**Date of Preparation:** AUG 2019

**Wellington V. Cardoso, MD, PhD**

Department of Medicine

Columbia Center for Human Development, and

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**Place of Birth:** Brazil

**Citizenship**: USA, Brazil

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| **ACADEMIC APPOINTMENTS** |
| 10/2013 – Present | **Columbia University College of Physicians & Surgeons**Director, Columbia Center for Human Development at CUMC | New York, NY |
| 10/2013 – Present | **Columbia University College of Physicians & Surgeons**Professor of Medicine and Genetics & Development at CUMCDivision of Pulmonary Allergy Critical Care Medicine | New York, NY |
| 01/2008 – 09/2013 | **Boston University School of Medicine**Director, Lung Development Program Pulmonary Center | Boston, MA |
| 01/2006 – 09/2013 | **Boston University School of Medicine**Professor of Medicine and Pathology and Laboratory Medicine | Boston, MA |
| 01/2008 – 01/2009 | **Boston University School of Medicine**Associate Director Pulmonary Center | Boston, MA |
| 09/2000 – 12/2005 | **Boston University School of Medicine**Associate Professor of Medicine and Pathology and Laboratory Medicine | Boston, MA |
| 09/1998 – 08/2000 | **Boston University School of Medicine**Assistant Professor of Pathology and Laboratory Medicine | Boston, MA |
| 09/1995 – 08/1998 | **Boston University School of Medicine**Assistant Professor of Medicine**Boston University School of Medicine** | Boston, MA |
| 07/1994 – 08/1995 | Research Assistant Professor of Medicine | Boston, MA |

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| **HOSPITAL APPOINTMENTS** |
| 01/1987 –12/1989 | **Pathology Service, University of Sao Paulo**Attending Pathologist | Sao Paulo, SP, Brazil |
| 06/1984 – 06/1985 | **Distrito Federal Hospital Foundation**Attending Physician | Brasilia, DF, Brazil |
| **Education** |  |  |
| 08/1985 -12/1989 | **University of Sao Paulo, Faculty of Medicine**Ph.D. in Pathology, May 2004Thesis: “Morphological and Functional Alterations of the Respiratory System in Aging Rats” Supervisor: Dr. Gyorgy Bohm citation: 000730328 | Sao Paulo, SP, Brazil |
| 03/1976-12/1981 | **University of Brasilia, School of Medicine**M.D., December 1981 | Brasilia, DF, Brazil |

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| **Training** |  |  |
| 07/1991 – 06/1994 | **Boston University School of Medicine**Pulmonary Biology Research Fellowship | Boston, MA |
| 01/1990 – 06/1991 | **Department of Pathology, University of British Columbia**Postdoctoral Research Fellowship | Vancouver, BC, Canada |
| 01/1982 – 03/1984 | **University of Brasilia, University Hospital**Medical Residency in Pathology**University of Brasilia, University Hospital** | Brasilia, DF, Brazil |
| 01/1980 – 12/1981 | Internship | Brasilia, DF, Brazil |

**HONORS & AWARDS**

2017 *Irene and Arthur Fishberg Prize*, Department of Medicine, College of Physicians and Surgeons, Columbia University, New York, NY; July 13.

2016 Inaugural *“Mary C. Williams Lecture in Cell Biology*”, Center for Regenerative Medicine, Boston University Medical Center, *Boston, MA*; Jun 14.

2013 American Lung Association – Senior Research Fellowship Award (**Supervisor** of Hector Marquez, MD)

2013 NIH-F32 Fellowship Award (1F32HL117529-01) **(Supervisor** of Hector Marquez, MD)

2012 Chair-Elect organizer of the 2012 FASEB Summer Conference on “Lung Epithelium in Health and Disease”

2010 American Lung Association – Senior Research Fellowship Award (**Supervisor** of Yixin Tang, PhD -declined)

2005-07 National Health Research Institutes (NHRI) 2005 Physician Scientist Award, Taiwan: (**Supervisor** of Po-Nien Tsao, MD)

2004 1st prize: Massachusetts Thoracic Society Basic Science Research Abstract Award (**Supervisor** of Felicia Chen., MD)

2004 Parker B. Francis Fellowship Award (**Supervisor** of Konstantin Izvolsky, PhD)

2004 GLAXO-SMITH KLINE Fellowship Award: (**Supervisor** of Felicia Chen., MD)

2004 NIH- NRSA Fellowship Award (**Supervisor** of Felicia Chen., MD)

2002 GLAXO-SMITH KLINE Fellowship Award: (**Supervisor** of Tushar Desai MD)

2002 New England Respiratory Research Competition & Awards, Boston, MA (**Supervisor** of C. Wongtrakool, MD)

2000 Poster Award, FASEB Conference “Retinoids”, Copper Mountain, CO (**Supervisor** of S. Malpel, PhD)

1997 Evans Research Award, Department of Medicine, Boston Univ. School of Medicine (**Supervisor** of W. Park, MD).

1994 Evans Research Award, Department of Medicine, Boston Univ. School of Medicine.

1989 University of Sao Paulo School of Medicine (SP/Brazil). PhD Thesis, *Summa Cum Laude*.

**ACADEMIC SERVICE - DEPARTMENTAL AND UNIVERSITY COMMITTEES**

2011-2013 Chair, Program Symposia Committee, Evans Center for Interdisciplinary Research, Dept. of Medicine, Boston Univ. School of Medicine.

2007-2013 Executive Committee, Pulmonary Center, Boston University School of Medicine.

1997-2003 Member of the Institutional Biosafety Committee, Boston University School of Medicine.

**PROFESSIONAL ORGANIZATIONS, SOCIETIES AND SERVICE (past and current)**

**Memberships and positions**

Society for Developmental Biology, American Thoracic Society, Society for Pediatric Research, American Association of Anatomists, American Association for the Advancement of Science, American Physiological Society, National Flute Association, Harvard Musical Association (Board of Directors).

**Scientific Journals Reviewer**

Nature, Science, Cell, Nature Genetics, Nature Medicine, J. Clinical Investigation, Cell Stem Cell, Developmental Cell, Proc. Nat. Acad. Science, Development, Genes & Development, Developmental Biology, J. Biological Chemistry, Developmental Dynamics, Mechanisms of Development, American J. of Respiratory Cell and Molecular Biology, American J. of Physiology, J. of Anatomy, Pediatric Research, Biochemical Biophysical Acta, Biochemical Biophysical Research Communications.

**Study Sections and Other Committees**

2019 NIH-NHLBI – Lung Injury Repair & Remodelling (LIRR) – Study section, San Diego, CA; June 19.

2019 NIH-NHLBI – Lung Injury Repair & Remodelling (LIRR) – Study section, Bethesda, MD; February 19.

2018 NIH-NHLBI – Lung Injury Repair & Remodelling (LIRR) – Study section, Bethesda, MD; February 5-6.

2017 NIH-NHLBI – Lung Injury Repair & Remodelling (LIRR) – Study section, *San Diego, CA*; June 1-2.

2017 NIH-NHLBI – Lung Injury Repair & Remodelling (LIRR) – Study section, *Washington, DC*; Feb 6-7.

2017 NIH-NHLBI – Progenitor Cell Translational Consortium – Jump Start Award Review Committee; Mar 15

2016 NIH-NHLBI – Lung Injury Repair & Remodelling (LIRR) – Study section, *Washington, DC;* Feb 1-2.

2015 NIH-NHLBI – Lung Injury Repair & Remodelling (LIRR) – Study section, *San Francisco, CA*; Jun 1-2.

2014 NIH-NHLBI – Lung Injury Repair & Remodelling (LIRR) – Study section, *Washington, DC*; Oct 6-7.

2014 NIH-NHLBI – Lung Injury Repair & Remodelling (LIRR) – Consortium, Sept 12-16.

2014 NIH-NIDCR Board of Scientific Counselors Review Member, *Bethesda, MD*; May 28-30.

2014 NIH-NHLBI – Lung Injury Repair & Remodeling(LIRR) – Study section, Feb 2-3.

2012 Chair, *2012 FASEB Science Research Conferences “The Lung Epithelium in Health and Disease”. Saxton Rivers* (VT); July 22-27.

2011 Co-Chair, NIH-NHLBI - Workshop on “Molecular Determinants of Lung Development”. *Bethesda, MD;* Sept, 7-8.

2011 Co-Chair, NIH-NHLBI - Workshop on “Molecular Determinants of Lung Development”. *Bethesda MD;* Sept, 7-8.

2011 Chair, Session Discussion: “*Genetic Programs Driving Lung Development and Regeneration*”, American Thoracic Society Meeting 2011, *Denver, CO*; May 17.

2011 Reviewer: 2011 Meeting of the NIH-NHLBI – Progenitor Cell Biology Consortium – External Advisory Committee Member.

2011 Invited Discussant – NIH-NHLBI – Workshop on “*Chronic Bronchitis in the Absence of Airflow Limitation*”. *Bethesda, MD;* June 23-24.

2010 Chair, NIH-NHLBI – Program Project Review Panel- ZHL1 CSR-S(01); May 21.

2010- 14 NIH-NHLBI – Progenitor Cell Biology Consortium – External Advisory Committee Member.

2010 European Science Foundation (ESF) Standing Committee of the European Med. Res. Councils

2010-12 American Thoracic Society, Respiratory Cell Mol. Biol. Assembly Planning Committee Member.

2009 Chair, NIH-NHLBI – Program Project Review Panel- ZHL1 CSR-S; July 16.

2009 Medical Research Council Reviewer - UK- Career Development Award 2009/10; May 15.

2009 NIH- RFA-09-003 Reviewer - NIH Challenge Grants in Health and Science Research; June 5.

2009 March of Dimes Foundation – Research Grant Reviewer; March 15.

2008 NIH-NHLBI- KO8 Study Section Reviewer *(ad hoc)*.

2008 Pediatric Academic Society Meeting 2007 - Abstract Review Program Committee.

2007 External Examiner-Thesis Committee –Dept. Genetics, Univ. of Toronto – Canada; July 20.

2007 European Science Foundation (ESF) Standing Committee of the European Medical Research Councils. Peer Review Evaluation of *ESF Exploratory Workshop*s.

2007 Pediatric Academic Society Meeting 2007 - Abstract Review Program Committee.

2007 Ohio Cancer Research Associates - Grant Review Committee - Reviewer (*ad hoc*).

2004-08 NIH-Biology of Development and Aging, (BDA) -*Development 1 (DEV-1)*- Study Section Reviewer (permanent member).

2005 Chair: NIH-NHLBI - Workshop RFA: “Coordination of Vascularization and Lung Development”; Oct 7.

2005 Invited Discussant, Workshop on “Adult Stem Cell, Lung Biology and Lung Disease 2005”; *Burlington, VT;* July 25-27.

2004 European Science Foundation (ESF) Standing Committee of the European Medical Research Councils. Peer Review Evaluation of *ESF Exploratory Workshops – 2004*; July 8.

2004 NIHLBI - Special Review Committee (2), 1PO1 HL075161-01A1. Reviewer; May 10.

2004 NIHLBI - Special Review Committee (1), 2PO1 HL024136-26. Reviewer; Feb 5.

2003 NIH-NHLBI-RFA: *Coordination of Vascularization & Lung Developmen*t, Reviewer; Jun 5-6.

2003 NIH-NHLBI - Special Review Committee, 1PO1 HL075161-01A1, Reviewer; May 02.

2003 Wellcome Trust Fund (England), Physiology & Pharmacology, Grant Reviewer.

2002 NIH-NCI *Site Visit: Laboratory of Metabolism* - Committee Member; Oct 9-11.

2002 NIH-ZRG1 - REN (01) - *Special Emphasis Panel*- Study Section Reviewer.

2002 Invited Discussant, NIH-NHLBI- Working Group on “*Strategies to Augment Alveolarization*”: *Washington, DC*; Aug 15.

2001 March of Dimes, Basil O'Connor Research Award; Reviewer.

2001 NIH-HED-1- *Human Embryology and Development Subcommittee-1* - Study Section Reviewer (ad hoc); Oct 22-23.

2000-date Editorial Board: “*Respiratory Research*”.

2000 Co-Chair: “*Eight Woods Hole Conference in Lung Cell Biology*” “Basic Mechanisms of Lung Development”, Woods Hole, MA; Oct 29-Nov 1.

1999 Co-Chair: Symposium: *“Lung Development, the impact of injury”* FASEB Experimental Biology 99 Meeting. Washington, DC; Apr 21.

1999 NIH-HED-1- *Human Embryology and Development Subcommittee-1* - Study Section Reviewer (*ad hoc*); May.

1998 NIHLBI-RFA-HL-98-011 Study Section Reviewer: *“Strategies to Augment Alveolarization”; Nov 2*.

1997 Museum of Science Boston, MA; Scientific Advisor and Collaborator.

**FELLOWSHIP AND GRANT SUPPORT**

**Present Support**

2017-21 NIH-NHLBI – R01 HL103676-06 (MPI: Cardoso & Garcia) “Subclinical interstitial lung disease in MESA and FAR-ILD”. $854,200.

2016-23 NIH-NHLBI – R35 HL135834-01 (PI: Cardoso): “Mechanisms Controlling Expansion and Lineage Specification of Airway Progenitors in Development and Disease”. $592,956

2016-23 NIH-NHLBI – U01 HL134760-01 (Co-I: Cardoso; PIs: Snoeck, Vunjak-Novakovic): “Modeling, Pathogenesis and Treatment of Idiopathic Pulmonary Fibrosis”. $954,800

2016-19 NIH-NHLBI – R01 HL131422-01 (MPI: Lu & Cardoso): “The Trinucleotide Repeat Containing 6a Mediated miRNA Activities in the Ciliogenesis”. $400,000

**Past Support**

2017-18 DoD PR16187 Discovery Award (Co-I: Cardoso, PI: Mori): “Development of a Novel Approach to Regenerate Functional Lungs”. $199,731

2014-16 NIH-NHLBI - R01 HL119836-01A1 (PI: Cardoso): “Regulation of the Ciliated Cell Fate in Airway Progenitors”. $286,481

2014-16 NIH-NHLBI - R01 HL124392 (Co PI: Cardoso; PI: Varelas): “Defining Epithelial Cell Polarity Cues that Direct Cell Fate”. $256,209

2012-16 NIH-NHLBI - R01 HL067129-09A1 (PI: Cardoso): “Retinoic Acid Regulation of Lung Development”. $250,000

2011-16 NIH-NHLBI - R01 HL105971-01A1 (PI: Cardoso): “Regulation of Airway Progenitor Cell Fate in Development and Regeneration”. $250,000

2014-15 NIH-NHLBI - R56 HL121476 (Co-I: Cardoso; PI: Guha): “Regulation of Upk3a-Expressing Airway Progenitors During Homeostasis and Post-Injury Repair”. $250,000

2014-15 NIH-NHLBI - R01 HL105971-03S1 (PI: Cardoso, Supervisor: Maria Stupnikov): Diversity Research Supplement for Graduate Research.

2008-13 NIH NHLBI - P01 HL47049 (PO1-PI: Cardoso): “Determinants of Cell Fate and Differentiation in the Developing Lung”. $ 1,404,676

 . Project 1 (PI: Cardoso): “Mechanisms of Segregation of Respiratory Progenitors in the Early Lung”.

 . Project 2 (Co-PI: Cardoso): “MiRNA Pathway in Proximal-Distal Differentiation in Mouse Lung Development”

 . Administrative Core (PI: Cardoso).

2011-12 NIH NHLBI - P01 HL47049 (PO1-PI: Cardoso; Stevenson): Undergraduate Research Supplement (URS). $20,000

2009-10 NIH-NHLBI: NOT-OD-09-056. (PI: Lu; Co-PI: Cardoso) Administrative Supplement: “MicroRNA-mediated Gene Regulation in Lung Development”. $89,350

2008-12 NIH/NHLBI- 1R01 HL089795 (PI: Fine, Co-PI: Cardoso):“Hematopoietic Cell Fates in the Developing Lung”. $250,000

2008-10 NIH-NHLBI - R03 HL095415-01 (PI: Lu & Cardoso). “Characterization of miRNA Expression in Idiopathic Pulmonary Fibrosis (IPF)”. $50,000

2006-10 NIH NHLBI 2RO-1 HL067129-05A1 (PI: Cardoso): “Retinoic Acid Signaling in Lung Morphogenesis” $242,750

2006-10 NIH NHLBI 1 R01 HL081800-01A1 (PI: Lu; Co-PI: Cardoso): “MicroRNA-mediated Gene Regulation in Lung Development”. $267,950

2002-07 NIH NHLBI PO-1 HL47049 (PO1 Project PI: Cardoso): “FGF10 Regulation of Lung Branching Morphogenesis” $250,000

2002-07 NIH NHLBI PO-1 HL47049 (PO1: Project Co-PI: Cardoso): “Lung specification and Induction in the Foregut Endoderm”. $200,000

2001-05 NIH NHLBI RO-1 HL/HD67129-01 (PI: Cardoso): “Retinoic Acid Signaling in Lung Morphogenesis”. $250,000

2000 NIH-NHLBI- R13 HL62941 (PI: Williams; Co-PI: Cardoso): Funding for Workshop: “Basic Mechanisms in Lung Development. $ 25,000

1997-02 NIH NHLBI PO-1 HL47049-06 (PO1-Williams; Project PI: Cardoso): “Fibroblast Growth Factors in Lung Development” $ 200,000

1993-96 Parker B. Francis Fellowship Award (PI: Cardoso)

1991 Canadian Thoracic Society Fellowship Award, Canada (PI: Cardoso)

1991 British Columbia Lung Association Respiratory Health Care Fellowship Award, BC, Canada. (PI: Cardoso).

1990 Postdoctoral Fellowship Award, Conselho Nacional de Desenvolvimento Cientifico e Tecnologico (CNPq of the Ministry for Science and Technology of Brazil). (PI: Cardoso)

1989 Travel Award FAPESP Research Agency - Sao Paulo/SP- Brazil, American College of Chest Physicians International Conference (PI: Cardoso).

**Pending Support**

2017-22 NIH NICHD R01HD091343-01 (Co-PI: Cardoso, Co-PI: Suzuki) “Fetal Micronutrient Deficiency Effects on Transcriptional Memory in Adult Disease”

**EDUCATIONAL CONTRIBUTIONS - TEACHING RESPONSIBILITIES**

**Specific Courses & Seminars**

2003- 2013 Co-Coordinator (W. Cardoso & A. Fine) and Tutor – “Pulmonary Fellows Lab Course”, Pulmonary Center, BUSM

1996- 2013 Coordinator: “Lung Epithelial Biology Group” meeting – Pulmonary Center, BUSM.

2010- 2012 Tutor: “Principles of Basic and Applied Pathology “Constructing the Lung: Developmental Pathways”. Pathology, Dept. (Coordinator: Deborah Stearns-Kurosawa).

2005- 2012 Tutor, “Gene Targeting in Transgenic Mice”, Biochemistry Dept., BUSM (Coordinator: K. Ravid).

2005 Tutor, “Mouse as a model for studying organogenesis”, Genetics Dept. (Coordinator: K. Albrecht).

2005 Tutor: Special Topics in Pathology “Lung Development & Cancer”. Pathology Dept. (Coordinators: A. Spira, M. Ramirez).

2002-2003 Co-Coordinator (W. Cardoso & B. Florence) “Developmental Biology Interest Group”, BUSM.

2002-2003 Tutor, “Molecular Mechanisms of Development”, Biochemistry Dept., BUSM (Coordinator: K. Symes).

1994-2003 Tutor, “Pulmonary Fellows Lab Course”, Pulmonary Center, BUSM

**Ph.D. Examination-, Advisory -, and Defense Committees (partial)**

2014-15 Rebecca Turcotte, MD, PhD – Postdoctoral Cl. Fellow, Dept. Pediatrics Critical Care Columbia U (NY) (Superv. J. Bhattacharya)

2012-13 Martin Steinbuck, PhD – Dept. Pathology BUSM (Superv. S. Winandy)

2012-13 Sami Hiemer, PhD – Dept. Biochemistry BUSM (Superv. X. Varelas)

2012-13 Carly Garrison, PhD – Dept. of Medicine BUSM (Superv. Spira/Lenburg)

2012-13 Radhika Dixit, PhD – Dept. of Medicine BUSM (Superv. Alan Fine)

2009-11 Constantina Christodoulou, PhD -BUSM Dept. of Medicine (Superv. D. Kotton)

2009-11 Tyler Longmire, PhD –Dept. of Medicine BUSM (Superv. D. Kotton)

2009-11 Hicham Naimy, PhD -Dept. Biochemistry BUSM (Superv. J. Zaia)

2009-10 Louis Vackus, MD, PhD -Dept. Pathology BUSM (Superv. Dan Remick)

2008-10 Aditi Gurk, PhD -Dept. Pathology BUSM (Superv. Cyrus Vasiri)

2008-11 Pierre Vanden Bore, PhD -Dept. Medicine BUSM (Superv. Adam Lerner)

2007-08 Thomas Thomou, PhD - Dept. Pathology BUSM (Superv. James Kirland)

2007-08 Michelle Musson, MD, PhD - Dept. Medicine BUSM (Superv. Michael Wolf)

2007-08 B. Hovey, PhD -Dept. Medicine BUSM (Superv. David Seldin)

2007 Brian Cox, PhD -Dept. Genetics- Univ. Toronto, Canada (Superv. Janet Rossant)

2007-08 S. Sridhar, PhD -Dept. Medicine BUSM (Superv. Avi Spira)

2006-08 Elma Kutargic, PhD - Dept. Biochemistry, BUSM (Superv. Matt Nugent)

2006-09 Ramon Bonnegio, MD, PhD - Dept. Medicine BUSM (Superv. David Salant)

2006-09 Dorothy Panzin, PhD - Dept. Genetics BUSM (Superv. Kenn Albrecht)

2005 Tatiana Hochgreb, PhD – Univ. Sao Paulo, Brazil (Superv. J.X. Neto)

2005-06 H. Wu, PhD – Dept. Pathology, BUSM (Superv. I. Dominguez)

2004-05 Michael Liang, MD, PhD – Dept. Pathology BUSM (Superv. B. Nicholaczjieck)

2004-06 Y. Zuo, PhD – Dept. Pathology, BUSM (Superv. S. Farmer)

2004-08 Susan Solomon, PhD -Dept. Pathology, BUSM (Superv. D. Sherr)

2003-04 Susan Schadinger, PhD – Dept. Pathology BUSM, (Superv. S. Farmer)

2001-02 Chia L. Chu, PhD – Dept. Pathology, BUSM (Superv. M. Nugent)

2001-03 J. Walker, PhD - Molecular Medicine BUSM, (Superv. Y. Zhang)

**Ph.D./Master’s Theses Trainees**

Name Dates Present Position

van Soldt, B. 2015-Present Doctoral Candidate, Dept. Genetics & Development, Columbia U. (NY)

Yang, Y. 2013-2019 Doctoral Candidate, Dept. Genetics & Development, Columbia U. (NY)

Stupnikov, M. 2013-2019 Doctoral Candidate, Dept. Genetics & Development, Columbia U. (NY)

Serra, C. 2015-2019 MD/PhD Candidate, U. of Minho, Braga, Portugal, Columbia U. (NY)

Vasconcelos, M. 2007-2012 Scientist, Cell Signaling Technologies (MA)

Mahoney, J. 2011- 2014 Graduate Student (BUSM)

Sedita J. PhD 2002-2007 Business Development, AstraZeneca; Waltham (MA)

Lundgren J. MD 2004-2005 General Surgeon, Boston Medical Center (MA)

Malpel S. PhD 1997-2000 Investigator, ICRES, Lausanne, Switzerland

**Postdoctoral Trainees, Visiting scientists, Student Trainees**

Name Dates Present Position

Riccio, P. PhD 2015-2018 Postdoctoral Research Fellow (NIH T32), Columbia U. (NY)

Tina Chen 2015-2016 Assistant Professor of Medicine, Albert Einstein Col. Med. (NY)

Tiozzo, C. MD, PhD 2015-2016 Winthrop University Hospital, Mineola (NY)

Mori, M. MD 2011-2015 Associate Research Scientist, Columbia U. (NY)

Marquez, H. MD 2011-2013 Assistant Professor of Medicine (BUSM) (MA)

Stevenson, J. 2011-2012 Undergraduate Research Training (BUSM) (MA)

Guha, A. PhD 2009-2012 Assist. Prof. Medicine, Boston University (MA)

Vasconcelos, M. 2007-2011 Scientist, Cell Signaling Technology, Boston (MA)

Tang, Y. PhD 2009-2010 Scientist, R&D Systems Minneapolis (MN)

Tsao, PN. MD 2006-2008 Professor of Pediatrics, National Taiwan Univ., Taipei (Taiwan)

Sedita, J. 2002-2007 Scientist, Center for Vaccine Innovation and Access, Seattle (WA)

Moreno, N. PhD 2005-2005 Lead CRA, United BioSource Corporation (Spain)

Lundgren, J. 2004-2005 Duke University, Division of Urologic Surgery, Durham (NC)

Fisher, K. MD 2005-2006 Assist. Prof. of Medicine, Univ. of Mass Worcester (MA)

Chen, F. MD 2003-2006 Assistant. Professor of Medicine, Boston University (MA)

Wongtrakool, C. MD 2001-2003 Assistant Professor of Medicine, Emory University, Atlanta (GA)

Weintraub, L. 2001-2001 Harlem Academy, New York (NY)

Izvolsky K. PhD 2000-2005 Foresight Science and Technology (RI)

Desai T. MD 2000-2003 Associate Professor of Medicine, Stanford University (CA)

Simkevich C. PhD 1999-2000 ULTRA Scientific, No Kingstown, (RI)

Hochgreb T. PhD 1998-2000 PEW Fellow, California Inst. Technology -CALTECH (CA)

Malpel, S. PhD 1997-2000 Institut de Neurobiologie Alfred Fessard, Gif-sur-Yvett (France)

Lebeche, D. PhD 1997-1999 Associate Professor, Mount Sinai School Medicine (NY)

Park, WY. MD 1997-1998 Director, Respiratory Care, Valley Medical Center, Renton (WA)

**PUBLICATIONS**

**PEER REVIEWED ARTICLES**

1. Lee S, Ahad A, Luu M, Moon S, Caesar J, **Cardoso WV**, Grant M, Chaqour B. CCN1-YAP Feedback Loop Regulates Physiological and Pathological Angiogenesis. Mol Cell Biol. 2019 Jul 1. doi: 10.1128/MCB.00107-19. [Epub ahead of print] PMID: 31262999
2. van Soldt BJ, Qian J, Li J, Tang N, Lu J, **Cardoso WV**. Yap and its subcellular localization have distinct compartment-specific roles in the developing lung. Development. 2019, 146(9). pii: dev175810. doi: 10.1242/dev.175810.PMID: 30944105
3. Qiu H, Shi S, Yue J, Xin M, Nairn AV, Lin L, Liu X, Li G, Archer-Hartmann SA, Dela Rosa M, Galizzi M, Wang S, Zhang F, Azadi P, van Kuppevelt TH, **Cardoso WV**, Kimata K, Ai X, Moremen KW, Esko JD, Linhardt RJ, Wang L. A mutant-cell library for systematic analysis of heparan sulfate structure-function relationships. Nature Methods. 2018. 15(11):889-899. doi: 10.1038/s41592-018-0189-6.PMID: 30377379
4. Yang Y, Riccio P, Schotsaert M, Mori M, Lu J, Lee DK, García-Sastre A, Xu J, **Cardoso WV**. Spatial-Temporal Lineage Restrictions of Embryonic p63+ Progenitors Establish Distinct Stem Cell Pools in Adult Airways. Developmental Cell. 2018 Mar 26;44(6):752-761.e4. doi:10.1016/j.devcel.2018.03.001. PMID: 29587145.
5. Zhang Y, Yang Y, Jiang M, Huang SX, Zhang W, Al Alam D, Danopoulos S, Mori M, Chen YW, Balasubramanian R, Chuva de Sousa Lopes SM, Serra C, Bialecka M, Kim E, Lin S, Toste de Carvalho ALR, Riccio PN, **Cardoso WV**, Zhang X, Snoeck HW, Que J. 3D Modeling of Esophageal Development using Human PSC-Derived Basal Progenitors Reveals a Critical Role for Notch Signaling. Cell Stem Cell. 2018. 23(4):516-529.e5. doi: 10.1016/j.stem.2018.08.009.PMID: 30244870
6. De Barros Mendes Lopes T, Groth EE, Veras M, Furuya TK, de Souza Xavier Costa N, Ribeiro Junior G, Lopes FD, de Almeida FM, **Cardoso WV**, Saldiva PHN, Chammas R, Mauad T. Pre- and postnatal exposure of mice to concentrated urban PM 2.5 decreases the number of alveoli and leads to altered lung function at an early stage of life. Environmental Pollution. 2018 Oct;241:511-520. Doi: 10.1016/j.envpol.2018.05.055. Epub 2018 Jun 5. PMID: 29883952.
7. Smith BM, Traboulsi H, Austin JHM, Manichaikul A, Hoffman EA, Bleecker ER, **Cardoso WV**, Cooper C, Couper DJ, Dashnaw SM, Guo J, Han MK, Hansel NN, Hughes EW, Jacobs DR Jr., Kanner RE, Kaufman JD, Kleerup E, Lin CL, Liu K, Lo Cascio CM, Martinez FJ, Nguyen JN, Prince MR, Rennard S, Rich SS, Simon L, Sun Y, Watson KE, Woodruff PG, Baglole CJ, Barr RG; MESA Lung and SPIROMICS investigators. Human airway branch variation and chronic obstructive pulmonary disease. Proc Natl Acad Sci USA. 2018 Jan 30; 115(5): E974-E981. Epub 2018 Jan 16. PMID: 29339516.
8. Mori M, Hazan R, Danielian PS, Mahoney JE, Li H, Lu J, Miller ES, Zhu X, Lees JA, **Cardoso WV**. Cytoplasmic E2f4 forms organizing centres for initiation of centriole amplification during multiciliogenesis. Nature Communications.2017 Jul 4;8:15857. Doi: 10.1038/ncoms 15857. PMID: 28675157.
9. Guha A, Deshpande A, Jain A, Sebastiani P, **Cardoso WV**. Uroplakin 3a+ Cells Are a Distinctive Population of Epithelial Progenitors that Contribute to Airway Maintenance and Post-injury Repair. Cell Reports. 2017 Apr 11;19(2):246-254. Doi: 10.1016/j.celrep.2017.03.051. PMID: 28402849.
10. Yao Y, Minor PJ, Zhao YT, Jeong Y, Pani AM, King AN, Symmons O, Gan L, **Cardoso WV**, Spitz F, Lowe CJ, Epstein DJ. Erratum: Cis-regulatory architecture of a brain signaling center predates the origin of chordates. Nature Genetics. 2016 Jul 27;48(8):970. Doi: 10.1038/ng0816-970a. PMID: 27463400.
11. Tsao PN, Matsuoka C, Wei SC, Sato A, Sato S, Hasegawa K, Chen HK, Ling TY, Mori M, **Cardoso WV**, Morimoto M. Epithelial Notch signaling regulates lung alveolar morphogenesis and airway epithelial integrity. Proc Natl Acad Sci, USA. 2016 Jun 30. Pii: 201511236. PMID: 27364009.
12. Yao Y, Minor PJ, Zhao YT, Jeong Y, Pani AM, King AN, Symmons O, Gan L, **Cardoso WV**, Spitz F, Lowe CJ, Epstein, DJ. Cis-regulatory architecture of a brain signaling center predates the origin of chordates. Nat Genet. 2016 May; 48(5):575-80.doi: 10.1038/ng.3542. Epub 2016 Apr 11. PMID: 27064252.
13. Chen F, **Cardoso WV**. Culture of mouse embryonic foregut explants. Methods Molec. Biology. 2015; 1189:163-9. doi: 10.1007/978-1-4939-1164-6\_11. PMID: 25245693
14. Szymaniak AD, Mahoney JE, **Cardoso WV**, Varelas X. Crumbs3-Mediated Polarity Directs Airway Epithelial Cell Fate through the Hippo Pathway Effector Yap. Developmental Cell. 2015 Aug 10;34(3):283-96 doi: 10.1016/j.devcel.2015.06.020 Epub 2015 Jul 30. PMID: 26235047.
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**PEER REVIEWED REVIEWS AND EDITORIALS**

1. Yang Y, **Cardoso WV**. Stem Cells Sheltered from Air-Raids Repair Airways. Cell Stem Cell. 2018 May 3;22(5):613-614. Doi: 10.1016/j.stem.2018.04.010. PMID:29727674.
2. Stupnikov MR, **Cardoso WV**. Sensing oxygen inside and out. Elife. 2017 May 19;6. Doi: 10.7554/eLife.27467. PMID: 28525315.
3. Marquez HA, **Cardoso WV**. Vitamin A-retinoid signaling in pulmonary development and disease. Mol Cell Pediatr. 2016 Dec;3(1):28. Doi: 10.1186/s40348-016-0054-6. Epub 2016 Aug 1. Review. PMID: 27480876.
4. Wagner DE, **Cardoso WV**, Gilpin SE, Majka S, Ott H, Randell SH, Thebaud B, Waddell T, Weiss DJ; ATS Subcommittee on Stem Cells and Cell Therapies. Ann Am Thorac Soc. 2016 Aug;13(8):S259-78. Doi: 10.1513/Annals ATS.201606-466ST. PMID: 27509163.
5. Morrisey EE, **Cardoso WV**, Lane RH, Rabinovitch M, Abman SH, Ai X, Albertine KH, Bland RD, Chapman HA, Checkley W, Epstein JA, Kintner CR, Kumar M, Minoo P, Mariana TJ, McDonald DM, Mukouyama YS, Prince LS, Reese J, Rossant J, Shi W, Sun X, Werb Z, Whitsett JA, Gail D, Blaisdell CJ, Lin QS. Molecular determinants of lung development. Ann. Am. Thorac. Soc. 2013, 10, S12-6. PMID: 23607856.
6. Hamvas A, Deterding R, Balch WE, Schwartz DA, Albertine KH, Whitsett JA, **Cardoso WV**, Kotton DN, Kourembanas S, Hagood JS. Diffuse lung disease in children: Summary of a scientific conference. Pediatr Pulmonol. 2014. doi: 10.1002/ppul.2280. PMID: 23798474.
7. Shi W, Chen F, **Cardoso WV**. Mechanisms of lung development: contribution to adult lung disease and relevance to chronic obstructive pulmonary disease.  Proc. Am. Thor. Soc. 6:558-63, 2009. PMID: 19934349
8. **Cardoso WV**, Whitsett JA. Resident Cellular Components of the Lung: Developmental Aspects. Proc*. Am. Thor. Soc.* 2008, **5**, 767-771.
9. Franks T, Colby TV, Travis WD, Tuder RM, Reynolds HY, Brody AR, **Cardoso WV**, Crystal RG, Drake CJ, Engelhardt J, Frid M, Erica H, Mason R, Phan SH, Randell SH, Rose MC, Stevens T, Serge J, Sunday ME, Voynow JA, Weinstein BM, Whitsett JA, Williams MC. NHBLI Workshop: “Resident Cellular Components of the Human Lung: Current Knowledge and Goals for Research on Cell Phenotyping and Function,” *Proc. Am. Thor. Soc.* 2008, **5**, 763-766.
10. **Cardoso** **WV**, Lu J. Regulation of early lung development: questions, facts and controversies. *Development* 2006, **133**, 1611-1624.
11. Desai TJ, **Cardoso WV**. Growth factors in lung development and disease: friends or foes? *Respiratory Res.* 2002, **3**, 2.1-2.4. PMID: 11806837.
12. **Cardoso WV**, Williams MC. “Perspective: Workshop Summary: Basic Mechanisms of Lung Development. Eight Woods Hole Conference on Lung Cell Biology 2000,” *Am. J. Respir. Cell Mol. Biol.* 2001, **25**, 137-140.
13. **Cardoso WV**. “Molecular regulation of lung development,” *Annu Rev Physiol.* 2001, **63**, 471-494.
14. **Cardoso WV**. “Lung morphogenesis revisited: Old facts, current ideas,” *Dev Dyn* 2000, **219**, 121-130.
15. Warburton D, Schwarz M, Tefft D, Flores-Delgado G, Anderson KD, **Cardoso** **WV**. “The molecular basis of lung morphogenesis,” *Mech. Dev.* 2000, **92**, 55-81.
16. **Cardoso WV**. “Transcription factors and pattern formation in the developing lung,” *Am J. Physiol.* 1995, **269**, L429-L442.
17. **Cardoso WV**, Thurlbeck WM. “Pathogenesis and terminology of emphysema, “*Am J. Respir. Crit. Care Med* 1994, **149**, 1398 (Letter).
18. **Cardoso WV**. “Volume-pressure relationships in the respiratory system,” *J. Pneumol*. 1987, **13** (Suppl. 1), 27-38.

**CHAPTERS**

1. **Cardoso WV**,Chen F. Retinoic acid in developing lung and other endodermal derivatives. In: Dolle P, Niederreither K, editors. The Retinoids: Biology, Biochemistry, and Disease. John Wiley & Sons, Inc. 12 Jun 2015. Doi: 10.1002/9781118628003.
2. **Cardoso WV**, Lu J. “Molecular Regulation of Lung Development,” Ed.: Fishman AP, Elias JA, Fishman JA, Grippi MA, Kaiser LR, Senior RM. In: Fishman’s Pulmonary Diseases and Disorders, 5th Ed. McGraw-Hill Education, New York, 2015. ISBN 978-0-07-179672-9.
3. Mori M, **Cardoso WV**. Lung Progenitor Cell Specification and Morphogenesis**.** Ed.: Harding R, Pinkerton KE, In: The Lung: Development, Aging and the Environment, Elsevier Science, Oct 2014. Academic Press ISBN: 978-0-12-799941-8.
4. **Cardoso WV**, Kotton DN. Specification and patterning of the respiratory system. Ed.: The Stem Cell Research Community, In: StemBook, 2008.
5. **Cardoso WV**. Lung Morphogenesis, Role of Growth Factors and Transcription Factors. Ed.: Harding R, Pinkerton KE, Plopper C. In: The Lung: Development, Aging and the Environment, Elsevier Science, 2003.
6. Malpel S, **Cardoso WV**. Lung Development. In: Nature Encyclopedia of Life Sciences, Macmillan Reference Limited London: Nature Publishing Group, 2001.
7. Nakanishi Y, Hieda Y, **Cardoso WV**, Lubkin S, Daniel CW. Epithelial Branching. In: Nature Encyclopedia of Life Sciences, Macmillan Reference Limited London: Nature Publishing Group, 2000.

**International Invited Lectures**

2019 Invited Speaker Pulmonary Fibrosis Conference Bahamas, “Ontogeny and control of the airway stem cell pool in development and disease”; *Nassau, Bahamas* February 17-20.

2018 Invited Speaker: 23th Congress of the Asian Pacific Society of Respirology 2018; Session: “Is bronchopulmonary dysplasia preventable?”, *Taipei, Taiwan*, Nov 29-Dec 2.

2017 Invited Speaker: The Notch Meeting X – “Notch Control of the Stem Cell Pool in Airways”; *Athens, Greece*; October 1-5.

2017 Invited Speaker: Justus-Liebig University, Geissen, Johann-Wolfgang-Goethe University, Frankfurt – Excellence Cluster CardioPulmonary System (ECCPS) – New Perspectives in CardioPulmonary Research “Control of lineage specification and differentiation in airways”, *Geissen, Germany*; June 7-8.

2016 Invited Speaker: University of Brasilia, “Prenatal Vitamin A deficiency in lung development and adult disease”, *Sao Paulo*, *Brasilia, Brazil*; November 20-26.

2016 Invited Speaker: National Institute of Biological Sciences, Beijing – Lecture Series “Regulating the pool of epithelial progenitors in the developing and adult lung”, *Beijing, China*; Sept 1-3.

2016 Invited Speaker: Universities of Giessen & Marburg Lung Center, 14th Annual Retreat, “Balancing the epithelial progenitor pool in airways”, *Rauischholzhausen, Germany*; Jul 20-22.

2015 Invited Speaker: Latin American Society for Developmental Biology (LASDB), 8th Annual Meeting, *Santos, Brazil*; Oct 20-23.

2015 Invited Speaker: German Society of Paediatrics (DGKJ) 2015 Conference, *Munich, Germany*; Sept 2-5.

2014 Invited Speaker: Symposium - Bronchitis IX: ‘Lungs: On the Edge of Health & Ageing’, U. Medical Center, *Groningen, Netherlands*; June 23-25.

2012 Invited Speaker: Symposium “*Perspectives on the Lung”*. University of Giessen, Marburg Lung Center: *Giessen, Germany;* Oct 22-24*.*

2012 Invited Lecture: Institute of Pulmonary Medicine; Hadassah Univ. Hospital*, Jerusalem, Israel;* Mar 8*.*

2010 Invited Speaker & Visiting Professor: National Taiwan University Medical Center. “2010 Symposium on Developmental Biology and Stem Cells”:  *Taipei, Taiwan;* May 7-9.

2009 Invited Speaker: “Development & Aging: Relevance to COPD”, *Lund, Sweden;* Apr 26.

2007 Invited Lecture: “Retinoids in early lung morphogenesis”. University of Thessaloniki, *Thessaloniki,* *Greece,* Oct 3.

2005 Invited Speaker and Session Co-Coordinator: “Model Organisms and Innovative Approaches in Developmental Biology”: Juquehy, *Sao Paulo,* *Brazil*; April 27 - May 4.

2005 Invited Speaker: 2nd International Meeting of the Latin American Society of Developmental Biology. Sao Paulo, *Brazil*. May 6.

2005 Speaker: Conference on “Proteoglycans in signaling”, Stockholm (Runo), *Sweden.* Sept 7-11.

2003 Invited Speaker and Co-Chair Session: *Symposium: FGFs in organogenesis*. “International Meeting on FGF in development and disease”: Oxford-Kobe Institute, *Kobe*, *Japan*; Oct 14.

2003 Invited Lecture:” Heparan sulfate-FGF interactions in lung development”. Nippon Medical School, *Tokyo*, *Japan*; Oct 7.

2003 Invited lecture: “FGFs and retinoic acid in lung morphogenesis”. Tokyo University of Pharmacy and Life Science, *Tokyo,* *Japan*; Oct 8.

2003 Invited lecture: Institute of Anatomy. University of Berne, *Berne,* *Switzerland*; Nov 7.

2001 Invited speaker: "First Siena International Conference on Animal Models of Chronic Obstructive Pulmonary Disease", *Siena,* *Italy*;Oct 2.

2001 XVI Annual Meeting of the Brazilian Federation of the Societies of Experimental Biology (FeSBE)" “Symposium: Molecular Control of Heart and Lung Organogenesis”: *Caxambu*, *Brazil*; Aug 30.

2001 Invited Lecture: “Genetic regulation of lung development”. Department of Histology and Embryology, University of Sao Paulo: *Sao Paulo*, *Brazil*; Sept 1.

2001 Invited Lecture: “Growth factors in organogenesis and pulmonary disease”. Instituto do Coracao, University of Sao Paulo School of Medicin: *Sao Paulo, Brazil*: Sept 2.

2001 Invited Speaker: Summer Meeting of the Anatomical Society of Great Britain and Ireland. “Symposium: The Respiratory System” - “Molecular Biology of Lung Development”. University College, *Dublin, Ireland;* July 10.

2001 Invited Lecture: INSERM - Faculte de Medecine - Unite de Recherche de Physiopathologie et Therapeutic Respiratoires, “FGF and development”: *Paris, France*; Apr 2.

1998 Invited Lecture: XII Annual Meeting of the Brazilian Federation of the Societies of Experimental Biology (FeSBE), "Genetic Regulation of Lung Development": *Caxambu*, *Brazil*; Aug 20.

1998 Invited Speaker: "Molecular tools for the study of lung development”. Department of Pathology, University of Sao Paulo School of Medicine: *Sao Paulo,* *Brazil*; Aug 17.

**National Invited Lectures**

2019 Invited Speaker: University Illinois, Chicago, Department of Pharmacology, “Ontogeny and control of the lung stem cell pool in development and disease”, *Chicago, IL*; April 30 – May 1.

2019 Invited Speaker: New York University Pulmonary Research Seminar Series, “Ontogeny and control of the lung stem cell pool in development and disease”, *New York, NY*; April 3.

2019 Invited Speaker: Duke University, “Ontogeny and regulation of the airway stem cell pool in development and disease”, *Durham, NC;* March 25-26.

2019 Invited Speaker: University of California, Santa Cruz, “Ontogeny and plasticity of the lung stem cell pool in development and disease”, Genomics Institute – Nanopore Sequencing, *Santa Cruz, CA*; March 3-4.

2018 Invited Speaker: Columbia University’s Summer Research Program for Science Teachers, “Lung Stem Cell and Development”, *New York, NY*; August 13.

2018 Invited Speaker: Federation of American Societies for Experimental Biology (FASEB) Science Research Conference – The Lung Epithelium in Health and Disease – “Ontogeny and regulation of the airway progenitor cell pool in the lung”, *Olean, NY*; July 29 – Aug 3.

2018 Invited Speaker: Pulmonary Research Seminars Series, Division of Pulmonary, Critical Care and Sleep Medicine, New York University Department of Medicine, “Regulation of airway progenitor cell differentiation in development and disease”, *New York, NY*; June 26.

2018 Invited Session Chair: American Thoracic Society – “Epithelial Progenitor Cells: Biology, Role in Disease, and Potential Therapeutic Targets”, *San Diego, CA*; May 23.

2018 Invited Speaker: Rutgers University, School of Environmental and Biological Sciences, Seminar Series in Endocrinology and Animal Biosciences, “Control of Expansion and Differentiation of the Stem Cell Pool in the Lung”, *Newark, NJ*; April 27.

2018 Invited Speaker: Columbia University Irving Medical Center, Neonatal Research Conference, “Regulation of Airway Progenitor Differentiation in Development and Disease”, *New York, NY*;

March 21.

2018 Invited Speaker: Cincinnati Children’s Hospital, Molecular & Developmental Biology Seminar, “Control of Airway Progenitor Cell Expansion and Lineage Specification in Development and Disease”, *Cincinnati, OH*; February 14.

2017 Invited Speaker: Mount Sinai-National Jewish Health Respiratory Institute Grand Rounds, Icahn School of Medicine at Mount Sinai, “Expansion and Differentiation of Airway Progenitor Cells in Health and Disease”, *New York, NY*; September 8.

2017 Invited Speaker: Gordon Research Conference – Lung Development, Injury and Repair, “E2F4 in multiciliogenesis”, Colby-Sawyer College, *New London, NH*; Aug 20-25.

2017 Invited Speaker: Department of Pediatrics Critical Care, Columbia University Medical Center, “Prenatal Vitamin A and Lung Development: Assembling the Puzzle”, *New York, NY;* March 3.

2016 Invited Speaker: University of Pennsylvania, Penn Center for Pulmonary Biology, Seminar Series – “Control of the Progenitor Cell Pool and Lineage Specification in Airways”, Perelman School of Medicine, University of Pennsylvania, *Philadelphia, PA*; Dec 8.

2016 Invited Speaker: Inaugural Mary C. Williams Lecture in Cell Biology, “Control of expansion and differentiation of the progenitor cell pool in airways”, Center for Regenerative Medicine, Boston University Medical Center, *Boston, MA*; Jun 14.

2016 Invited Speaker: Columbia University’s Columbia Stem Cell Initiative, “Notch regulation of the epithelial progenitor cell pool in development and disease”, *New York, NY*; May 16.

2016 Invited Speaker: Columbia University Institute for Genomic Medicine & Department of Medicine, Idiopathic Pulmonary Fibrosis: Stem Cells, Lung Regeneration, Genomics, and Beyond, “Lung Development and Insights into Lung Fibrosis”, *New York, NY*; Apr 12.

2016 Invited Speaker: Pulmonary Center Boston University, “Control of multiciliogenesis in airway morphogenesis”, *Boston, MA*; Apr 1.

2016 Invited Speaker: University Southern California, Hastings Center for Pulmonary Research Seminar, “Hippo signaling in airway morphogenesis”, *Los Angeles, CA*; Mar 17-19.

2016 Invited Speaker: Yale Pulmonary Research Conference, “Hippo-Yap Control of Progenitor Cell Fate in the Lung”, Dept. Internal Medicine, Yale School of Medicine, *New Haven, CT*; Jan 14.

2015 Invited Speaker: Dept. of Pharmacological Sciences, Stony Brook University, “Regulation of Epithelial Progenitor Cell Fate in the Lung”, *Stony Brook, NY*; Dec 8.

2015 Invited Discussant: 2015 Stem Cell Conference, “Stem Cells, Cell Therapies, & Bioengineering in Lung Biology and Diseases”, U. *Vermont, Burlington, VT*; Jul 27-30.

2015 Invited Speaker: “Prenatal Vitamin-A Deficiency Leads to Airway Hyperresponsiveness in Adult Mice”, COPD9USA Conference, *Chicago, IL*; Jun5-6.

2015 Invited Speaker: Keystone Symposium, “The Hippo Pathway: Signaling, Development & Disease”, *Taos, NM*; May 17-21.

2015 Invited Speaker: New York Genome Center, 2015 New York Epigenomics Symposium, “Epigenomics in Childhood Diseases”, *New York, NY*; May 4.

2015 Invited Speaker: “Yap Regulation of Airway Progenitor Cell Fate & Morphogenesis of the Lung”, Dept. Biomedical Genetics, U. Rochester, *Rochester, NY*; April 17.

2015 Invited Speaker: Icahn School of Medicine at Mt. Sinai, Respiratory Institute Grand Rounds “Exploring the Developmental Basis of Pulmonary Diseases”, *New York, NY*; Mar 6.

2015 Invited Speaker: Keystone Symposium, “Endoderm Lineages in Development & Disease – Hippo-Yap Control of Lung Epithelial Morphogenesis & Differentiation”, *Keystone, CO*; Feb 8-13.

2014 Invited Speaker: American Society for Cell Biology, ‘Mini-symposium – Stem Cells, Tissues and Organs’, *Philadelphia, PA*; Dec 6-10.

2014 Invited Speaker: FASEB SRC: “The Lung Epithelium in Health & Disease”, Vermont Academy, *Saxtons River, VT*; Jul 27-Aug 1.

2014 Invited Speaker: Progenitor Cell Biology Consortium, *Boston, MA*; June 9-10.

2014 Invited Speaker: Keystone Symposia on Generating and Regenerating the Respiratory System.

2013 Invited Speaker: Grand Rounds, Department of Medicine, Columbia University, *New York, NY*; Dec 18.

2013 Invited Speaker: Meeting of the Briscoe Lung Club- New York City. “Consequences of Pre-Natal Vitamin-A deficiency in adult lung function”: *New York, NY*; Oct 17.

2013 Session Chair: “Lung Development, Injury & Repair”, Gordon Research Conference, Proctor Academy, *Andover, NH*; Aug 16-21.

2013 Invited Discussant: “Stem Cells and Cell Therapies in Lung Biology and Lung Diseases”, University of Vermont College of Medicine, Vermont Lung Center, NHLBI, American Thoracic Society, *Burlington, VT*; July 29 – Aug 1.

2013 Featured Speaker: 2013 Gordon Research Conference on Salivary Glands & Exocrine Biology

 “From Development to Disease and Beyond”: *Galveston, TX*; Feb 4.

2012 Invited Speaker: “Molecular & Developmental Biology Seminars”, Cincinnati Children's Hospital, *Cincinnati, OH*; Oct 10.

2012 Invited Speaker: “2012 Meeting of the Children Interstitial Lung Disease (ChILD) Foundation”. *San Diego, CA*; June 15.

2012 Invited Speaker: 2012 FASEB Research Conference on “Retinoids”, *Snowmass, CO*; June 13.

2012 Invited Speaker: American Thoracic Society, *San Francisco, CA*; May 22.

2011 Invited Speaker: Columbia University, Department of Genetics, *New York, NY*; May 1.

2011 Invited Speaker: “2011 Seminar Series, Department of Genetics, University of Wisconsin,” *Madison, WI*; Nov 9.

2011 Invited Panelist and Featured Speaker: Conference on “Stem Cells and Cell Therapies in Lung Biology and Lung Diseases 2011”. *Burlington, VT;* July 25-28.

2011 Featured Speaker: Symposium: “Novel Methods of Information Transfer to and from Stem Cells” American Thoracic Society Meeting 2011, *Denver, Co;* May 16.

2011 Invited Speaker: Columbia University Department of Medicine Seminar Series. “Airway Epithelial Progenitors in Development and Regeneration”: *New York, NY;* May 4.

2011 Invited Speaker, Visiting Professor: *National Jewish Health Distinguished Seminar Series*, University of Colorado. “Regulation of Progenitor Cell Fate in the Lung”: *Denver, CO*: Apr 19-20.

2011 Invited Speaker: Departmental Seminar Series: University of Massachusetts Amherst. “Notch in Lung Progenitor Cell Fate”: *Amherst, MA*; Mar 9.

2011 Invited Speaker: Gordon Research Conference 2011 on “Cilia, Mucus and Mucociliary Interactions”. Notch balances ciliated and secretory cell phenotypes”. *Ventura, CA*; Feb 14.

2011 Invited Speaker: Keystone Symposia Meeting: Lung Development and Repair;” Notch Signaling in Lung Development”. *Santa Fe, NM*; Feb 9.

2010 Session Chair and Speaker: *2010 FASEB Summer Research Conference*: Symposium: “Molecular Regulation of Lung Development and Other Programmatic Signals” *Saxton Rivers, VT*; Aug 8-13.

2010 Co-Chair and Speaker: Symposium: “*Top-Notch Decisions in Lung Development and Disease*” American Thoracic Society Meeting 2010, *New Orleans, LA*; May 19.

2010 Invited Speaker: Symposium: “Cell Fate Decisions in Lung Development and Repair”: American Thoracic Society Meeting 2010, *New Orleans, LA*; May 17.

2009 Invited Speaker: Gordon Research Conference 2009: Hormone Action in Development and Cancer. *Holderness, NH*; July 27.

2009 Invited Discussant: Workshop on “Stem Cells and Cell Therapies in Lung Biology and Lung Diseases 2009”: *Burlington, VT;* July 27.

2009 Featured Speaker: Symposium: “*Novel Mouse Models of Development and Diseas*e” American Thoracic Society Meeting 2009, *San Diego, CA*; May 20.

2008 Invited speaker: Symposium: “Lung Regeneration: Concepts, Model Systems and Strategies”: Boston University School of Medicine, *Boston, MA*;Sept 19.

2008 Invited Lecture. Dept. of Biology Boston University; *Boston, MA*; Oct 6.

2008 Invited lecture: “Molecular Regulation of Early Lung Development”. Harbor-Univ. California, Los Angeles Medical Center. *Los Angeles, CA*; April 1. .

2007 Invited Speaker and Discussant: Workshop on Stem Cells and Cellular Therapies in Lung Biology and Lung Diseases. *Burlington, VT*; July 31.

2007 Invited Speaker and Discussant: NIH-NHLBI Workshop on “*Resident Cellular Components of the Human Lung”. Washington, DC;* July 9.

2007 Invited lecture: “Symposium: Cell Bases Therapies for Lung Disease”. American Thoracic Society 2007: *San Francisco, CA*; May 21.

2007 Invited lecture: Symposium: “From the Developer to the Fixer: Specifying Lung Epithelial Phenotype from the Womb to the Tomb”. American Thoracic Society 2007: *San Francisco, CA*; May 23.

2007 Invited lecture: “Symposium on Patterning in Development” - FASEB Experimental Biology 2007, *Washington, DC*; May 2.

2006 Invited lecture: Mouse Genetics Meeting, Cold Spring Harbor Laboratories. *Cold Spring Harbor, NY;* Sept 2.

2006 Invited Speaker: FASEB Summer Research Conference 2007: Lung Surfactant: Cellular and Molecular Biology. *Aspen, CO*; August 20.

2005 Invited lecture: “Seminars - Developmental Biology”: Cincinnati Children's Hospital Medical Center, *Cincinnati, OH*;Nov 16.

2005 Invited lecture. “Symposium on Developmental Toxicology”: Society of Toxicology Meeting 2005. *New Orleans, LA;* March 9.

2004 Invited lecture: “Seminars Hematology & Oncology, Boston Univ. School of Medicine, *Boston MA*;

Dec 9.

2003 Invited lecture. “Brown Medical School Pulmonary Research Seminar Series”: Brown University, *Providence, RI*; Nov 24.

2003 Invited lecture: “Research Seminar Series, University of Southern California, Division of Pulmonary and Critical Care Medicine”. *Los Angeles, CA*: Feb 14.

2002 Invited Speaker: American Society of Nephrology. Symposium: “Molecular Determinants in Organogenesis”. *Philadelphia, PA;* Nov 2.

2002 Invited Speaker: FASEB Summer Research Conference: Lung Surfactant: Cellular and Molecular Biology. *Saxton River, VT*: July 21.

2002 Invited Speaker and Moderator: “Determinants of Alveolar Development”. Workshop: Models of Emphysema: Speeding the Pace of Progress. *Airlie, Virginia*; Sept 26.

2002 Invited Lecture: "Signaling networks in lung development" Harvard School of Public Health. *Boston, MA;* Jan, 22.

2001 Invited Lecture: University of Wisconsin, Madison, EHS Center for Developmental and Molecular Toxicology, “FGFs and retinoids regulate lung pattern formation”. *Madison, WI*, Apr 16.

2000 Speaker and Co-Chair: Lung Cell Biology Conference at Woods Hole, MA. “Basic Mechanisms of Lung Development “: *Woods Hole, MA;* Oct 30.

2000 Boston University, School of Biomedical Engineering and Bioinformatics, “Genetic regulation of lung development”: *Boston, MA*; Sept 25.

2000 Invited Speaker: Pennsylvania State University College of Medicine "Lung Cell Biology Seminars" *Hershey, PA*; Feb 12.

1999 Invited Lecture: Columbia University, Department of Genetics/Department of Urology: "Retinoid signaling in lung morphogenesis". *New York, NY;* Sept 29.

1999 Speaker and Co-Chair: "Lung development, the impact of injury" Symposium, FASEB Experimental Biology 99 Meeting, *Washington, DC;* Apr 21.

1998 Invited Speaker: NIH -NIHLBI Workshop: "Molecular Embryology of the Lung: Then, Now and in the Future", *Bethesda, MD*; Jun 2

1992 Speaker: Lung Cell Biology Conference at Woods Hole, MA: Development of the Lung and Model Systems. “Retinoids and Lung Development”, *Woods Hole, MA*; Oct 18.