

*20<sup>th</sup> Anniversary*  
**Stem Cells, Cell Therapies, and Bioengineering  
in Lung Biology and Diseases**  
**PRE-CONFERENCE WORKSHOP ~ July 7, 2025**  
**Stafford Hall ~ University of Vermont Campus**

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

**Practical Course on State-of-the-Art Methods in Stem Cells, Cell Therapies, and Bioengineering**  
**Led by: Amy Ryan, PhD, University of Iowa and Daniel J. Weiss, MD, PhD, University of Vermont**

8:55-9:00 Welcome and Introductions ~ [Stafford 101](#)

**Wet-Lab Track A**

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

Option A: **Using Precision Cut Lung Slices (PCLS) to Study Lung Biology & Disease ~ [Stafford](#)**

Led by Darcy Wagner, PhD (McGill University, Canada)

Option B: **Application of Organoids and Hydrogels to Study Lung Biology & Disease ~ [Stafford/Votey](#)**

Led by Dawei Sun, PhD (Broad Institute, MA)

Option C: **Application of Flexivent to Study Biomechanical Regulation of Lung Function ~ [HSRF/Stafford](#)**

Led by Bradford Smith (University of Colorado Denver | Anschutz Medical 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 & Disease ~ [Stafford](#)**

Led by Darcy Wagner, PhD (McGill University, Canada)

Option B: **Application of Organoids and Hydrogels to Study Lung Biology & Disease ~ [Stafford/Votey](#)**

Led by Dawei Sun, PhD (Broad Institute, MA)

Option C: **Application of Flexivent to Study Biomechanical Regulation of Lung Function ~ [HSRF/Stafford](#)**

Led by Bradford Smith (University of Colorado Denver | Anschutz Medical Campus, CO)

12:30-2:00 PM Lunch and Networking Break

2:00-3:30 PM **Laboratory Techniques Rotation 3:**

Option A: **Using Precision Cut Lung Slices (PCLS) to Study Lung Biology & Disease ~ [Stafford](#)**

Led by Darcy Wagner, PhD (McGill University, Canada)

Option B: **Application of Organoids and Hydrogels to Study Lung Biology & Disease ~ [Stafford/Votey](#)**

Led by Dawei Sun, PhD (Broad Institute, MA)

Option C: **Application of Flexivent to Study Biomechanical Regulation of Lung Function ~ [HSRF/Stafford](#)**

Led by Bradford Smith (University of Colorado Denver | Anschutz Medical Campus, CO)

3:30-4:30 Coffee and Networking Session

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

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8:55-9:00 Welcome and Introductions ~ **Stafford 101**

**Dry-Lab Track B**

9:00-10:30 AM **BioInformatics:** Bulk RNA seq visualization task~ **Stafford**  
Led by Martijn Nawijn, PhD (University Medical Center Groningen, NL)

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

11:00-12:30 PM **BioInformatics:** Bulk RNA seq visualization task~ **Stafford**  
Led by Martijn Nawijn, PhD (University Medical Center Groningen, NL)

12:30-2:00 PM Lunch and Networking Break

2:00-4:00 PM **BioInformatics:** Single Cell RNA Sequencing ~ **Stafford**  
Led by Martijn Nawijn, PhD (University Medical Center Groningen, NL)

4:00-4:30 PM Coffee and Networking Session

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