

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

July 12-15, 2021

Hosted by: University of Vermont

AGENDA

(All times given are EST – other time-zone versions will be available before the conference.)

MONDAY, JULY 12

10:00-10:10 AM **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

10:10-10:40 M *Featured Presentation:*

TBD ~ KEY NEW DATA

10:40-11:10

Featured Presentation: High-Spatial-Resolution Multi-Omics Atlas Sequencing

Rong Fan, PhD ~ Yale University

11:10-11:40

Featured Presentation: Live-cell Single Particle Imaging

Timothée Lionnet, PhD ~ New York University Langone Medical Center

11:40-12:00

Panel Discussion

Session II: Therapeutic Immunomodulation of the Lung

Moderator:

Erica Herzog, MD, PhD ~ Yale School of Medicine

1:00-1:30 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

1:30-2:00

Featured Presentation: Alveolar Macrophages: Roles in Therapeutic Intervention and Disease Pathogenesis

Bruce Trapnell, MD ~ Cincinnati Children's Hospital Medical Center

2:00-2:30

Featured Presentation: Localization of Macrophages in the Human Lung via Design-based Stereology

Pat Hume, MD, PhD ~ University of Colorado Anschutz Medical Campus

2:30-2:45

Outstanding Abstract Achievement Award Presentation

TRAINEE~

2:45-3:05

Panel Discussion

3:15-4:30 PM

TRAINEE NETWORKING EVENT

TUESDAY, JULY 13

9:45-10:00 AM Welcome and Introduction
Richard L. Page, MD, Dean ~
The Larner College of Medicine at the University of Vermont

Session III: New Insights into Cellular Plasticity in the Lung

Moderator:

Rob Hynds ~ University College London

10:00-10:30 AM *Featured Presentation: TBD*

Carla Kim, PhD ~ Children's Hospital Boston

10:30-11:00 *Featured Presentation: Role of CLDN18 in Cellular Plasticity in the Lung*

Zea Borok, MD ~ University of Southern California

11:00-11:15 *Outstanding Abstract Achievement Award Presentation*

TRAINEE~

11:15-11:35 *Panel Discussion*

11:45-12:30 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 of Senior Investigator Judges:

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One Minute Elevator Pitch Competition for Junior Trainees.

1 slide allowed: 1-minute buzzer. Two prizes awarded.

12:30-1:30 **MENTORING/MEET THE FACULTY LUNCH**

Session IV: Stem Cell Signaling in Lung Remodeling

Moderator:

Naftali Kaminski, MD ~ Yale University

1:45-2:15 PM *Featured Presentation: Mesenchymal-Epithelial Interactions in Lung Fibrosis*

Tien Peng, MD ~ University of California San Francisco

2:15-2:45 *Featured Presentation: TBD*

Jonathan Kropski, MD ~ Vanderbilt University

2:45-3:00 PM *Outstanding Abstract Achievement Award Presentation*

TRAINEE~

3:00-4:15 ***Thematic Poster Session #1***

Poster Discussion Facilitators:

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

Moderators

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4:15 PM Welcome - **Gordon L. Jensen, MD, PhD, Senior Associate Dean for Research ~ The Larner College of Medicine at the University of Vermont**

4:20-4:50 *Featured Presentation:*

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5:00-6:00 **WOMEN AND DIVERSITY PANEL AND NETWORKING**

Sarah Mojarad, MS ~ University of Southern California

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WEDNESDAY, JULY 14

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

Breakfast Sessions - Concurrent

9.30-10:30 *Finding a Position and Starting Your Own Lab – Panel Discussion*

Panel

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9.30-10:30 *Funding and Financial Management of Your Lab – Panel Discussion*

Panel

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Session VII: 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

10:30-11:00 *Featured Presentation: Regulation of Alveolar Type 2 cells by ER Stress in IPF*

Mike Beers, MD ~ University of Pennsylvania

11:00-11:30 *Featured Presentation:*

Sarah Gilpin, PhD ~ United Therapeutics

11:30-11:45 *Outstanding Abstract Achievement Award Presentation*

TRAINEE~

11:45-12:15 *Panel Discussion*

12:15-1:30 PM ***Thematic Poster Session #2***

Poster Discussion Facilitators:

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Session VIII: Engineering Models of Lung Disease and Regeneration

Moderators:

Steven Skolasinski, MD ~ University of Minnesota

Janette Burgess, PhD ~ University Medical Center Groningen

- 1:00-1:30 PM *Featured Presentation: Engineering hybrid-hydrogels to model chronic pulmonary diseases in vitro*
Chelsea M. Magin, PhD ~ University of Colorado, Denver | Anschutz
- 1:30-2:00 *Featured Presentation: Modelling Hyperoxia Induced Lung Injury*
Jennifer Sucre, MD ~ Vanderbilt University Medical Center
- 2:00-2:30 *Featured Junior Presentation: Lung-Chip Models of Airway Infection*
Janna Nawroth, PhD – University of Southern California
- 2:30-2:45 *Outstanding Abstract Achievement Award Presentation*
TRAINEE~
- 2:45-3:05 *Panel Discussion*

Session IX: 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

- 3:15-3:35 PM *Featured Presentation: TBD*
Laertis Ikonou, PhD ~ State University of New York at Buffalo
- 3:35-3:55 *Featured Presentation: TBD*
Patti Zettler, JD ~ Ohio State University
- 3:55-4:15 *Featured Presentation: Physician Perspectives on Unproven Stem Cell and Regenerative Therapies and Their Approaches to Consult Patients*
Zubin Master, PhD ~ Mayo Clinic
- 4:15-4:45 *Panel Discussion*
- 5:00-6:30 **Evening Online Social Event**

THURSDAY, JULY 15

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

Breakfast Sessions - Concurrent

9.30-10:30 AM *Meet the editors – Panel Discussion.*
Panel

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9.30-10:30 *Navigating Funding Mechanisms – Panel Discussion*
Panel

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9.30-10:30 *Alternative Careers to Academic Science – Panel Discussion*
Panel

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Session XI: Differentiating and Delivering Stem Cell Therapeutics to the Lung

Moderators:

John Mahoney, PhD ~ Cystic Fibrosis Foundation Therapeutics

Thomas Lynch, PhD ~ University of Iowa

10:30-11:00 AM *Featured Presentation: TBD*
Hans-Willem Snoeck, MD, PhD ~ Columbia University

11:00 -11:30 *Featured Presentation: TBD*
Jae-Won Shin, PhD ~ University of Illinois at Chicago

11:30-12:00 *Featured Junior Presentation: Hybrid Hydrogels for Lung Stem Cell Regeneration*
Deniz Bölükbaş, PhD ~ Lund University

12:00-12:20 *Panel Discussion*

Session XII: Aging Lung

Moderators:

Marieke Lehmann, MD, PhD ~ University of Munich

Victor Thannickal, MD ~ University of Alabama

12:30-1:00 AM *Featured Presentation: ER Stress and Aging of the Lung*

Mauricio Rojas, MD ~ University of Pittsburgh

1:00-1:30 PM *Featured Presentation: TBD*

Giovanni Ligresti, PhD ~ Boston University

1:30-1:45 *Outstanding Abstract Achievement Award Presentation*

TRAINEE~

1:45-2:05 *Panel Discussion*

Session XII: Regeneration in Response to Viral Infection

Moderators:

TBD ~

TBD ~

2:15-2:45 PM *Featured Presentation: Pluripotent Stem Cells to Model Lung Development and Disease*

**Darrell Kotton, MD ~ Center for Regenerative Medicine (CREM) at Boston
University and Boston Medical Center**

2:45-3:15 *Featured Presentation:*

TBD ~

3:15-3:30 *Outstanding Abstract Achievement Award Presentation*

TRAINEE ~

3:30-3:50 *Panel Discussion*

Session XIII: Concluding Discussion

Moderator:

Daniel J. Weiss, MD, PhD ~ University of Vermont

4:00-5:30 PM *Open Discussion - Setting Priorities and Recommendations to the NIH and Other
Organizations Regarding Future Research Opportunities*