Emory+Children's Pediatric Research Center Update April 2015 Grant and Manuscript

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).

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

Clinical studies/coordinators

➤ Kris Rogers, RN, CRA
Director, CHOA Clinical
Research Administration
404-785-1215

Kristine.rogers@choa.org

➤ Manager, Egleston campus: Allison Wellons 404-785-6459

Allison.wellons@choa.org

Emory Clinical Research Services

➤ Amanda Cook, Director 404-727-5234

amcook@emory.edu

Common Equipment Core 2nd floor ECC 260 lab: ➤ Yelena Blinder, Technical

ybesnov@emory.edu

Director

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

➤ Manager, Hughes Spalding/Scottish Rite campuses: Beena Desai 404-785-2269

beena.desai@choa.org

➤ Nurse Manager, Pediatric Research Unit (PRC/Egleston): Stephanie Meisner, RN

Stephanie.Meisner@choa.org 404-785-0400-main number

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

Biostatistics Core

Stacy Heilman.

- ➤ Courtney McCracken, PhD
- ➤Traci Leong, PhD
- ➤ Scott Gillespie, MS
- ➤ Mike Kelleman, MSPH
- ➤ Curtis Travers, MPH

Procedure: Request form located at:

http://www.pedsresearch.org/co
res/detail/biostats

Priorities: analysis for grant applications and Publications

➤ Pediatric Research Unit (PRC/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/

Laboratory Specimen

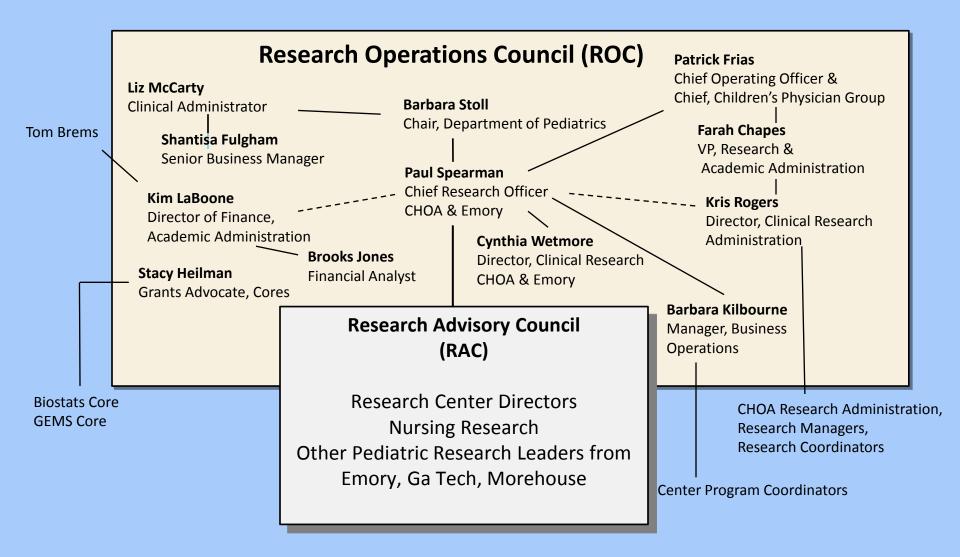
Processing: Clinical Laboratory at Egleston and Scottish Rite Heather MacDonald, Manager, Advanced Diagnostics Laboratory 404-785-5766

Heather.macdonald@choa.org

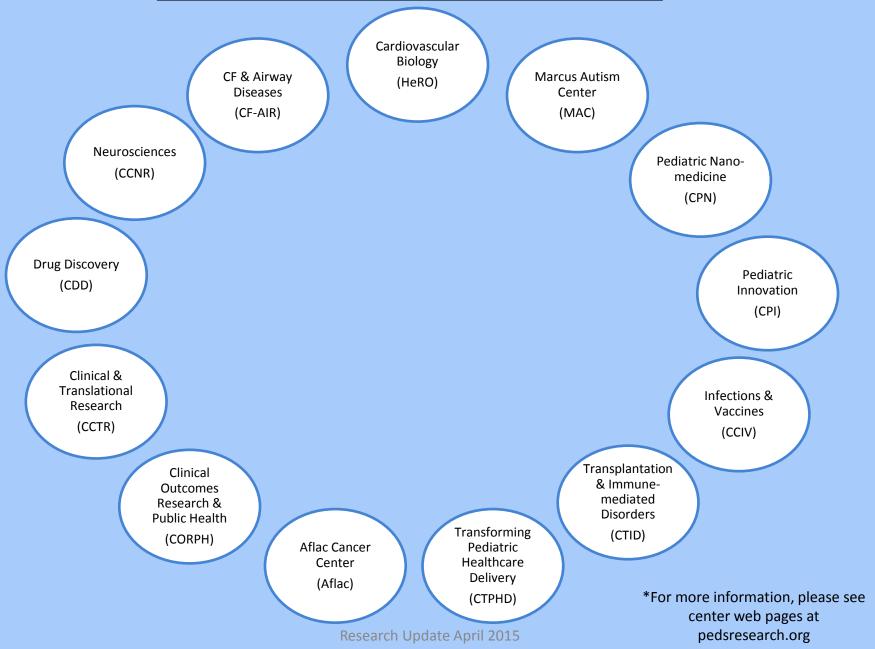
- •Clinical trials specimen processing, shipping, limited storage
- ACTSI processing lab
- •Laboratory inventory management system (LIMS) available

Research Resources

Research Leadership:



Emory+Children's Pediatric Research Centers*



Emory+Children's Pediatric Research Center Contacts

Center Directors:

Aflac Cancer and Blood Disorders Center

Center Director: Bill Woods, MD

Program Coordinator: Faith Barron

faith.barron@emory.edu

william.woods@choa.org

Children's Heart Research and Outcomes Center

Center Director: Mike Davis, PhD michael.davis@bme.gatech.edu

Program Coordinator: Kristen Herzegh,

BA, MPH kcoshau@emory.edu

Center for Clinical and Translational Research

Center Director: Cynthia Wetmore, MD, PHD cynthia.wetmore@emory.edu

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 <u>kmurra5@emory.edu</u>

Center for Drug Discovery
Center Director: Baek Kim, PhD

Baek.kim@emory.edu

Program Coordinator: Kristen Herzegh,

BA, MPH kcoshau@emory.edu

Center for Childhood Infections and Vaccines

Center Director: Paul Spearman, MD

paul.spearman@emory.edu

Program Coordinator: Karen Kennedy,

PhD kmurra5@emory.edu

Children's 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

<u>robert.guldberg@me.gatech.edu</u> and maherk@kidsheart.com

Program Coordinator: Hazel Stevens hazel.stevens@me.gatech.edu

Center for Pediatric Nanomedicine Center Director: MG Finn, PhD

mgfinn@gatech.edu
Co-Director: Tom Barker, PhD

thomas.barker@bme.gatech.edu
Program Coordinator: Erin Kirshtein
Erin.kirshtein@bme.gatech.edu

Center for Transplantation & Immunemediated 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

mynatt@cc.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 <u>kmurra5@emory.edu</u>

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@emory.edu

Program Coordinator: Christina Wessels

Christina.wessels@choa.org

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Department of Pediatrics, Emory University School of
Medicine, CEO, The Emory Children's Center
Executive Director, The Pediatric Center of Georgia

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Chief Operating Officer & Chief, Children's Physician Group Children's Healthcare of Atlanta pat.frias@choa.org

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

Cynthia Wetmore, MD, PhD

Director, Center for Clinical & Translational Research and Director, Clinical Research for Children's & Emory Dept of Pediatrics, Emory University

Cynthia.wetmore@emory.edu

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Stacv S. Heilman, PhD

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Barbara W. Kilbourne, RN, MPH

Manager, Business Operations, Research Strategy Leadership, Children's Healthcare of Atlanta barbara.kilbourne@choa.org

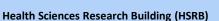
Emory+Children's Pediatric Research Center

Locations and Contacts:

Emory Campus/Egleston

Emory-Children's Center (E-CC)

2015 Uppergate Drive Atlanta, GA 30322



1760 Haygood Drive, NE Atlanta, GA 30322



1405 Clifton Road Atlanta, GA 30322



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Paul.spearman@emory.edu

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barbara.kilbourne@choa.ora

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Centers:

Aflac Cancer and Blood Disorders Center

Program Coordinator: Faith Barron faith.barron@emory.edu

Children's Heart Research and Outcomes Center

Program Coordinator: Kristen Herzegh, BA, MPH kcoshau@emory.edu

Children's Center for Clinical and Translational Research

Program Coordinator: Kristen Herzegh, BA, MPH kcoshau@emory.edu

Center for Cystic Fibrosis & Airways Disease Research

Program Coordinator: Karen Kennedy, PhD kmurra5@emory.edu

Center for Drug Discovery Program Coordinator: Kristen Herzegh, BA, MPH kcoshau@emory.edu

Center for Childhood Infections and Vaccines Program Coordinator: Karen Kennedy, PhD kmurra5@emory.edu

Children's Center for Neurosciences Research Program Coordinator: Jennifer

Kenny jkenny@emory.edu

Center for Transplantation & Immune-mediated Disorders Program

Coordinator: Jennifer Kenny jkenny@emory.edu

Clinical Outcomes Research and Public Health

Program Coordinator: Karen Kennedy, PhD kmurra5@emory.edu

Marcus Autism Center

1920 Briarcliff Road, NE

Atlanta, GA 30329

Associate Director of

Research, Chris Gunter, PhD

Chris.gunter@emory.edu

Program Coordinator:

Christina Wessels

Christina.wessels@choa.ora



Georgia Institute of Technology

Main Contacts:

Strategic Partners Officer: Sherry Farrugia sherry.farrugia@innovate.gatech.edu

Chief Engineer, Pediatric Technologies: Leanne West

Leanne.West@atri.aatech.edu

75 5th Street Atlanta, GA 30308

Center for Pediatric Innovation

Parker H. Petit Institute for Bioengineering & Bioscience

315 Ferst Drive, NW

Atlanta, GA 30332

Program Coordinator: Hazel Stevens hazel.stevens@me.gatech.edu

Center for Pediatric Nanomedicine

Department of Biomedical Engineering

313 Ferst Drive

Atlanta, GA 30332

Program Coordinator: Erin Kirshtein <u>Erin.kirshtein@bme.gatech.edu</u>

Center for Transforming Pediatric Healthcare Delivery

College of Computing

801 Atlantic Drive

Atlanta, GA 30332

Center Director: Beth Mynatt, PhD mynatt@cc.gatech.edu



Scottish Rite Hospital*

1001 Johnson Ferry Road NE

Atlanta, GA 30342-1605

Director, Center for Clinical and Translational

Research: Cynthia Wetmore, MD, PHD

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Program Coordinator: Kristen Herzegh, BA,

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Manager, SR Campus: Beena Desai Beena.desai@choa.org

*Research Office located in the Medical Library on the Ground Floor

Hughes Spalding Hospital

35 Jesse Hill Jr. Drive SE Atlanta, GA 30303-3032

Research Coordinator, Saadia Khizer

Saadia.khizer@choa.org

Morehouse School of Medicine

PI: Beatrice Gee, MD, AB, FAAP

baee@msm.edu

PI: Lily Immergluck, MD, FAAP Limmergluck@msm.edu





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 HSRB, E360. 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 1 st and 3 rd Friday, usually held 3 rd 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 2 nd 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: 3 rd 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@emor y.edu 404-727-1336	Rong Jiang, MD rjiang2@emory.edu	Small animal surgical equipment	Emory-Children's Center, 3 rd 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@emo ry.edu 404-727-5739	Janine Ward janine.ward@emory.edu	Agilent gas chromatography/ma ss spectrometer and Waters high performance HPLC with fluorescence detector	Emory-Children's Center, 3 rd 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@kidshear t.com 404-785-CIRC	Heather Freidman Heather.friedman@choa. org	-Echocardiograms - Flow Doppler -3-D Imaging -Upright Bicycle -VO2 Analysis -Electrocardiogram -Cardiac MRI	Outpatient Cardiac Services, 2 nd 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	Immunology services are overseen by Karnail Singh, PhD	FACSCanto, LSRII, FACSAria, AutoMACS 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	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. In addition, 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.	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			
Genetics/ Genomics Core Resources	The Emory Integrated Genomics Core (EIGC): Michael Zwick, PhD mzwick@emory.edu	The EIGC is a full-service genomics and computational facility offering Emory researchers the ability to use the lates technologies and methods of analysis in their research. We offer next-generation sequencing, high density microarray services, targeted enrichment, single nucleotide polymorphism (SNP) genotyping, and cutting-edge computational services built around our custom Galaxy server and Emory University's high performance computing and storage infrastructure. Please go to this link to learn more: Emory Integrated Genomics Core.					
	Emory Genetics Laboratory (EGL): Madhuri Hegde, PhD, FACMG mhegde@emory.edu and Derek Stevens derek.stevens@emory.edu	Emory Genetics Laboratory (EGL) is a "one-stop shop" for genetic testing. Its molecular genetics, biochemical genetics, and cytogenetics laboratories are fully integrated and offer one of the most comprehensive test menus available – more than 900 genetic tests are available for clinicians and researchers. As part of Emory University School of Medicine, EGL remains on the forefront of the latest technologies, including exome sequencing, next generation sequencing, whole genomic and targeted microarrays, and more. ABMG-accredited laboratory directors and NSGC-certified laboratory genetic counselors are available to all ordering clinicians and researchers. For more information, please visit Emory Genetics Laboratory.					

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	 Children's professional staff who do not also have a compensated faculty appointment Must be for clinical or outcomes research taking place in Children's facilities 	 Must provide annual and final reports. Must be willing to present findings to Friends groups, Children's leadership, etc. 	Fund does not provide for investigator salary support
EECRSeed: Engaging Emory & Children's Researchers Seed Grant Program	\$50,000	12 months	3rd Friday in Sept	 Regular faculty in clinical departments at Emory. Applicants outside of Dept. of Peds must have clinical privileges at Children's. Must not have an active R01 or P01. Must provide agency and proposed date they will submit for extramural funding. 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	 Must provide annual report specifying related publications, grant applications submitted and extramural funding received. Must apply for extramural funding within one year of project conclusion date. 	https://pediatric onnect.gtri.gate ch.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	 All Children's nursing and allied health staff who provide services at one of Children's locations are eligible. Excludes those with regular faculty appointments or who are employed by Emory 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	 Project proposals must be submitted by teams comprised of individuals from each organization, Children's and Georgia Tech. 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://pediatrico nnect.gtri.gatech.e du/grants

Additional Resources:

Research listserv:

Contact <u>barbara.kilbourne@choa.org</u> to be added to this listserv used to disseminate all pediatric research related announcements including seminars, funding opportunities, such as the BiRD (Bringing in 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, and forms.

Emory Library Resources

- http://www.healthlibrary.emory.edu/
- Ask a librarian:
 http://health.library.emory.edu/about/conta
 ct/ask.php

Scottish Rite and Egleston Library Resources

- Emily Lawson
 Clinical Information Librarian, Inman Medical Library at
 Children's at Egleston
 404-785-1481
- <u>Kate Daniels</u>
 Clinical Information Librarian at Scottish Rite
 404-785-2157
- If you have access to <u>Careforce</u> use the following link: http://careforceconnection/Departments/HumanResources/Learning%20Services/LibrarServices/Pages/Home.
 aspx
- If you do not have access to Careforce -- use the following link: http://www.choa.org/Health- Professionals/Physician-Resources/Medical-libraries.

Research Recruitment Update*:

NAME	РНОТО	CENTER	TITLE	START DATE	RECRUITED FROM	RESEARCH INTERESTS
Steven L. Goudy. MD		Children's Heart Research and Outcomes Center (HeRO)	Associate Professor	March 2015	Vanderbilt Bill Wilkerson Center, Vanderbilt University	Both a surgeon and a basic scientist. He has an active basic science laboratory studying palatal development and the pathogenesis of cleft palate. His K08 was entitled "The Role of IRF6 during craniofacial development", and ended 7/31/2013. His R01 application submitted in 2013 examines the role of Jagged1 signaling in osteoblast differentiation and maxillary bone formation, using relevant mouse models that recreate mid-facial defects in humans. The reviewers noted that the mouse model matches well human disorders of maxillary hypoplasia, and that the investigator is well positioned to study this problem. The primary concerns were with the proposed mechanism through which Jagged1 signals and some technical approaches with the microCT techniques. These have been well addressed in the revised application. Two new manuscripts have been accepted that support his application, and it appears poised for a better reception
Rheinhallt M. Jones, PhD		Center for Transplantation and Immune- Mediated Disorders (CTID)	Assistant Professor	November 2014	Department of Pathology, Emory University	Proposed Research Projects and Goals The commensal microbiota that reside intimately with epithelial surfaces are increasingly recognized as important actors in a variety of host physiological and pathological events. For example, recent advances have implicated a role for the microbiota in epithelial cell cycle regulation and stem cell dynamics, thus suggesting that a "dysbiosis" of this relationship may lead to the initiation and progression of pathological conditions. However, there is a gap in the knowledge concerning a mechanistic understanding of how the commensal microbiota influences these processes. The goal of my research is to identify the cell signaling pathways, the bacterial community structure, and the microbiota on human health. The short term objective is to identify how perturbations to the microbiota influence stem cell turnover, and by extension tumor initiation or progression – and ultimately, how deliberate manipulation of the microbiota may offer a therapeutic strategy

Research Recruitment Update*:

NAME	РНОТО	CENTER	TITLE	START	RECRUITED FROM	RESEARCH INTERESTS
IVAIVIE	PHOTO	CENTER	IIILE	DATE	RECROTTED FROM	RESEARCH INTERESTS
Hee Cheol Cho, PhD	6		Associate Professor		Cedars-Sinai Medical Center in Los Angeles	Bioengineering of cardiac pacemakers, gene and stem cell-based therapies
Mehul V. Raval, MD, MS		Clinical Outcomes Research and Public Health (CORPH)		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			Assistant Professor	April 2014	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	РНОТО	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	P = 0 = 1	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.

^{*}Recruits for the past year