Stem Cells, Cell Therapies, and Bioengineering in Lung Biology and Diseases

July 12-15, 2021

Hosted by: University of Vermont, Burlington, Vermont

AGENDA

MONDAY, JULY 12

5:00-6:00 PM  Welcoming Reception and Registration, Hotel Vermont

TRANSITION TO COURTYARD BURLINGTON HARBOR HOTEL, HARBOR ROOM

6:00-6:10  Opening Remarks
Suresh V. Garimella, PhD, President
University of Vermont

Session I:  Technological Advances for in situ Analysis of Tissues
Moderators:
Ruben Dries, PhD ~ Boston University
Mattias Magnusson, PhD ~ Lund University

6:10-6:40  Featured Presentation:
TBD ~ KEY NEW DATA

6:40-7:10  Featured Presentation: High-Spatial-Resolution Multi-Omics Atlas Sequencing
Rong Fan, PhD ~ Yale University

7:10-7:40  Featured Presentation: Live-cell Single Particle Imaging
Timothee Lionnet, PhD ~ New York University Langone Medical Center

7:40-8:00 PM  Panel Discussion

Free night in Burlington, Dinner on Your Own
TUESDAY, JULY 13  
(Location: Grand Maple Ballroom, Davis Center, UVM Campus)

7:40-8:30 AM  Shuttle bus looping between Hotel Vermont and UVM Campus
8:00-8:45  Continental Breakfast and Continued Registration
8:45-9:00  Welcome and Introduction  
Gordon L. Jensen, MD, PhD, Senior Associate Dean for Research  
The Larner College of Medicine at the University of Vermont

Session II:  New Insights into Cellular Plasticity in the Lung  
Moderators:  
Rob Hynds ~ University College London

9:00-9:30  Featured Presentation:  
Carla Kim, PhD ~ Children’s Hospital Boston

9:30-10:00  Featured Presentation:  
Role of CLDN18 in Cellular Plasticity in the Lung  
Zea Borok, MD ~ University of Southern California

10:00-10:20  Travel Award Presentation:  
TRAINEE~

10:20-10:50  COFFEE AND NETWORKING BREAK

Session III:  Stem Cell Signaling in Lung Remodeling  
Moderators:  
Naftali Kaminski, MD ~ Yale University

10:50-11:20  Featured Presentation:  
Mesenchymal-epithelial Interactions in Lung Fibrosis  
Tien Peng, MD ~ University of California San Francisco

11:20-11:50  Featured Presentation:  
TBD  
Jonathan Kropski, MD ~ Vanderbilt University

11:50-12:05 PM  Travel Award Presentation:  
TRAINEE~
12:10-12:40 PM  Elevator Pitch Competition – Commercialize Your Research for Industry Sponsorship or SBIR/STTR Collaboration
Panel:
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One Minute Elevator Pitch Competition for Junior Trainees.
1 slide allowed: 1-minute buzzer.
Panel of Senior Investigators to judge.
Two prizes awarded.

12:40-2:00  MENTORING/MEET THE FACULTY LUNCH

2:00-3:00  Thematic Poster Session #1
Poster Discussion Facilitators:
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Session IV:  Therapeutic Immunomodulation of the Lung
Moderators:
Erica Herzog, MD, PhD ~ Yale University

3:00-3:30  Featured Presentation: Inhalation of Lung Spheroid Cell Secretome and Exosomes Promotes Lung Repair in Pulmonary Fibrosis
Ke Cheng, PhD ~ University of North Carolina Chapel Hill

3:30-4:00  Featured Presentation: Alveolar Macrophages: Roles in Therapeutic Intervention and Disease Pathogenesis
Bruce Trapnell, MD ~ University of North Carolina Chapel Hill

4:00-4:30  Featured Presentation: Localization of Macrophages in the Human Lung via Design-based Stereology
Pat Hume, MD, PhD ~ University of Colorado Anschutz

4:30-4:45  Travel Award Presentation
TRAINEE~

4:45-5:10 PM  Panel Discussion
Session V:  Careers in Stem Cells, Cell Therapies, and Lung Bioengineering – Part I

Moderators

5:15-5:45 PM  Featured Presentation:

6:00-8:00  WOMEN AND DIVERSITY PANEL DISCUSSION AND RECEPTION

7:15-8:15  Bus return to hotel

8:00 PM  Free night in Burlington, Dinner on your own
**WEDNESDAY, JULY 14**

7:50-9:15 AM  Shuttle bus continuous looping between Hotel and UVM Davis Center
8:15-8:45  Continental Breakfast (Grab and Go breakfast)

**Session V:  Careers in Stem Cells, Cell Therapies, and Lung Bioengineering – Part II**

Breakfast Sessions - Concurrent

8:00-9:00  *Finding a Position and Starting Your Own Lab – Panel Discussion*
Panel
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8:00-9:00  *Funding and Financial Management of Your Lab – Panel Discussion*
Panel
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**Session VI:  Matrix Biomechanics and Stem Cell Dynamics in Lung Health and Disease**

*Moderators:*
Jin-Ah Park, PhD ~ Harvard University
Darcy Wagner, PhD ~ Lund University

9:00-9:30  *Featured Presentation: Regulation of Alveolar Type 2 cells by ER Stress in IPF*
Mike Beers, MD ~ University of Pennsylvania

9:30-10:00  *Featured Presentation:*
Sarah Gilpin, PhD ~ Wyss Institute, Harvard University

10:30-11:00  *Featured Presentation:*
**TBD – KEY NEW DATA**

11:00-11:15  *Travel Award Presentation*
**TRAINEE~**

11:15-11:30  *Panel Discussion*

11:30-1:00  GROUP PHOTO AND LUNCH

1:00-2:00 PM  *Thematic Poster Session #2*
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Session VII: **Engineering Models of Lung Disease and Regeneration**  
*Moderators:*
Steven Skolasinski, MD ~ University of Minnesota  
Janette Burgess ~ University Medical Center Groningen

2:00-2:30 PM  *Featured Presentation:*
Chelsea Magin, PhD ~ University of Colorado Anschutz

2:30-3:00  *Featured Presentation: Modelling hyperoxia induced lung injury*
Jennifer Sucre, MD ~ Vanderbilt University

3:00-3:30  *Featured Junior Presentation: Lung-Chip models of airway infection*
Janna Nawroth, PhD – University of Southern California

3:30-4:00  *Travel Award Presentation:*
TRAINEE~

Session VIII: **Direct-to-consumer Cell-based Interventions for Respiratory Diseases: Stratagems and Countermeasures: Panel**  
*Moderators:*
Leigh Turner, PhD ~ University of Minnesota  
Sarah Mojarad ~ University of Southern California

4:00-5:00  
Laertis Ikonomou, PhD ~ State University of New York at Buffalo  
Patti Zettler ~ Ohio State University  
Zubin Master, PhD ~ Mayo Clinic

5:00-5:30  *Panel Discussion*

5:30-6:05  Buses leaving at intervals to transport to dinner cruise (and to hotels if not attending the cruise)

6:00-9:00  Dinner Cruise on Lake Champlain ~ Award Ceremony  
*(Cruise boards from 6:00-6:30 and departs promptly at 6:30pm)*

9:00 PM  *Cruise Disembarks:*
*(Please advise UVM in advance if you will need transportation back to the hotel following the cruise. The distance to walk is about two blocks uphill.)*
THURSDAY, July 15

8:15-9:05 AM  Shuttle bus continuous looping between Hotel and UVM Davis Center

8:30-9:00  Continental Breakfast

**Session IX:**  **Careers in Stem Cells, Cell Therapies, and Lung Bioengineering – Part III**

**Breakfast Sessions - Concurrent**

8:00-9:00  *Meet the editors – Panel Discussion*
Panel
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8:00-9:00  *Navigating Funding Mechanisms – Panel Discussion*
Panel
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8:00-9:00  *Alternative Careers to Academic Science – Panel Discussion*
Panel
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**Session X:**  **Differentiating and Delivering Stem Cell Therapeutics to the Lung**

**Moderators:**
John Mahoney, PhD ~ Cystic Fibrosis Foundation Therapeutics
Thomas Lynch, PhD ~ University of Iowa

9:00-9:30  *Featured Presentation:*
Hans-Willem Snoeck, MD, PhD ~ Columbia University

9:30-10:00  *Featured Presentation:*
Jae-Won Shin, PhD ~ University of Illinois at Chicago

10:30-11:00  *Featured junior Presentation: Hybrid hydrogels for lung stem cell regeneration*
Deniz Bölükbass, PhD ~ Lund University

11:00-11:20  COFFEE AND NETWORKING BREAK
**Session XI: Aging Lung**

*Moderators:*
Marieke Lehmann, MD, PhD ~ University of Munich
Victor Thannickal, MD ~ University of Alabama

11:20-11:50  *Featured Presentation: ER stress and aging of the lung*
Mauricio Rojas, MD ~ University of Pittsburgh

11:50-12:20  *Featured Presentation:*
Giovanni Ligresti, PhD ~ Mayo Clinic

12:20-12:50  *Abstract Presentation:*
TRAINEE~

12:50-1:20  Pick up BOX LUNCH

**Session XII: Regeneration in Response to Viral Infection**

*Moderators:*
TBD ~
TBD ~

1:20-1:50  *Featured Presentation:*
Darrel Kotton, MD ~ Boston University

1:50-2:20  *Featured Presentation:*
TBD ~

2:20-2:35  *Abstract Presentation:*
TRAINEE ~

2:35-2:50  *Panel Discussion*

**Session XIII: Concluding Discussion**

*Moderator:*
Daniel J. Weiss, MD, PhD ~ University of Vermont

2:50-4:00  *Open Discussion - Setting Priorities and Recommendations to the NIH and Other Organizations Regarding Future Research Opportunities*

3:15-4:30 PM  Shuttle bus continuous looping from Davis Center to Airport and/or Hotel