Stem Cells and Cell Therapies in Lung Biology and Lung Diseases
Supported by (the National Heart, Lung, and Blood Institute, Alpha-1 Foundation, American Thoracic Society, Pulmonary Fibrosis Foundation, University of Vermont College of Medicine, Vermont Lung Center)

Burlington, Vermont
July 29-August 1, 2013

AGENDA

MONDAY, JULY 29

8:30-4:30 PM       Hands-on workshop (Limited to 40 Participants)
5:00-7:00 PM       Welcoming Reception and Registration, Sheraton Hotel
7:00 PM           Free night in Burlington

TUESDAY, JULY 30

6:30-7:15 AM       Shuttle bus looping between Sheraton and UVM Campus
6:45-7:15 Continental Breakfast and Continued Registration
Grand Maple Ballroom, Davis Center, UVM Campus
7:15-7:30 Welcome and Introduction

Session 1:  **Endogenous Lung Progenitor Cells**
Moderator: Adam Giangreco, University Hospital, London

*(30 minute talks followed by 10 min Q/A)*

7:30-8:10 Featured Speaker: Harold Chapman, UCSF
Phenotyping Airway and Alveolar Epithelial Cells

8:10-8:50 Featured Speaker: John Engelhardt, University of Iowa
Proximal, Submucosal, and Distal Airway Progenitors and Regeneration

8:50-9:30 Featured Speaker: Vibha Lama, University of Michigan
Endogenous L-MSCs, Fibroblast Progenitors, and Epithelial Plasticity

9:30-10:00 Break
10:00-10:30  **Anna-Karina Perl, Cincinnati Children’s**  
Regeneration of the lung stroma

10:30-11:00  **Jason Rock, UCSF**  
Endogenous lung epithelial and stromal progenitors in lung regeneration

11:00-11:30 Junior Investigator ~ TBA

11:30-12:00 PM Junior Investigator ~ TBA

12:00-1:00 Panel Moderated Discussion: Pro-Con Distal Human Airway Epithelial Progenitor  
Panelists: Piero Anversa, Andrew Hoffman, Barry Stripp

1:00-2:30 Lunch

**Session 2:**  **Embryonic Stem Cells, iPS, and Lung Regeneration**  
Moderator: **Darrell Kotton BU**

2:30-3:10 Featured Speaker: **Janet Rossant, University of Toronto**  
Title TBD

3:10-3:50 Featured Speaker: **Aaron Zorn, Cincinnati Children’s**  
Title: Xenopus as a model for lung development

All subsequent talks: 20 min followed by a 10 min Q/A period

3:50-4:20 **Jay Rajagopal, Harvard** (Title TBD)

4:20-4:50 **Laertis Ikonomou, BU**  
Title: Defining the identity of primordial lung progenitors.

4:50-5:15 BREAK

5:15-5:45 Junior Investigator ~ TBA

5:45-6:15 Junior Investigator ~ TBA

6:15-7:00 Panel Moderated Discussion  
Panelists: Brian Davis, University of Texas, Hans-Willem Snoek, Columbia, Jeffrey Whitsett, Cincinnati Childrens

7:00 PM Free night in Burlington
**WEDNESDAY, JULY 31**

7:00–7:30 AM  Continental Breakfast

**Session 3: Bioengineering Approaches to Lung Regeneration:**

*Moderator: Peter Lelkes, Temple*

*(30 minute talks followed by 10 min Q/A)*

7:30-8:10  Featured Speaker: **Steven Badylak, Pitt**  
Tissue Bioengineering

8:10-8:50  Featured Speaker: **Gordana Novakovic, Columbia**  
Lung Bioengineering

8:50-9:30  Featured Speaker: **Bela Suki, Boston University**  
Assessing Lung Mechanics in Bioengineered Lungs

9:30-10:10  Featured Speaker: **Susan Margulies, Penn**  
Stretch and other Environmental Approaches to Lung Bioengineering

10:10-10:30  Break

*(All subsequent talks: 20 min followed by a 10 min Q/A period)*

10:30-11:00  **Elizabeth Calle, Yale University**

11:00-11:30  **Darcy Wagner, University of Vermont**

11:30-12:00 PM  Junior Investigator ~ TBA

12:00-12:30 PM  Junior Investigator ~ TBA

12:30-12:30  Lunch and Panel discussion.  Panelists: Christine Finck, Laura Niklason, Harald Ott, Angela Panoskaltsis-Mortari

**Session 4: Careers in Stem Cells, Cell Therapies, and Lung Bioengineering**

*Moderator: Sara Lin, NHBLI*

2:00-2:30  Featured Speaker: **James Kiley NHLBI**  
Academic careers in lung stem cells/cell therapies/bioengineering.  Where is this all headed?

2:30-5 PM  Speed dating, pairing of junior and senior investigators  
Poster session

5:00-5:45  Featured Speaker: Martin Birchall, University Hospital London  
Clinical Use of Bioengineered Tracheas: Promise and Challenges

7:00-9:00  Dinner Cruise on Lake Champlain
THURSDAY, August 1

6:30-7:00 AM  Continental Breakfast

**Session 5: EPCs, MSCs and Cell Therapy Approaches for Lung Diseases**
Moderator:  Armand Keating, University of Toronto

(30 minute talks followed by 10 min Q/A)

7:00-7:40  Featured Speaker:  Jahar Bhattacharya, Columbia University
Microsomes and Mitochondria: Emerging Mechanisms of MSC Immunomodulation

7:40-8:20  Featured Speaker:  Nick Morrell, Cambridge University
Endothelial Progenitors: State of the Field

8:20-9:00  Featured Speaker: Patricia Rocco, Federal University of Rio de Janeiro
Clinical Trials of MSCs in Lung Diseases in Brazil

9:00-9:40  Featured Speakers:  Michael Matthay, UCSF and Lauralynn McIntyre, Univ of Toronto
Update and Pro/Cons of Clinical trials with MSCs and ESCs

9:40-10:00  BREAK

(20 minute talks followed by 10 min Q/A)

10:00-10:30  Claudia dos Santos, University of Toronto
Therapeutic use of MSCs in sepsis

10:30-11:00  Jae Woo Lee, UCSF
Mechanisms of MSC actions in alleviating acute lung injury

11:00-11:30  Diego Alvarez, South Alabama
Endogenous pulmonary vascular progenitor cells

11:30-12:00 PM  Junior Investigator ~ TBA

12:00-12:30  Junior Investigator ~ TBA

12:30-1:00  Panel discussion (panelists: Duncan Stewart, Conrad Liles, Mervin Yoder)

1:00-1:15  Break and pick up box lunch

**Session 6: Summation and Directions**
Moderator:  Darwin Prockop

1:15-1:30  Featured Speaker:  Ed Morrisey, Penn
NHLBI LRRC

1:30-1:45  Featured Speaker: Mahendra Rao, NIH
Lung Studies in the NIH Center for Regenerative Medicine

1:45-2:30  Open Discussion: Setting Priorities and Recommendations to the NIH and Other Organizations Regarding Future Research Opportunities

2:30 PM  Awards Presentation and Conclusion