CONFERENCE PROGRAM

5th ANNUAL PEDIATRIC EARLY CAREER RESEARCHER CONFERENCE

Tuesday, August 15, 2023 Health Sciences Research Building Emory University







Sponsored by the NICHD-supported Atlanta Pediatric Scholars Program, K12HD072245

WELCOME

Dear Colleagues,

We welcome you to the 5th Annual Pediatric Early Career Researcher Conference. We are so excited to have you here with us, and we look forward to an informative and engaging day.

This year's conference features a record-breaking 43 abstracts from 40 of our talented trainees and junior faculty members. We have a packed agenda of oral and poster presentation sessions that will explore child-health research happening at Emory University and Children's Healthcare of Atlanta.

We are delighted to have Dr. Grace Aldrovandi, a physician-scientist and Chief of the Division of Infectious Diseases at UCLA Mattel Children's Hospital, and a Professor of Pediatrics at the David Geffen School of Medicine of the University of California, Los Angeles. Dr. Aldrovandi also serves as a member of the External Advisory Board of the Atlanta Pediatric Scholars Program. Dr. Aldrovandi's presentation, "Beyond Nutrition: Exploring Human Milk Metabolomics and its Impact on Infant Health", will be an inspiration for clinical and basic scientists alike.

In addition to the formal sessions, we also have several social events planned, which will give you the opportunity to network with other attendees and make new connections. We hope that you will take advantage of these opportunities to build relationships and collaborate on future projects.

We know that you have busy schedules, so we appreciate you taking the time to attend this conference. We believe that the investment of your time will be well worth it, and we are confident that you will leave feeling motivated and full of new ideas.

Thank you again for joining us!

Sincerely,

Clinton Joiner, MD, PhD

Conference Co-Chair

Professor of Pediatrics

Vice Chair for Research, Department of Pediatrics

Aflac Children's Chair for

Hematology

Director, Section of Hematology, Aflac Cancer, and Blood Disorders Center, Children's

Center, Children's Healthcare of Atlanta

Emory University

Stacy Heilman, PhD

Conference Co-Chair

Associate Professor

Associate Vice Chair for Research, Department of Pediatrics & Children's

Healthcare of Atlanta

Emory University

Claudia Morris, MD, FAAP

Clarke /Mu MD

Conference Co-Chair

Comercinee Co Chair

Professor of Pediatrics and Emergency Medicine

The Wilbur Fisk Glenn Jr.
Distinguished Faculty Chair

for Clinical & Translational Research

Research [

Research Director, Division of Pediatric Emergency Medicine

Co-Director, Center for Clinical and Translational

Research

Emory University

Benjamin Kopp, MD, MPH

Conference Co-Chair

Associate Professor of

Pediatrics Pediatrics

Director, Pulmonary Sickle Cell Program, Children's Healthcare of Atlanta

Co-Director, Emory and Children's Cystic Fibrosis and Airway Disease (CF-AIR)

Emory University

KEYNOTE SPEAKER



Grace M. Aldrovandi, MD, CM
Chief, Division of Infectious Diseases
UCLA Mattel Children's Hospital
Professor of Pediatrics
David Geffen School of Medicine
University of California, Los Angeles

Dr. Grace Aldrovandi is a physician-scientist and Chief of the Division of Infectious Diseases at UCLA Mattel Children's Hospital and a Professor of Pediatrics at the David Geffen School of Medicine of the University of California, Los Angeles. Dr. Aldrovandi received her undergraduate and her medical degree from McGill University in Montreal, Canada. She completed an internship and residency at McGill, as well as a research fellowship in pediatric infectious diseases at the University of California, Los Angeles. She is a boardcertified pediatric infectious diseases specialist with over 20 years' experience in caring for both general pediatric infectious diseases as well as HIV-infected children and their families. Dr. Aldrovandi's research interests include pediatric HIV, the effects of breast milk on child health and infections in immunocompromised children. She has published more than 200 peer review publications in such journals as Nature, Journal of Virology, and the New England Journal of Medicine and multiple book chapters. She has been a member of many National Institutes of Health study sections and lectured throughout the world.

Dr. Aldrovandi has had continuous NIH funding for over 20 years, and in recognition of her significant contributions was honored with the prestigious Elizabeth Glaser Scientist Award. She and her collaborators were the first to describe increased morbidity and mortality among HIV-exposed uninfected infants, an essential discovery with potential implications for improving health outcomes in this vulnerable population. Dr. Aldrovandi's laboratory is at the forefront of investigating microbial communities' role in various compartments, ranging from mucosal (breast, vagina, rectum, oral) to non-mucosal (skin) regions. Their pioneering work demonstrated the presence of perturbations in the microbiome of infants born to HIV-infected women, despite the infants not being infected with HIV. Employing sophisticated bioinformatics approaches, they have skillfully modeled microbial maturation and strain transfer from breast milk to infant stool, unveiling new insights into this crucial area of research.

Having played prominent leadership roles in several NIH-funded clinical trials Networks, Dr. Aldrovandi has a deep understanding of the collaborative efforts essential for transformative research in the field. This unique perspective allows her to identify opportunities for innovative and impactful investigations.

Dr. Aldrovandi is deeply committed to nurturing the next generation of scientists and has actively engaged in mentoring activities to encourage underrepresented Latino and African American high school students to pursue careers in STEM fields. Her mentoring efforts have garnered attention and recognition, with a feature on Despierta America, highlighting the impact of their work in inspiring and guiding young minds towards scientific excellence. Moreover, Dr. Aldrovandi has had the privilege of mentoring numerous talented individuals, guiding them through their academic and research journeys. Her mentorship has been instrumental in helping these individuals secure prestigious awards and grants, including T32, K08, K23, K99, R01, and a Doris Duke Award.

MORNING AGENDA

Time	Presentation
	Career Development Hour/Breakfast with the Experts (Café Area)
8:00 - 9:00 am	Topic: Study Design Shasha Bai, PhD Director, Pediatric Biostatistics Core Topic: Biosketch and Personal Statement Julie Hawk, PhD
	Grant Proposal Development Associate
	Topic: Partnerships Stacy Heilman, PhD Associate Vice Chair for Research Topic: Team Science
	Nael McCarty, PhD Marcus Professor of Cystic Fibrosis

Time	Presentation
	Welcome and Opening Remarks
9:00 - 9:15 am	Lucky Jain, MD, MBA George W. Brumley, Jr. Professor and Chair Department of Pediatrics Emory University School of Medicine Chief Academic Officer, Children's Healthcare of Atlanta Clinton Joiner, MD, PhD Vice Chair for Research, Department of Pediatrics Chief Research Officer, Children's Healthcare of Atlanta Aflac Children's Chair for Hematology Director, Section of Hematology Aflac Cancer and Blood Disorders Center Professor of Pediatrics, Emory University School of Medicine
	Current and Previous K12 Scholars and Accomplishments
9:15 - 9:30 am	Stacy Heilman, PhD Associate Professor Associate Vice Chair for Research Department of Pediatrics Emory University

	Basic Science (Basic Science Oral Presentations	
9:30 - 9:45 am		Chao Chen, PhD Mitochondrial metabolic flexibility is critical for CD8 T cell anti-tumor immunity.	
9:45 - 10:00 am		Omotayo Farinre, PhD Early ART plus immune interventions to limit SIV reservoir establishment in infant rhesus macaques.	
10:00 - 10:15 am	BREAK	BREAK	
10:15 - 11:00 am		Basic Science Mini-Presentation Poster Session 13 Poster Presentations (2-minute presentations)	
	Basic Science (Basic Science Oral Presentations (continued)	
11:00 - 11:15 am		Hunter Jonus, PhD Dual GD2 and PTK7 Targeted γδ T cell Immunotherapy for Neuroblastoma.	

11:30 - 12:15 pm	Basic Science Poster Session, Set A (Café Area)
	A1. Single-cell profiling of acute myeloid leukemia identified ARMH1, a novel protein, associated with proliferation, migration, and drug resistance. Mojtaba Bakhtiari, MD
	A2. Butyrate supplementation during pregnancy reduces injury in murine model of neonatal intestinal inflammation. Stefi Barbian, MD
	A3. Evaluation of the Immune Checkpoint Siglec-15 in Promoting Immune Dysregulation in Pediatric Lymphomas. Dailia Francis, MD, PhD
	A4. Time-Sensitive Changes in Serum Biomarkers Following Rotational Head Injury in a Piglet Model. Colin Huber, PhD
	Colin Huber, PhD

A5. Utilizing chemotherapy to enhance the anti-tumor properties of ex vivo expanded $\gamma\delta$ T cells in acute myeloid leukemia.

Navdeep Jhita, MD

A6. Increased Level of IGFBP2 promotes Tumor metastasis in SHH Medulloblastoma.

Haritha Kunhiraman, PhD

A7. Deep phenotyping of inflammatory proteins after elexacaftor/ tezacaftor/ ivacaftor therapy in cystic fibrosis.

Hazel Ozuna, PhD

A8. Pharmacological Modulation of Stemness Pathways to Inhibit the Proliferation of the HIV Reservoir.

Inna Ruiz-Salinas, PhD

A9. DFMO inhibits LIN28B and decreases viability of Group 3 Medulloblastoma cells.

Shubin Shahab, MD

A10. Not available

A11. Disruption of the serine-producing pathways slows progression of the Sonic Hedgehog-driven medulloblastoma.

Andrey Tikunov, PhD

A12. Inducing Stenotic Hemodynamics in an In Vitro Bioprinted Pulmonary Vein Mimic Induces Rapid Endothelial to Mesenchymal Transition (EndMT) in Endothelial Cells.

Martin Tomov, PhD

A13. Elucidating the effects of combination therapy with Venetoclax and IAP inhibitor AZD5582 in SIV-infected, ART-suppressed macaques.

Benedicth Ukhueduan, PhD

12:15 - 12:55 pm

Lunch Break - Boxed lunches served in HSRB Café

AFTERNOON AGENDA		
12:55 - 1:00 pm Announce winners for Best Basic Science Oral and Poster Present		
1:00 - 2:00 pm	Keynote Presentation	
	"Beyond Nutrition: Exploring Human Milk Metabolomics and its Impact on Infant Health." Grace M. Aldrovandi, MD, CM Chief, Division of Infectious Diseases UCLA Mattel Children's Hospital Professor of Pediatrics David Geffen School of Medicine	
	University of California, Los Angeles	
Time	Presentation	
	Current and Previous K12 Scholars and Accomplishments	
2:00 - 2:15 pm	Stacy Heilman, PhD Associate Professor Associate Vice Chair for Research Department of Pediatrics	

	Clinical & Outcomes Research Oral Presentations	
2:15 - 2:30 pm		Paul George, MD Are children with sickle cell disease at particular risk from the harmful effects of air pollution? Evidence from a large, urban/peri-urban cohort.
2:30 - 2:45 pm		Dunia Hatabah, MD Low arginine bioavailability and clinical outcomes in children with sickle cell disease (SCD) hospitalized with vaso-occlusive pain episodes (VOE).
2:45 - 3:00 pm	BREAK	
3:00 - 4:00 pm	Clinical & Outcomes Research Mini-Presentation Poster Session 18 Poster Presentations (2-minute presentations)	

Emory University

Clinical & Outcomes Research Oral Presentations (continued) Marcos Mills, MD 4:00 - 4:15 pm Bedside Cardiac Ultrasound in the Pediatric CICU: The Modern Physical Exam. Chris Rees, MD, MPH Derivation and Internal Validation of Novel Risk Assessment Tools to Identify Young Children at Risk 4:15 - 4:30 pm for Post-Discharge Mortality in Dar es Salaam, Tanzania and Monrovia, Liberia. 4:30 - 5:15 pm Clinical & Outcomes Research Poster Session, Set B (Café Area) **B1.** Distinguishing MIS-C Features from Febrile Patients Evaluated for Kawasaki Disease Pre-Pandemic Marissa Bass, MD **B2.** Evaluating the Association Between Structural Racism and Acuity of Illness at Initial Presentation in Pediatric Patients with Solid Tumors. Alexandra Cathcart, MD **B3.** Mortality and outcomes of children with tracheostomy before and after implementing high-fidelity simulation-based tracheostomy education. Mary Ellen Fain, MD **B4.** The Utilization of Vasopressor Infusions during Pediatric Liver Transplantation and Association with Postoperative Outcomes. Laura Gilbertson, MD **B5.** Longitudinal Surveillance of SARS-CoV-2 (SARS) IgG Antibodies in Pediatric Healthcare Workers (HCW). **Dunia Hatabah, MD B6.** Association of Age with Acuity and Severity of Illness at Initial Presentation in Children, Adolescents, and Young Adults with Leukemia. Tarun Jain, MD **B7.** Incidence, Risk Factors, and Outcomes of Postreperfusion Syndrome in Pediatric Liver Transplantation. Ashley Joseph, MD **B8.** Steroid-Associated Adverse Events are Dose-Dependent Following Hematopoietic Cell Transplantation for Pediatric Hematologic Malignancies. **Robert Lisac, MD** B9. An Educational Intervention for Caregivers of Children with Motor Delay on a Social Media Platform: Parent Recruitment and Engagement.

Larken Marra, PhD

5:15 - 6:00 pm	Networking Hour (Café Area)
5:15 pm	Announce winners for Best Clinical & Outcomes Research Oral and Pos Presenters and Closing Remarks (Café Area)
	B20. Outpatient Utilization of the RAM Cannula for Nasal Noninvasive Ventila in Children. Brittany Truitt, MD
	B19. A Comparison of Postoperative Analgesia for Nuss Procedure with Cryoablation Patients Receiving Single Shot Nerve Blocks (SSRNB) with and without Patient Controlled Intravenous Analgesia (PCIA). Renee' Tolly, MD
	B18. Investigating Rurality and its Association with Initiation of Childhood Car Survivor Care. Liberty Strange, MD, MPH
	B17. Adherence to Resuscitation Ergonomics Amidst High Rates of PICU Staff Turnover. Ila Sehgal, DO
	B16. Professional Development Curriculum to Promote Well-being Amongst Pediatric Cardiology Fellows. Zahidee Rodriguez, MD
	B15. A group coaching pilot to study the feasibility and impact of cognitive-emotional skills in pediatric cardiology fellows. Zahidee Rodriguez, MD
	B14. Caregiver Measures of Stress in Recollection of Childhood Seizure Even Caroline Ray, MD
	B13. GLP-1 Receptor Agonists - A Potential New Medication for Pediatric Non-Alcoholic Fatty Liver Disease. Ana Ramirez-Tovar, MD
	B12. Positive Bacterial Blood Cultures and Time to Positivity in Children: Sho Empiric Antibiotics be Reconsidered Sooner? Pratik Patel, MD

ATTENDEE DIRECTORY

Name	Email
Dr. Grace Aldrovandi	galdrovandi@mednet.ucla.edu
Dr. David Archer	darcher@emory.edu
Carla Armour	carla.j.armour@emory.edu
Lauren Askew	laskew@emory.edu
Dr. Shasha Bai	shasha.bai@emory.edu
Dr. Mojtaba Bakhtiari	mbakht3@emory.edu
Dr. Maria Barbian	mcevall@emory.edu
Dr. Marissa Bass	mbbass@emory.edu
Dr. Holly Bauser-Heaton	hbauser@emory.edu
Nim Breitenfeld	nim.breitenfeld@emory.edu
Dr. Alexandra Cathcart	aecathc@emory.edu
Dr. Ann Chahroudi	ann.m.chahroudi@emory.edu
Dr. Kelsey Chatman	kelsey.collene.chatman@emory.edu
Dr. Chao Chen	chao.chen@emory.edu
Tehillah Chinunga	tchinun@emory.edu
Dr. D. Wade Clapp	dclapp@iu.edu
Dr. Neha Dagal	drnehadagal@gmail.com
Alex Dreyer	alexandria.licht.dreyer@emory.edu
Dr. Maryam Ehteshami	mehtes2@emory.edu
Dr. Mary Ellen Fain	mfain2@emory.edu
Dr. Omotayo Farinre	oofarin@emory.edu
Justin Ferretti	justin.j.ferretti@emory.edu
Dr. Dailia Francis	dbfranc@emory.edu
Dr. Diana Fridlyand	dfridly@emory.edu
Dr. Paul George	pegeorg@emory.edu
Dr. Timothy Gershon	timothy.gershon@emory.edu
Dr. Laura Gilbertson	laura.gilbertson@emory.edu
Scott Gillespie	scott.gillespie15@gmail.com
Dr. Melanie Grant	MLGRAN2@emory.edu
Dr. Pranav Gupta	PGUPT50@emory.edu
Debra Hamilton	drhamil@emory.edu
Dr. Dunia Hatabah	dunia.hatabah@emory.edu
Dr. Julie Hawk	julie.lollar.hawk@emory.edu
Dr. Stacy Heilman	sheilma@emory.edu
Pamela Hernandez	phern24@emory.edu
Dr. Samantha Hill	samantha.hill.med@gmail.com
Hui-Mien Hsiao	hhsiao@emory.edu
Dr. Colin Huber	colin.michael.huber@emory.edu
Dr. Tarun Jain	tarun.jain@emory.edu

Name	Email
Dr. Lucky Jain	ljain@emory.edu
Andrew Jergel	andrew.jergel@emory.edu
Dr. Navdeep Jhita	njhita2@emory.edu
Laura Johnson	ljohn61@emory.edu
Dr. Clint Joiner	clinton.joiner@emory.edu
Dr. Kymry Jones	ktjone8@emory.edu
Dr. Hunter Jonus	hunterjonus@emory.edu
Dr. Ashley Joseph	ashleyjoseph93@gmail.com
Heather Jung	heather.jung@emory.edu
Dr. Rohali Keesari	rohali.keesari@emory.edu
Dr. Anna Kenney	anna.kenney@emory.edu
Peggy Kettle	pkettle@emory.edu
Dr. Jiyoung Kim	sammijiyoung@gmail.com
Dr. Caitlin Kjeldsen	ckjelds@emory.edu
Dr. James Kohler	jjkohle@emory.edu
Dr. Ben Kopp	btkopp@emory.edu
Dr. Rawan Korman	rawan.korman@emory.edu
Dr. Haritha Kunhiraman	HKUNHIR@emory.edu
Dr. Mimi Le	uyen.quynh.nguyen.le@emory.edu
Dr. Robert Lisac	rlisac@emory.edu
Katie Liu	kliu229@emory.edu
Dr. Deepali Luthra	deepali.luthra@emory.edu
Dr. Maya Maarouf	maya.maarouf@emory.edu
Lisa Macoy	lsimm01@emory.edu
Dr. Larken Marra	larken.marra@emory.edu
Dr. Nael McCarty	namccar@emory.edu
Dr. Shannon Meeks	smeeks@emory.edu
Dr. Marcos Mills	millsm@kidsheart.com
Megan Moran	megan.moran@emory.edu
Dr. Claudia Morris	claudia.r.morris@emory.edu
Dr. Melissa Murphy	melissa.murphy@emory.edu
Dr. Presley Nichols	presleyhnichols@gmail.com
Dr. Bikesh Nirala	bnirala@emory.edu
Lauren Nolan	lauren.nolan@emory.edu
Dr. Anna Oeur	anna.oeur@emory.edu
Dr. Kathryn Oliver	kolive3@emory.edu
Dr. Hazel Ozuna	hazel.ozuna@emory.edu
Dr. Pratik Patel	pratik.patel@emory.edu
Dr. Dharmeshkumar Patel	dharmeshkumar.j.patel@emory.edu
Kourtney Peters	kourtney.peters@emory.edu
Etza Peters	etza.a.peters@emory.edu
Isabel Petrescu	isabel.petrescu@emory.edu

Name	Email
Grace Promer	grace.promer@emory.edu
Dr. CK Qu	cqu6@emory.edu
Dr. Sunil Raikar	sraikar@emory.edu
Dr. Ana Ramirez	amrami9@emory.edu
Dr. Gordon Ramsay	gordon.ramsay@emory.edu
Dr. Caroline Ray	cray7@emory.edu
Dr. Chris Rees	chris.rees@emory.edu
Dr. Loretta Reyes	lreyes7@emory.edu
Dr. Saidie Rodriguez	rodriguezz@kidsheart.com
Dr. Christina Rostad	christina.rostad@emory.edu
Dr. Inna Ruiz-Salinas	inna.ruiz@emory.edu
Dr. Clovis Sarmiento	clovis.john.sarmiento@emory.edu
Dr. Lisa Satlin	lisa.satlin@mssm.edu
Dr. Ila Sehgal	ila.sehgal@emory.edu
Dr. Shubin Shahab	sshahab@emory.edu
Ming Shen	mshen@emory.edu
Vidisha Singh	vsing26@emory.edu
Bianca Smith	biasmith97@gmail.com
Zianya Solis	zsolis@emory.edu
Dr. Lisa Staimez	lisa.staimez@emory.edu
Dr. Liberty Strange	lfstran@emory.edu
Dr. Sijia Tao	stao3@emory.edu
Dr. Andrey Tikunov	tikunov@gmail.com
Dr. Renee' Tolly	renee.tolly@gmail.com
Dr. Martin Tomov	mtomov@emory.edu
Dr. Brittany Truitt	btruitt@emory.edu
Dr. Benedicth Ukhueduan	benedicth.onyeka.ukhueduan@emory.edu
Adrianna Westbrook	alwestb@emory.edu
Alexandria Wilkerson	alexandria.wilkerson1@gmail.com
Tracy Willoughby	twillo2@emory.edu
Megen Wittling	megenwittling@gmail.com
Taku Yamamichi	tyamami@emory.edu
Evan Yang	evan.yang@emory.edu
Duwaraka Yoganathan	dyogana@emory.edu
Wen-Mei Yu	wen-mei.yu@emory.edu
Dr. Jason Yustein	jason.yustein@emory.edu
Dr. Patricia Zerra	pzerra@emory.edu
Dr. Peng Zhao	peng.zhao@emory.edu
Trisha Sundaram	tsundar@emory.edu
Dr. Beena Thomas	beena.elizabeth.thomas@emory.edu
Juan Dou	juan.dou@emory.edu
Kedan Endrias	kedan.endrias@emory.edu

Name	Email
Dr. Lisa Marie Cranmer	lisa.marie.cranmer@emory.edu
Dr. Venkat Edara	venkata.viswana.chowdary.edara@emory.edu
Claudia Yaranga	claudia.ivonne.yaranga@emory.edu
Dr. Zhulin He	zhulin.he@emory.edu
Dr. Doug Saforo	douglas.saforo@emory.edu
Kristen Herzegh	kristen.herzegh@emory.edu
Dr. Mohammad Hossain	mshossa@emory.edu

ACKNOWLEDGEMENTS

We would like to thank the K12 Executive Committee and Symposium Co-Chairs* for sponsoring and organizing this event.

Lucky Jain, MD, MBA
Ann Chahroudi, MD, PhD
Stacy Heilman, PhD*
Clint Joiner, MD, PhD*
Saul Karpen, MD, PhD
Benjamin Kopp, MD, MPH*
Wilbur Lam, MD, PhD
Claudia Morris, MD, FAAP*
Sunil Raikar, MD
Michelle Wallace, MD
Jason Yustein, MD, PhD

We thank our faculty judges for their time and expertise ensuring our early career researchers receive the recognition they deserve.

Grace Aldrovandi, MD, CM (*UCLA*)
Hanna Alemayehu, MD
Holly Bauser-Heaton, MD, PhD
Satheesh Chonat, MD
D. Wade Clapp, MD (*Indiana University*)
Nitika Gupta, MD
Allison Linden, MD

Shannon Meeks, MD Gordon Ramsay, PhD Christina Rostad, MD Lisa Satlin, MD (*Icahn School of Medicine*) Rabin Tirouvanziam, PhD Patricia Zerra, MD

A special thanks to our esteemed faculty and staff for their contributions, time, and expertise in organizing this important event.

Carla Armour Shasha Bai, PhD Maryam Ehteshami, PhD Justin Ferretti, MPH Debra Hamilton, MA, PsyS Julie Hawk, PhD Kristen Herzegh, MPH Kymry Jones, PhD Anna Kenney, PhD Mimi Le, PhD Nael McCarty, PhD Clovis Sarmiento, MD Megan Vallowe, PhD Tracy Willoughby, MPHc





THANK YOU

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 five minutes to complete our <u>Feedback Survey</u>
We look forward to your input.



We'll see you next year!