



I am delighted to share these updates from the GENI Center. As of February 2025, GENI continues to grow and is approaching 60 members. In this issue, we highlight our new Chair of Pediatrics, Dr. Shari Barkin, an internationally recognized expert in childhood obesity, as well as two new GENI members. Chaoran Li, PhD, and Wendy McKimpson, PhD, who bring considerable experience in the study of diabetes and obesity. For those conducting pediatric obesity/metabolism-related translational research using animal models, I want to highlight the recent availability of metabolic cages as part of the Department of Pediatrics Animal Physiology Core. I would like to call your attention to the Feeding Lab Corner, where Will Sharp highlights efforts to improve diagnosis of feeding/eating dysfunction, and to recent Accomplishments of GENI Members. The GENI Center Seminar and Research in Progress Series continues with a lecture from Dr. Wendy McKimpson on February 20th and a Pediatrics Grand Rounds lecture from Marialena Mouzaki, MD, MSc. I would like to highlight Dr. Mouzaki's talk, which is entitled "Pediatric Steatotic Liver Disease: The Future is Bright". Although the unchecked epidemic of childhood and adult obesity has seemed daunting at times, the NIH's prudent investment in basic, clinical, and translational research is yielding tangible results. Hard-won advances in prevention and care are beginning to restrain the prevalence of obesity and offer a greater range of effective treatments. With continued uninterrupted investment by the NIH and other stakeholders, the future indeed promises to be bright for children with obesity and related comorbidities. ~paul.



In This Issue

Center Director message

New department chair and GENI members

GENI accomplishments

GENI events

Feeding Lab

Animal Physiology Core and GENI metabolic cages

Resources/Research Wows

Pediatric Research Alliance pilot grants

Pediatric core services

Upcoming Pediatrics events

MEET OUR NEW CHAIR



Shari Barkin, MD, MSHS

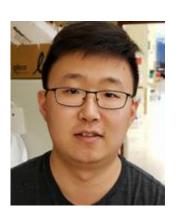
Dr. Shari Barkin is the new Chair of Emory's Department of Pediatrics, Pediatrician in Chief at Children's Healthcare of Atlanta, and Executive Director of the Pediatric Institute. Dr. Barkin trained as a health services and outcomes researcher and is an internationally recognized child health physician scientist and member of the National Academy of Medicine. Of particular importance for the GENI Center, Dr. Barkin's research focuses on community-based, family-centered approaches to obesity prevention and treatment. This includes studying the interaction of genetics, behavior, and environment at sensitive periods in childhood development, making effective use of randomized controlled trials, and devising effective community-based behavioral interventions for overweight and obese children to translate her research to implementation. Dr. Barkin brings a remarkable record of accomplishment demonstrating her ability to export research findings to improve child health.



NEW GENI MEMBER SPOTLIGHT

Chaoran Li, PhD

Dr. Chaoran Li joined Emory's Department of Microbiology & Immunology in 2020 from Harvard Medical School. Research in his lab focuses on cytokine and metabolic regulation of regulatory T cells (Tregs) in non-lymphoid tissues at homeostasis and during obesity-associated metabolic disorders and inflammatory diseases. He has a keen interest in understanding how obesity modulates tissue Tregs to promote type 2 diabetes, fatty-liver diseases, and inflammatory bowel diseases.



Wendy McKimpson, PhD

Dr. Wendy McKimpson is GENI's newest member, having joined Emory's Department of Medicine from Columbia University's Irving Medical Center just last month. She is an experienced cell biologist with a keen interest in deciphering fundamental signaling mechanisms and their roles in human disease, especially during metabolic stress and diabetes. Specifically, she investigates the signaling mechanisms of hormone-secreting cells, particularly pancreatic beta-cells and gut enteroendocrine cells, in the pathophysiology of diabetes and obesity.





GENI Accomplishments

GENI Center Pilot Grant awarded to Benjamin Kopp, MD, MPH

The project, entitled "Immunophenotyping aerodigestive responses to new therapies in children with cystic fibrosis (CF)", aims to identify markers of both systemic and aerodigestive immunometabolic responses to a highly effective modulator therapy called vanzacaftor-tezacaftor-deutivacaftor (VTD) which will in turn translate to improved long-term clinical outcomes for people with CF.

Publication:

Dr. **Jean Welsh**, research director of Strong4Life, was senior author on a new publication that documents the high prevalence of consumption of low-calorie sweeteners among US infants and young children. *The Journal of Nutrition*. 2024 Nov;154(11):3416-3423.

2024 Faculty Recognitions Week: recognizes faculty accomplishments and excellence in patient care, research, education, and innovation (5 GENI members)

Paul Dawson, PhD, was awarded the *Emory 1% Award*, recognizing faculty who have received study section scores in the top 1st percentile on a grant proposal (*Hepatoprotective Mechanisms of Systemic Bile Acid Transporter Inhibitors*).

Nitika Gupta, MD, was awarded the *Children's Healthcare of Atlanta Excellence in Patient Care* in recognition of her achieving NRC patient experience survey scores of 96% or higher during the period of August 2023 - June 2024.

Brenda Poindexter, MD, made the *MilliPub Club*, which honors and recognizes current Emory faculty who have published one or more individual papers throughout their careers that have each garnered more than 1000 citations, thereby representing high-impact scholarship (*Enteral Nutrient Supply for Preterm Infants: Commentary from the European Society for Paediatric Gastroenterology, Hepatology, and Nutrition Committee on Nutrition).*

Parminder Suchdev, MD, made the *MilliPub Club* with his article *Global Burden of 369 Diseases and Injuries in 204 Countries and Territories*, 1990-2019: A Systematic Analysis for the Global Burden of Disease Study 2019.

Miriam Vos, MD, made the MilliPub Club with her article *Global Perspectives on Nonalcoholic Fatty Liver Disease and Nonalcoholic Steatohepatitis*.

Celebration of Faculty Eminence (1 GENI member)

Dr. **Rabindra Tirouvanziam** was one of 31 newly endowed professors who were honored during the Celebration of Faculty Eminence for their commitment to advancing scholarship and research while enriching student experience. He received the *Schinazi Family Distinguished Professorship in Biomedical Research*.

2024 Faculty, Physician, & Staff Awards (2 GENI members)

Brenda Poindexter, MD, was awarded the *Brumley Leadership Award*, a Chair's Choice award that recognizes a top leader who significantly impacts the department and the people who work within it.

Lefteris Michailidis, PhD, was awarded the *Junior Faculty Researcher Award*: awarded to a junior faculty member whose research program demonstrates significant impact and productivity.

Top 3rd Percentile on a Grant Application (1 GENI member)

Dr. Peijian He received a score in the top 3rd percentile for his NIDDK R01 grant application entitled *Role of frataxin in liver injury*. The focus of the study is to elucidate the role and mechanism of impaired mitochondrial iron metabolism and will hopefully lead to the development of potential novel therapy against MASLD in children and adults.

Award

Helaina Huneault, RD, PhD candidate working under the mentorship of Drs. **Vos** and **Welsh**, received the *Pediatric Research Abstract Award* from the American Association for the Study of Liver Diseases (AASLD) Foundation at the Liver Meeting 2024 for her abstract entitled *Clinically Distinct Metabotypes of Pediatric Metabolic Dysfunction-Associated Steatotic Liver Disease: An Unsupervised Machine Learning Analysis of Children Enrolled in NASH CRN Studies.*

GENI Events



GENI Research in Progress

Wendy M. McKimpson, PhD

Gastric endocrine cells: a potential target to treat obesity and diabetes

February 20, 2025 3:00 PM HSRB I E260 and Zoom

Register here

The next Research in Progress seminar will be held April 17 in HSRB I E260, 3:00pm.



Wednesday, March 19 8:00AM AMBH & Zoom <u>Register here</u>





Marialena Mouzaki, MD, MSc

Medical Director, Advance Nutrition Therapy Services Associate Director, Steatohepatitis Center Program Director, Advanced Nutrition Fellowship Cincinnati Children's Hospital Medical Center Professor, Department of Pediatrics University of Cincinnati

Pediatric Steatotic Liver Disease: The Future is Bright



In case you missed the last GENI seminar: 12/12/2024 GENI Seminar - Timothy Osborne, PhD

Feeding Lab

(GENI Special Interest Group)

International Journal of Eating Disorders





A US-Based Consensus on Diagnostic Overlap and Distinction for Pediatric Feeding Disorder and Avoidant/Restrictive Food Intake Disorder

¹School of Nursing, University of North Carolina at Wilmington, Wilmington, North Carolina, USA | ²Feeding Matters, Phoenix, Arizona, USA | ³Brigham and Women's Hospital, Harvard Medical School, Boston, Massachusetts, USA | ⁴Banner-University Medical Center South, Tucson, Arizona, USA | ⁵The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA | ⁸Muse Children's Hospital and Health Center, Durham, North Carolina, USA | ⁸Duke Children's Hospital and Health Center, Durham, North Carolina, USA | ⁸Rogers Behavioral Health Conomowoc Main Campus, Atlanta, Georgia, USA | ¹⁰Equip, California, USA | ¹¹The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA | ¹²Nationwide Children's Hospital, Olumbus, Ohio, USA | ¹³Zero to Three, Washington, Columbia, USA | ¹⁴Emory Medical School, Children's Healthcare of Atlanta, Atlanta, Georgia, USA

Dr. William Sharp, director of the Feeding Lab, was a senior author on this new publication (December 2024) based on consensus efforts. Avoidant restrictive food intake disorder (ARFID) and pediatric feeding disorder (PFD) are diagnoses covering dysfunctional feeding and eating in pediatrics that contain inherent diagnostic overlap. This includes almost verbatim criteria regarding nutritional consequences associated with feeding/eating dysfunction and shared emphasis on possible psychosocial impairment associated with restricted food intake. The overlap has led to clinical confusion and stymied research/practice efforts, which potentially impact patients and families with ARFID and/or PFD. A consensus group consisting of US-based experts convened to gain clarity between these diagnoses for feeding and eating dysfunction. Their efforts resulted in 10 consensus statements, data-based best guidance for determining ageappropriate feeding skill, and future directions for continued dialogue. Click here to read the full article.

Animal Physiology Core and GENI Metabolic Cages now available!

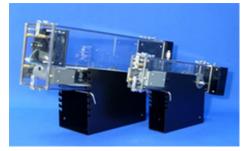
Columbus Instruments CLAMS



Features

- Activity
 X,Y & Z axis monitoring
- Feeding Mass monitoring
- Drinking Volume Monitoring
- Body Mass
 Resolves 0.1g
- Running Wheel Rotation Monitoring
- Sleep Detection
 Scores Events and Duration
- Food Access Control Mass & Event monitoring
- Environmental Control of Temperature and Lighting
- Calorimetric Assessment by Oxymax
- Environmental Monitoring of Temperature





These cages are now available to researchers for a subsidized rate (\$892/week/6-cage experiment).

Resources

GENI and Children's Publication Citation

Publications and research posters related to GENI and/or that benefitted from Pediatric Research Alliance resources should include "Children's Healthcare of Atlanta" in the Affiliations portion of the citation (appearing under the author line of the article or poster).

The proper affiliation citation is: Center for Gastroenterology, Endocrinology, & Nutrition Innovation (GENI) of Children's Healthcare of Atlanta and Emory University Department of Pediatrics, Atlanta, GA USA. Other examples of acceptable formats for citation are available here.

This requirement is vital to ensure recognition of our work by both Emory and Children's and applies to all Center members, whether lab-based or non-lab based. Children's has been a significant supporter of the research operations that make all of our work possible and should be acknowledged.

Research Wows



Don't forget to share your latest research achievements through our very brief "Research Wows" submission form. This information will be used for a) internal and external reporting on metrics and impact, and b) potential news and media coverage.

"Research Wows" FAQ's:

- What type of information should I share?
 - Impactful publications that have been accepted or published
 - New, major grants that have been awarded
 - New, major professional/service awards, distinctions, or recognitions received
 - o Other noteworthy research-related achievements (e.g., patents, IND, clinical trials)
- Who will receive this information?
 - Pediatric research center Program Managers and Center Directors
 - Pediatric research leadership
 - Marketing and communications teams
- When should I share my "Research Wows"?
 - As soon as possible! While we will accept your "Research Wows" at any time for purposes such as internal reporting, the following timing is important to keep in mind for news and media purposes:
 - Accepted for publication in a journal
 - About to receive a notice of award for funding
 - Research that has received funding and is about to start but no data has been collected yet

Click here to submit your "Research Wows": https://forms.office.com/r/Md9FCaYbTc or email Debra Hamilton, GENI Program Manager, at drhamil@emory.edu.



Pediatric Research Alliance Pilot Grants

- For faculty and centers in the Pediatric Research Alliance.
- Designed to stimulate new research projects, build new collaborations, and increase extramural funding for pediatric research.

Three types of awards are available:

Type 1: Junior Faculty Focused (JFF) Award - \$50,000 per award

Type 2: Center Award - \$50,000 per award

Type 3: Program Planning Pilot (P*3) Awards - up to \$100,000 per award

Application Process:

Letters of Intent (LOIs) are required and must be submitted by the April deadline of the year the project period starts.

The LOIs will be evaluated based on the feasibility of the proposed science leading to the development of the applicant's research career.

Project Period: October 1 - September 30

Click **HERE** for more information about Pilot Grants

Application portal opens February 10th

Letter of Intent due April 10th
Full invited proposal due June 26th







Pediatric Core Services

Offering the equipment, tools, and skilled professionals to make your research faster and more impactful.

From imaging and data analysis to clinical trial support, our pediatric cores provide

key resources and expert support to help researchers at every step.

Animal Models

- Animal Physiology Core: offers services & equipment for complex technical & surgical procedures in animals. Provides access to Sysmex XN-1000V (a fully automated 5-part differential veterinary hematology analyzer) and metabolic cages for simultaneous measurement of key metabolic parameters in mice.
- <u>CF Animal Models Core</u>: provides murine models relevant to cystic fibrosis researchers.

Biorepositories & Clinical Research

- <u>Children's Clinical and Translational Discovery Core</u>: supports investigators with specimen processing, storage, and other services important to conducting clinical trials.
- <u>CF Discovery Core and CF Biospecimen Repository (CF-BR)</u>: utilizes the CF-BR, a storage bank of several thousand biofluids collected from patients with cystic fibrosis at varying disease states.
- <u>Laboratory and Pathology Clinical Research Core</u>: provides clinical laboratory testing, specimen processing, histology services, and de-identified tumor bank specimens to investigators.
- <u>Ian's Friends Foundation Brain Tumor Biorepository</u>: collects, cultures, and distributes pediatric brain tumor biospecimen for research studies with Children's IRB approval and patient consent.

Biostatistics

 <u>Pediatric Biostatistics Core</u>: provides comprehensive expertise in statistical methodology and advanced data analysis to support the design, execution, and dissemination of studies, including grant proposals and manuscripts.

Clinical & Data Registry

- <u>Pediatric Heart Diseases Data Registry Core</u>: offers access to rich registry data from surgical, catheter-based and electrophysiologic studies and interventions for multiple pediatric heart diseases.
- <u>Children's Health Informatics Core</u> (CHIC): provides informatics expertise to access and leverage electronic health record data for funded research, multicenter collaboration, and interventions.

General Equipment

 General Equipment Core: offers access to select laboratory equipment to support pediatric research.

Imaging

- Animal Physiology Core: provides advanced ultrasound as part of its services related to animal models.
- <u>Cardiovascular Imaging Research Core (CIRC)</u>: offers noninvasive cardiovascular imaging support for investigators involved in clinical research.
- Integrated Cellular Imaging Core: provides access to cuttingedge cellular imaging technologies and technical expertise to support pediatric research.
- Medical Imaging Resources: cross-disciplinary scientific, administrative, and educational home for imaging science through Emory Center for Systems Imaging (CSI) and Children's Pediatric Imaging Research Core (PIRC).

Research Grant Development

 <u>Pediatric Research Development Core</u>: offers three arms of support services to optimize researcher careers: General Resources and Services, Education and Training, and Proposal Development.

Sample Interrogation

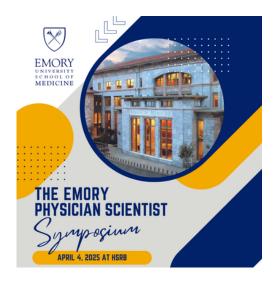
- <u>Biomarkers Core</u>: offers state of the art equipment and up-todate technology to provide high quality analysis of biological samples to support pediatric research.
- <u>Pediatric/Winship Flow Cytometry Core:</u> provides cytometry services for the analysis and sorting of cells, and expert consultation for experimental design and planning.
- ADJUST Laboratory: CLIA-certified, CAP-accredited lab for validating, implementing, and helping to develop new diagnostic technologies to be used from clinical laboratory to home, with focus on accessible, reliable, and affordable diagnostics for members of all communities and economic backgrounds.

Questions?

For more information about our cores and usage subsidies, please scan the QR code to visit our website at https://pedsresearch.org/cores, or contact Stacy Heilman, PhD, Vice Chair for Research Operations, at stacy.heilman@emory.edu. Links to other cores also available to pediatric researchers can be found on our website.



Upcoming Pediatrics Events



2025 PHYSICIAN SCIENTIST SYMPOSIUM - APRIL 4

This Physician-Scientist Symposium is a collaboration across Physician Scientist Training Programs at Emory for anyone with clinical training who devotes time to clinical, basic, or translational research.

HEALTH SCIENCES RESEARCH BUILDING I & II

REGISTER HERE



2025 SOUTHEASTERN PEDIATRIC RESEARCH CONFERENCE - JUNE 6

GEORGIA AQUARIUM

- REGISTER TO ATTEND
- SUBMIT ABSTRACTS
- LEARN MORE



PEDIATRIC EARLY CAREER RESEARCHER CONFERENCE - SEPT 9

The conference showcases clinical, basic and translational research presented by Emory and Children's Healthcare of Atlanta's early career child health researchers.

HEALTH SCIENCES RESEARCH BUILDING I AUDITORIUM & CAFE

MARK YOUR CALENDAR NOW