

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

## PRE-CONFERENCE WORKSHOP ~ July 17, 2023

Note: all times are EDT.

8:25 AM Shuttle bus from hotel (Hotel Vermont/Courtyard Marriott) to UVM HSRF/Given Building

8:30-9:00 Continental Breakfast ~ Stafford Hall, UVM campus, tentative

### Practical Course on State-of-the-Art Methods in Stem Cells, Cell Therapies, and Bioengineering

Stafford Hall, tentative

Led by: *Amy Ryan, PhD, University of Iowa and Daniel J. Weiss, MD, PhD, University of Vermont*

8:55-9:00 AM Welcome and Introductions (Stafford Hall)

9:00-10:30 AM **Laboratory Techniques Rotation 1:**

Option A: Using Precision Cut Lung Slices (PCLS) to Study Lung Biology and Disease:

Led by Darcy Wagner's Laboratory (Lund University, SWE)

Option B: Application of Organoids and Hydrogels to Study Lung Biology and Disease

Led by Chelsea Magin's Laboratory (University of Colorado, Denver: Anschutz campus, CO)

Option C: Application of Flexivent to Study Biomechanical Regulation of Lung Function

Led by Bradford Smith's Laboratory (University of Colorado, Denver: Anschutz campus, CO)

10:30-11:00 AM Coffee and Networking Break

11:00-12:30 PM **Laboratory Techniques Rotation 2:**

Option A: Using Precision Cut Lung Slices (PCLS) to Study Lung Biology and Disease:

Led by Darcy Wagner's Laboratory (Lund University, SWE)

Option B: Application of Organoids and Hydrogels to Study Lung Biology and Disease

Led by Chelsea Magin's Laboratory (University of Colorado, Denver: Anschutz campus, CO)

Option C: Application of Flexivent to Study Biomechanical Regulation of Lung Function

Led by Bradford Smith's Laboratory (University of Colorado, Denver: Anschutz campus, CO)

12:30-1:30 Lunch and Networking Break

1:30-2:45 **Scientific Skills Rotation:**

Option D: Introduction to Bioinformatics Analysis

Led by Dr. Crystal Marconett (University of Southern California, CA)

Option E: Developing Your Research Pitch

Led by Dr. Finn Hawkins (Boston University, MA) and Dr. Jed Mahoney (CF Foundation, Lexington, MA)

Option F: A Career in Translational Science (*High School Students Only*)

Led by Dr. Amy Ryan (University of Iowa, IA) and Dr. Dan Weiss (University of Vermont, VT)

2:45-3:00 Coffee and Networking Break

3:00-4:15 PM Option G: Discovair.com: Application of the Human Lung Cell Atlas to Your sc-RNAseq Analysis

Led by: Prof. Martijn Nawijn (University Medical Center Groningen, The Netherlands)

4:20-4:40 PM Shuttle bus from Stafford Hall to hotels (Hotel Vermont/Courtyard Marriott)