Emory+Children's Pediatric Research Center Update September 2013 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, Clinical Research: (404-785-1215,

Kristine.rogers@choa.org

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

Allison.wellons@choa.org

Common Equipment/ Specimen Processing Core

2nd floor ECC 260 lab: Technical Director: *≻Katie Casper*

kcasper@emory.edu

Research

Resources

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 (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

- ➤Traci Leong, PhD,
- ➤ Courtney McCracken, PhD
- ➤ Scott Gillespie, MS

Procedure: Request form located

at

http://www.pedsresearch.org/cores/detail/biostats

Priorities: analysis for grant applications and publications

➤ Pediatric Research Unit (Egleston):

Services: The Research Department manages clinical coordinators and research nurses centrally, and provides training in research procedures and compliance. As needs grow or new grants are obtained, new personnel are hired who report to Kris Rogers and to the natural supervisor (grant PI, service line chief, division director).

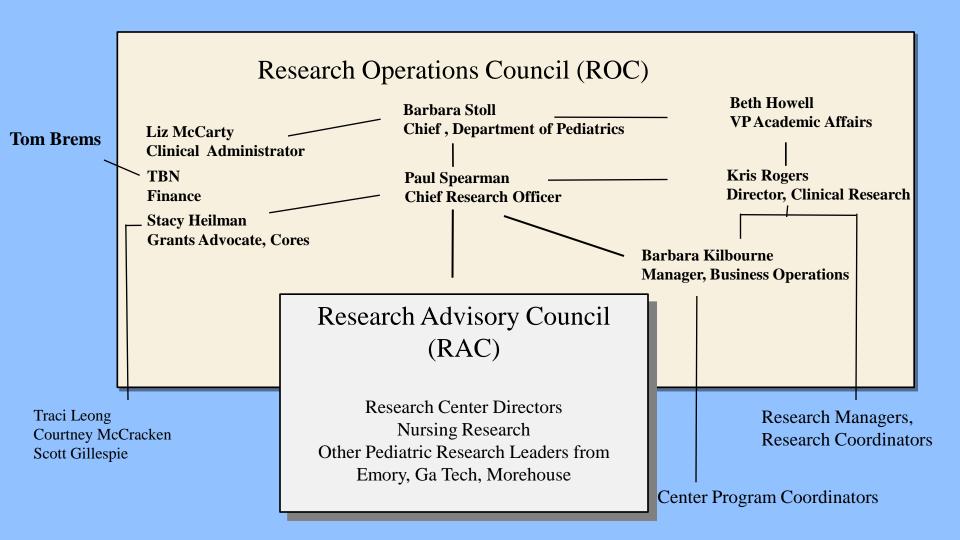
Laboratory Specimen Processing: Egleston

Manager: Diana Worthington-White (404-785-1721,

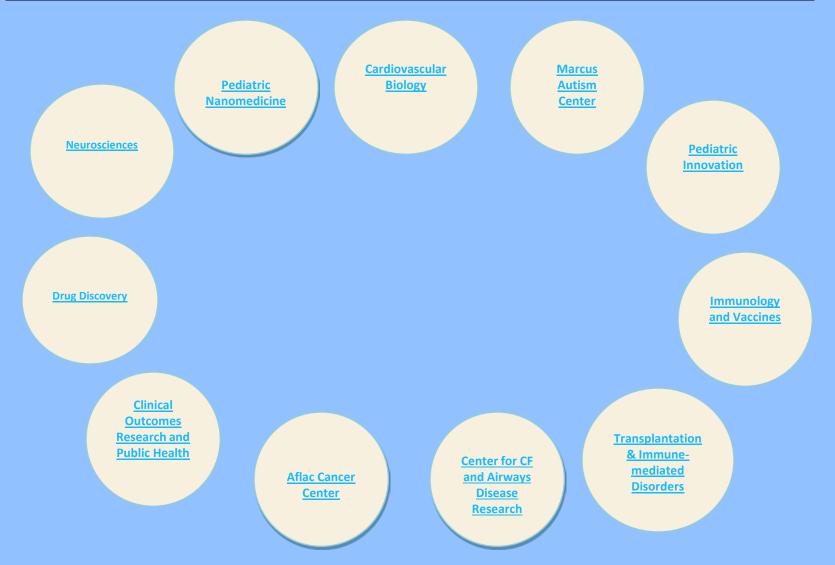
diana.worthingtonwhite@choa.org

- •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 WebPages

Center in Development:

Clinical/Translational Research Center

(New leader to be recruited)

- Organize pediatric clinical research units, ACTSI relationship, research nurse/coordinator pool, and support for multicenter trials networks
- NIH and other extramural funding emphasized, as for all sponsored activities
- Mission: This Center will engage those clinical investigators who perform interventional clinical research, including trials of drugs, devices, and vaccines. The Clinical/Translational Research Center will be the research "home" for clinical investigators throughout the system who are not primarily epidemiologists/outcomes researchers. We envision the leader of this center leading and organizing further the central clinical research resources, including the distribution of research coordinators, managers, and data analysts. Clinical informatics will be a key part of this Center, shared with the Outcomes/Wellness Center.

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: Linda Campbell

<u>linda.campbell@emory.edu</u>

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

Program Coordinator: TBN

Children's Center for Clinical and Translational Research Center Director: TBN

Program Coordinator: Michele Klopper

Mkloppe@emory.edu

Center for Cystic Fibrosis & Airways
Disease Research
Center Director: Nael McCarty, PhD

namccar@emory.edu

Program Coordinator: Michele Klopper

Mkloppe@emory.edu

Center for Drug Discovery
Center Director: Baek Kim, PhD

Baek.kim@emory.edu
Program Coordinator: TBN

Center for Immunology and Vaccines Center Director: Paul Spearman, MD

<u>paul.spearman@emory.edu</u> Program Coordinator: TBN

Children's Center for Neurosciences Research

Center Director: Ton deGrauw, MD,

PhD ton.degrauw@choa.org
Program Coordinator: Jennifer Kenny

ikenny@emory.edu

Center for Pediatric Innovation Center Directors: Bob Guldberg, PhD and Kevin Maher, MD

<u>robert.quldberg@me.gatech.edu</u> **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 & Immunemediated Disorders

Center Directors: Subra Kugathasan, MD and Allan Kirk, MD, PhD

skugath@emory.edu and
adkirk@emory.edu

Program Coordinator: Jennifer Kenny

jkenny@emory.edu

Clinical Outcomes
Research and Public Health

Center Director: Paul Spearman, MD (Actina)

paul.spearman@emory.edu

Program Coordinator: Michele Klopper

Mkloppe@emory.edu

Marcus Autism Center

Center Director: Ami Klin Pl

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: Barbara

Kilbourne <u>barbara.kilbourne@choa.org</u>

Research Center Administration:

Barbara J. Stoll, MD

George W. Brumley, Jr., Professor and Chair Department of Pediatrics, Emory University President and CEO, Emory-Children's Center

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Nahmias-Schinazi Professor and Chief, Pediatric Infectious Diseases

Chief Research Officer, Children's Healthcare of Atlanta

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Director of Finance, Academic Administration Children's Healthcare of Atlanta

Stacy S. Heilman, PhD

Director of Programs & Grants Advocate
Department of Pediatrics, Emory University &
Children's Healthcare of Atlanta

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Barbara W. Kilbourne, RN, MPH

Manager, Business Operations Research Strategy Leadership Children's Healthcare of Atlanta

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 the Marcus Autism Center. Designed for central team to discuss detailed operations and issues.		Research Brainstorming Sessions: Typically, 2 nd Wed. 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: once 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) Including: ✓ Neurosciences seminar series, 2 nd Friday of each month, Egleston classrooms. Contact Jennifer Kenny jkenny@emory.edu for more information. ✓ CORPH (Clinical Outcomes Research and Public Health): interest group has monthly meetings scheduled for the 3 rd Friday of each month. Contact Shantisa Fulgham shantisa.fulgham@choa.org for more information.	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@e mory.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.
<u>Biomarkers</u> <u>Core</u>	Lou Ann Brown, PhD lou.ann.brown@ emory.edu 404-727-5739	Mojgan Zavareh mojgan.zavareh@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@kidsh eart.com 404-785-CIRC	Carey K. Lamphier, RN, BSN, CCRC Carey.lamphier@choa.org	-Echocardiograms - Flow Doppler -3-D Imaging -Upright Bicycle -VO2 Analysis -Electrocardiogram -Cardiac MRI Nursing Services	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		TECHNICAL	EQUIPMENT	LOCATION	SERVICES
	DIRECTOR	DIRECTOR/CONTACT			
Flow Cytometry/	David Archer	Aaron Rae	FACSCanto, LSRII, FACSAria, AutoMACS	Health Sciences	This core offers access to several state of the art analytical flow
	darcher@emory.edu	aaron.j.rae@emory.edu		Research	cytometers as well as high-speed cell sorting. We also offer training
Cell Sorting				Building, E-362	as well as expert help to enable our users to improve the quality
					and scope of their research.
Immunology Core	Larry Anderson	Katie Casper	Specimen processing (hood, centrifuges,	Emory-Children's	This core provides equipment and technical expertise for the
	larry.anderson@emory.	kcasper@emory.edu	Coulter counter), Zeiss ELISPOT reader,	Center, Room	performance of immunologic assays and diagnostic assays for
	<u>edu</u>		ELISAs, assay design for intracellular	510	infectious pathogens. Our mission is to enhance the ability of
			cytokine staining (ICS), luminex 200 assays		investigators at Children's and affiliated institutions to perform
	404-712-6604		for protein quantitation, real-time PCR		research in the areas of immunology, vaccine testing, and
					infectious diseases.
Radiology Core	Radiologists at	Melinda Dobbs, RN, BSN,	• Access to clinical CT (4), PET (1), Bone		The is an interdisciplinary research core that recognizes the
	Children's are board	CCRC	Densitometry (2), Fluoroscopy (8), Nuclear		importance of medical imaging in the diagnosis and treatment of
	certified with additional	melinda.dobbs@choa.org	Medicine (4), Ultrasound (9) and X-ray.		diseases in children and young adults. PIRC provides investigators
	training in pediatric		Access to 6 clinical MRI scanners		with modern imaging technology and collaborating imaging
	imaging and are		including a 1.0T intraoperative, 1.5T and		researchers to achieve research goals. Our team consults with
	available for		3T systems.		investigators to enhance their research through access to state-of-
	consultation upon		Access to 2 fMRI systems.		the-art technology and enables the conduct of standard imaging
	request.		Sedation Services		associated with large clinical trials. Services include MRI, CT, PET,
			Access to radiology investigators		Bone Densitometry, Fluoroscopy, Nuclear Medicine, Ultrasound
	This operation also		specializing in radiology, neuroradiology		and X-ray.
	includes <u>physicists with</u>		and interventional radiology.		
	imaging expertise and		Access to MRI physicists (3).		
	other staff experts.		Access to research professionals		
			including administrators and research		
			coordinators.		
			Administrative services including		
			scheduling, archival of images		

CORE in Development	EQUIPMENT/LOCATION	DESCRIPTION		
Specimen Repository	LIMS, freezers (-80, LN2)	The specimen repository will offer organized storage of blood and body fluids and nucleic acids. Tissue repository services are under further		
(which will enhance the Specimen Processing Core)	Sync with freezer space in new building; temporary space until then being identified	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	The rates for the microscopes included in this effort can be found at: http://ici.emory.edu/document/ICI%2 OPediatrics%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						Post Award	
	Opportunity	Funding Limit	Funding Term		Eligibility		Expectations	Additional Information
F	riends	\$50,000	12-18 months	1.	Children's professional staff	1.	Must provide	1. Fund was originally
				2.	Must be for clinical research taking place in		annual and final	created for non- Faculty
					Children's facilities		reports	who were not eligible for
						2.	Must be willing to	EECRC funding
							present findings to	·
							Friends groups,	for investigator salary
							Children's	support
							leadership, etc	
		\$50,000	12 months	1.	·			\$25,000 of total award may
	Grants (formerly				Emory. Applicants outside of DoP must have	an (extramural agency	be directed to investigator
- 6	EECRC)				clinical privileges at Children's.			salary
				2.	Must not have an active R01 or P01.			
				3.	Must provide agency and proposed date			
					they will submit for extramural funding			
(Center Pilot Grants	Varies by Center	1 year	Var	ies by Center	Anı	nual report	
[Dudley Moore	\$15,000	6-18 months	1.	All Children's nursing and allied health staff	Mu	ist be willing to	Fund restricted by donor to
ſ	Nursing and Allied				who provide services at one of Children's	pre	sent findings by	support nursing and allied
H	Health Research				locations are eligible.	req	uest.	health research at Children's
F	und			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.			

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 ft²; 115,000 for pediatric research

Dry and wet lab research

Programming in progress; space for new recruits

Go to: http://www.pedsresearch.org/about-us for more info

Research Recruitment Update:

NAME	РНОТО	CENTER	TITLE	START DATE	RECRUITED FROM	RESEARCH INTERESTS
Elizabeth "Beth" Stenger, MD			Assistant Professor			Enhanced IL-12 Production by mTOR-inhibited DC and Protection from GVHD
Brandon Aylward, PhD		Children's Center for Neurosciences/ Children's Center for Cardiovascular Biology		,	Hospital Medical Center	He received his doctoral degree in clinical child psychology with a minor in quantitative psychology from the University of Kansas and completed his predoctoral residency program at Cincinnati Children's. His research interests encompass a broad range of health-related issues for children and adolescents within the context of pediatric psychology. To this end, his work has focused on three main areas: (1) predictors and correlates of children's psychosocial, developmental and physical functioning in various chronic illness populations; (2) trends and correlates of adherence and self-management behaviors; and 3) use of advanced statistical methodology and innovative technology to examine predictors and outcomes for chronic health issues.
Baek Kim, PhD		Center for Drug Discovery	Professor, Director, Children's Center for Drug Discovery		Medical Center School of Medicine and Dentistry	His 20 years of experience in biochemical and virological research, which has been fully supported by NIH, has been focused on the replication process and cell tropism of HIV/AIDS and influenza virus, Recently, Dr. Kim has recently initiated enzymological and mechanistic research on WNV and Dengue RNA polymerases, which will be incorporated into the drug discovery programs of the center.
Hyunmi Kim, MD, PhD		Children's Center for Neurosciences		April 2013	University of Alabama in Birmingham	Pediatric neurology

Research Recruitment Update (continued):

NAME	РНОТО	CENTER	TITLE	START DATE	RECRUITED FROM	RESEARCH INTERESTS
Anna M. Kenney, PhD				January 2013	Vanderbilt University Medical Center, Department of Neurological Surgery	Her research addresses how signal transduction pathways interact to regulate gene expression and post-translational protein modifications that impact the neural precursor proliferation, differentiation, and transformation into brain tumor cells. This work focuses on the Sonic hedgehog signaling pathway due to its involvement in critical processes of brain development and tumorigenesis, especially pediatric and adult medullablastoma, and uses primary cell cultures, in vivo models, and biochemical/genetic approaches.
Joanna B. Goldberg, PhD		Center for Cystic Fibrosis Research		January 2013	University of Virginia	The major focus of our laboratory is in the investigation of strategies used by bacteria to cause diseases in humans. We study various bacteria and their factors especially surface polysaccharides and other potential adhesions, and assess their effect on the virulence and physiology of the bacterium, as well as on host cells. Our general approach is to perform genomic analysis, construct, and characterize bacterial mutants, and monitor these for relevant phenotypic and genotypic characteristics and in in vivo and in vitro models of infection. The long-term goal of this work is to devise rational methods to the disrupt virulence and promote clearance of infecting bacteria.
Lawrence D. Scahill, MSN, PhD		Marcus Autism Center	Professor	November 2012	Yale University	Dr. Scahill recently held the position of Director of the Research Unit on Pediatric Psychopharmacology (RUPP) at Yale. In addition to his work in autism, Dr. Scahill is also involved in psychopharmacological and behavioral interventions for children and adults with Tourette syndrome. He serves on the Medical Advisory Board of the Tourette Syndrome Association and is a principal investigator on two multisite studies evaluating the efficacy of a behavioral intervention for tics in children and adults with Tourette syndrome. Dr. Scahill is an active clinician specializing in the care of children with Tourette syndrome and children with autism. The author of over 130 journal articles and numerous book chapters.

Research Recruitment Update (continued):

NAME	РНОТО	CENTER	TITLE	START DATE	RECRUITED FROM	RESEARCH INTERESTS
Karen Bearss, PhD		Marcus Autism Center	Assistant Professor	November 2012		Karen Bearss is an Assistant Professor for the School of Medicine in the Department of Pediatrics. She earned her B.S. in Psychology as well as her M.S and Ph.D. in Clinical Psychology at the University of Florida. Prior to joining the Emory community, she served as an Associate Research Scientist at the School of Nursing and Child Study Center at Yale University where her work focused on parenting interventions for children with disruptive behaviors as well as the dissemination and implementation of evidence-based treatments into community mental health centers. At Emory, she will be working at Marcus Autism Center where she will continue to focus on developing and evaluating evidence-based parenting interventions for children with autism spectrum disorders (ASD). Clinical pursuits at the Center will include overseeing multidisciplinary evaluations for young children with ASD and related disorders.
Mehul Suthar, PhD		Children's Center for Immunology and Vaccines	Assistant Professor within the Emory Vaccine Center	November 2012	Seattle, Washington	Currently applying an innovative systems biology approach to understand the complex and dynamic signaling networks that control innate immunity to virus infection. Using a combination of highthroughput technology, computational analysis, and pathway-specific modeling, these studies are aimed at revealing tissue and cell-specific gene regulatory signaling networks and antiviral effector genes that control virus infection and regulate innate antiviral immunity.

Research Recruitment Update (continued):

NAME	РНОТО	CENTER	TITLE	START DATE	RECRUITED FROM	RESEARCH INTERESTS
Kavita Patel, MD		Aflac Cancer and Blood Disorders Center		October 2012	Baylor College of Medicine Houston, TX	Focuses on molecular mediators of thrombosis in sepsis. Her work utilizes intravital microscopy to monitor real time in vivo thrombus formation in murine models of sepsis. Her previous work has shown a role for von Willebrand Factor in mediating enhanced microvascular thrombosis in endotoxemia. Dr. Patel is currently working on the role of endothelial versus platelet stores of von Willebrand factor in the development of microthrombi in endotoxemia. She is also developing an experimental protocol to evaluate molecular mediators of thrombus formation in Staphylococcus aureus sepsis. A translational research project is being developed to understand the mechanisms involved in the formation of deep venous thrombosis (DVT) in patients with Staphylococcal osteomyelitis.
Chia-Yi (Alex) Kuan, MD, PhD		Center for Neurosciences Research		September 2012	Hospital Medical Center	Three major forms of perinatal brain injury in animal models, and believe that our research in RhoA will suggest new insights into the link between dysregulated neurogenesis and embryonic tumoriogenesis. But most importantly, I understand the need to work closely with clinical colleagues in order to move my research into the bedside. Thus, my objective is to search for a supportive environment for my career goal to combine disease-oriented and mechanism-directed research in developmental neuroscience.
Claudia Morris, MD		Center for Developmental Lung Biology		September 2012	Department of Emergency Medicine Clinical Research Scientist Director of Pediatric Emergency Medicine Fellowship Research Children's Hospital and Research Center at Oakland, Oakland, CA	Glutamine Therapy for Hemolysis-Associated Pulmonary Hypertension: This study is a phase II trial of L-glutamine in sickle cell disease and thalassemia patients. In particular the impact of this glutamine supplementation on arginine bioavailability, biomarkers of oxidative stress and hemolysis-associated pulmonary hypertension will be investigated. Pharmacokinetic studies will also be performed to determine the metabolic fate of glutamine supplementation in both plasma and within the sickle and thalassemia erythrocyte. AsthmaNet Clinical Center: The major goals are to serve as a clinical center participating in the conduct of NHLBI-supported multi-center clinical trials of asthma therapies in children and adults with asthma, and to conduct smaller, focused studies of mechanisms of action of asthma therapies, of novel treatments for severe asthma, and of concepts of asthma pathophysiology that could lead to the development of new asthma treatments.