



School of Medicine
 Cystic Fibrosis/Pulmonary Research
 and Treatment Center
 Department of Cell Biology and Physiology

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RE: First Annual Retreat of the UNC TCORS

Date: September 8th, 2016, 7:45AM – 5:30PM (Breakfast and Lunch provided)

Location: Rizzo Conference Center at Meadowmont (Magnolia C)

150 DuBose Home Lane, Chapel Hill, NC 27517

P: 919.913.2098 F: 919.913.2099

Agenda

7:45-8:15	Welcome guests and Breakfast	
8:15- 8:25	Director's Remarks	Robert Tarran, PhD
8:25-8:35	NIH views	Helen Meissner, PhD
8:35-8:45	FDA views	Dana van Bommel, PhD
8:45-8:55	State of North Carolina views	Randall Williams, MD
8:55-9:05	State of North Carolina views	Sally Herndon, MPH
9:05-9:35	Keynote Speaker Title: "Nicotine containing electronic cigarette exposure induces changes in airway epithelia similar to tobacco smoke"	Matthias Salathe, MD
9:35-10:00	Coffee Break	
10:00-10:20	Project 1 The effects of new and emerging tobacco products (NETPs) on lung hydration and inflammation	Carla Ribeiro, PhD
10:20-10:40	Project 2 The effects of tobacco exposure on the airway mucus/mucin integrity and proteome: determining the tobacco mucomarkers	Mehmet Kesimer, PhD
10:40-11:00	Project 3 Mouse models of human smoking-related diseases: what is the best mimic of human disease?	Claire Doerschuk, MD

11:00-11:20	Project 4 Translational studies to identify epithelial biomarkers of smoke exposure	Iлона Jaspers, PhD
11:20-11:30	Coffee Break	
11:30-11:40	Sample acquisition and repository core	Neil Alexis, PhD
11:40-11:50	Tissue culture and smoke exposure core	Scott Randell, PhD
11:50-12:00	Analytic core	Gary Glish, PhD
12:00-12:10	Flavors supplement	Susan Girdler, PhD
12:30-1:30	Lunch	Loudermilk House
1:30-2:00	Keynote Speaker Title: "Flavorants in Alternative Tobacco Products: Chemistry, Sensory and Behavioral Effects in Rodent Models"	Sven-Eric Jordt, PhD
2:00-2:20	Coffee Break	
2:20-3:30	TCORS Trainees	Arun Ghosh, PhD Sabri Abdelwahab John C. Gomez, PhD Phillip Clapp Temperance Rowell
3:30-3:40	Concluding Remarks	Robert Tarran, PhD
3:45-5:30	Posters and social hour	



UNC
KENAN-FLAGLER
BUSINESS SCHOOL

RIZZO CONFERENCE CENTER

Map and Directions for Meetings in Loudermilk Hall's Magnolia Room

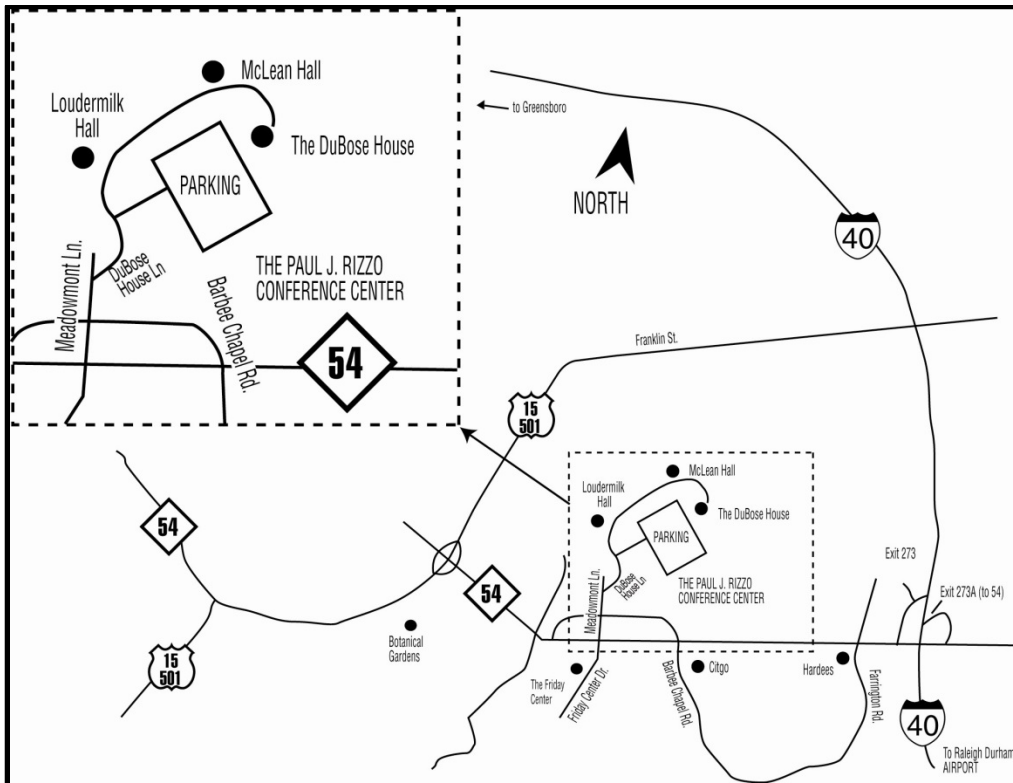
at the Rizzo Conference Center

150 DuBose House Lane

Chapel Hill, NC 27517

919-913-2098 (main number)

919-913-2099 (main fax)



From the North/East (Raleigh, RTP)

- From Interstate 40 West, take exit 273A towards Chapel Hill.
- Follow 54 West for approximately 2 miles.
- Turn right at fourth stoplight onto Meadowmont Lane (across from The Courtyard Marriott).
- Continue down Meadowmont Lane through 3 traffic lights to DuBose House Lane.
- Turn right at the Gate House into the Rizzo Center (before Merge sign). Our parking lot is on the right at the top of the hill. (See enlarged insert on map). Your meeting is in Loudermilk Hall through the secondary entrance to the right. The Magnolia Room is straight down the hallway. Staff will be on hand in Loudermilk Hall to assist you with finding your meeting room.
- For overnight guests, continue past the parking lot on the right and Loudermilk Hall on the left until you reach McLean Hall, also on the left. Circle around to unload luggage and check into your guestroom. After you have checked in, you will need to move your car to the main parking lot that you passed when you arrived.

From the South/West (Greensboro, Charlotte)

- From Interstate 40 East, take exit 273 towards Chapel Hill. Turn right at light off exit ramp.
- Follow 54 West for approximately 2 miles.
- Turn right at third stoplight onto Meadowmont Lane (across from The Courtyard Marriott).
- Continue down Meadowmont Lane through 3 traffic lights to DuBose House Lane.
- Turn right at the Gate House into the Rizzo Center (before Merge sign). Our parking lot is on the right at the top of the hill. (See enlarged insert on map). Your meeting is in Loudermilk Hall through the secondary entrance to the right. The Magnolia Room is straight down the hallway. Staff will be on hand in Loudermilk Hall to assist you with finding your meeting room.
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Keynote Speakers (short biosketches)

Dr. Matthias Salathe

Dr. Salathe has experience studying airway diseases, from bench to bedside. The lab was instrumental in developing programs and microscope setups to measure ciliary beat frequency (CBF) and fluorescent signals (including Ca^{2+} , pH, and FRET for PKA activation) simultaneously in the same single, live cell. The lab also adapted measurements for ASL volume determination. We have established a biorepository of airway epithelial cells from now >400 lungs (organ donors) that are used for air-liquid interface (ALI) cultures, cells from transplant recipients (including CF patients) and airway samples from patients with airway diseases (including BAL, brushed cells, exhaled breath condensate, and blood for other analyses including cytokines and genetics). The lab developed use of lentiviruses to manipulate airway epithelial cell protein expression to measure cAMP by FRET and to suppress proteins for analysis of their role in signal transduction (e.g., pannexin 1 by lentivirus-driven shRNA expression). Finally, the lab initiated measurements of ion transport activities in ALI cultures that revealed novel pathways of maintaining airway surface liquid (ASL) volume in normal, smoke/E-cigarette vapor exposed and CF airway epithelial cells. We have successfully built a clinical trial environment around the themes of cystic fibrosis for PI initiated and pharmaceutically sponsored trials. We have successfully made air-liquid interface cultures from nasal epithelial cells from patients. We are developing novel anti-inflammatory therapies for these patients. The cystic fibrosis trial environment achieved therapeutic development center status by the Cystic Fibrosis Foundation Therapeutic Development Network in 2009.

Recent contributions to clinical trials and population studies:

- a) Barker A.F., O'Donnell A.E., Flume P., Thompson P.J., Ruzi J.D., de Gracia J., Boersma W.G., De Soyza A., Shao L., Zhang J., Haas L., Lewis S.A., Leitzinger S., Montgomery A.B., McKeivitt M.T., Gossage D., Quittner A.L., O'Riordan T.G. (M. Salathe: Miami PI). Aztreonam for inhalation solution in patients with non-cystic fibrosis bronchiectasis (AIR-BX1 and AIR-BX2): two randomised double-blind, placebo-controlled phase 3 trials. *Lancet Respir Med.* 2014; 2: 738-49.
- b) Bradley J.M., Koker P., Deng Q., Moroni-Zentgraf P., Ratjen F., Geller D.E., Elborn J.S.; Tiotropium Cystic Fibrosis Study Group (M. Salathe: Miami PI). Testing two different doses of tiotropium Respimat® in cystic fibrosis: phase 2 randomized trial results. *PLoS One.* 2014; 9: e106195. PMID: PMC4154718
- c) Wainwright C.E., Elborn J.S., Ramsey B.W., Marigowda G., Huang X., Cipolli M., Colombo C., Davies J.C., De Boeck K., Flume P.A., Konstan M.W., McColley S.A., McCoy K., McKone E.F., Munck A., Ratjen F., Rowe S.M., Waltz D., Boyle M.P, for the TRAFFIC and TRANSPORT Study Groups (M. Salathe: Miami PI). Lumacaftor-Ivacaftor in Patients with Cystic Fibrosis Homozygous for Phe508del CFTR. *N. Engl. J. Med.* 2015; 373:220-31.
- d) Barr R.G., Avilés-Santa L., Davis S.M., Aldrich T., Gonzales F., Henderson A.G., Kaplan R.C., LaVange L., Liu K., Loredó J.S., Mendes E.S., Ni A., Ries A., Salathe M., Smith L.J. Pulmonary Disease and Age at Immigration among Hispanics: Results from the Hispanic Community Health Study/Study of Latinos (HCHS/SOL). *Am. J. Respir. Crit. Care Med.* 2016; 193: 386-95.

Sven-Eric Jordt

Sven-Eric Jordt is Associate Professor in the Department of Anesthesiology at Duke University School of Medicine. His research focuses on TRP ion channels in peripheral sensory neurons and other systems and their functions in chemical sensing, pain, inflammation, allergies and respiratory health. He identified TRPA1 as a major receptor for chemical irritants and a transducer of inflammation in asthma and other inflammatory conditions. Recent work by the Jordt laboratory has focused on the toxicity and behavioral effects of menthol and other flavor chemicals in tobacco products.

Dr. Jordt holds a Ph.D. in Biochemistry from the Free University Berlin, awarded for studies on chloride channels in the lung and the nervous system. Following postdoctoral training at UCSF (1998-2005), Dr. Jordt established his independent laboratory in the Department of Pharmacology at Yale School of Medicine. In 2014 Dr. Jordt relocated his laboratory to Duke University.

Dr. Jordt is the recipient of the 2006 Outstanding New Environmental Scientist Award (ONES) from the National Institute of Environmental Health Sciences (NIEHS), the Early Excellence Award from the Sandler Foundation for Asthma Research and the 2007 Presidential Early Career Award for Scientists and Engineers (PECASE).