Emory+Children's Pediatric Research Center
Update August 2014

Research Resources:
The resources to the right are available to all investigators affiliated with Children's Healthcare of Atlanta (CHOA), including medical staff, Emory Department of Pediatrics (DOP) faculty and staff, and those outside of the DOP and CHOA who are members of our research centers. We encourage involvement of all those interested in research throughout our system, and provide this as a guide to resources along with our research website www.pedsresearch.org . Our goals are to build infrastructure and programs that serve a broad community of scientists and clinicians engaged in pediatric research, and provide training in grant writing and grant opportunities that enhance our extramural funding for all child health investigators affiliated with Children's Healthcare of Atlanta. For suggestions and comments on any of the initiatives and resources, please contact Paul Spearman, MD (paul.spearman@emory.edu).

Research Resources

Grant and Manuscript Support

➢***Stacy Heilman, PhD Grants Advocate*** (404-727-4819, stacy.heilman@emory.edu)
•Assistance with finding grant opportunities and connecting to collaborators
•Core laboratory assistance, supervision

Grants & Manuscript Editing
•Prioritized for extramural funding opportunities, program projects
•Experienced at program project management, grant and scientific paper editing
•Request form on pedsresearch.org; send to Stacy Heilman.

Biostatistics Core
➢Courtney McCracken, PhD
➢Traci Leong, PhD
➢Scott Gillespie, MS
Procedure: Request form located at: http://www.pedsresearch.org/cores/detail/biostats
Priorities: analysis for grant applications and Publications

Clinical studies/ coordinators

➢***Kris Rogers, RN, CRA Director,*** Clinical Research: (404-785-1215, Kristine.rogers@choa.org

➢**Manager, Egleston campus: *Allison Wellons*** (404-785-6459, Allison.wellons@choa.org)

➢**Manager, Hughes Spalding/Scottish Rite campuses: *Beena Desai*** (404-785-2269, beena.desai@choa.org)

➢**Nurse Manager, Pediatric Research Unit (Egleston): *Stephanie Meisner, RN*** Stephanie.Meisner@choa.org (404-785-0400-main number)

➢**Pediatric Research Unit (Egleston): *Services–*** *A four-bed outpatient research unit/ A four-bed inpatient research unit/ A core research lab/A research pharmacy/ Bionutrition services/Nursing Services including, but limited to: Medication administration including investigational drugs; I.V. access and port access; I.V. infusions; Routine and complex vital sign monitoring; Phlebotomy; Timed specimen collections such as PK trials and oral glucose tolerance tests; Telemetry monitoring; For more information, please visit: http://www.pedsresearch.org/clinical-research/pediatric-research-center/*

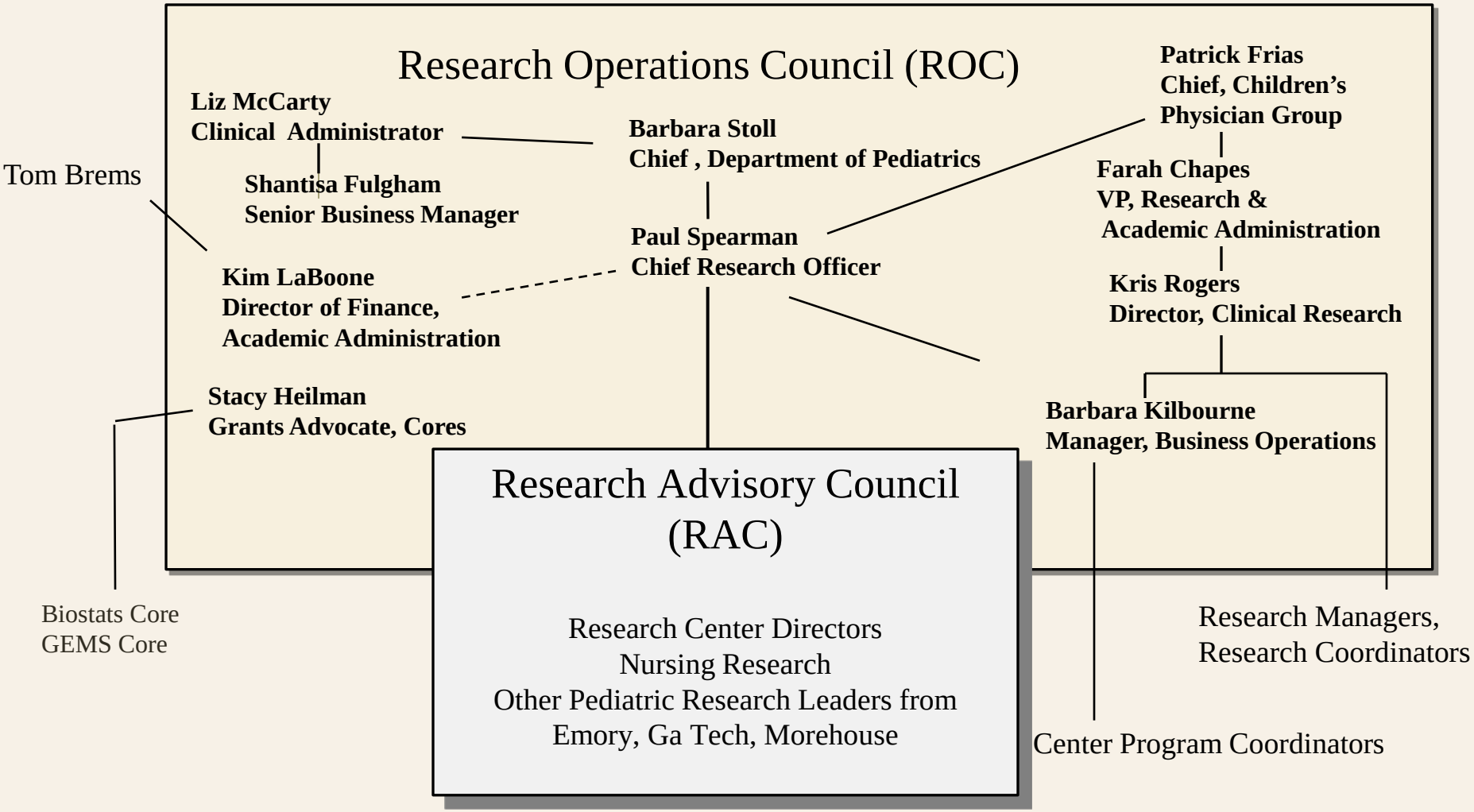
Common Equipment/ Specimen Processing Core

2nd floor ECC 260 lab:
Technical Director:
➢***Yelena Blinder***
ybesnov@emory.edu

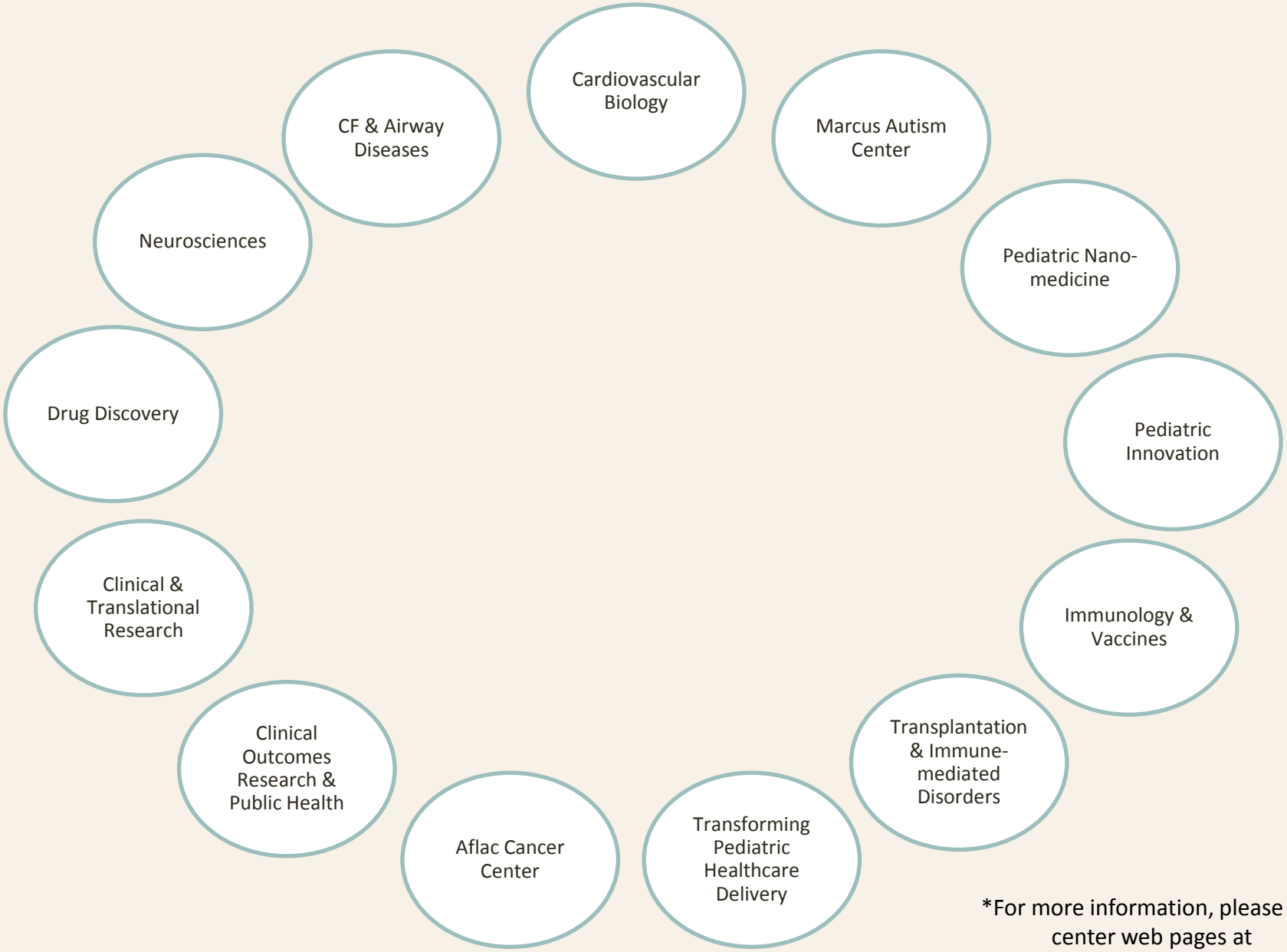
Equipment: Biosafety cabinet, incubators, clinical centrifuge, real-time PCR machine, standard PCR machine, multilabel plate reader, gel documentation system on order
Services: this core provides common equipment for investigator's use, including access to benchtop space and hood space, centrifuges for clinical specimen processing

Laboratory Specimen Processing: Egleston
Manager: Diana Worthington-White (404-785-1721 diana.worthington-white@choa.org
•Clinical trials specimen processing, shipping, limited storage
•ACTSI processing lab
•Laboratory inventory management system (LIMS) available

Research Leadership:



Emory+Children's Pediatric Research Centers*



*For more information, please see center web pages at pedsresearch.org

Emory+Children's Pediatric Research Center Contacts

Center Directors:

Aflac Cancer and Blood Disorders Center
Center Director: Bill Woods, MD
william.woods@choa.org
Program Coordinator: TBN

Center for Cardiovascular Biology
Center Director: Mike Davis, PhD
michael.davis@bme.gatech.edu
Program Coordinator: Kristen Herzegh, BA, MPH kcoshau@emory.edu

Children's Center for Clinical and Translational Research
Center Director: Cynthia Wetmore, MD, PHD
Program Coordinator: Kristen Herzegh, BA, MPH kcoshau@emory.edu

Center for Cystic Fibrosis & Airways Disease Research
Center Director: Nael McCarty, PhD
namccar@emory.edu
Program Coordinator: Karen Kennedy, PhD kmurra5@emory.edu

Center for Drug Discovery
Center Director: Baek Kim, PhD
Baek.kim@emory.edu
Program Coordinator: Kristen Herzegh, BA, MPH kcoshau@emory.edu

Center for Immunology and Vaccines
Center Director: Paul Spearman, MD
paul.spearman@emory.edu
Program Coordinator: Karen Kennedy, PhD kmurra5@emory.edu

Center for Neurosciences Research
Center Director: Ton deGrauw, MD, PhD *ton.degrauw@choa.org*
Program Coordinator: Jennifer Kenny jkenny@emory.edu

Center for Pediatric Innovation
Center Directors: Bob Guldberg, PhD and Kevin Maher, MD
robert.guldberg@me.gatech.edu and maherk@kidsheart.com
Program Coordinator: Hazel Stevens hazel.stevens@me.gatech.edu

Center for Pediatric Nanomedicine
Center Director: Gang Bao, PhD
gang.bao@bme.gatech.edu
Senior Manager: Amy Tang amy.tang@bme.gatech.edu
Program Coordinator: Erin Kirshtein Erin.kirshtein@bme.gatech.edu

Center for Transplantation & Immune-mediated Disorders
Center Director: Subra Kugathasan, MD
skugath@emory.edu
Program Coordinator: Jennifer Kenny jkenny@emory.edu

Center for Transforming Pediatric Healthcare Delivery
Center Director: Beth Mynatt, PhD
smynatt@gatech.edu
Program Coordinator: TBN

Clinical Outcomes Research and Public Health
Center Director: Paul Spearman, MD (Acting)
paul.spearman@emory.edu
Program Coordinator: Karen Kennedy, PhD kmurra5@emory.edu

Marcus Autism Center
Center Director: Ami Klin, PhD
Director of Research: Warren Jones, PhD ami.klin@emory.edu or ami.klin@choa.org and warren.r.jones@choa.org
Program Coordinator: TBN

Research Center Administration:

Barbara J. Stoll, MD
George W. Brumley, Jr. Professor and Chair
Department of Pediatrics, Emory University School of Medicine, CEO, The Emory Children's Center
Executive Director, The Pediatric Center of Georgia
barbara_stoll@oz.ped.emory.edu

Patrick Frias, MD
Chief, Children's Physician Group
Children's Healthcare of Atlanta

Paul Spearman, MD
Nahmias-Schinazi Professor & Chief, Pediatric Infectious Diseases, Chief Research Officer, Children's Healthcare of Atlanta, Vice Chair for Research, Dept of Pediatrics, Emory University
paul.spearman@emory.edu

Farah Chapes
VP, Research & Academic Administration
Children's Healthcare of Atlanta
Farah.chapes@choa.org

Kris Rogers, RN, CRA
Director of Research & Graduate Medical Education
Children's Healthcare of Atlanta
kristine.rogers@choa.org

Liz McCarty
Clinical Administrator
Department of Pediatrics, Emory University
mmccar2@emory.edu

Shantisa Fulgham
Senior Business Manager
Department of Pediatrics, Emory University
sfulgha@emory.edu

Kim LaBoone
Director of Finance, Academic Administration
Children's Healthcare of Atlanta
kimberly.laboone@choa.org

Stacy S. Heilman, PhD
Director of Programs & Grants Advocate
Department of Pediatrics, Emory University & Children's Healthcare of Atlanta
stacy.heilman@emory.edu

Barbara W. Kilbourne, RN, MPH
Manager, Business Operations
Research Strategy Leadership, Children's Healthcare of Atlanta
barbara.kilbourne@choa.org

Research-sponsored events/meetings:

(This is an overview, for specific dates/events, go to: http://www.pedsresearch.org/calendar)

MONDAYS	TUESDAYS	WEDNESDAYS	THURSDAYS	FRIDAYS	VARIOUS DAYS
Research Operations Council (ROC) meetings: occurs weekly at Egleston, 1st Floor Admin Boardroom. Designed for central team to discuss detailed operations and issues.		Research Brainstorming Sessions: Help as needed to allow development and exploration of special research topics. For suggested topic nominations, contact (Stacy.heilman@emory.edu)		PeRCS: 10 AM coffee social every 1st and 3rd Friday, usually held 3rd floor break area, E-CC	Research Advisory Council (RAC) meetings: twice monthly; restricted to RAC membership, contact Paul Spearman for inquiries or suggestions paul.spearman@emory.edu
K club: Monthly discussions/lectures for K award training, other grants training/education. Typically 2nd Monday, September to May, Contact Stacy Heilman (Stacy.heilman@emory.edu) for more information. *Sponsored by Departments of Pediatrics and Medicine and ACTSI.*		Research Grand Rounds: 3rd Wednesday of month, Egleston, 7:30 AM		Research Seminars: Fridays (Egleston Classrooms). Contact Barbara Kilbourne for suggestions or needs (barbara.kilbourne@choa.org)	Invited speakers through seminar series sponsored by centers; contact Center Directors or Barbara Kilbourne at barbara.kilbourne@choa.org if interested in upcoming events. Center Directors are listed on pedsresearch.org website.

Specialized Research Equipment/Service Cores:

CORE	SCIENTIFIC DIRECTOR	TECHNICAL DIRECTOR/CONTACT	EQUIPMENT	LOCATION	SERVICES
Animal Physiology Core	Mary Wagner, PhD mary.wagner@emory.edu 404-727-1336	Rong Jiang, MD rjiang2@emory.edu	Small animal surgical equipment	Emory-Children's Center, 3rd Floor Lab	This core assists with and provides the surgical expertise and equipment for small animal survival surgery, including IACUC protocol assistance. Currently, the core offers pulmonary banding, aortic banding, coronary ligation and intramyocardial injections for mice, rats and rabbits and is available for development of other surgical procedures.
Biomarkers Core	Lou Ann Brown, PhD lou.ann.brown@emory.edu 404-727-5739	Janine Ward janine.ward@emory.edu	Agilent gas chromatography/mass spectrometer and Waters high performance HPLC with fluorescence detector	Emory-Children's Center, 3rd Floor Lab	This cores analyzes markers of oxidative stress and markers of alcohol exposure. Speak to Scientific Director about other chromatography/mass spec assays available.
Cardiovascular Imaging Research Core (CIRC)	Ritu Sachdeva, MD sachdevar@kidsheart.com 404-785-CIRC	Cynthia Mott, MPH, CCRC, PMP Cynthia.mott@choa.org	-Echocardiograms - Flow Doppler -3-D Imaging -Upright Bicycle -VO2 Analysis -Electrocardiogram -Cardiac MRI	Outpatient Cardiac Services, 2nd Floor, Tower 1	This core provides non-invasive cardiac support for investigators involved in clinical research involving infants, children and adolescents. The CIRC has dedicated space, equipment and staff to provide you with quality cardiovascular imaging data that is collected in a meticulous, systematic, detail-orientated manner. Because of our unique set-up, we are able to utilize state-of-the-art imaging modalities not typically seen in the clinical setting.

Specialized Research Equipment/Service Cores *(continued)*

CORE	SCIENTIFIC DIRECTOR	TECHNICAL DIRECTOR/CONTACT	EQUIPMENT	LOCATION	SERVICES
Flow Cytometry/Cell Sorting	David Archer darcher@emory.edu	Aaron Rae aaron.j.rae@emory.edu	FACSCanto, LSRII, FACSAria, AutoMACS	Health Sciences Research Building, E-362	This core offers access to several state of the art analytical flow cytometers as well as high-speed cell sorting. We also offer training as well as expert help to enable our users to improve the quality and scope of their research.
Immunology Core	Larry Anderson larry.anderson@emory.edu	Karneil Singh, PhD ksingh6@emory.edu	Specimen processing (hood, centrifuges, Coulter counter), Zeiss ELISPOT reader, ELISAs, assay design for intracellular cytokine staining (ICS), luminex 200 assays for protein quantitation, real-time PCR	Emory-Children's Center, Room 510	This core provides equipment and technical expertise for the performance of immunologic assays and diagnostic assays for infectious pathogens. Our mission is to enhance the ability of investigators at Children's and affiliated institutions to perform research in the areas of immunology, vaccine testing, and infectious diseases.
Medical Imaging Resources	Radiologists at Children's are board certified with additional training in pediatric imaging and are available for consultation upon request. This operation also includes physicists with imaging expertise and other staff experts.	Melinda Wilkerson, RN, BSN, CCRC melinda.wilkerson@choa.org	• Access to clinical CT (4), PET (1), Bone Densitometry (2), Fluoroscopy (8), Nuclear Medicine (4), Ultrasound (9) and X-ray. • Access to 6 clinical MRI scanners including a 1.0T intraoperative, 1.5T and 3T systems. • Access to 2 fMRI systems. • Sedation Services • Access to radiology investigators specializing in radiology, neuroradiology and interventional radiology. • Access to MRI physicists (3). • Access to research professionals including administrators and research coordinators. • Administrative services including scheduling, archival of images		We provide a cross-disciplinary scientific, administrative, and educational home for imaging science through the Emory Center for Systems Imaging (CSI) and the Pediatric Imaging Research Core (PIRC) at Children's Healthcare of Atlanta. Inpatient Imaging Resources Outpatient Imaging Resources

CORE in Development	EQUIPMENT/LOCATION	DESCRIPTION
Specimen Repository (which will enhance the Specimen Processing Core)	LIMS, freezers (-80, LN2) Sync with freezer space in new building; temporary space until then being identified	The specimen repository will offer organized storage of blood and body fluids and nucleic acids. Tissue repository services are under further discussion. Specimen processing can be coordinated to link with the specimen repository. Bar-coded standard vial storage and a dedicated LIMS will offer automated tracking and organized retrieval of specimens.

Partnership Core

CORE	SCIENTIFIC DIRECTORS	EQUIPMENT	LOCATION	SERVICES
Integrated Cell Imaging Core	Adam Marcus, PhD Director, ICI aimarcu@emory.edu Alexa Mattheyses, PhD Associate Director, ICI mattheyses@emory.edu Neil Anthony, PhD neil.anthony@emory.edu 404-969-CORE	The rates for the microscopes included in this effort can be found at: http://ici.emory.edu/document/ICI%20Pediatrics%20Rates.pdf. Pediatric researchers will benefit from a 40% subsidy when using any of the ICI equipment and technologies. ICI also provides expert consultation, training, and assistance on all technologies. More information on the microscopes and services available, locations, and how to become a user is available at ici.emory.edu	A partnership facilitated by the Emory School of Medicine and includes the Emory+Children's Pediatric Research Center Cellular Imaging Core along with other cellular imaging sites on campus including Winship Cancer Institute, Emory NINDS Neuroscience Core Facilities (ENNCF), and the Department of Physiology	This core provides training and access to advanced cellular imaging systems, including confocal and TIRF microscopy. For more information: http://www.pedsresearch.org/cores/detail/cell-imaging

Funding Opportunities:

Funding Opportunity	Funding Limit	Funding Term	Deadline	Eligibility	Post Award Expectations	Additional Information
Friends	$25,000	12-18 months	3rd Friday in Sept	1. Children's professional staff who do not also have a compensated faculty appointment 2. Must be for clinical or outcomes research taking place in Children's facilities	1. Must provide annual and final reports. 2. Must be willing to present findings to Friends groups, Children's leadership, etc.	Fund does not provide for investigator salary support
EECR*Seed*: Engaging Emory & Children's Researchers Seed Grant Program	$50,000	12 months	3rd Friday in Sept	1. Regular faculty in clinical departments at Emory. Applicants outside of Dept. of Peds must have clinical privileges at Children's. 2. Must not have an active R01 or P01. 3. Must provide agency and proposed date they will submit for extramural funding. 4. Priority given to faculty with New Investigator status.	Must submit a grant to an extramural agency.	$25,000 of total award may be directed to investigator salary. This seed grant is sponsored by Children's Healthcare of Atlanta and Emory University
Research Center Pilot Grants (including Emory & GA Tech based centers)	$50,000 (some GA Tech are $60K)	12 months	Usually mid-winter; Emory-based are due roughly every other year and GA Tech-based offered every year	1. Must include a member of the center and/or member of Children's medical staff 2. GA Tech-based centers (CPN, CPI and IPaT/CTPHD) must also include member of GA Tech faculty	1. Must provide annual report specifying related publications, grant applications submitted and extramural funding received. 2. Must apply for extramural funding within one year of project conclusion date.	https://pediatriconnect.gtri.gatech.edu/grants

Funding Opportunities *(continued):*

Funding Opportunity	Funding Limit	Funding Term	Deadline	Eligibility	Post Award Expectations	Additional Information
Dudley Moore Nursing and Allied Health Research Fund	$15,000	6-18 months	Usually 1st Friday in May	1. All Children's nursing and allied health staff who provide services at one of Children's locations are eligible. 2. Excludes those with regular faculty appointments or who are employed by Emory 3. Projects must have an impact on enhanced patient care, priority is given to projects that will provide evidence to change practice.	Must be willing to present findings by request.	Fund restricted by donor to support nursing and allied health research at Children's
Quick Wins	varies	12-24 months	ongoing	1. Project proposals must be submitted by teams comprised of individuals from each organization, Children's and Georgia Tech. 2. The proposals must address a project that provides an answer to an unmet business or clinical need as identified by a clinician, technologist, or Children's leader.	The project must be capable of delivering a workable solution (at minimum a validated "prototype") into the hands of a clinician or team within 18 months from the receipt of funds and project start.	https://pediatriconnect.gtri.gatech.edu/grants

Additional Resources/Updates:

Research listserv:
Contact barbara.kilbourne@choa.org to be added to this listserv used to disseminate all pediatric research related announcements including seminars, funding opportunities, such as BiRD (Bringing in the Research Dollars), and the Weekly PREP (Pediatric Research Events and Programs)

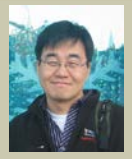
Website:

www.pedsresearch.org

This is the central resource for research seminar info, contacts, cores, calendars, forms

Health Sciences Research Building:
1760 Haygood Road
Atlanta, GA 30322
190,000 ft^2; 115,000 for pediatric research
Dry and wet lab research
For floor plans go to: http://pedsresearch.org/_files/HSRB_FloorPlans.pdf
Go to: http://www.pedsresearch.org/about-us for more info

Research Recruitment Update*:

NAME	PHOTO	CENTER	TITLE	START DATE	RECRUITED FROM	RESEARCH INTERESTS
Mehul V. Raval, MD, MS		Clinical Outcomes Research and Public Health (CORPH)	Pediatric Surgeon	July 2014	Nationwide Children's Hospital, Columbus, OH	• Improving outcomes in children's surgical care and limiting costs • Patient safety • Performance of retrospective data review as well as coordination of randomized trials • Long-term quality of life improvement assessments • Regional collaborative quality improvement efforts • Quality measure indicator development • Fiscal transparency and cost-effectiveness
Changwon Park, PhD		Center for Cardiovascular Biology (CCB)		April 2014	Department of Pharmacology, College of Medicine, University of Illinois Chicago, IL	FLK1 (VEGFR2), a receptor tyrosine kinase, plays a critical role for blood and vessel development. Fate mapping studies have demonstrated that FLK1+ mesoderm contributes to the development of the cardiovascular system consisting of hematopoietic, endothelial, cardiac muscle and smooth muscle cells. FLK1 continues to play a critical role in (pathological) angiogenesis in the adult. Therefore, understanding molecular mechanisms that regulate Flk1 expression is essential for delineating the pathways involved in blood and vessel differentiation during embryogenesis as well as postnatal angiogenesis. We have demonstrated that Bone Morphogenetic Protein (BMP) 4 is a major factor to generate FLK1 expressing mesoderm which can subsequently differentiates into endothelial and hematopoietic cells. Furthermore, we reported that ER71, a novel member of the ETS transcription factor family, is the direct upstream regulator of FLK1 expression and that ER71 is indispensable for vessel and blood development in mouse embryogenesis. Extending from our previous findings, we are currently studying the role of ER71 for the establishment of the cardiovascular system and for pathological angiogenesis. Outcome from the proposed studies will provide a new and detailed insight on the role of ER71 in vascular development and pathological angiogenesis, which can provide a new research venue for the development of specific targets for the cardiovascular diseases. In addition, we are investigating mechanisms which can induce direct reprogramming of somatic cells to functional endothelial cells.

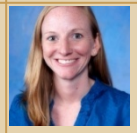
*Recruits for the past year

Research Recruitment Update*:

NAME	PHOTO	CENTER	TITLE	START DATE	RECRUITED FROM	RESEARCH INTERESTS
Cynthia Wetmore, MD, PhD		Center for Clinical & Translational Research (CCTR)	Director	April 2014	St. Jude's Research Hospital	Basic science: Developmental neurobiology, genetic control of normal and neoplastic proliferation in the nervous system, neural stem cells, gene expression in the nervous system, repair of DNA damage in the nervous system. Clinical science: Developmental therapeutics for pediatric oncology, neuro-oncology; design and conduct of Phase I/II clinical studies; translation of basic science discoveries to improving clinical care of patients.
Dmitry M. Shayakhmetov, Ph.D.		Center for Transplantation and Immune-Mediated Disorders (CTID)	Professor, Division of Rheumatology, Department of Pediatrics	April 2014	Department of Medicine, Division of Medical Genetics, University of Washington, Seattle	• Molecular mechanisms of a novel type of pro-inflammatory necrotic cell death in vivo. • Identification of molecular sensors triggering transcriptional and functional activation of macrophages in vivo. • Defining the role of pro-inflammatory types of cell death in the disruption of tissue homeostasis and triggering the systemic inflammatory host response • Modification of adenovirus interaction with circulating antibodies for cancer therapy.
Chris Gunter, PhD		Marcus Autism Center (MAC)	Associate Director for Research	February 2014	Nature—Senior Editor University of Alabama in Birmingham—Adjunct Professor ASHG—Chair, Communications Committee	Spokesperson for science.

*Recruits for the past year

Research Recruitment Update*:

NAME	PHOTO	CENTER	TITLE	START DATE	RECRUITED FROM	RESEARCH INTERESTS
Paul A. Dawson, PhD		Center for Transplantation and Immune-Mediated Disorders (CTID)	Professor	February 2014	Department of Internal Medicine, Section on Gastroenterology, Wake Forest School of Medicine, Medical Center Boulevard	**BILE ACIDS, CHOLESTEROL METABOLISM, MOLECULAR CLONING, GENE EXPRESSION AND REGULATION, MOLECULAR GENETICS** **Molecular Genetics of Ileal Bile Acid Transporter.** My lab identified and cloned the human ileal bile acid transporter cDNA and gene. These probes are being used to identify dysfunctional mutations in patients with bile acid malabsorption. Various classes of dysfunctional mutations in the ileal bile acid transporter gene have been identified. In addition to null mutations (i.e., splicing defects), we have also identified missense mutations that interfere with bile acid transporter processing and mechanism of action. The Class 2 mutations cause misfolding and ER retention of the transporter. More interesting are the Class 3 and 4 mutations that block bile acid transport at the substrate binding and solute translocation steps. The actions of these mutations are being studied to gain insight into the molecular mechanism of sodium-coupled solute transport. The association of these mutations with other gastrointestinal and lipid metabolism disorders including gallstone disease, irritable bowel syndrome, hypocholesterolemia, and hypertriglyceridemia is currently being investigated.
Cheng-Kui Qu, MD, PhD		Aflac Cancer and Blood Disorders Center (Aflac)	Associate Professor	January 2014	Case Comprehensive Cancer Center Case Western Reserve University	His specific interests are in myeloid malignancies, with an emphasis on PTPN11/SHP-2 and cell signaling mechanisms that control hematopoietic stem cell function. Also focusing on the role of protein phosphatases in normal hematopoietic cell development and in leukemogenesis. Works closely with Kevin Bunting and Himalee Sabnis.
Elizabeth "Beth" Stenger, MD		Aflac Cancer and Blood Disorders Center (Aflac)	Assistant Professor	August 2013	Children's Hospital of Pittsburgh, University of Pittsburgh	Enhanced IL-12 Production by mTOR-inhibited DC and Protection from GVHD

*Recruits for the past year