Curriculum Vitae

**Darrell N. Kotton, MD**

**January 22nd, 2022**

**Center for Regenerative Medicine (CReM) of**

**Boston University and Boston Medical Center**

**dkotton at bu.edu or www.kottonlab.com**

**Academic Training:**

 1990-94 M.D. Washington University, St. Louis, MO (Medicine)

 1989-90 Berklee College of Music, Boston, MA (Guitar Performance)

 1985-89 B.A. University of Pennsylvania, Philadelphia, PA (Psychology)

**Postdoctoral Training:**

2002-2004 Post Doctoral Fellowship, Laboratory of Richard C. Mulligan, PhD, Department of Genetics, Harvard Medical School, Boston, MA

 1999-2002 Post Doctoral Fellow, Laboratory of Alan Fine, MD, Pulmonary Center, Boston University School of Medicine (BUSM), Boston, MA

1998-2002 Fellow in Pulmonary and Critical Care Medicine, Boston University School of Medicine (BUSM), Boston, MA

1995-1997 Resident, Internal Medicine, Hospital of the University of Pennsylvania, Philadelphia, PA

 1994-1995 Intern, Internal Medicine, Hospital of the University of Pennsylvania

**Academic Appointments:**

 2016-current David C. Seldin Professor of Medicine (inaugural), BUSM

 2013-current Professor of Medicine, BUSM

 2013-current Professor of Pathology and Laboratory Medicine, BUSM

 2008 - 2013 Associate Professor of Pathology and Laboratory Medicine, BUSM

 2008 - 2013 Associate Professor of Medicine, BUSM

 2006-2008 Assistant Professor of Pathology and Laboratory Medicine, BUSM

 2004-2008 Assistant Professor of Medicine, BUSM

 2002-2004 Instructor of Medicine, BUSM

 1998-2002 Teaching Fellow in Medicine, BUSM

 1995-1997 Assistant Instructor of Medicine, University of Pennsylvania

**Hospital Appointments:**

 2002-current Attending Physician, Pulmonary and Critical Care Medicine, Boston Medical Center, Boston, MA

**Honors:**

2020 Association of American Physicians, Elected Member

2018 Educator of the Year Award, Boston University, Graduate Medical Sciences

2018 American Thoracic Society, Recognition Award for Scientific Accomplishments

2017 Association of American Medical Colleges, Research Resources Sharing Award (inaugural)

2016 David C. Seldin Endowed Professor of Medicine (inaugural)

2014 Robert Dawes Evans Senior Research Mentor Award, Boston Univ. Dept. of Medicine

2013 Alpha-1 Foundation, Researcher of the Year Award.

2010 American Society of Clinical Investigation, Elected Member

2010 Alpha-1 Foundation, Shillelagh Award, Honoring a Researcher whose work most impacts those with alpha-1 antitrypsin deficiency

2007 L. Jack Faling Award for Excellence in Teaching, Boston University Pulmonary Center

2001 Individual National Research Service Award, NIH/NHLBI

2001 American Lung Association Research Fellowship Training Award

2001 Evans Days Research Award, 1st Runner Up, Boston University School of Medicine

2001 Massachusetts Thoracic Society, 1st Place, Science Research Award

1999 Fellow of the Year Award, Boston University Department of Medicine

1997 Penn Pearls Teaching Award, University of Pennsylvania School of Medicine

1990-94 Washington University School of Medicine Class President

1990 Distinguished Student Scholarship Award, a 4-year full tuition scholarship from Washington University School of Medicine

1989 Phi Beta Kappa, University of Pennsylvania

1985 Benjamin Franklin Scholar, University of Pennsylvania Honors Student awardee

**Licenses and Certification:**

 2001 Critical Care Medicine, American Board of Internal Medicine, recertification 2021

 2000 Pulmonary Medicine, Diplomate, American Board of Internal Medicine, recertification 2012

 1998 M.D., Massachusetts License

**Departmental and University Committees:**

 2022 Chan-Zuckerberg Boston Biohub Planning Committee member

 2021 Member, Search Committee for Chief Scientific Officer, Boston Medical Center

 2021 Member, Search Committee for Department of Medicine Chief, BUSM/BMC

 2020 Chair, Faculty Search Committee for Center for Regenerative Medicine, BUSM

 2018 Chair, Search Committee for Director of the Whitaker Cardiovascular Institute, BUSM

 2016-17 Boston University President’s Committee on Basic Life Sciences

 2017 Chair, Center for Regenerative Medicine, Faculty Search Committee, BUSM

 2015-current Member, Strategic Executive Committee, BU Clinical and Translational Science Institute

 2015-2017 Boston University Task Force on University Collaboration with Industry

 2015-2018 BUSM Department of Medicine, annual Evans Days Awards Selection Committee

 2013-2018 Boston Medical Center, Advancement Committee

 2015-2019 BUSM Evans Medical Foundation; Board of Directors

 2011-2012 Evans Center, Committee for Integration of Basic, Clinical, and Translational Research

 2010 Member, Search Committee for Pulmonary Center Director

 2007-2012 BUSM Department of Medicine Animal Imaging Core Committee

 2007-2010 BUMC Flow Cytometry Core Facility (FCCF) Advisory Committee

**Major Mentoring Activities (current and past laboratory trainees):**

2021-present Hirofumi Kiyokawa, MD, PhD, Post-doctoral fellow

 2021-present Alex Holtz, MD, PhD, Post-doctoral fellow

 2021-present PJ Schnorr, MD, Post-doctoral fellow

2019-present Andrea Alber, PhD, Post-doctoral fellow

 2020-present Bibek Thapa, Graduate student

 2019-present Martin Liang Ma, Graduate student (MD/PhD)

 2018-present Ruobing Wang, MD, Post-doctoral fellow and Instructor, Harvard Medical School

 2018-present Jessie Huang, PhD, Post-doctoral fellow

 2018-present Claire Burgess, Graduate student (PhD)

 2017-present Michael Herriges, PhD, Post-doctoral fellow

 2016-present Yuliang (Leon) Sun, BS, Graduate Student (MD/PhD)

2016-2020 Kostas Alysandratos, MD, Pulmonary Fellow, currently Assistant Professor of Medicine, BUSM, Boston, MA

 2017-2018 Swetha Duraiswamy, undergraduate student BU, currently BU student

 2017 Jason Grosz, undergraduate student U. Penn, currently Penn student

 2016-2019 John Kennedy, MD, Brigham&Women’s Hosp. Pulmonary Fellow, currently Instructor, Brigham and Women’s Hospital, Boston, MA

 2015-2018 Killian Hurley, MD, PhD, Pulmonary Fellow, currently Assistant Professor of Medicine, Royal College of Surgeons in Ireland, Dublin, Ireland

 2015-2017 Nicole Ruopp, MD, Pulmonary Fellow, currently Assistant Professor of Medicine, Tufts

 2015 Matthew Brown, Undergraduate student, BU, currently lab technician

2014-2015 Anita Kurmann, MD, Post-doctoral fellow, deceased

 2014-2016 Sinead Nguyen, Undergraduate student, BU, currently laboratory technician

2013-2017 Hector Marquez, MD, Pulmonary Fellow, currently Assistant Professor of Medicine, BUSM, Boston, MA

2013-2017 Anjali Jacob, BS, MD/PhD Graduate Student, currently pulmonary fellow, UCSF

 2013-2017 Katie Benson McCauley, BS, PhD Graduate Student, currently Staff Scientist/PI, Novartis

 2013-2019 George Kwong, BS, PhD Graduate Student, currently Industry Scientist, Invicro

 2012-2013 Derek Liberti, BS, undergraduate student, BU, currently post-doctoral fellow, U. Penn

 2012-2013 Chian Yang, BS, Graduate MA Student, currently industry scientist, Novartis

2012-2017 Mohamed Jamal, DMD, Postdoctoral Fellow, currently Assistant Professor of Endodontics, Dubai, UAE

2011-2017 Maria Serra, PhD, Postdoctoral Fellow, currently Postdoctoral Fellow, Turin, Italy

 2010-2015 Finn Hawkins, MD, Pulmonary Fellow, currently Assistant Professor, BUSM

 2009-2012 Laertis Ikonomou, PhD, Postdoctoral Fellow, currently Associate Professor, SUNY Buffalo

2008-2010 Aba Somers, MD, Pulmonary Fellow, currently Attending Pulmonologist

 2008-2011 Constantina Christodoulou, PhD, PhD Graduate Student, currently Lab Head/Principal Investigator, Novartis, Cambridge, MA

 2007-2011 Tyler Longmire, PhD, Graduate Student, currently Staff Scientist/PI, Novartis, Cambridge, MA

 2006-2008 Sara Greenhill, MD, Pulmonary Fellow, currently Interventional Pulmonologist

 2005-2006 Asha Anandaiah, MD, Medical Resident, currently Instructor, Harvard University

 2004-2010 Andrew Wilson, MD, Pulmonary Fellow, currently Associate Professor of Medicine, BUSM, Boston, MA

**High School Student Rotators in the Kotton Laboratory:**

 Gabi Horowitz

 Jenny Jean

 Raphael Deykin

 Ezra Pemstein

 Daniel Nissenbaum

 Gili Schor

 Jared Nissenbaum

 Gabe Nissenbaum

 Sam Orelowitz

 Cora Wendlandt

 Anne Joseph

 Ava Nalavala

**Current Independent Faculty that trained in the Kotton Laboratory**:

 Instructors: John Kennedy, MD, MSc, Asha Anandaiah, MD

 Assistant Professors: Kostas Alysandratos, PhD, Killian Hurley, MD, PhD, Mohamed Jamal, PhD, Finn Hawkins, MD, Hector Marquez, MD, Nicole F. Ruopp, MD, Ruobing Wang, MD

 Associate Professors: Andrew A. Wilson, MD, Laertis Ikonomou, PhD

**Mentored Grant Awards (serving as primary sponsor)**

Alpha-1 Foundation Research Fellowship; Killian Hurley, MD

K08 (NIH/NHLBI Career Training Grant); Andrew Wilson, MD

K08 (NIH/NHLBI Career Training Grant); Ruobing Wang, MD

American Lung Association Fellowship; Andrew Wilson, MD

Alpha-1 Foundation Research Fellowship; Andrew Wilson, MD

American Lung Association Fellowship; Finn Hawkins, MD

Cystic Fibrosis Foundation Fellowship; Finn Hawkins, MD

Flight Attendant Medical Research Institute (FAMRI) Young Clinical Scientist Award; Andrew Wilson, MD

American Association of Endodontics; Mohamed Jamal, DMD

F31 NIH/NHLBI (F31 HL129777) individual NRSA Predoctoral fellowship; Katie Benson

F31 NIH/NHLBI (F31 HL128085) individual NRSA Predoctoral fellowship ; George Kwong

F31 NIH/NHLBI individual NRSA Predoctoral fellowship; Anjali Jacob

F31 NIH/NHLBI individual NRSA Predoctoral fellowship; Claire Burgess

F30 NIH/NHLBI individual NRSA Predoctoral MD/PhD fellowship, Yuliang (Leon) Sun

F32 NIH/NHLBI individual NRSA Postdoctoral fellowship; Michael Herriges, PhD

FastStart Lab Award, Novartis, Yuliang (Leon) Sun

JumpStart NIH/NHLBI Award, Progenitor Cell Translational Consortium, George Kwong

Pulmonary Fibrosis Foundation Fellowship; Kostas Alysandratos, MD, PhD

JumpStart NIH/NHLBI Award, Progenitor Cell Translational Consortium, Liang (Martin) Ma

JumpStart NIH/NHLBI Award, Progenitor Cell Translational Consortium, Claire Burgess

Gilead Scholarship; Ruobing Wang, MD

**Graduate Student Thesis Committees**

 PhD Alejandro Balasz, Harvard University

 PhD Daniel Fabish, BU School of Dental Medicine

 MA Heather Arnold, BU

 MA Chian Yang, BU School of Engineering

 PhD Jed Mahoney, BU School of Medicine

 PhD Juliana Barrios, BU School of Medicine (Committee Chair)

 PhD Kelsey Derricks, BU School of Medicine (Committee Chair)

 PhD Abby Sarkar, Harvard Medical School

 PhD Tim Norman, BU School of Medicine (Committee Chair)

 MA Michael A. H. Ferguson, BU School of Engineering

 PhD Aditya Mihtal, BU School of Medicine

 PhD Chieh Lin, Carnegie Mellon University

 PhD Elim Na, BU School of Medicine

 PhD Evan Hoffman, Univ of Vermont

 PhD Alex Ysasi, BU School of Medicine

 PhD Taylor Matte, BU School of Medicine

 PhD Jake Le Seur, BU School of Medicine

**Patents**

Title: DIFFERENTIATION OF STEM CELLS INTO THYROID TISSUE

US Patent No. 10,449,221 B2

Kotton/Serra/Hollenberg/Kurmann

Issued: Oct. 22, 2019

Title: ISOLATION OF HUMAN LUNG PROGENITORS DERIVED FROM PLURIPOTENT STEM CELLS

US Patent No. 10,386,368 B2

Kotton/Hawkins

Issued: Aug. 20, 2019

Title:  METHODS AND COMPOSITIONS RELATED TO DIFFERENTIATED LUNG CELLS

U.S. Patent No. 10,975,357 B2

Kotton/Jacob

Issued: April 13, 2021

Title: GENERATION OF AIRWAY EPITHELIAL ORGANOIDS FROM HUMAN PLURIPOTENT STEM CELLS

US Patent No. 10,590,392 B2

Kotton/McCauley/Hawkins

Issued: Mar.17, 2020

Title: GENERATION OF AIRWAY BASAL STEM CELLS FROM HUMAN PLURIPOTENT STEM CELLS

PCT Application No. PCT/US21/18714 – Filed February 19, 2021

Ref. No.: BU-2019-089

Kotton/Hawkins/Barilla/Suzuki/Davis

**Major Administrative Responsibilities:**

 2009-current Founding Director, Center for Regenerative Medicine of BU and BMC

 2012-current Co-Director, The Alpha-1 Center, Boston Medical Center

 2008-2013 Co-Director, BUMC Small Animal Imaging Core Facility, BUSM

 2010-2013 ARC Co-Director, Evans Center, Regenerative Medicine ARC, BUSM

 2015-current Program Director, TL1 BU Pre/post-doctoral Training Program in Regenerative Medicine

 2019-current Program Co-Director, T32 BU Training Program in Pulmonary Biology

 2020-current Program Director, R38 PRIMER, Promoting Research for Internal Medicine Residents

**Other Professional Activities:**

**Professional Societies: Memberships, Offices, and Committee Assignments**

 2020-current Association of American Physicians

 2010-2020 Lifeboat Foundation

 2010-current American Society for Clinical Investigation

 2006-2009 Webmaster, The Boston University Pulmonary Center Website

 2005-current International Society for Stem Cell Research

 2002-current Massachusetts Thoracic Society

 1998-current American Thoracic Society, Member

 1997-2001 Director, Internal Medicine Overseas, Malawi Program, Health Volunteers Overseas

**Editorial Boards:**

 2010-2015 Journal of Cellular Biochemistry, Associate Editor

 2015-2017 American Journal of Respiratory Cell and Molecular Biology

 2017-2020 Journal of Immunology and Regenerative Medicine

 2018-current StemJournal

 2021-22 Frontiers in Endocrinology, Guest Associate Editor, Special Issue on “Progenitors in Thyroid Development, Disease, and Regeneration.”

 **Peer-Reviewer Panels for journals:**

 2018-current Nature

 2020-current Nature Cell Biology

 2014-current Nature Biotechnology

 2014-current Nature Protocols

 2009-current Science

 2012-current Cell Stem Cell

 2019-current Cell

 2009-current New England Journal of Medicine

 2008-current Journal of Clinical Investigation

 2015-current Stem Cell Reports

 2011-current Development

 2015-current eLife

 2011-current Stem Cell Research

 2012-current Chest

 2007-current Stem Cells

 2009-current Molecular Therapy

 2007-current Respiratory Research

 2007-current Circulation

 2006-current American Journal of Physiology: Lung Cell and Molecular Physiology

 2006-current American Journal of Respiratory Cell and Molecular Biology

 2006-current American Journal of Respiratory and Critical Care Medicine

**Major Committee Assignments:**

# Private/Foundation

 2025 Organizing Chair, Gordon Research Conference on Lung Development, Injury, and Repair

 2023 Organizing Vice-Chair, Gordon Research Conference on Lung Development, Injury, and Repair

 2018-current Mentoring Program (Mentor), American Thoracic Society

 2016-2019 Addgene, Board of Directors

 2018-2019 Addgene, Governance Committee, Chair

 2012-2014 FASEB Lung Conference, Vermont, Organizing Chair of Meeting

 2013-current International Society for Stem Cell Research, Program Abstract Review Committee

 2009-current Vermont Lung Stem Cell Meeting, Organizing, and Program Committee

 2010-current Lifeboat Foundation, Scientific Advisory Board

 2010-current Alpha-1 Foundation, Grants Advisory Council, Vice-Chair

 2015-current Alpha-1 Foundation, Tissue Bank Advisory Committee, Chair

 2010-2013 American Thoracic Society, Annual Meeting Program Committee

 2010-2018 American Thoracic Society, Stem Cells and Regenerative Medicine Committee

 2006-current American Thoracic Society, Respiratory Cell & Molecularly Biology Assembly, committee member

**National**

 2018-present NIH/NHLBI Board of External Experts (BEE)

 2019-2022 NIH/NHLBI Protocol Review Committee (PRC) for SARS-CoV2/COVID-19

 2015-2018 External Advisory Board, University of Vermont Center for Regenerative Medicine

 2018-present External Advisory Board, University of Cincinnati, Center for Stem Cell and Organoid Medicine (CuSTOM)

**State:**

 2010-2012 Stem Cell Advisory Committee, UMASS Center for Stem Cell Biology and Regenerative Medicine

**Study Sections**

 National Institutes of Health

 2020 NHLBI AdHoc study section on COVID-19 Cell Based Therapies

 2015-17 NHLBI CFTR-directed therapeutics STTR (ZHL1 CSR-I M2 1)

 2014 NHLBI PCBC (Progenitor Cell Biology Consortium) ad hoc reviewer

 2010 NHLBI Workgroup: Cell plasticity in lung injury and repair

 2006 NHLBI/NIH Strategic Planning Committee for Theme 3: Lung Injury/Inflammation, Repair/Remodeling, Replacement/Regeneration, committee member

 2004 Study Section member, NIAID RFA 03-015 “Cooperative Centers for Translational Research in Human Immunology and Biodefense”

 CIRM

 2012-current CIRM, California Institute for Regenerative Medicine, Grants Working Group

 Cystic Fibrosis Foundation

 2016 Cystic Fibrosis Foundation Therapeutics (CFFT) Ad hoc study section

 Alpha-1 Foundation

 2011-current Alpha-1 Foundation, annual grants study section, Associate Chair.

**Current Other Support:**

**T32HL007035 (Mizgerd/Kotton)** 07/01/21-6/30/25

**Role: MPI**

**Biology of the Lung: A Multidisciplinary Program**

This award, now continuously funded for the past 50 years, supports the research training of MD, PhD, and MD/PhD graduate students, postdoctoral fellows, or clinical fellows, focused on lung biology, injury, repair, development, and regeneration.

**2R01 HL095993 (Kotton)** 06/01/09 – 05/31/23

NIH/NHLBI 1.3 months $290,000

**Role: PI**

**Derivation of lung epithelia from iPS cells for advanced disease modeling**

This proposal focuses on developing iPSC-derived type 2 alveolar epithelial cells (AEC2s) for advanced disease modeling in order to reveal the mechanisms that are responsible for AEC2 dysfunction and to identify druggable pathways that can ameliorate downstream parenchymal lung disease.

**1R01DK105029 (Hollenberg/Kotton)** 12/1/15- 11/30/2024

NIH//NIDDK 1.2 month $250,000

**Role: PI**

**Thyroid follicular cell development in mice and humans**

This grant proposes to derive functional human thyroid epithelial cells from iPS cells for understanding the developmental biology of the thyroid gland and for regenerative transplantation into hypothyroid mouse models. The role of BMP and FGF signaling in regulating thyroid lineage specification from anterior foregut endoderm is studied. The ability of the thyroid epithelial cells to secrete functional thyroid hormones is examined

**1R01HL128172 (Kotton)** 09/15/15- 06/30/2020 (NCE)

NIH/NHLBI 1.5 months $340,500

**Epigenomic and transcriptomic networks in normal and defective lung development**

**Role: PI**

This grant employs ChIP-Seq methods to interrogate genome-wide histone modifications in order to define the epigenetic landscape that unfolds during lung lineage specification using human iPS cell models. Systems biology computational models are assembled in order to understand the epigenomic changes that encoder the earliest stages of human lung epithelial development.

**TL1TR001410 (Kotton)** 03/31/15-3/31/25

NIH/NCATS 0.4 months $11,703

**Role: PI**

**Regenerative Medicine Training Program**

This grant proposes a comprehensive training program in stem cell biology and regenerative medicine, focused in part on hands on training in iPS cell models of human disease and drug discovery.

**U01148692 (Kotton/Hawkins, MPI)** 07/01/19 – 06/30/21

NIH/NHLBI 0.5 months $83,000

**Role: PI**

**Generation of functional lung stem cells from human iPSCs**

This grant focuses on extensive characterization of the phenotype, karyotypic stability, purity, expansion/scale-up potential, functional capacity, and in vivo teratoma potential of iPSC-derived lung resident stem cells of the airways and alveoli in preparation for developing a cellular clinical product.

**U01HL134745 (Whitsett/Kotton/Morrisey MPI)** 9/1/16-8/31/23

NIH/NHLBI        1.7 months $225,000

**Role: PI**

**Editing Alveolar Progenitor Cells for Correction of Monogenic Disease**

Role: PI

This grant studies the pathogenesis of lung disease due to ABCA3 mutations and develops gene editing therapies for the correction of this disorder in alveolar epithelial progenitors and their mature progeny

**U01HL134766 (Chapman/Kotton MPI)** 9/21/16-5/31/23

NIH/NHLBI 1.1 months $199,000

**Epithelial Stem/Progenitor Cells as Repair Agents in Diffuse Alveolar Damage**

**Role: PI**

This multi-institutional project develops epithelial progenitor strategies for treating disorders of the lung that arise from injury or damage to the alveolar epithelium

**U01TR001810 (Kotton/Wilson/Morrisey/Raby)** 09/15/16 – 06/30/21 NIH/NCATS 1.1 months $543,000

**A National iPS Cell Network with Deep Phenotyping for Translational Research**

**Role: PI**

This grant establishes the training mechanisms and multi-institutional networks necessary for broad sharing of gene editing tools and iPS cells across the national CTSI network

**N01 75N92020C00005 (PI: Kotton)** 5/01/2020-4/31/2025 NIH/NHLBI

**National Biorepository for Lung Diseases-Specific Induced Pluripotent Stem Cells**

**Role: PI**

This grant supports training courses for investigators interested in developing in vitro lung disease models and sustains the sharing of lung organoids and banked iPSCs generated from individuals with a wide variety of lung diseases.

**U01HL152976 (Kotton)** 7/01/2020- 6/30/2024

NHLBI 1.2 months, $300,000

**Developing a patient-specific organoid model of pulmonary fibrosis using iPSCs**

**Role: PI**

This grant develops a multilineage in vitro model system based on iPSC-derived lung organoids to study the

pathogenesis of idiopathic and familial pulmonary fibrosis, focused on the role of telomerase mutations in

initiating disease

**1R01HL153246-01 (Kropski)** 7/01/2020–6/30/2025

NIH/NHLBI 0.1 months, $40,000

**Mechanisms of epithelial repair and remodeling in pulmonary fibrosis**

**Role: Co-Investigator**

Utilizing innovative transgenic mouse, organoid and inducible pluripotent stem cell (iPSC)-based models, we

will investigate the mechanisms through which GPR87 contributes to fibrotic susceptibility and adaptive versus

pathologic lung epithelial repair.

**1R38HL143584** (Ramachandran/Kotton MPI) 7/01/2020–6/30/2024

NIH/NHLBI 0 months, $207,678

**PRIMER: Promoting Research In Medical Residency**

**Role: PI**

This grant supports a training program for internal medicine residents interested in pursuing basic science or

translational research

**Past Other Support:**

**1R01GM122096 (Bar-Joseph)** 08/01/17- 07/31/21

NIH/NIGMS 0.6 months $75,000

**Role: Co-investigator (Subcontract PI)**

**Reconstructing regulatory networks from time series single cell data**

This grant takes a systems biology approach, employing time series profiles captured by single cell RNA sequencing to understand the fate trajectories of lung epithelial cells as they differentiate during embryonic development

**R01GM120060 (Quinton)** 02/-01/17-01/31/21

NIH/NIGMS 0.6 months $15,425

**Role: Co-investigator**

**Liver-derived protection during pneumonia and sepsis**

The goal of this study will be to determine how transcriptional responses of hepatocytes drive pulmonary and systemic antibacterial defense while limiting multi-organ failure during severe infection.

**MassCPR Award (Kotton)**  05/01/2020- 04/30/2021

Massachusetts Consortium for Pathogen Readiness

**Role: PI**

**Human iPSC derived lung organoids for modeling COVID-19 infection**

This grant focuses on differentiating human iPSCs into lung epithelial lineages in vitro and engineering a scalable, shareable model of COVID-19 infections for drug discovery in collaboration with the Massachusetts research community

**Celgene Corporation SRA (Kotton)**  04/09/2018-04/08/2021

Celgene Corporation0 months, $290,629

**iPSC disease modeling focused on interstitial lung disease related to SFTPC mutations**

**Role: PI**

This grant develops lung organoid models of pulmonary fibrosis as part of a consortium

**Novartis SRA (Kotton)**  12/21/2018- 06/30/2021

Novartis Institute of Biomedical Research (NIBR) 0 months, $164,535

**Characterization of iPSC derived alveolar epithelial type II cells**

**Role: PI**

This grant profiles alveolar epithelial type II cells generated from human iPSCs to characterize surfactant processing capacity

J**ohnson & Johnson Services, Inc. (PIs: Kotton, Emili, Chen)**  1/1/2019 - 12/31/2021

Johnson & Johnson Services, Inc. 0.6 calendar $350,477

**A new human iPSC in vitro system to model the inception of lung adenocarcinoma**

**Role: PI**

The overall goal of this work is to define the molecular changes that precede malignant transformation of in

vitro derived alveolar cells.

**Astra Zeneca ECHO ID: 10038592 (Kotton)** Astra Zeneca LB 12/16/2019- 12/15/2021

**Modeling COPD using human iPSC in vitro** 0 months, $150,015

**Role: PI**

This grant develops proximal airway epithelial cells from iPSCs for the purpose of modeling injury responses to tobacco smoke exposure

**1R24HL123828-01 (Kotton/Mostoslavsky)** 7/01/14- 4/30/20 (NCE) (NIH/NHLBI 0.1 months $350,000

Role: PI

A National Resource for Lung disease-specific iPS cells (No Cost Extension)

This grant proposes an infrastructure for the banking, sharing, and national distribution of lung disease specific iPS cell lines, as well as infrastructure for training others in the derivation and directed differentiation of iPS cells.

**1R01HL122442-01 (Kotton)** 03/01/14-02/28/19 NIH/NHLBI 0.6 months $250,000

Role: PI

iPSC Modeling of the Role of NKX2-1 in Human Lung Development and Disease (No Cost Extension)

This grant proposes to utilize patient-specific iPS cell lines made from children with Brain-Thyroid-Lung syndrome due to mutations in the gene encoding human NKX2-1. These cell lines are used to define the transcriptomic changes of early human lung development and understand how those programs are abnormally altered during the emergence of pediatric lung disease caused by these mutations.

**R01HL127426 (Ramirez)** 09/01/15-06/30/19

Co-Investigator, Subcontract PI 0.46 Months $7,128

Molecular and biological function of long non-coding RNA transcripts divergent to lung developmental genes

This proposal seeks to understand the molecular mechanisms of the Nkx2-1-AS1 and Gata6-AS1 in lung cell differentiation during development.

**1R01 HL108678 (Kotton/Ott)**  09/15/11-5/31/15

NIH/NHLBI

Role: Principal Investigator
Bioengineering of Transplantable Humanized Lungs from iPS Cells

**R01 HL111574 (Oikonomou)**  09/01/11-8/31/16

NIH/NHLBI

Role: Investigator
Defining the genetic program of primordial lung progenitors

U01 HL107443 (Chui, Mostoslavsky, Murphy, Steinberg) 07/05/11 – 06/30/16

NIH/NHLBI

Role: Investigator

Globin Gene Expression in Sickle Cell Genotype-Specific iPS Cells

 **Lung Cancer Research Concept Award (Kathuria)** 09/15/13-9/14/14
DOD
Role: Investigator

 In vivo tagging of lung epithelial cells to define the early steps of tumor cell dissemination

**U01 HL099997 (Morrisey)** 08/1/13 - 4/30/15

 NIH/NHLBI PCBC

Role: Investigator

NHLBI Progenitor Cell Biology Consortium (PCBC) Administrative Coordinating Center, at Univ of MD.

BU Subcontract for ancillary studies to complement U. of Penn Project (Kotton=subcontract PI)

Generation & Characterization of a Lung Stem Cell “Tool Kit” to Generate Functional Lung Epithelial Lineages

**U01HL110-967 (Morrisey)** 01/01/13 – 12/31/14

 NIH/NHLBI LRRC CReATV3

Role: Investigator

NHLBI Lung Regeneration and Repair Consortium (LRRC) Administrative Coordinating Center at Duke University. BU Subcontract for ancillary studies to complement U. of Penn Project (Kotton=subcontract PI)

Generation and analysis of gene corrected SFTPC mutations in human iPSC lines

**R13 NIH/NHLBI (Kotton)**

Role: PI/ Organizing Chair

The Lung Epithelium in Health and Disease (FASEB Science Research Conference)

Award to support FASEB Lung Epithelium in Health and Disease, biennial meeting in Saxtons River, VT, 2014.

**R21 HL108689** (Weiss) 08/1/12 - 7/31/13

NIH/NHLBI

BU Subcontract with BWH (Kotton)

De-Cellularized Human Lungs for Ex-Vivo Lung Regeneration

**P01HL047049-16A1 (Cardoso PPG PI; Kotton Project 3 Leader)** 12/1/07-1/31/13

NIH/NHLBI

Determinants of Cell Fate and Differentiation in the Developing Lung

Project 3: Embryonic Stem Cell Modeling of Lung Lineage Specification

Role: Project 3 Leader

**IDEA in Stem Cell Research** (Kass) 09/1/10 - 8/31/13

NYSTEM

Role: Sub-Project PI, Boston University Component

Mechanistic study of an inherited arrhythmia in a complex genetic background using iPS cell derived cardiomyocytes

**RC4 HL106625 (Weiss)** 09/17/10 - 8/30/13

NIH

Role: Sub-Project PI, Boston University Component

Bioengineering New Lungs from Cadaveric Scaffolds

**Research Grant (Kotton)** 7/1/11 - 6/30/13

Alpha-1 Foundation

Role: Principal Investigator

Generation of bioartificial lungs from gene corrected PiZZ iPS cells

**P01 HL47049 (Cardoso)** 02/01/08 - 01/31/13

NIH/NHLBI

Role: Investigator

Microscopy-Image Analysis and FACS Core

**R01 HL095993-01 (Kotton)** 7/01/09-7/31/13

NIH/NHLBI

Derivation of Transplantable Lung Epithelial Progenitors from iPS Cells

Role: Principal Investigator

**RC2HL101535-01 (Kotton)** 9/30/09-8/31/12

NIH/NHLBI

Characterization of human hematopoietic and endodermal progenitors derived from iPS cells free of reprogramming transgenes

Role: Principal Investigator

**Pilot and Feasibility Award (Kotton)** 04/01/10 – 03/31/12

Cystic Fibrosis Foundation

Role: Principal Investigator

Derivation of Pluripotent Stem Cells (iPS) for Cystic Fibrosis Therapy

**USAMRC 07138002 (Fine)** 7/1/08-6/30/11

Congressionally Directed Medical Research Programs (CDMRP). Department of the Army.

Acute Lung Injury: Making the Injured Lung Perform Better and Rebuilding Healthy Lungs*,*

Role: Sub-Project PI, Boston University Component

[**R21HL086610-01A1**](https://commons.era.nih.gov/commons/genericStatus.do?actionRole=nonPI&applID=7305473&uhf-token=u5LQYzW%2BAhDlrWtQFGQ8%2FqlpkYY%3D) **(Kotton)** 4/1/08-3/31/10

NIH/NHLBI

Hemangioblast Transplantation for Reconstitution of Lung Endothelium

Role: Principal Investigator

**R21HL086414-02 (Kotton)** 9/30/06-9/30/08

NIH/NHLBI

Cell-specific Delivery of RNAi to Pulmonary Alveolar Macrophages in vivo

Role: Principal Investigator

**RO1 HL083034-01A1 (Ramirez)** 7/1/06-6/30/11

NIH/NHLBI

Lung Alveolar Type I Cell Morphogenesis

Role: Co-PI

**A-05-005 (Kotton)** 1/1/06-1/1/08

American Thoracic Society/Alpha-1 Foundation

Stem cell-based therapy for alpha-1 antitrypsin deficiency

Role: Principal Investigator

**K08 HL 71640** (Kotton) 02/04/03 - 01/31/08

NIH/NHLBI

Role: Principal Investigator

Bone Marrow Cells as Progenitors of Alveolar Epithelium

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**Invited Lectures and Presentations**

1. Invited speaker, The Scientist, webinar and expert panelist. “Understanding Stem Cells: One Cell at a Time”. August 19th, 2022.
2. Invited speaker, American Thoracic Society, Annual meeting, San Francisco. Patient information lecture. “Stem cells and lung disease: what every patient should know.” May, 2022
3. Invited plenary speaker. Lung Epithelial-Mesenchymal FUSION Conference, “Generation of lung specific mesenchyme from pluripotent stem cells.” Cancun, Mexico, May, 2022
4. Invited speaker, Cincinnati CUSTOM (Center for stem cells and organoid medicine) Conference. “Pluripotent Stem Cell for Modeling and Treating Lung Disease.” April 2022.
5. Gordon Research Conference on Lung Development, Injury, and Repair. Invited speaker. “Pluripotent stem cells to model and treat lung disease.” New Hampshire, October 2021.
6. Till and McCullough Stem Cell Meeting. Invited speaker. “Pluripotent stem cells as models of lung development and disease.” Ontario, Canada. 2021.
7. Visiting Professor. Rutgers University. 2021.
8. Invited speaker. UCSF Graduatge Program in Molecular Biology. “Pluripotent stem cells to model and treat lung disease.” San Francisco, CA. 2021.
9. Children’s Interstitial and Diffuse Lung Disease Research Newtork. Special Interest Group Meeting. Invited Keynote Speaker. “Lung Organoids to Model chILD.” Via Zoom. Dec 3rd, 2020.
10. Carnegie Mellon University. Biomedical Engineering Department seminar series. Invited speaker. “Pluripotent stem cells for modeling lung development and disease.” Pittsburg, PA via Zoom. Nov 12th, 2020.
11. University of Pennsylvania. Lung Biology Institute Annual Symposium. Invited Keynote Speaker. “Pluripotent stem cells for modeling lung development and disease.” Philadelphia, PA via Zoom. Oct 28, 2020.
12. Evans Days. Department of Medicine Invited Speaker. “Stem cell models of COVID-19.” Boston Medical Center/Boston University via Zoom. Boston, MA via Zoom. Nov 4th, 2020.
13. Department of Endocrinology Grand Rounds. Invited Speaker. “Thyroid Regeneration via Transplantation of Pluripotent Stem Cells.” Boston Medical Center/Boston University School of Medicine. Boston, MA via Zoom. Oct 19th, 2020.
14. American Thoracic Society annual meeting. Seminar series on transformative discoveries. Invited speaker. “Derivation of Self-Renewing Alveolar Type 2 Cells from Human Pluripotent Stem Cells.” Via Zoom. Aug 5th, 2020.
15. Department of Medicine, Grand Rounds. Invited Speaker. Boston Medical Center. “Stem cells and COVID-19: What every physician should know.” Boston, MA via Zoom. Sept 18th, 2020.
16. American Thyroid Association, annual international meeting, invited plenary talk: “Thyroid Regeneration via Directed Differentiation of iPS Cells.” Chicago, IL, Nov 1, 2019.
17. MD Anderson, Grand Rounds, “Pluripotent Stem Cells to Model and Treat Lung Disease.” Houston, TX, October 30th, 2019.
18. Brown University, Department of Medicine, Brown Investigators in Respiratory Diseases (BIRDs) visiting Professor and invited speaker, “Pluripotent Stem Cells for Modeling Lung Development and Disease.” Providence, RI, October 7, 2019.
19. Boston Children’s Hospital/Harvard Medical School, Department of Newborn Medicine, Grand Rounds invited speaker. “Modeling Surfactant Dysfunction with Pluripotent Stem Cell-Derived Alveolar Epithelium.” Boston, MA. Sept 9, 2019.
20. Alpha-1 Foundation, Patient Education Day. Invited Speaker. “Future Directions in Alpha-1 Antitrypsin Deficiency Research.” Denver, CO. May 4, 2019.
21. Experimental Biology, Annual Meeting. Invited Symposium Speaker. “Pluripotent stem cell models of lung development and disease.” Orlando, FL. April 8, 2019.
22. Novartis Institutes for Biomedical Research, Respiratory Research Annual Symposium. Invited speaker. “Pluripotent stem cell models of lung disease.” June 10, 2019
23. Department of Medicine Grand Rounds. “Discovery of the Month: Differentiation of Human Pluripotent Stem Cells into Functional Lung Alveolar Epithelial Cells.” March 15, 2019.
24. Keystone meeting on Cellular Plasticity. Invited Seminar Presentation: “Pluripotent stem cells for modeling lung development and disease.” Keystone, CO, February, 2019.
25. Kyoto University International Lung Research Seminar. “Pluripotent stem cells to model lung development and disease.” Kyoto, Japan. October 29th, 2018.
26. 54th Scientific Meeting of the Japanese Medical Society for Lung Surfactant and Biological Interface. Invited Speaker. “Modeling Surfactant Dysfunction with Pluripotent Stem Cell-Derived Alveolar Epithelium.” Fukuoka, Japan. October 27th, 2018.
27. Medimmune Research Seminar. “Pluripotent stem cells to model lung development and disease.” Gaithersburg, MD. Sept 13th. 2018.
28. FASEB Lung Epithelium in Health and Disease Conference. Invited Speaker. “Pluripotent stem cells to model lung development and disease.” NY. July 31st, 2018.
29. American Thoracic Society Annual Meeting. Invited Plenary Speaker. “Derivation of alveolar type 2 cells from induced pluripotent stem cells.” San Diego, CA. May 23rd, 2018.
30. American Thoracic Society Annual Meeting. Research Achievement Award Recipient Seminar Presentation. “Pluripotent Stem Cells to Model Lung Development and Disease.” San Diego, CA. May 21st, 2018.
31. University of North Carolina, Chapel Hill. Pulmonary Section. Invited Speaker. “Pluripotent stem cell models of lung development and disease.” December 18th, 2017.
32. National Jewish Hospital, Denver, CO. Department of Medicine and Pulmonary Section Grand Rounds Speaker. “Pluripotent stem cell models of lung development and disease.” November 15th, 2017
33. University of Colorado, Denver. Pulmonary Department. Invited Speaker. “Pluripotent stem cell models of lung development and disease.” November 14th, 2017
34. AAMC Sharing Research Resources Webinar, Invited speaker as recipient of first prize for research resource sharing, October 16th, 2017.
35. Alpha-1 Education Day, Invited Speaker. “Alpha-1 Lung Disease Research Update.” Boston, MA, August 5, 2017.
36. Rare Lung Disease Consortium, Invited Speaker. “Pluripotent stem cell modeling of children’s interstitial lung disease (chILD).” San Diego, CA. July 6, 2017.
37. Brigham and Women’s Hospital, Pulmonary and Critical Care Medicine Grand Rounds Speaker. “Pluripotent stem cells to model lung development and disease.” Boston, MA, March 28, 2017.
38. Boston Children’s Hospital, Pulmonary Section, Grand Rounds Speaker. Boston, MA, December 5, 2016
39. CTSA Shared Mentoring Workshop, Tufts University, invited mentor. Boston, MA, October 21, 2016.
40. Cystic Fibrosis Foundation Therapeutics, Invited speaker. “iPS Cells for Cystic Fibrosis Research.” Lexington, MA. May 12, 2016.
41. Cleveland Clinic, Respiratory Institute Research Celebration, keynote speaker, “Lung Regeneration: An Achievable Mission.” Cleveland, OH. April 29, 2016.
42. The Paul Epstein, MD Memorial Seminar. University of Pennsylvania, Center for Pulmonary Biology. “Pluripotent Stem Cells for Modeling Lung Development and Disease.” Philadelphia, PA. April 14, 2016.
43. University of Illinois at Chicago. Pulmonary Grand Rounds Speaker. “Pluripotent stem cells for modeling lung development and disease.” Chicago, IL. March 23, 2016.
44. The Hastings Center for Pulmonary Research, University of Southern California, keynote speaker for Center inaugural symposium. “Lung Regeneration: An Achievable Mission.” Los Angeles, CA. March 11, 2016.
45. University of Massachusetts Medical School, Invited Grand Rounds Speaker, Department of Medicine, “Stem Cells and Regenerative Medicine: A Primer for Physicians.” December 3, 2015, Worcester, MA.
46. The Channing Institute, Harvard Medical School, Invited Grand Rounds Speaker, November, 17, 2015. Boston, MA
47. Stanford University, Division of Pulmonary and Critical Care Medicine, Grand Rounds Speaker. “Lung Regeneration.” Palo Alto, CA. November, 13, 2015.
48. Cold Spring Harbor-Asia/International Society for Stem Cell Research. Invited Featured Speaker. “Pluripotent stem cells for reconstitution of endodermal organ function.” Suzhou, China. October 22, 2015.
49. Pediatric Rare Lung Disease: NHLBI/NIH workshop. Invited Speaker. “iPS cells for modeling pediatric rare lung diseases.” Bethesda, MD. September 3-4. 2015.
50. Vermont Lung Stem Cell Meeting. Panel Discussion Leader. July 28 2015. Burlington, VT.
51. American Thoracic Society, President’s Discovery Series featured speaker. “Lung Regeneration: An Achievable Mission.” May 18, 2015. Denver, CO.
52. American Thoracic Society Center for Career Development, annual meeting panelist/speaker. “Clinician-Scientist Careers.” May 18, 2015. Denver, CO.
53. Children’s Interstitial Lung Disease (ChILD) Foundation, 11th annual conference, invited speaker. “Induced Pluripotent Stem Cells for modeling and treating ChILD.” July 19, 2015. Boston, MA.
54. American Society for Investigative Pathology, annual meeting, invited seminar speaker. “Pluripotent stem cells for modeling lung disease.” Boston, MA, March 28th, 2015.
55. Framingham Heart Study/NHLBI. Invited SHARe Seminar Speaker. “Pluripotent Stem Cells for modeling development and disease.” Framingham, MA. March 3rd, 2015.
56. Keystone Meeting: Endoderm Lineages in Development and Disease. Session Chair: “Stem Cell-derived endoderm organs.” February 12th, 2015. Keystone, CO.
57. Keystone Endoderm Meeting. Invited speaker. “Generation of functional, transplantable thyroid progenitors from pluripotent stem cells.” February 10th, 2015. Keystone, CO.
58. Proteostasis Therapeutics Inc, Seminar speaker, “Pluripotent stem cells for disease modeling and therapeutic development.” Cambridge, MA. Feb. 5, 2015.
59. Biogen-Idec, invited seminar speaker. “Pluripotent stem cells for modeling disease and personalized medicine.” January 8th, 2015, Boston, MA.
60. Boston University School of Medicine, Department of Pathology, Grand Rounds Speaker, “Pluripotent Stem Cells for Modeling Disease.” Boston, MA. February 4, 2015.
61. Boston University/Boston Medical Center, Department of Medicine, Grand Rounds Speaker, “Stem cells and regenerative medicine: a primer for physicians.” Boston, MA. Jan. 30, 2015
62. American College of Rheumatology Annual Meeting, invited symposium speaker: Lung Regeneration and Cell-based Therapies. Boston, MA. Nov. 17, 2014.
63. Lundberg-Kienlen Visiting Professor and annual seminar speaker: Pluripotent Stem Cells for Lung Disease. Oklahoma State University. Stillwater, OK. Nov. 12, 2014.
64. Lung Regeneration and Repair Consortium, NIH/NHBLI, invited speaker, “Induced Pluripotent Stem Cells for Lung Research,” Boston Children’s Hospital, Boston, MA. June 9-10, 2014.
65. The Giles F. Filley Lecturer at the Thomas L. Petty Aspen Lung Conference, “Applications of ES and iPS cells for lung regeneration.” Aspen, CO, June 6, 2014.
66. American Thoracic Society annual meeting, invited symposium speaker, “Pluripotent Stem Cells for Modeling Lung Disease.” San Diego, CA. May 19th, 2014.
67. International Transplant Nurses Society, Buckeye Chapter, invited speaker. “Next Generation Regeneration: A Stem Cell Primer for Clinicians.” Cleveland, OH. April 17, 2014.
68. University of Southern California, Department of Pulmonary and Critical Care Medicine, seminar speaker, “Pluripotent Stem Cells for Modeling Lung Development and Disease.” Los Angeles, CA, April 4, 2014.
69. Novartis Institute for Biomedical Research, invited symposium speaker. “Pluripotent stem cell modeling of development and disease.” Cambridge, MA. March 12, 2014.
70. Hermansky-Pudlak Syndrome Network annual meeting, “State of iPS cell research and the potential derivation of distal lung epithelia.” Uniondale, NY. March 8, 2014.
71. Mount Sinai School of Medicine, Department of Regenerative and Developmental Biology invited seminar speaker, “Pluripotent Stem Cells for Modeling Development and Disease.” New York, NY. March 6, 2014.
72. Canadian Society for Transplantation Annual meeting, opening plenary keynote speaker, “Next Generation Regeneration: Pluripotent Stem Cells for Tissue Engineering.” Montreal, Canada. February 27, 2014.
73. University of Rochester, NY. Dept of Pediatrics and Dept of Environmental and Occupational Medicine, visiting Professor seminar series, “Pluripotent Stem Cell Modeling of Lung Development and Disease.” Rochester, NY. February 4, 2014.
74. Boston VA Hospital, Department of Medicine Grand Rounds invited speaker, “Next Generation Regeneration: A stem cell primer for physicians.” January 2014.
75. GMS, Graduate Medical Sciences student interview day, keynote speaker, “Pluripotent Stem Cell Research.” Boston University School of Medicine, Boston, MA. January 16, 2014.
76. Massachusetts General Hospital Pediatric Pulmonary Grand Rounds invited speaker, “Lung Stem Cells,” November 21, 2013.
77. American Society of Histocompatibility and Immunogenetics (ASHI), Annual national meeting, opening keynote speaker, “Next Generation Transplantation: pluripotent stem cells for engineering autologous tissues.” Chicago, IL, November 18, 2013.
78. 7th Annual Yale Fibrosis Symposium, Invited speaker, “Induced Pluripotent Stem Cells.” New Haven, CT. November 15, 2013.
79. Cleveland Clinic Transplant Surgery Grand Rounds invited speaker, “Next generation transplantation: iPS cells for engineering autologous tissue.” Cleveland, OH, November 11, 2013.
80. Cedars Sinai Medical Center, Department of Medicine Grand Rounds speaker, “Pluripotent Stem Cells for modeling development and disease.” Los Angeles, CA, October 24, 2013.
81. Evans Center Research Retreat. Invited featured speaker. “Beyond the iPS Bank: post-Evans Center ARC graduation for the CReM.” Boston, MA. October 16, 2013.
82. Vanderbilt University. Division of Pulmnary and Critical Care Medicine. Grand Rounds Speaker. “Pluripotent stem cell models of lung development and disease.” Nashville, TN, October 14, 2013.
83. Beth Israel Deaconess Medical Center. Division of Endocrinology, Diabetes & Metabolism, Grand Rounds speaker. “Pluripotent stem cell models of thyroid development and disease.” Boston, MA, October 4, 2013.
84. Lung Repair and Regeneration Consortium (LRRC). Invited speaker for annual NIH symposium meeting. “Pluripotent stem cell modeling of lung development and disease.” Philadelphia, PA, Sept. 24, 2013.
85. Gordon Research Conference on Lung Development, Injury, and Repair. Invited Speaker. “Pluripotent stem cell modeling of lung development and disease.” August 22, 2013.
86. Vermont Lung Stem Cell Meeting. Invited Symposium Session Chair. “ES cells, iPS cells, and Cell Therapies for Lung Disease.” Burlingotn, VT. July 30, 2013.
87. Groote Schuur Hospital, University of Cape Town. Department of Medicine Invited Grand Rounds Speaker. “Next Generation Regeneration: A Stem Cell Primer for Physicians.” Cape Town, South Africa, July 18, 2013.
88. University of Cape Town. Department of Surgery Grand Rounds, “Next Generation Regeneration: a stem cell primer for surgeons.” Cape Town, South Africa, July 17, 2013.
89. Boston Medical Center, Leadership for Change, Invited Keynote Speaker. “Stem Cells and the Pursuit of Personalized Medicine.” Boston, MA. June 19, 2013.
90. Medical University of South Carolina, Department of Pediatrics Grand Rounds Speaker. “Next Generation Regeneration: A Stem Cell Primer for Pediatricians.” Charleston, SC. May 10, 2013.
91. Medical University of South Carolina. Pulmonary Biology Seminar Invited Speaker. “Stem cells to model and treat lung disease.” Charleston, SC. May 10, 2013.
92. Experimental Biology, annual international meeting, invited symposium speaker. “Origins of Cells that Contribute to Pulmonary Epithelial and Vascular Remodeling”. Boston, MA, April 22, 2013.
93. Alpha-1 Foundation 50 year Research Celebration, invited plenary speaker. “Next Generation Regeneration: in pursuit of stem cell therapies for Alphas.” University of Massachusetts/Alpha-1 Foundation, Worcester, MA, April 20, 2013.
94. Massachusetts General Hospital, Division of Gastroenterology Grand Rounds speaker, “Pluripotent Stem Cell Models of Liver and Lung Disease.” Boston, MA. April 9, 2013.
95. Association of Health Care Journalists, annual national meeting invited speaker, “Stem Cells: Hope or Hype?” Boston, MA, March 15, 2013.
96. Massachusetts General Hospital, Department of Medicine Grand Rounds invited speaker, “Next Generation Regeneration: A Stem Cell Primer for Physicians.” Boston, MA, February 14, 2013.
97. World iPS Cell Summit, invited plenary speaker, “iPS Cell Models of Diseases Affecting Foregut Endodermal Lineages.” Boston, MA, October 31, 2012.
98. University of Pennsylvania, Institute of Environmental Medicine, Visiting Professor, “Pluripotent Stem Cell Models of Development and Disease,” Philadelphia, PA, October, 19, 2012.
99. National Institutes of Health, Grant Awardees Meeting on Tissue Engineering, invited speaker, “3D Tissue Engineering of a Biortificial Lung with iPS Cells,” Bethesda, MD, October 23, 2012.
100. Boston University School of Medicine/BMC-Boston Children’s Combined Program in Pediatrics, Grand Rounds Speaker, “Stem Cells and Regenerative Medicine: A Primer for Pediatricians.” Boston, MA, September 13, 2012.
101. Boston University Board of Trustees, Campaign Leadership Meeting, sole featured faculty speaker at the invitation of President Brown, ‘Next Generation Regeneration’, New York City, April 18, 2012
102. Pediatric & Diffuse Lung Disease in Children Research Conference. Invited Speaker. “Pluripotent Stem Cells for Childhood Interstitial Lung Diseases (ChILD).” San Diego, CA. June 14, 2012.
103. American Thoracic Society, Annual Meeting, “Stem Cells” Minisymposium Chair. San Francisco, CA. May 2012.
104. American Thoracic Society, Annual Meeting, Invited Symposium Speaker. “ARRA Stimulus Grant Awardees Presentation: Derivation of Endoderm from iPSCs.”. San Francisco, CA. May 2012.
105. American Transplant Congress, Annual Meeting. Invited Symposium Speaker and Symposium Chair, “Next Generation Transplantation: iPS Cells for Tissue Engineering.” Boston, MA. June 5, 2012
106. Pediatric Academic Societies, Annual Meeting. Invited plenary speaker, “New cell-based therapies for bronchopulmonary dysplasia.” Boston, MA. April 29, 2012.
107. Boston University Development Office, Featured Speaker at BU New England Alumni Breakfast. “An Apollo Mission For Our Time: Stem Cells, Regenerative Medicine, and BU’s Giant Step.” Mandarin Hotel, Boston, MA, Jan 24, 2011.
108. Boston University Henry M. Goldman School of Dental Medicine, Department of Molecular and Cell Biology, Invited Grand Rounds Speaker. “Pluripotent Stem Cell Modeling of Development and Disease.” Jan 14, 2012
109. Washington University School of Medicine, Visiting Professor, “Pluripotent Stem Cells in Lung Development and Disease”, St. Louis, MO, November 7, 2011.
110. Boston Medical Center, Department of Medicine, Grand Rounds Presentation, “Stem Cells and Regenerative Medicine: A Primer for Clinicians”, Boston, MA, October 28, 2011.
111. Vermont Lung Stem Cell Conference, “Pluripotent Stem Cells in Lung Development and Disease”. Burlington, VT, July 2011.
112. Newton-Wellesley Hospital, Grand Rounds Presentation, “Stem Cells and Regenerative Medicine: A Primer for Clinicians”, July 2011.
113. American Thoracic Society International Conference, Meet the Professor Invited Seminar, “Induced Pluripotent Stem Cells: Tips and Tricks for Lung Researchers,” Denver, Co, May 15, 2011
114. American Thoracic Society International Conference, Invited Symposium Lecture, “De Novo Derivation of Endodermal Lung Progenitors from Pluripotent Stem Cells”, Denver, CO, May 18, 2011.
115. American Thoracic Society International Conference, Symposium Chair, “Stem Cells and Regenerative Medicine in Lung Disease and Transplantation,” May 18, 2011.
116. American Thoracic Society International Conference, Invited Symposium Lecture, “Generation of Induced Pluripotent Stem Cell-Derived Vascular Progenitor Cells,” May 18, 2011.
117. University of Colorado Denver, Gates Center for Regenerative Medicine, Visiting Professor Lecture, “Pluripotent Stem Cells as Models of Lung Development and Disease.” March 2, 2011.
118. Boston University Development Office, Invited by University President to be Featured Speaker at West Coast Alumni Breakfast. “An Apollo Mission For Our Time: Stem Cells, Regenerative Medicine, and BU’s Giant Step.” Los Angeles, CA. Feb 2, 2011.
119. Keystone Conference on Lung Development. Santa Fe, NM. “ES and iPS Cell Models of Lung Development and Disease.” February 2011.
120. New England Journal of Medicine, Clinicopathological Conference (CPC) Discussant, “Case Records of the Massachusetts General Hospital: A 63 year old woman with dyspnea and rapidly progressive respiratory failure.” Boston, MA, January 21, 2011.
121. McEwen Centre for Regenerative Medicine. Toronto, Canada. “Pluripotent Stem Cells: Implications for Lung Disease and Development.” October 12, 2010.
122. Harvard Lung Conference. Boston, MA. “Pluripotent Stem Cells: Novel Sources of Lung Progenitors.” October 6, 2010.
123. FASEB Conference on Lung Epithelium in Health and Disease. Saxtons River, Vermont. “Directed Differentiation of ES and iPS Cells.” August 13, 2010.
124. Alpha-1 Foundation Annual Meeting. Invited Keynote Speaker. “Stem Cells and Gene Therapy for Alpha-1 Antitrypsin Deficiency.” Orlando, FL. June 13, 2010.
125. American Thoracic Society Annual Conference. Symposium Lecture. “Induced Pluripotent Stem Cells as Models of Lung Development” New Orleans, LA. May 2010.
126. Evans Center for Biomedical Research, ARC: Affinity Research Collaboratives Celebration Day, Boston University. Invited Speaker. “Advancing Regenerative Medicine with The Boston University Induced Pluripotent Stem (iPS) Cell Bank.” February 16, 2010
127. University of Southern California. Pulmonary Grand Rounds Speaker. “Induced Pluripotent Stem Cells for the Study of Lung Development and Disease.” February 5, 2010.
128. Alpha-1 Foundation, Alpha-1 Patient Education Day. Invited Speaker. “Stem cell and gene therapy research for Alpha-1 Antitrypsin Deficiency”. Boston, MA. September 12, 2009.
129. Vermont Lung Stem Cell Conference (NIH/NHLBI Sponsored). Invited Speaker. “ES and iPS Cells: A Future Source of Lung Epithelial Progenitors?” Burlington, VT. July 2009.
130. American Thoracic Society Annual Conference, Post Graduate Course invited lecture, San Diego, CA. “Induced Pluripotent Stem (iPS) Cells: Implications for Pulmonologists” May 2009.
131. American Thoracic Society Annual Conference. Symposium Lecture. “Induced Pluripotent Stem Cells: A Future Source of Lung Progenitors?” San Diego, CA. May 2009.
132. American Society for Investigative Pathology (AISP) Annual Meeting, Invited Speaker. “iPS Cells: A Future Source of Lung Epithelial Progenitors?” New Orleans, LA. March 2009.
133. NIH/NHLBI: Lung Stem Cell Biology and Cell Based Therapy Meeting. “Induced Pluripotent Stem (iPS) Cells: A Future Source of Lung Progenitors?”. University of Illinois, Chicago, IL. Nov. 7, 2008.
134. University of Massachusetts, Worcester, Department of Medicine: Research Grand Rounds. “Gene Delivery to Alveolar Macrophages in vivo.” June 4, 2008.
135. American Thoracic Society Annual Conference, Post Graduate Course invited lecture, Toronto, Canada, “Pulmonary hypertension: endothelial progenitor cells are part of the problem.” May 2008.
136. Tufts Medical Center, Pulmonary and Critical Care Medicine, Boston, MA, “Stem cell strategies to reconstitute the alveolar epithelium.” March 19, 2008.
137. Massachusetts General Hospital, Division of Transplant Surgery Grand Rounds, Boston, MA, “Stem cells and transplant surgeons: friends or foes?” Jan 22, 2007.
138. American Thoracic Society Annual Conference, Symposium Lecture, San Francisco, CA, “Stem cells to reconstitute the lung alveolus.” May 2006.
139. University of Cincinnati, Cincinnati Children’s Medical Center, Department of Pulmonary Biology, Cincinnati, OH, “Embryonic Stem Cell Modeling of Early Lung Lineage Specification,” Sept, 2006.
140. University of Cincinnati, Cincinnati Children’s Medical Center, Division of Pediatric Surgery, Visiting Professor, “Understanding Stem Cells, Clinical Relevance for the Surgeon,” Cincinnati, OH, Sept, 2006.
141. Massachusetts General Hospital, Gastroenterology Grand Rounds, Boston, MA, “A novel stem cell population in adult liver with potent hematopoietic reconstitution activity.” Nov. 2005.
142. American Thoracic Society Annual Conference, Symposium Lecture, San Diego, CA, “Stem cells and alveolar repair.” May 2005.
143. University of Pennsylvania, Pulmonary and Critical Care Division, Philadelphia, PA, “Stem Cell-Based Strategies to Reconstitute the Alveolus.” Jun 2005.
144. American Thoracic Society Annual Conference, Symposium Lecture, Orlando, Florida, “Stem Cell-Based Strategies to Reconstitute the Alveolus.” May 23, 2004.
145. Caritas-Carney Hospital, Medical Grand Rounds, Boston, MA, “Understanding Stem Cells: Clinical Relevance for the Internist.” 2004.
146. Long Island Jewish Health System, Department of Surgery Grand Rounds, “Understanding Stem Cells: Clinical Relevance for the Surgeon.” February 26, 2004.
147. Association Francaise Contre Les Myopathies, Paris, France, “Cystic Fibrosis and Neuromuscular Disease: Perspectives from Cell Therapy” 2002.
148. Boston University Evans Days Research Symposium, “Marrow Stem Cells as Precursors of Alveolar Epithelium.” 2000.
149. Woods Hole Conference on Developmental Lung Biology, “Bone Marrow Stem Cells as Precursors of Alveolar Epithelium.” 1999.
150. Massachusetts Thoracic Society, “Hereditary Hemorrhagic Telangiectasia Presenting as Hypoxemia.” 1999.