Emory+Children's Pediatric Research Center

Research Resources

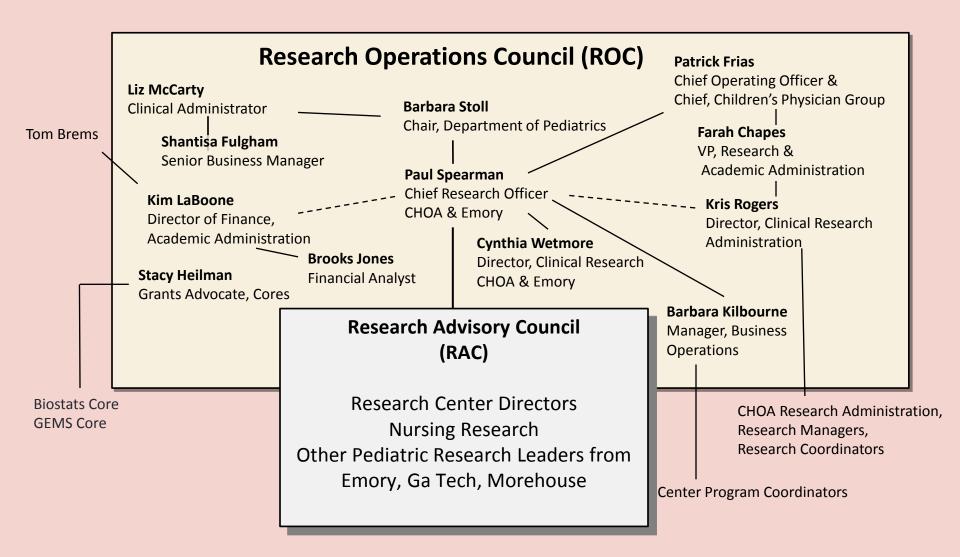
Update May 2015

Research Resources:

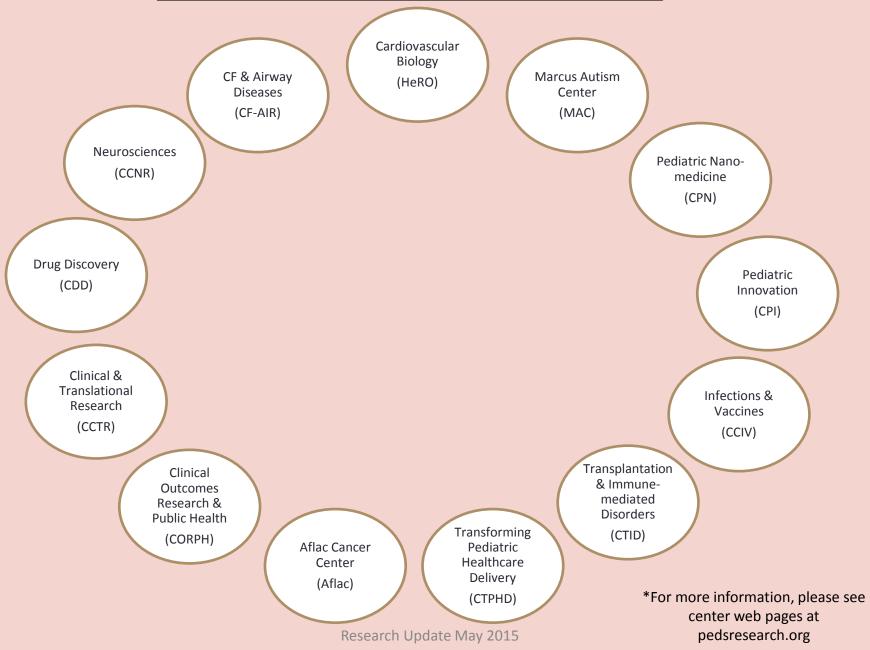
The resources to the right are available to all investigators affiliated with Children's Healthcare of Atlanta (CHOA), including medical staff, Emory Department of Pediatrics (DOP) faculty and staff, and those outside of the DOP and CHOA who are members of our research centers. We encourage involvement 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 Scientific Facilities Manager Kira Moresco, MS kira.moresco@emory.edu HSRB, G72, 404-727-6515
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.	 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 >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 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 william.woods@choa.org Program Coordinator: Faith Barron faith.barron@emory.edu

Children's Heart Research and Outcomes Center Center Director: Mike Davis, PhD michael.davis@bme.gatech.edu Program Coordinator: Kristen Herzegh, BA, MPH <u>kcoshau@emory.edu</u>

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 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 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 robert.guldberg@me.gatech.edu 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* <u>skugath@emory.edu</u> Program Coordinator: Jennifer Kenny ikenny@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 **Research Center Administration:**

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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 <u>paul.spearman@emory.edu</u>

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Emory+Children's Pediatric Research Center

Locations and Contacts:



Centers:

Egleston hospital

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

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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

Georgia Institute of Technology

Strategic Partners Officer: Sherry Farrugia Chief Engineer, Pediatric Technologies: Leanne West





Department of Biomedical Engineering 313 Ferst Drive Atlanta, GA 30332 Program Coordinator: Erin Kirshtein Erin.kirshtein@bme.gatech.edu



Center for Transforming Pediatric Healthcare Delivery College of Computing 801 Atlantic Drive

Atlanta, GA 30332 Center Director: Beth Mynatt, PhD mynatt@cc.gatech.edu

35 Jesse Hill Jr. Drive SE



Scottish Rite Hospital*

1001 Johnson Ferry Road NE Atlanta, GA 30342-1605



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



Hughes Spalding Hospital



Morehouse School of Medicine

PI: Beatrice Gee, MD, AB, FAAP bgee@msm.edu PI: Lily Immergluck, MD, FAAP Limmergluck@msm.edu





Research-sponsored events/meetings:

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

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 (<u>Stacy.heilman@emory</u> .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 (<u>barbara.kilbourne@choa.org</u>)	Invited speakers through seminar series sponsored by centers; contact Center Directors or Barbara Kilbourne at <u>barbara.kilbourne@choa.org</u> 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
<u>Animal</u> <u>Physiology</u> <u>Core</u>	Mary Wagner, PhD <u>mary.wagner@emor</u> <u>y.edu</u> 404-727-1336	Rong Jiang, MD <u>rjiang2@emory.edu</u>	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.
<u>Biomarkers</u> <u>Core</u>	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.
<u>Cardiovascular</u> <u>Imaging</u> <u>Research Core</u> (CIRC)	Ritu Sachdeva, MD <u>sachdevar@kidshear</u> <u>t.com</u> 404-785-CIRC	Heather Freidman <u>Heather.friedman@choa.</u> <u>org</u>	-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	Aaron Rae aaron.j.rae@emory.edu Immunology services are overseen by Karnail Singh,	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 <u>physicists with</u> 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. <u>Inpatient Imaging Resources</u> <u>Outpatient Imaging Resources</u>

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 <u>aimarcu@emory.edu</u> Alexa Mattheyses, PhD Associate Director, ICI <u>mattheyses@emory.edu</u> Neil Anthony, PhD <u>neil.anthony@emory.edu</u> 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: <u>http://www.pedsresearch.org/cores/detail/cell- imaging</u>				
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 latest 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 <u>mhegde@emory.edu</u> and Derek Stevens <u>derek.stevens@emory.edu</u>	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
EECR <i>Seed</i> : 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	 Must include a member of the center and/or member of Children's medical staff 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):

		 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 		
	Usually 1st Friday in May	 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	 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.	<u>https://pediatrico</u> <u>nnect.gtri.gatech.e</u> 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 (<i>Bringing in Research Dollars</i>), and the Weekly PREP (<i>Pediatric Research Events and</i> <i>Programs</i>).	<u>Website:</u> <u>www.pedsresearch.org</u> This is the central resource for research seminar info, contacts, cores, calendars, and forms.
 Emory Library Resources <u>http://www.healthlibrary.emory.edu/</u> Ask a librarian: <u>http://health.library.emory.edu/about/conta</u> <u>ct/ask.php</u> 	 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: <u>http://careforceconnection/Departments/HumanResou</u> <u>rces/Learning%20Services/LibrarServices/Pages/Home.</u> <u>aspx</u> If you do not have access to Careforce use the following link: <u>http://www.choa.org/Health- Professionals/Physician-Resources/Medical-libraries.</u>

Research Recruitment Update*:

NAME	рното	CENTER	TITLE	START DATE	RECRUITED FROM	RESEARCH INTERESTS
Lazaros Kochilas, MD, MSCR			Associate Professor	May 2015	University of Minnesota School of Medicine	Nearly 1 in every 120 children born has congenital heart disease (CHD). Congenital heart defects are the most common birth defect and are the number one cause of death from birth defects during the first year of life. Understanding the long term outcome for congenital heart disease is critically important. National Heart Blood Institute (NHLBI) has recently convened a panel of experts to address the issue of late outcomes for congenital heart disease NHLBI institute director Mike Lauer has expressed concern that not enough science has been focused toward late outcomes in emerging adults with congenital heart disease. Dr. Kochilas' expertise and interest in the field of late outcomes will put our center in a unique position to lead this effort to better characterize the late outcomes of those with congenital heart disease; and, improve their quality of life.
Steven L. Goudy, MD			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

Research Recruitment Update*:

NAME	рното	CENTER	TITLE	START DATE	RECRUITED FROM	RESEARCH INTERESTS
Rheinhallt M. Jones, PhD		Center for Transplantation and Immune-Mediated Disorders (CTID)			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. <u>However, there is a gap in the</u> <i>knowledge</i> 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 microbial products that mediate the influences of the microbiota on human health. The <i>short term objective</i> 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
Hee Cheol Cho, PhD			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)	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