

# 2024 SOUTHEASTERN CYSTIC FIBROSIS RESEARCH CONFERENCE



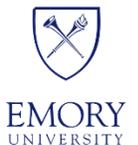
Discovering Cystic Fibrosis Center Research Insights and Future Visions

# Program

April 12 – April 13, 2024

Emory Conference Center Hotel

Atlanta, Georgia



# WELCOME

Dear Colleagues,

On behalf of the organizing committee, it is our pleasure to welcome you to the 2024 Southeastern Cystic Fibrosis Research Conference. This year, we are thrilled to have representatives from 14 cystic fibrosis research programs across the southeastern United States join us to share their latest updates and findings.

We are particularly honored to announce that Dr. Brian R. Davis, the Director of the Gregory Fleming James Cystic Fibrosis Research Center at the University of Alabama at Birmingham, is our keynote speaker. Dr. Davis's presentation, entitled "Stem Cell Gene Editing for Correction of Genetic Disease," promises to offer invaluable insights into the current landscape of cystic fibrosis research on a global scale.

In addition to Dr. Davis's keynote address, we are proud to showcase the innovative work of 43 abstracts from our talented trainees and early-stage investigators. Their contributions reflect dedication to driving progress in cystic fibrosis research.

Beyond the formal sessions, we have a series of social events designed to foster networking opportunities and facilitate meaningful connections among attendees. We encourage you to take full advantage of these occasions to forge new relationships, exchange ideas, and lay the groundwork for potential collaborations on future projects.

We are confident that this conference will catalyze collaboration, innovation, and progress in the field of cystic fibrosis research. Your participation and engagement are instrumental in driving our collective efforts toward improving the lives of individuals affected by this disease.

Once again, welcome to the 2024 Southeastern Cystic Fibrosis Research Conference. We look forward to an enriching and inspiring exchange of knowledge and ideas over the course of the event!

Sincerely,

Camilla Margaroli Bell, PhD, *University of Alabama at Birmingham*  
Ariel Berlinski, MD, FAAP, FAARC, *University of Arkansas*  
Christine Bojanowski, MD, MSCR, *Tulane University School of Medicine*  
Dan Cook, MD, PhD, *Vanderbilt University Medical Center*  
Jennifer Goralski, MD, *UNC School of Medicine*  
Jennifer Guimbellot, MD, PhD, *University of Arkansas*  
Padraig Hawkins, MD, PhD, *UNC School of Medicine*  
Kymry Jones, PhD, *Emory University*  
Jay Kolls, MD, *Tulane University School of Medicine*  
Benjamin Kopp, MD, MPH, *Emory University*  
Nael McCarty, PhD, *Emory University*  
Christina Mingora, MD, *Medical University of South Carolina*  
Guoshun Wang, DVM, PhD, *Louisiana State University*

# CITY AND VENUE

## Welcome to Atlanta, The City in a Forest

Most travelers that come through the world's busiest airport, never explore the rich history, culture, and landscape that makes up the "City in a Forest." Situated in the foothills of the Appalachian Mountains, almost 50% of the Atlanta metro area is covered in trees. Our bustling and vibrant city has something for everyone. From exploring national landmarks like the birth home of Martin Luther King, Jr. and the many world-class museums to the city's rich hip-hop and street art scenes, you are sure to find something to enjoy in Atlanta.

## Interesting Facts

- **Street Art:** The city has a vibrant arts scene, including street art. While the most well-known street art in the city is perhaps Krog Street Tunnel, there are over 200 works of street art across the city.
- **Film and TV:** Atlanta plays a significant role in film and TV production, serving as a global leader in the industry. The city is a hub for filmmakers of color. Atlanta is the home of the first African American and Latino American major studios. It doubles as the backdrop for many blockbuster films like Avengers, and award-winning TV shows like The Walking Dead.
- **Green Infrastructure:** Atlanta became an early urban adopter of green infrastructure and water conservation efforts in the US. For the past two decades, the city has worked to create rain gardens, permeable pavement, cisterns, and other water conservation projects designed to supplement the city's drinking water and improve water quality.
- **MLK Jr.:** The Martin Luther King Jr. National Historic Park lies at the heart of the Sweet Auburn neighborhood of Atlanta. The park features MLK's birthplace, the historic Ebenezer Baptist Church, and the King Center for Nonviolent Social Change.
- **Georgia Aquarium:** Located in Downtown Atlanta, the Georgia Aquarium is the largest in the United States. The aquarium features, as its centerpiece, a 6.3-million-gallon whale shark exhibit.
- **Coca-Cola:** Atlanta is the birthplace of Coca-Cola. The drink was invented in 1886 in response to prohibition laws passed in the county. Originally marketed as a temperance drink and patent medicine, Coca-Cola is now the world's 6th most valuable brand.



# CITY AND VENUE

## Emory Conference Center Hotel

Address: 1615 Clifton Road NE, Atlanta, GA 30329 | Tel: +1 404 712 6000

Check-in: 4:00 pm | Check-out: 12:00 pm

If you are **checking out on Saturday, April 13<sup>th</sup>**, you can ask the front desk to hold your luggage after you check out while the meeting continues.

## Getting to the Hotel from the Airport

Option 1: Rideshare - Rideshare services leave from a designated location at Hartsfield-Jackson Airport. It is recommended that you do not request your ride until you have reached the rideshare pick-up location.

Duration: ~30 minutes

Option 2: MARTA - Take the Gold or Red Train to North Springs Station. Transfer to bus 6 or 816 to Clifton Rd NE & 1615. Walk ~7 minutes to the hotel. Duration: ~1 hour

## Parking

Parking at the hotel will be covered. Meeting attendees should park in the North Parking Deck of the hotel (located under the hotel). Please see the SE CF Research Conference management team for vouchers.

## Dining Recommendations

### Coffee/Breakfast

- Dooley's Grounds, located within the Emory Conference Center Hotel\*
- The Depot by Kaldi's Coffee, 1 Eagle Row, Atlanta, GA 30322\*
- The Dancing Goat, 1516 Clifton Rd, Atlanta, GA 30329\*
- The General Muir, 1540 Avenue Pl B-230, Atlanta, GA 30329\*
- The B Side, 151 Sycamore St, Decatur, GA 30030
- Buena Gente Cuban Bakery, 1365 Clairmont Rd, Decatur, GA 30033

### Casual - Takeaway or Sit-down

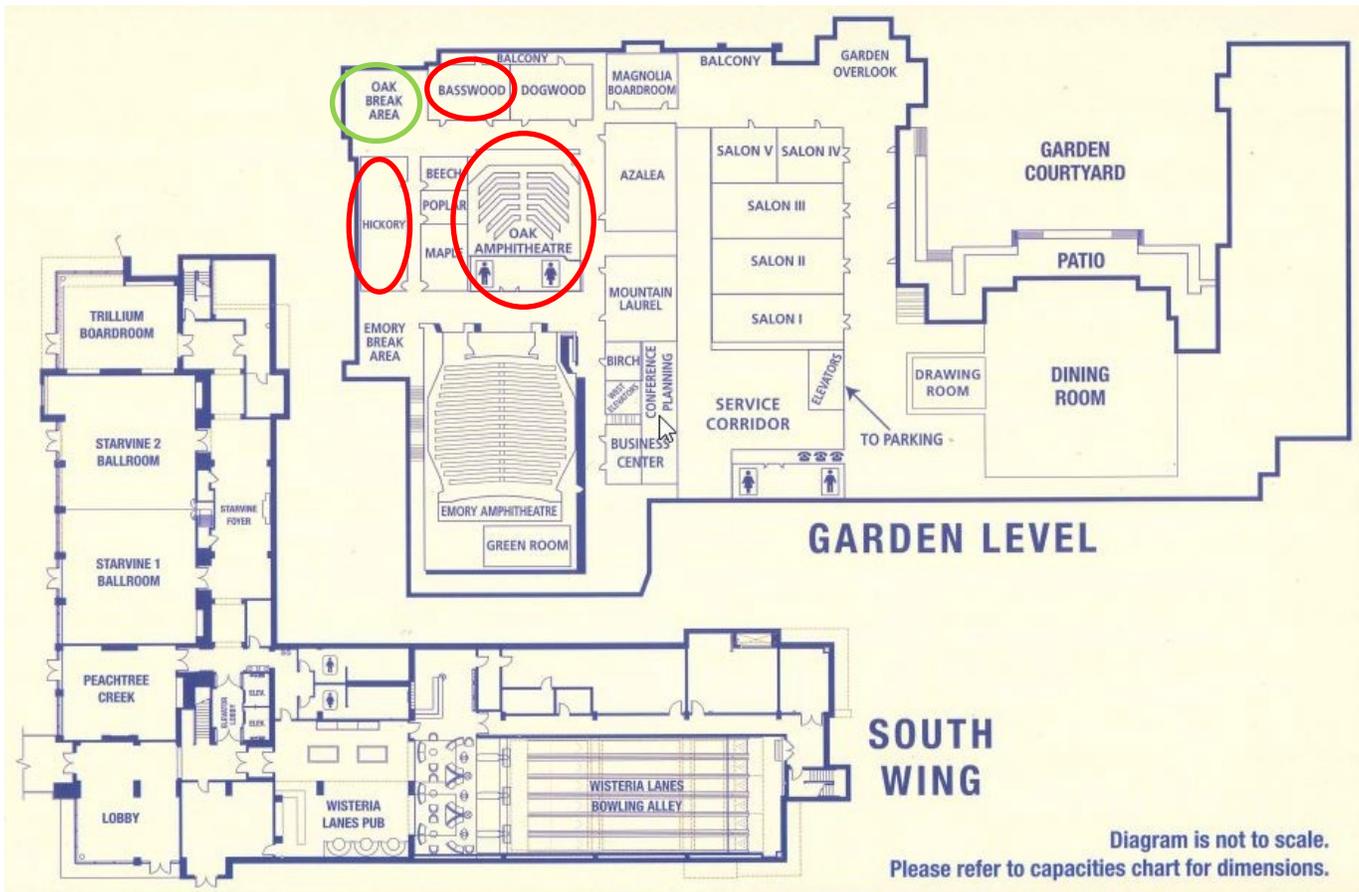
- Candler Park Market, 1642 McLendon Ave NE, Atlanta, GA 30307
- Sri Thai, 1540 Avenue Pl Unit B2-280, Atlanta, GA 30329\*
- Murphy's, 997 Virginia Ave NE, Atlanta, GA 30306
- Top Spice Thai, 3007 N Druid Hills Rd, Atlanta, GA 30329

### Dinner - Sit-down

- Double Zero, 1577 N Decatur Rd, Atlanta, GA 30307
- Whiskey Bird, 1409 North Highland Avenue Northeast, Atlanta, GA 30306
- The Deer and the Dove, 155 Sycamore St, Decatur, GA 30030
- The Iberian Pig, 121 Sycamore St, Decatur, GA 30030
- Kimball House, 303 E Howard Ave, Decatur, GA 30030

*\*Within walking distance of the Emory Conference Center Hotel*

## Emory Conference Center Hotel Map



**Breakout Sessions will be held in the following rooms:**

**Basswood  
Hickory  
Oak Amphitheater**

***Snacks and beverages are available in the Oak Break Area***

## KEYNOTE SPEAKER

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### **Brian R. Davis, PhD**

*Director, Gregory Fleming James Cystic Fibrosis Research Center  
Professor of Medicine, Division of Allergy, Pulmonary, and Critical Care Medicine  
Director, Center for Stem Cell and Regenerative Medicine (CSCRM) at the Brown Foundation Institute of Molecular Medicine  
C. Harold and Lorine G. Wallace Distinguished University Chair  
University of Alabama-Birmingham, School of Medicine*

### ***“Stem Cell Gene Editing for Correction of Genetic Disease.”***

Dr. Brian R. Davis, PhD, holds the distinguished position of Professor of Medicine at the University of Alabama at Birmingham (UAB), where he serves as the Director of the UAB Gregory Fleming James Cystic Fibrosis Research Center (CFRC). With a rich background, Dr. Davis has also contributed significantly to the medical community during his tenure at the McGovern Medical School at the University of Texas Health Science Center at Houston. Notably, he directed the Center for Stem Cell and Regenerative Medicine (CSCRM) at the Brown Foundation Institute of Molecular Medicine, holding the prestigious C. Harold and Lorine G. Wallace Distinguished University Chair, and directed the Senator Lloyd and B.A. Bentsen Center for Stroke Research.

In his current capacity at the CFRC, Dr. Davis is deeply committed to driving forward its mission of spearheading cutting-edge research across various domains including basic science, pathophysiology, therapeutics, translational and precision medicine, clinical implementation, and genetic therapies for cystic fibrosis (CF) and related disorders globally. His leadership steers a dynamic CF research program, funded by both NIH and CFF, with two primary areas of investigation: (1) Pioneering gene editing-based

therapeutics and potential cures, initially targeting patients with CF who produce insufficient CFTR protein, with broader applications envisioned for the future. (2) Developing and employing assays utilizing CF iPSC-derived airway epithelium to identify CF patients who may benefit from currently available modulators or future small molecule drugs.

Dr. Davis's contributions extend beyond his research endeavors. He has been an invaluable mentor, offering guidance and support to faculty, postdoctoral fellows, research staff, and graduate and medical students throughout his esteemed career, embodying a profound commitment to nurturing the next generation of researchers and medical professionals.

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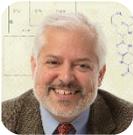
## Friday, April 12, 2024

Time	Event
	<b>Pre-Conference Check-In &amp; Social</b>
<b>6:00 - 9:00 pm</b>	<b>Wisteria Lanes at Emory Conference Center Hotel</b> 1615 Clifton Road NE, Atlanta, GA 30329

## Saturday, April 13, 2024 (Morning Agenda)

Time	Event
	<b>Check-In &amp; Continental Breakfast</b>
<b>8:00 - 9:00 am</b>	<b>Silverbell Pavilion at Emory Conference Center Hotel</b> 1615 Clifton Road NE, Atlanta, GA 30329

Time & Location	Presentation	
<b>Silverbell Pavilion</b>	<b>Welcome and Opening Remarks</b>	
<b>9:00 - 9:15 am</b>		<p><b>Benjamin T. Kopp, MD, MPH</b> Associate Professor of Pediatrics, Division of Pulmonology, Asthma, Cystic Fibrosis, and Sleep (PACS) Co-Director, Center for Cystic Fibrosis and Airway Disease Research (CF-AIR) Emory University</p>
<b>Silverbell Pavilion</b>	<b>Center Overviews</b>	
<b>9:15 - 9:45 am</b>		<p><b>Medical University of South Carolina &amp; Louisiana State University</b></p> <p><b>Christina Mingora, MD (via Zoom)</b> Assistant Professor, Division of Pulmonary, Critical Care, Allergy &amp; Sleep Associate Director, Adult CF Program Medical University of South Carolina</p>
		<p><b>Guoshun Wang, DVM, PhD</b> Professor of Microbiology, Immunology, Genetics, and Medicine Louisiana State University LCMC Health Cancer Center</p>

Time & Location	Presentation	
<b>Silverbell Pavilion</b>	<b>Center Overviews</b>	
<b>9:45 - 10:15 am</b>		<p><b>University of Alabama-Birmingham</b></p> <p><b>Susan Birket, PharmD, PhD</b>  Associate Professor of Medicine, Division of Pulmonary, Allergy, and Critical Care Medicine  Director, CFTR Rat Models Core  University of Alabama at Birmingham</p>
<b>10:15 - 10:45 am</b>	  	<p><b>Emory University (CF@LANTA)</b></p> <p><b>Nael A. McCarty, PhD</b>  Marcus Professor of Cystic Fibrosis, Pediatrics, Division of Pulmonology, Asthma, Cystic Fibrosis, and Sleep  Director, Center for Cystic Fibrosis and Airway Disease Research (CF-AIR)  Director, Emory+Children’s Cystic Fibrosis Center for Excellence (CF@LANTA)  Emory University</p> <p><b>Benjamin T. Kopp, MD, MPH</b>  Associate Professor of Pediatrics, Division of Pulmonology, Asthma, Cystic Fibrosis, and Sleep  Co-Director, Center for Cystic Fibrosis and Airway Disease Research (CF-AIR)  Emory University</p>
<b>10:45 - 11:00 am</b>	<b>BREAK</b>	

Time & Location	Presentation	
Silverbell Pavilion	Center Overviews	
11:00 - 11:30 am	    	<p><b>Vanderbilt University &amp; St. Jude Children’s Research Hospital</b></p> <p><b>James J. Tolle, MD</b> Associate Professor of Medicine, Division of Allergy, Pulmonary, and Critical Care Medicine Director, Adult Cystic Fibrosis Program Medical Director, Pulmonary Function Laboratory Vanderbilt University Medical Center</p> <p><b>Daniel P. Cook, MD, PhD</b> Instructor of Medicine, Division of Allergy, Pulmonary, and Critical Care Medicine Vanderbilt University Medical Center</p> <p><b>Mark Brimble, PhD</b> Postdoctoral Researcher, Department of Immunology St. Jude Children’s Research Hospital</p>
Time & Location	Presentation	
Silverbell Pavilion	Center Overviews	
11:30 am - 12:00 pm		<p><b>Tulane University</b></p> <p><b>Jay Kolls, MD</b> Professor of Medicine and Pediatrics John W Deming Endowed Chair in Internal Medicine Director, Center for Translational Research in Infection and Inflammation Tulane School of Medicine</p>
12:00 - 12:30 pm		<p><b>University of Arkansas</b></p> <p><b>Ariel Berlinski, MD, FAAP, FAARC</b> Professor of Pediatrics Medical Director, Pulmonary Diagnostic Laboratory Medical Advisor, Respiratory Care Services Director, Arkansas Children’s Hospital Cystic Fibrosis Center University of Arkansas</p>

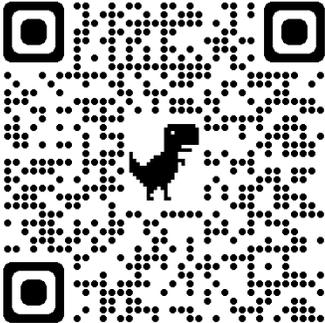
Time & Location	Presentation
Silverbell Pavilion	Center Overviews
12:30 - 1:00 pm	<p><b>University of North Carolina</b></p>  <p><b>Martina Gentsch, PhD</b>  Associate Professor of Pediatric Pulmonology; Adjunct Associate Professor of Cell Biology and Physiology  President, Association for Professional Women In Medical Sciences (APWIMS)  Director, Cystic Fibrosis Molecular/Functional Measurement Pre-Clinical Core; Director, CFTR Functional Analysis Core  <i>Marsico Lung Institute (MLI); Center for Environmental Health and Susceptibility (CEHS); Program for Precision Medicine in Health Care (PPMH)</i>  University of North Carolina, School of Medicine</p>
1:00 - 2:00 pm	<b>LUNCH BREAK (Please proceed to the MAIN DINING ROOM)</b>

## Saturday, April 13, 2024 (Afternoon Agenda)

Time & Location	Presentation
Silverbell Pavilion	Keynote Presentation
2:00 - 3:00 pm	 <p><b>"Stem Cell Gene Editing for Correction of Genetic Disease."</b></p> <p><b>Brian R. Davis, PhD</b>  Director, Gregory Fleming James Cystic Fibrosis Research Center  Professor of Medicine, Division of Allergy, Pulmonary, and Critical Care Medicine  Director, Center for Stem Cell, and Regenerative Medicine (CSCRM) at the Brown Foundation Institute of Molecular Medicine  C. Harold and Lorine G. Wallace Distinguished University Chair  University of Alabama at Birmingham, School of Medicine</p>
3:00 - 3:30 pm	<b>BREAK (Please proceed to the OAK BREAK AREA)</b>

## Saturday, April 13, 2024 (Afternoon Agenda)

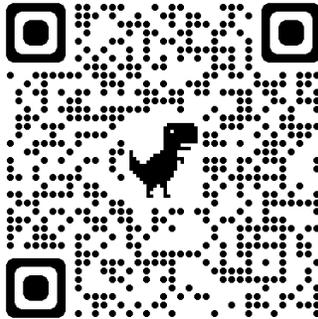
Time & Location	Presentation	
<b>Oak Amphitheater</b>	<b>Breakout Session #1: Cellular Models &amp; Induced Pluripotent Stem Cells (iPSCs)</b>	
<b>3:30 - 5:00 pm</b>	    	<p><b>Camilla Margaroli Bell, PhD</b> Assistant Professor, Department of Cellular &amp; Molecular Pathology University of Alabama at Birmingham</p> <p><b>Ruby Wang, MD</b> Attending Physician, Division of Pulmonary Medicine, Boston Children's Hospital Assistant Professor of Pediatrics, Harvard Medical School</p> <p><b>Xiangming Ji, PhD</b> Assistant Professor, Department of Nutritional Sciences Byrdine F. Lewis College of Nursing and Health Professions Georgia State University</p>
<b>Hickory</b>	<b>Breakout Session #2: Animal Models</b>	
<b>3:30 - 5:00 pm</b>	  	<p><b>Balázs Rada, PhD</b> Professor Department of Infectious Diseases College of Veterinary Medicine University of Georgia</p> <p><b>Susan Birket, PharmD, PhD</b> Associate Professor of Medicine, Division of Pulmonary, Allergy, and Critical Care Medicine Director, CFTR Rat Models Core University of Alabama at Birmingham</p>
<b>Basswood</b>	<b>Breakout Session #3: Clinical Research</b>	
<b>3:30 - 5:00 pm</b>		<p><b>Jay Kolls, MD</b> Professor of Medicine and Pediatrics John W Deming Endowed Chair in Internal Medicine Director, Center for Translational Research in Infection and Inflammation Tulane School of Medicine</p>
<b>5:00 - 5:30 pm</b>	<b>BREAK (Oak Break Area)</b>	

Time & Location	Event
<b>Silverbell Pavilion</b>	<b>Trainee and Early-Stage Investigator Poster Session / Reception</b>
<b>5:30 - 8:00 pm</b>	<p>Scan or click the QR below to access the abstract book.</p> 

# ABSTRACT BOOK AND ONLINE PROGRAM

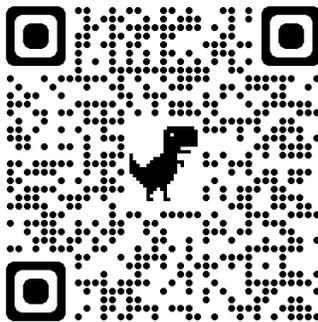
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Scan or click the QR codes below to access the abstract book and the online version of the program.



**PROGRAM**

<https://bit.ly/2024SECFRCProgram>



**ABSTRACT BOOK**

<https://bit.ly/2024SECFRCAbstracts>

# ACKNOWLEDGEMENTS

**Thank you** to the Conference Speakers for generously sharing their knowledge and expertise.

Ariel Berlinski, MD, FAAP, FAARC	Jay Kolls, MD
Susan Birket, PharmD, PhD	Benjamin T. Kopp, MD, MPH
Christine M. Bojanowski, MD, MSCR	Nael A. McCarty, PhD
Mark Brimble, PhD	Christina Mingora, MD
Daniel P. Cook, MD, PhD	James J. Tolle, MD
Brian R. Davis, PhD	Guoshun Wang, DVM, PhD
Martina Gentsch, PhD	

**Thank you** to the Conference Planning Committee and Volunteers for their successful efforts.

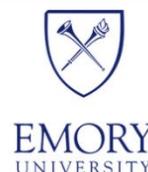
## Planning Committee:

Nael A. McCarty, PhD  
Benjamin T. Kopp, MD, MPH  
Kathryn Oliver, PhD  
Kymry Jones, PhD  
Clovis Sarmiento, MD  
Justin Ferretti, MPH

## Volunteers:

Debra Hamilton, MA, PsyS  
Mimi Le, PhD  
Julie Hawk, PhD

**Thank you** to our sponsors for their support.



**Thank you** to our institutional partners.



# THANK YOU

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**We are extremely grateful for all our presenters, attendees, and partners who helped make this year's event an unforgettable experience! Thank you so much for being a part of it!**

**Please take about 5 minutes to complete our feedback survey by scanning or click the QR code below. We look forward to your input.**



**<https://bit.ly/2024SECFRCSurvey>**