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 PM   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 PM   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
Timothée Lionnet, PhD ~ New York University Langone Medical Center

7:40-8:00      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 AM    Continental Breakfast and Continued Registration
8:45-9:00 AM    Welcome and Introduction
                Richard L. Page, MD, Dean ~
                The Larner College of Medicine at the University of Vermont

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

9:00-9:30 AM    Featured Presentation: TBD
Carla Kim, PhD ~ Children’s Hospital Boston
9:30-10:00 AM   Featured Presentation: Role of CLDN18 in Cellular Plasticity in the Lung
Zea Borok, MD ~ University of Southern California
10:00-10:20 AM  Outstanding Abstract Achievement Award Presentation
TRAINEE~

10:20-10:50 AM  COFFEE AND NETWORKING BREAK

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

10:50-11:20 AM  Featured Presentation: Mesenchymal-epithelial Interactions in Lung Fibrosis
Tien Peng, MD ~ University of California San Francisco
11:20-11:50 AM  Featured Presentation: TBD
Jonathan Kropski, MD ~ Vanderbilt University
11:50-12:05 PM  Outstanding Abstract Achievement Award Presentation
TRAINEE~
12:10-12:40 PM  “Minute to Win It” Competition – Commercialize Your Research for Industry Sponsorship or SBIR/STTR Collaboration
Moderators:
Ben Calvert, PhD ~ University of Southern California
Thomas Lynch, PhD ~ University of Iowa

Introductory Remarks
Kirk Dombrowski, PhD, Vice President for Research ~
The Larner College of Medicine at the University of Vermont

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
Moderator:
Erica Herzog, MD, PhD ~ Yale School of Medicine

3:00-3:30 PM  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 ~ Cincinnati Children’s Hospital Medical Center

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 Medical Campus

4:30-4:45  Outstanding Abstract Achievement Award Presentation
TRAINEE~

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

Moderators

5:15 PM Welcome - Gordon L. Jensen, MD, PhD, Senior Associate Dean for Research ~ The Larner College of Medicine at the University of Vermont

5:20-5:50 Featured Presentation:

6:00-8:00 WOMEN AND DIVERSITY PANEL DISCUSSION AND RECEPTION
Sarah Mojarad, MS ~ University of Southern California

7:15-8:15 Bus return to hotel

8:00 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, University of Vermont

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 ~ United Therapeutics

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

11:00-11:15  *Outstanding Abstract Achievement 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*
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 Medical Center*

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

3:30-4:00  
*Outstanding Abstract Achievement Award Presentation*

Session VIII: **Direct-to-Consumer Cell-based Interventions for Respiratory Diseases: Stratagems and Countermeasures**

*Moderators:*
*Leigh Turner, PhD ~ University of Minnesota*
*Sarah Mojarad, MS ~ University of Southern California*

4:00-4:20 PM  
*Featured Presentation: TBD*
*Laertis Ikonomou, PhD ~ State University of New York at Buffalo*

4:20-4:40  
*Featured Presentation: TBD*
*Patti Zettler, JD ~ Ohio State University*

4:40-5:00  
*Featured Presentation: TBD*
*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 AM   *Meet the editors – Panel Discussion*  
Panel  
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8:00-9:00 AM   *Navigating Funding Mechanisms – Panel Discussion*  
Panel  
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8:00-9:00 AM   *Alternative Careers to Academic Science – Panel Discussion*  
Panel  
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8:00-9:00 AM   *Featured Presentation: TBD*  
Hans-Willem Snoeck, MD, PhD ~ Columbia University

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

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

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

10:30-11:20    COFFEE AND NETWORKING BREAK
Session XI:  **Aging Lung**  
*Moderators:*
Mariéke Lehmann, MD, PhD ~ University of Munich  
Victor Thannickal, MD ~ University of Alabama  

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

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

12:20-12:50  *Outstanding Abstract Achievement Award 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 PM  *Featured Presentation: TBD*  
Darrell Kotton, MD ~ Boston University  

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

2:20-2:35  *Outstanding Abstract Achievement Award 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 PM  *Open Discussion - Setting Priorities and Recommendations to the NIH and Other Organizations Regarding Future Research Opportunities*  

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