Ying, L. Alvira, C.M. **Cornfield, D.N.** TRPV4 trafficking in uterine smooth muscle determines the onset of labor. Pediatric Academic Societies Meeting, San Diego, CA, April, 2015.
- *109. Barnes, E.A., Alvira, C.M. **Cornfield, D.N.** Smooth Muscle Cell HIF-1 α Modulates Lung Alveolarization. **Platform Presentation**, Pediatric Academic Society Annual Meeting, San Diego, CA, April, 2015.
- *110. Tracy M.C., Mark, J.D., **Cornfield D.N.** Pulmonary Hemorrhage in an Adolescent Using Inhaled Illicit Drugs: Not Just Blowing Smoke. Cases in Pediatric Pulmonology, **Poster Symposium**, American Thoracic Society International Conference, Denver, CO, May 2015.
- *111. Barnes, E.A., Ying, L., Chen, C., Alvira, C.M. **Cornfield, D.N.** Loss of Smooth Muscle Cell HIF-1 α Expression Compromises Angiogenesis and Impairs Lung Alveolarization. **Platform Presentation**, Pediatric Academic Society Annual Meeting, Baltimore, MD, April, 2016
- *112. Ying, L., Alvira, C.M., **Cornfield, D.N.** Transient receptor potential vanilloid 4 channel modulates uterine tone during pregnancy, Experimental Biology, San Diego, CA, April 2016
- *113. Barnes, E.A., Chen, C., Sedan, O., Alvira, C.M., **Cornfield, D.N.** Hypoxia Inducible Factor-1 α is decreased in pulmonary artery smooth muscle cells from patients with idiopathic pulmonary arterial hypertension. **Poster Presentation** American Thoracic Society, San Francisco, CA, May, 2016
- *114. Tracy, M.C., Zirbes J.M., Hernandez C., Cornfield D.N., Milla, C.E. Respiratory Microbiology in Primary Ciliary Dyskinesia: Comparisons to a Pediatric Cystic Fibrosis Cohort. **Platform Presentation**, American Thoracic Society International Conference, San Francisco, CA, May 2016.
- *115. Tracy, M.C., Mark J.D., **Cornfield D.N.** Invasive Pulmonary Aspergillosis as the Presenting Sign in a Child with Systemic Lupus Erythematosus. Cases in Pediatric Pulmonology, **Poster Presentation**, American Thoracic Society International Conference, San Francisco, CA, May 2016.
- *116. Tracy, MC, Yacob A, Chen C, Milla CE, Cornfield DN. DNA Extraction from Cystic Fibrosis Sputum Samples is Not Method Dependent. **Poster Presentation**, American Thoracic Society International Conference, San Francisco, CA, May 2016.

- *117. Huffaker, M.F., DeVos, M., Kethman, W., Harris, B., Cornfield, D.N. Use of a Novel Passive Heart Rate Monitoring Device to Assess Asthma Control. **Poster Presentation**, American College of Allergy, Asthma and Immunology, San Francisco, CA, November, 2016
- *118. Tawfik, D., Cornfield, D.N., Damian, M. Clinician diagnosis of pneumonia in ventilated children diverges from published guidelines. Society for Critical Care Medicine, Honolulu, Hawaii, January, 2017.
- *119. Mahapatra, S., Ying, L., Steinman, L., **Cornfield, D.N.** An Amyloidogenic Hexapeptide, Amylin, Attenuates Inflammation and Acute Lung Injury in Murine Sepsis. Society for Critical Care Medicine, Honolulu, Hawaii, January, 2017.
- 120. Huffaker, M.F., Carchia, M., Harris, B., **Cornfield, D.N.** Using Nocturnal Heart Rate to Assess Asthma Control. American Thoracic Society, Washington, D.C., May, 2017.

INVITED LECTURES -UNIVERSITY OF MINNESOTA
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1. "Role of endothelial-derived nitric oxide in perinatal pulmonary vasoregulation," Grand Rounds, Department of Pediatrics, University of Minnesota, February 1993.
2. "Persistent pulmonary hypertension of the newborn and inhalational nitric oxide," Updates in Respiratory Therapy, Department of Respiratory Therapy, University of Minnesota Hospital and Clinics, October 6, 1993.
3. "Mechanical ventilation and nitric oxide," Horizons in Neonatal Ventilation, Earle Brown Center, Department of Nursing, University of Minnesota, October 25, 1993.
4. "Pathophysiology of acute respiratory failure," Pediatric Critical Care Fellows Seminar, University of Minnesota, November 15, 1993.
5. "Nitric oxide and clinical research in the Pediatric Intensive Care Unit," Nursing Update, Pediatric Intensive Care Nursing Staff, Department of Nursing, University of Minnesota, May 9, 1994.
6. "Clinical-Pathologic Correlation: 12-year-old girl with hemoptysis," Monthly Morbidity and Mortality Report. Department of Pediatrics, University of Minnesota Hospital and Clinics, August 5, 1994.
7. "Pulmonary hypertension and congenital heart disease: pathophysiology and post-operative management," Advances in Cardiac Care in the Pediatric Post-Operative Patient, University of Minnesota School of Nursing, March 9, 1995.
8. "Inhalational Nitric Oxide: State of the Art in Acute Respiratory Failure, Pulmonary Hypertension, and Lung Transplant," University of Minnesota Department of Anesthesia, August 6, 1995.
9. "Vascular smooth muscle cytosolic calcium regulation and oxygen-induced vasodilation in the fetal lung," Grand Rounds, Department of Pediatrics, University of Minnesota, September 20, 1995.
10. "Ventilation: Perfusion Mismatch, Pulmonary Vascular Reactivity, and Inhalational

- Nitric Oxide in Cardiothoracic Surgery," University of Minnesota Department of Surgery, Division of Cardiothoracic Surgery, November 14, 1995.
11. "Inhalational Nitric Oxide: Physiology and Patient Care," University of Minnesota Critical Nurses Clinical Update, February 22, 1996.
 12. "From Bench to Bedside: Inhalational Nitric Oxide and Persistent Pulmonary Hypertension of the Newborn," University of Minnesota Topics and Advances in Pediatrics, June 14, 1996.
 13. "Diagnosis of Stridor and Flexible Bronchoscopy," University of Minnesota Topics and Advances in Pediatrics, Department of Pediatrics, Pediatric Update, June 16, 1996.
 14. "Chronic Cough: Diagnosis and Management," University of Minnesota Topics and Advances in Pediatrics, Department of Pediatrics, Pediatric Update, June 16, 1996.
 15. "Perinatal pulmonary vascular reactivity and inhaled nitric oxide. "Grand Rounds, Department of Pediatrics, University of Minnesota, May 14, 1997.
 16. "Nitric Oxide Update," Department of Medicine, Cardiopulmonary, University of Minnesota, June 26, 1997.
 17. "Research in Progress: Inhalational nitric oxide in cardiopulmonary disease," Department of Anesthesiology, University of Minnesota, April 28, 1997.
 18. "Developmental regulation of O₂ sensing in the lung," Department of Physiology, University of Minnesota, April 25, 1997.
 19. "Research in Progress: O₂ sensing changes from Ca sensitive K channel to voltage dependent K⁺ with maturation. Combined Medicine and Pediatric Pulmonary and Critical Care Conference, University of Minnesota, October 1997.
 20. "Research in Progress: Randomized, controlled trial of inhaled nitric oxide in infants with PPHN," Combined Medicine and Pediatric Pulmonary and Critical Care Conference, University of Minnesota, March 12, 1998.
 21. "Inhaled nitric oxide in acute hypoxemic respiratory failure in pediatrics," Grand Rounds, Department of Pediatrics, University of Minnesota, October 26, 1998.
 22. "Developmental regulation of pulmonary vascular oxygen sensing," Combined Medicine and Pediatric Pulmonary and Critical Care Conference, University of Minnesota, April 1998.
 23. "Ontogeny of pulmonary vascular smooth muscle cell cytosolic calcium regulation," Department of Physiology, University of Minnesota, May 6, 1999.
 24. "Therapeutic implications of pulmonary vascular O₂ sensing," Microbiology, Immunology, Molecular Pathology Graduate Studies Program, October 6, 1999.
 25. "Clinical indications for inhaled nitric oxide," Core Lecture, Extracorporeal Membrane Oxygenation training program, November 19, 1999.
 26. "Research frontiers in the treatment of cystic fibrosis: Replacing fear with hope," Fourth Annual Cystic Fibrosis Consumer Conference, October 30, 1999.

27. "Inhaled nitric oxide in acute respiratory failure and persistent pulmonary hypertension of the newborn, Sixth Annual Pediatric Critical Care Conference, Trends in Respiratory Care of the Pediatric Patient, April 12, 2000.
28. "Recognition and Management of Shock," Pediatric Residency Program Core Lecture, October 10, 2000.
29. "Pulmonary complications of Cystic Fibrosis," Annual Cystic Fibrosis Consumer Conference, Minneapolis, Minnesota, November 18, 2000.
30. "Oxygen causes a decrease in pulmonary artery smooth muscle cell cytosolic calcium through release of intracellular calcium from ryanodine-sensitive stores," Faculty Research-in-Progress Conference, Department of Pediatrics, University of Minnesota, November 20, 2000.
31. "Chronic cough in children in adolescents," Pediatric Residency Training Program Core Lecture Series, University of Minnesota, December 12, 2000.
32. "Persistent pulmonary hypertension of the newborn, acute respiratory distress syndrome and the interaction between high frequency oscillatory ventilation and inhaled nitric oxide, Extra corporeal membrane oxygenation training program, February 6, 2001.
33. "Asthma: epidemiology, pathophysiology, and management," Medicine-Pediatrics Residency training program winter meeting, St. Paul, MN, February 7, 2001.
34. "Inhaled nitric oxide in persistent pulmonary hypertension of the newborn and pediatric acute respiratory distress syndrome," Core Lecture series, University of Minnesota Residency training program in Anesthesia. April 3, 2001.
35. "Developmental regulation of pulmonary vascular oxygen sensing," Feature Scientific Presentation, Lilihei Heart Institute, University of Minnesota, March 4, 2002.
36. "Pediatric issues in mechanical ventilation and respiratory failure," Advanced pulmonary mechanics: Physiology and Pathophysiology. Department of Physiology, University of Minnesota Graduate School, August 30, 2002.
37. "ARDS and inhaled nitric oxide," Resident Core Lecture Series, Department of Anesthesia, University of Minnesota Medical School, December 16, 2002.
38. "Oxygen sensing," MD/PhD Student Seminar, March 10, 2003.
39. "Developmental regulation of oxygen sensing in the lung," Lillehei Heart Institute, University of Minnesota, March 11, 2003.
40. "Hypoxia-Inducible Factor-1 in the fetal pulmonary vasculature," Grand Rounds, Department of Pediatrics, University of Minnesota Medical School, October, 10, 2003.
41. "Pulmonary Hypertension: New Therapeutic Alternatives and Possibilities," Pediatric Critical Care Medicine, University of Minnesota, August 15, 2005.

INVITED LECTURES – STANFORD UNIVERSITY

1. "Aborization of a Center for excellence in Pulmonary Biology," Lucile Packard Children's Hospital Leadership Forum, Stanford, CA, March 27, 2006.
2. "Controversies in bronchiolitis," Dominican Hospital Annual Update in Pediatrics, Santa Cruz, CA, April 28, 2006.
3. "Impending respiratory failure: Recognition and Management," Dominican Hospital Annual Update in Pediatrics, Santa Cruz, CA, April 28, 2006.
4. "Incremental progress in delivery of excellent care in children with lung disease," Board of Directors Presentation, Lucile Packard Children's Hospital, Stanford, CA, September 7, 2006.
5. "Emergency Department presentations in Cystic Fibrosis," Emergency Medicine Grand Rounds, Stanford, CA, September 27, 2006.
6. "New directions in asthma and status asthmaticus," Pediatric Residency Core Lecture Series, Lucile Packard Children's Hospital, Stanford, CA, January 18, 2007.
7. "Acute Respiratory Distress Syndrome: Clinical, cellular, and molecular correlates," Medicine 223, Cardiovascular Core Curriculum, February 8, 2007.
8. "Asthma Update," Division of Adolescent Medicine, March 22, 2007.
9. "Ethical dilemmas in pediatric stem cell transplantation," Pediatric Interest Group, Year 1 and 2 Medical Students, Stanford University, April 18, 2007.
10. "Moving toward discovery," Medical Science Summer Youth Program, Stanford University, July 9, 2007.
11. "Novel approaches to acute hypoxemic respiratory failure," Pediatric Residency Program, Stanford University, January 16, 2008.
12. "Prevention of Physical Growth and Sexual Maturation in Developmentally Delayed Children; An Ethical Connundrum," Pediatric Interest Group, Year 1 and 2 Medical Students, Stanford University, April 15, 2008.
13. "Lung development and Bronchopulmonary Dysplasia" Pediatric Residency Program, Stanford University, April 29, 2008.
14. "Pediatric Pulmonology 101," Medical Student Year 3 Lecture, Stanford University Medical School, May 23, 2008.
15. "An 8 year old with abdominal pain and shortness of breath," Morning Report, Pediatric Residency Program, Stanford University, October 15, 2008.
16. "Pulmonary hypertension: Opportunities for translational therapies," Pediatric Resident Core Lecture, Lucile Packard Children's Hospital, November 20, 2008.
17. "Pulmonary Parenchymal Disease and Pulmonary Hypertension," Anesthesia and Critical Care Multidisciplinary Conference, May 18, 2009.
18. "Pulmonary hypertension: Challenges and Opportunities for translational therapies,"

- Pediatric Critical Medicine Core Lecture, Lucile Packard Children's Hospital, July 8, 2009.
19. "Bronchiolitis: Current treatment and controversies," Pediatric Critical Care Teaching Conference, Division of Pediatric Critical Care Medicine, July 14, 2009.
 20. "Physiology of Extracorporeal Membrane Oxygenation," ECMO Core Curriculum Lecture Series, Lucile Packard Children's Hospital, July 15, 2009.
 21. "The Art and Science of the ten-minute talk," Critical Care Medicine Fellows Conference, Division of Critical Care Medicine, November 2, 2009.
 22. "Acute Hypoxemic Respiratory Failure and Bone Marrow Transplantation Related Lung Injury," Anesthesia and Critical Care Multidisciplinary Conference, Stanford University Medical Center, November 24, 2009.
 23. "Developmental biology of pulmonary vascular oxygen sensing," Cardiovascular Research in Progress Lecture series, Wall Center for Pulmonary Hypertension, January 7, 2010.
 24. "Academic Pediatrics and Me," Pediatrics Interest Group Lecture Series, Stanford University Medical School, February 12, 2010.
 25. "The Narrative of Discovery, Acute Respiratory Distress Syndrome," Pediatric Grand Rounds, Department of Pediatrics, Stanford University School of Medicine, March 12, 2010.
 26. "Acute respiratory distress syndrome, Med 223," Cardiovascular Biology Core Curriculum Series, Stanford University School of Medicine, March 31, 2010.
 27. "Physiology and Physics of Extra-corporeal membrane oxygenation," ECMO Core Curriculum, Lucile Packard Children's Hospital, Stanford, CA, July 15, 2010.
 28. "My personal narrative: Academic Pediatrics and Me," Pediatrics Interest Group Lecture Series, Stanford University Medical School, February 4, 2011.
 29. "TRPV4 activation mediates the onset of labor and represents a putative targets for pre-term labor," Perinatology Research Conference, Department of Obstetrics and Gynecology, Stanford University Medical School, February 3, 2011.
 30. "High frequency oscillator ventilation: A primer for the clinician," Pediatric Critical Care Medicine Fellowship Orientation, Division of Pediatric Critical Care Medicine, June 30, 2011.
 31. "Medical Strategies to Employ to Prevent the Need for ECMO," ECMO Core Curriculum, Lucile Packard Children's Hospital, Stanford, CA, July 26, 2011.
 32. "Chronic lung disease of infancy and the pulmonary circulation, long-term clinical sequelae," Division of Pulmonary Medicine, January 30, 2012.
 33. "The transition of the pulmonary circulation and persistent pulmonary hypertension of the newborn," Med 223, February 15, 2012.
 34. Crash Course in Interviewing for Academic Jobs," Pediatric Mentoring Program, April 3, 2012.

35. Preparing an R01: Preparation Pearls," Pediatric Mentoring Program, Department of Pediatrics, August 12, 2012.
36. "Pediatric respiratory distress in the emergency department, management and diagnostic insights," Advanced Pediatric Life Support Pediatric Emergency Simulation Course, Division of Emergency Medicine, Department of Surgery, Stanford University, February 12, 2013.
37. "Pediatric pulmonary hypertension, science and practice." Core lecture series, Division of Emergency Medicine, Department of Surgery, Stanford University, March 25, 2013.
38. Medical Strategies to Employ to Prevent the Need for ECMO," ECMO Core Curriculum, Lucile Packard Children's Hospital, Stanford, CA, July 21, 2014.
39. "Pulmonary hypertension, pathology, physiology and treatment," Pediatric Pulmonary Division, May, 2015
40. Bronchiolitis for the Critical Care Provider," Pediatrics Critical Care, December, 2017.

INVITED LECTURES - EXTRAMURAL

1. "Effects of birth-related stimuli on endothelial-derived nitric oxide dependent pulmonary vasodilation in the ovine fetus," Perinatal Research Seminar, Division of Neonatology, Buffalo Children's Hospital, December, 1991.
2. "Hypoxia increases cytosolic calcium in fetal pulmonary artery smooth muscle cells," Neonatal Research Conference, Department of Pediatrics, University of Iowa, September, 1992.
3. "Respiratory Failure, Pulmonary Hypertension, and Inhalational Nitric Oxide," American Association of Critical Care Nurses, Greater Twin Cities Area Chapter Fall Symposium, November 17, 1994.
4. "Pulmonary hypertension, acute respiratory failure, and inhalational nitric oxide," Twin Cities Chest Conference, December 13, 1994.
5. "Potassium channel activation mediates oxygen-induced fetal pulmonary vasodilation," Fourth Annual Cotton Club, Division of Pediatric Pulmonary Medicine, University of Colorado, Copper Mountain, Colorado, February 25, 1994.
6. "Oxygen causes fetal pulmonary vasodilation through activation of a protein kinase sensitive potassium channel," American Thoracic Society, Seattle, Washington, May 21, 1995.
7. "Inhalational Nitric Oxide: Program Development and Treatment Applications," Spring Forum 1995, The Role of the Respiratory Care Practitioner in Diagnostic Procedures, Minnesota Society for Respiratory Care, May 12, 1995.
8. "Oxygen causes fetal pulmonary vasodilation through activation of a calcium sensitive potassium channel," Department of Pharmacology, Mobile, Alabama, University of South Alabama, November 9, 1996.
9. "Evaluating the child with chronic cough," RPAP Pediatrics Specialty Faculty Visit,

Princeton, Minnesota, February 16, 1998.

10. "Randomized, controlled trial of inhaled nitric oxide in infants with PPHN," Grand Rounds, Department of Pediatrics, Marshfield Clinic, Marshfield, Wisconsin, February 20, 1998.
11. "Randomized, controlled trial of low dose inhaled nitric oxide in term infants with respiratory failure and pulmonary hypertension," Grand Rounds, Department of Pediatrics, University of Iowa, April 10, 1998.
12. "Clinical-Pathological Correlation: Six-year-old with syncope," Department of Pediatrics, University of Iowa, April 10, 1998.
13. "Asthma Update: Pathophysiology and treatment updates," Fairview-Lakes Regional Medical Center, Wyoming, Minnesota, August 30, 1998.
14. "Inhaled nitric oxide in persistent pulmonary hypertension in the newborn," Grand Rounds, Regions Hospital, St. Paul, Minnesota, September 4, 1998.
15. "O₂ sensing changes from Ca-sensitive K⁺ channel to voltage dependent K⁺ with maturation," American Heart Association Scientific Conference on Control Mechanisms in the Fetal and Neonatal Pulmonary Circulation, Sedalia, Colorado, September 10-13, 1998.
16. "Nitric oxide causes perinatal pulmonary vasodilation through ryanodine-sensitive K⁺ channel activation," Cardiovascular Pulmonary Research Laboratory, University of Colorado Health Sciences Center, Denver, CO, November 2, 1998.
17. "Why Jack (Kevorkian) Doesn't know Jack," Spring Bioethics Seminar Series, Bioethics Center, University of Minnesota, February 11, 1999.
18. Session Moderator, Critical Care Medicine, Society for Pediatric Research, San Francisco, CA, May 6, 1999.
19. "The role of nitric oxide in the perinatal pulmonary circulation," Pediatric Grand Rounds, University of Kansas Medical Center, Kansas City, Kansas, March 3, 2000.
20. "Developmental regulation of pulmonary vasodilation," Research-in-Progress Conference, University of Kansas Medical Center, Kansas City, Kansas, March 3, 2000.
21. "Novel strategies for the treatment of acute hypoxemic respiratory failure in Pediatrics," Pediatric Grand Rounds, Children's Mercy Hospital, University of Missouri-Kansas City Medical School, Kansas City, Missouri, March 2, 2000.
22. "Pediatric Trauma: Bigger is not always better," Trauma Program Grand Rounds, Regions Medical Center, St. Paul, MN, June 21, 2000.
23. "All that wheezes is not asthma and asthmatics do not always wheeze," First Annual Glaxo Welcome Lecture for Graduating Housestaff, St. Paul Grill, June 20, 2000.
24. "Pediatric Trauma: Lessons from the school of hard knocks," Beyond the Golden Hour, Eighth Annual Trauma Nursing Conference, Regions Medical Center, St.

Paul, MN, September 28, 2000.

25. "Low dose nitric oxide and nitric oxide adducts," Symposium on novel approaches to perinatal pulmonary hypertension, National Meeting of the American Heart Association, New Orleans, LA, November 14, 2000.
26. "Respiratory emergencies," Spring Symposium on Pediatrics Updates, University of Minnesota Department of Pediatrics, June 22, 2001.
27. Developmental regulation of oxygen sensing in the lung; Lilliehei Heart Institute, Inaugural Scientific Symposium, University of Minnesota, Minneapolis, MN, October 28, 2001.
28. "Acute Hypoxemic Respiratory Failure, New Approaches to an Old Problem," Pediatric grand Rounds, University of South Alabama, Mobile, AL, January 15, 2002.
29. "Molecular regulation of pulmonary vascular oxygen sensing," Research Seminar, Department of Pharmacology, University of South Alabama, Mobile, AL, January 15, 2002.
30. "An eight year old with epigastric pain and shortness of breath," Clinical Correlation, Graduate student seminar, Department of Pharmacology, University of South Alabama, Mobile, AL, January 14, 2002.
31. Session Moderator, Subspecialty Platform Session, Critical Care Medicine, Society for Pediatric Research, Baltimore, MD, May 6, 2002.
32. "Alternative approaches to mechanical ventilation in children with ARDS," Center for Excellence in Critical Care Medicine, Minneapolis, MN, September 14, 2002.
33. "Low oxygen environment of the fetus increases pulmonary vascular K_{Ca} channel expression," Distinguished alumni lecture, Cotton Club, University of Colorado Medical School, Division of Pediatric Pulmonary Medicine, Breckenridge, CO, February 6, 2003.
34. "Fellowship: A view from the Far Side," Cotton Club, University of Colorado Medical School, Division of Pediatric Pulmonary Medicine, Breckenridge, CO, February 8, 2003.
35. "Asthma: Chronic and Acute Care," Grand Rounds, Fairview Ridges Hospital, Burnsville, MN, March 14, 2003.
36. "Bronchiolitis, a critical review of the present approach," Update In Pediatrics, Sponsored by the University of Minnesota Department of Pediatrics, Minneapolis, MN, June 14, 2003.
37. "Ontogeny of pulmonary vascular oxygen sensing," Invited Research Seminar, Stanford University Department of Pediatrics, July 7, 2003.
38. "Hif-1 and the calcium-sensitive K⁺ channel in the perinatal pulmonary vasculature," Invited seminar in Comparative veterinary biology," University of Minnesota Veterinary School, October 15, 2003.
39. "Bronchiolitis: Controversies in Bronchiolitis," Grand Rounds, CentraCare

Hospital, St. Cloud, MN, March 25, 2004.

40. Session Moderator, Pulmonary Circulation Subspecialty Platform Session, Society for Pediatric Research, San Francisco, CA, May 4, 2004.
41. "Developmental regulation of vascular oxygen sensing," Missoula Heart Institute Encounter, Missoula, Montana, July 2-3, 2004.
42. Session Moderator, Fetal pulmonary vascular development, Grover Conference on the Pulmonary Circulation, Lost Valley Ranch, Sedalia, CO, September 10, 2004.
43. "Non-constitutive regulation of HIF-1 expression in the pulmonary circulation." Invited presentation, American Heart Association Research Symposium, Louisiana, November 8, 2004.
44. "Intrauterine pulmonary hypertension informs the genetic response of the pulmonary circulation to normoxia," British and Chilean Physiologic Societies, Guy's College, London, England, December 19, 2004.
45. "Intrauterine events inform the newborn response to birth-related stimuli," Grand rounds, Department of Obstetrics and Gynecology, Loma Linda University, January 13, 2005.
46. "Molecular regulation of oxygen sensing in the perinatal lung," Visiting Scholar lectureship, Department of Physiology, Loma Linda University, January 14, 2005.
47. Chronic intrauterine pulmonary hypertension modulates pulmonary artery smooth muscle cell calcium homeostasis," Perinatal biology Center, Loma Linda University, January 14, 2005.
48. "Medical-scientist: Is it the journey or the destination that matters?" Invited speaker, University of Minnesota Medical School Medical Scientist Training Program breakfast seminar series, February 3, 2005.
49. "Oxygen Sensing in Childhood Health and Disease" Grand Rounds, The Children's Hospital at Montefiore, Albert Einstein College of Medicine, New York, New York, March 23, 2005.
50. "Molecular signaling in the developmental regulation of oxygen sensing in the lung," Invited Research Seminar, Department of Pediatrics, Mt. Sinai Medical School, New York, New York, March 24, 2005.
51. "Pulmonary hypertension from bedside to bench and back again," Toledo City-wide Clinical Update, Toledo, Ohio, May 11, 2005.
52. "Novel Therapies for Pulmonary Hypertension," Department of Pediatrics, Toledo Children's Hospital, May 12, 2005.
53. Session Moderator "Cardiac and Pulmonary Developmental Biology," Pediatric Academic Societies, Washington D.C., May 16, 2005.
54. Session Moderator "New Therapeutic Strategies for Classical Pediatric Diseases," Pediatric Academic Societies, Washington D.C., May 16, 2005.
55. "Oxygen sensing in childhood health and disease," Pediatric Grand Rounds, Lucile

Packard Children's Hospital and Stanford University School of Medicine, February 3, 2006, Stanford, CA.

56. "Clinical implications of oxygen sensing in childhood health and disease," Pediatric Grand Rounds, Children's Hospital of Michigan and Wayne State University, March 24, 2006, Detroit, Michigan.
57. "Medical-scientist: A career in science and clinical medicine: complementary or contradictory?" Invited speaker, Wayne State University Medical Scientist Training Program Luncheon Seminar series speaker, March 24, 2006.
58. "The pulmonary circulation in transition," Neonatal Grand Rounds, Columbus Children's Hospital, Ohio State University Department of Pediatrics, April 21, Columbus, Ohio, 2006.
59. "Molecular regulation of the oxygen sensing in the lung," Columbus Children's Hospital Research Conference, Columbus Children's Hospital, Ohio State University Department of Pediatrics, April 21, Columbus, Ohio, 2006.
60. "Cystic Fibrosis: Bringing hope with incremental advances," Annual Meeting, Cystic Fibrosis Research, Inc., Palo Alto, CA, May 23, 2006.
61. "Asthma: State of the Art," Annual Update in Pediatrics, Department of Pediatrics, Stanford University Medical School, Stanford, CA, July 20, 2006.
62. "Developmental Regulation of the Molecular Mechanisms Underlying Oxygen Sensing," Grand Rounds, Department of Medicine, Stanford University Medical School, August, 3, 2006.
63. "ARDS, new insights and treatment strategies," Pediatric Grand Rounds, Santa Clara Valley Medical Center, San Jose, CA, October 25, 2006.
64. "Oxygen sensing in the developing lung," Pediatric Grand Rounds, Department of Pediatrics, University of Michigan, Ann Arbor, MI, November 14, 2006.
65. "Acute respiratory failure: New approaches and issue relative to an old problem," Pediatric Noon Lecture, Department of Pediatrics, University of Michigan, Ann Arbor, MI, November 14, 2006.
66. "Ontogeny of oxygen sensing and HIF-1 expression in the pulmonary vasculature," Research Symposium, Cardiovascular Research Institute, University of California San Francisco, December 4, 2006.
67. "Oxygen sensing in human health and disease," Pediatric Grand Rounds, Department of Pediatrics, The Children's Hospital, University of Colorado Health Sciences Center, Denver, CO, December 2, 2006.
68. Session Moderator, First Annual Conference on Childhood Pulmonary Vascular Disease, Omni Hotel, San Francisco, CA, March 9, 2007.
69. Session Moderator, Poster Symposium, "Vascular biology in the developing lung," Pediatric Academic Societies, Toronto, Canada, May 6, 2007.
70. "Altered molecular regulation of oxygen sensing in development and disease," Featured speaker, Second Annual Northern California PICU Network Symposium,

Oakland, CA, September 7, 2007.

71. "Oxygen sensing in human health and disease," Pediatric Grand Rounds, Department of Pediatrics, Yale University Medical School, November 7, 2007.
72. "Pulmonary hypertension, a translational success story?" Pediatric Cardiology and Critical Care Medicine Fellows conference, Department of Pediatrics, Yale University Medical School, November 7, 2007.
73. "Childhood antecedents of adult disease: Does COPD begin in utero?" Keynote speaker, California Thoracic Society, Carmel, CA, February 2, 2007.
74. "Preparing for extubation: who, what, when and where?" Pediatric Otolaryngology Update, 2008, Palo Alto, CA, March 29, 2008.
75. "Development of ion channels in the pulmonary circulation," Grover Conference on the Pulmonary Circulation, Lost Valley Ranch, Sedalia, CO, September 3-7, 2008.
76. "The Breath of Life: The Center for Excellence in Pulmonary Biology," Keynote Speaker, Children's Circle of Care Dinner, Lucile Packard Foundation Annual Dinner, Atherton, CA, October 1, 2008.
77. "Oxygen sensing in Lung Development," Visiting Professor, Division of Neonatal Medicine, Medical College of Wisconsin, Milwaukee, WI, November 13, 2008.
78. "Pulmonary vascular and parenchymal disease: The clinical Problem." Second International Conference on Pulmonary Vascular Disease in Children, San Francisco CA, March 13, 2009.
79. "Emerging Biology and Critical Care Medicine," State of the Art Symposium, Moderator and Coordinator, Pediatric Academic Societies, Baltimore, MD, May 3, 2009.
80. "Cellular and molecular regulation of oxygen sensing in the pulmonary circulation," Invited Distinguished Scientist Series, Center for Cardiovascular Biology, Albany Medical College, June 8, 2009.
81. "Controversies in management of bronchiolitis," Featured Speaker, Quarterly Meeting of the Medical Staff, San Jose Regional Medical Center, San Jose, CA, June 30, 2009.
82. "Academic Pediatrics at the crossroad," Keynote Speaker, 6th Congress of Asian Society for Pediatric Research, 5th Annual Meeting of the Taiwanese Pediatric Association, April 15, 2010, Taipei, Taiwan.
83. "Academic Pediatrics at the crossroad," Keynote Speaker, 113th Annual Meeting of the Japanese Pediatric Society, April 24, 2010, Morioka, Japan.
84. "The Narrative of Discovery: Academic Pediatrics," Presidential Plenary Address, Pediatric Academic Societies Annual Meeting, Vancouver, Canada, May 4, 2010.
85. "Punching holes in the pipeline of academic pediatric researchers," Workshop Presentation, Pediatric Academic Society Meeting, Vancouver, Canada, May 2, 2010.

86. "Meet the Professor Seminar: Opportunities in the Pediatric Critical Care Medicine Arena," Pediatric Academic Society Meeting, Vancouver, Canada, May 2, 2010.
87. "Preparing for the life: lung development in the low oxygen tension in utero environment," Center for Lung Biology, Departments of Physiology and Pharmacology, University of South Alabama, Mobile, Alabama, May 12, 2010.
88. "Acute respiratory distress syndrome: Translating Discoveries," Grand Rounds, Department of Pediatrics, West Virginia University Medical School, Morgantown, West Virginia, October 20, 2010.
89. "Acute respiratory distress syndrome: Translating Discoveries," Grand Rounds, Department of Pediatrics, Children's Mercy Hospital, Kansas City, Missouri, December 2, 2010.
90. "TRPV4, a novel molecular target for preterm labor," Research Seminar Series, Department of Obstetrics, Stanford University, March 7, 2011.
91. "Discovering a worthy target for investigation," Invited seminar, Division of Pediatric Critical Care Medicine, Department of Pediatrics, Massachusetts General Hospital, Boston, MA. April 8, 2011.
92. "Pediatric therapeutic advances, ARDS as a model," Pediatric Grand Rounds, Department of Pediatrics, Massachusetts General Hospital, Boston, MA. April 8, 2011.
93. "Effect of Oxygen Tension on events that mediate Pulmonary Vascular Development," Federation of American Scientific Experimental Biologists. April 11, 2011. Pathobiology of Oxygen Exposure during development: Bedside to Bench and Back to Bedside, Invited Symposium.
94. "Risk factors for persistent pulmonary hypertension of the newborn," Invited Speaker, American Thoracic Society Sponsored Grover Conference on the Pulmonary Circulation, Lost Valley Ranch, Sedalia, Colorado, September 9-12, 2011.
95. "Controversies in Bronchiolitis," Pediatric Grand Rounds, Dominican Hospital, Santa Cruz, CA, September 15, 2011.
96. "Oxygen sensing in the developing lung," Invited Seminar in Molecular Physiology, Division of Neonatology, Northwestern University, September 21, 2011.
97. "Acute Respiratory Distress Syndrome: A paradigm for clinical and translational discovery," Children's Memorial Hospital, Department of Pediatrics, Northwestern University, Medical School, September 22, 2011.
98. "ARDS: a journey of discovery," Denver Children's Hospital, Department of Pediatrics, University of Colorado Health Sciences Center, Invited Speaker for Resident Research Day, Aurora, Colorado, June 1, 2012.
99. "Respiratory emergencies in the emergency medicine," Advanced Pediatric Life Support, Emergency Medicine, Department of Surgery, Stanford University, September 14, 2012.
100. "Pulmonary smooth muscle cell hypoxia inducible factor-1 α in lung development

- and regulation of vascular tone,” Lung development, physiology and cancer symposium Li Ka Shing Center: Stanford University, September 22, 2012.
101. “Discovery, diagnosis, and hope: Acute respiratory distress syndrome,” Grand Rounds, Department of Pediatrics, University of California-San Diego, October 19, 2012.
 102. “Oxygen Sensing in the Pulmonary Vasculature,” Departments of Physiology and Pathophysiology, Charles University, Prague, Czech Republic, October 28, 2012.
 103. “Chronic lung disease of infancy, a unifying hypothesis,” Pediatric Grand Rounds, Schneider Children’s Hospital, Ramat Gan, Israel, January 3, 2013.
 104. “The many faces of pulmonary hypertension and oxygen sensing,” Keynote Address, Opening of the Center for Pulmonary Medicine, Charles University in Prague, 1st Faculty of Medicine and General University Hospital, Prague, Czech Republic, January 23, 2013.
 105. “Pulmonary smooth muscle cell hypoxia inducible factor-1 α in lung development and regulation of vascular tone,” Lung development, physiology and cancer symposium Li Ka Shing Center: Department of Pediatrics Research Day, Stanford University, April 22, 2013.
 106. “The disappearing physician-scientist: plugging the pipeline,” Pediatric Academic Societies, Washington D.C., May 5, 2013.
 107. “Oxygen sensing in the pulmonary vasculature,” Radiology Oncology-Invited Seminar Series, August 27, 2013.
 108. “Pulmonary artery smooth muscle cells HIF-1 alpha and pulmonary vascular tone and development,” Pulmonary and Critical Care Medicine, Department of Internal Medicine, Grand Rounds, October 4, 2013.
 109. “Lessons learned from Acute respiratory distress syndrome,” Ralph Platou Endowed lectureship, Department of Pediatrics, Tulane University, November 20, 2013.
 110. “Germs as allies: The Microbiome in Cystic Fibrosis,” Cystic Fibrosis Education Day, Stanford University, March 1, 2014.
 111. “An 8-year old with chest pain,” Master Clinician Series, Stanford University Medical School, April 28, 2014.
 112. “Acute respiratory Distress Syndrome as a paradigm for discovery and care,” University of Texas-Austin, Dell Children’s Hospital, Grand Rounds, August 28, 2014.
 113. “The story of science informing one boy’s survival,” Pediatric Department administrator retreat, April 14, 2015.
 114. “TRPV4 as a therapeutic target for modulating uterine tone in pregnancy and labor,” Ion Channel Translational Research Unit Invited Lectureship, Duke University, October 28, 2015.

115. "Effectiveness of a combination microfinance and support group intervention on preventing intimate partner violence and improving economic status in the informal settlements of Nairobi, Kenya," 2nd Annual Global Health Research Convening, Center for Innovation in Global Health, Stanford University, January 20, 2016.
116. "Hypoxia and lung development, crucial, cell specific signals," Invited talk, Pediatric Academic Societies Meeting, Baltimore, MD, May 1, 2016.
117. "Robert Grover Award Presentation to a homonymous and meritorious recipient," Pulmonary Circulation Assembly Meeting, American Thoracic Society Annual Meeting, San Francisco, CA, May 17, 2016.
118. "The microecology of the lung," Keynote Address, Cystic Fibrosis Research Institute Annual Meeting, Sunnyvale, CA, May 30, 2016.
119. "Bronchiolitis: Breathe Easy," National Conference and Exposition, American Academy of Pediatrics, San Francisco, CA, October 28, 2016.
120. "The Role Of HIF in Pulmonary Vascular Disorders," 10th Annual International Conference of Pulmonary Vascular Disease, UCSF and University of Alberta, San Francisco, CA, March 10, 2017.
121. "Pulmonary Artery Smooth Muscle Cell Myosin Light Chain Phosphorylation and HIF in Pulmonary Hypertension, Sheba-Tel HaShomer Medical Center, Tel Aviv, Israel, April 18, 2017.
122. "21st Century Academic Pediatrics: A Narrative of Discovery," Department of Pediatrics, University of Utah Medical School and Primary Children's Hospital, Salt Lake City, Utah, May 31, 2017.
123. "Acute Lung Injury and the Narrative of Discovery: Back to the Beginning," Grover Conference on the Endothelium at the Frontline of Vascular Pathobiology and Therapeutic Targeting in Lung Vascular Disease, Lost Valley Conference Center, Sedalia, CO, September 9, 2017.
124. "Persistent Pulmonary Hypertension of Newborn, Causes and Treatments," Shen-Zhen Children's Hospital 40th Anniversary Celebration, Keynote Address, Shen-Zhen Province, China, October 15, 2017.
125. "Chronic Lung Disease of Infancy, Vascular and Parenchymal Causes," Shen-Zhen Children's Hospital 40th Anniversary Celebration, Shen-Zhen Province, China, October 16, 2017.
126. Interview with Bill Northway, M.D. and Phillip Sunshine, M.D. on the Beginning of Mechanical Ventilation, and Describing BPD. Stanford Symposium on the 50th Anniversary of BPD, Stanford, CA, December 5, 2017,
127. "Demographics of Pediatric Critical Care Delivery in the US, Lessons for Japan?" Keynote Speaker, Policy and Public Health Forum, Japanese Pediatric Society, Tokyo, Japan, April 7, 2018.

128. "Developmental Regulation of Barrier Function and Pediatric Acute Respiratory Failure," Grand Rounds, Department of Pediatrics, Jikei Medical School, Tokyo, Japan, April 9, 2018
129. "Science-Based Medical School Training in the United States." Special Lecture, Juntendo University Faculty of Medicine and Graduate School of Medicine, Juntendo University International Center, April 10, 2018.