

RESEARCH AND DISCOVERY IN THE EMORY-CHILDREN'S PEDIATRIC RESEARCH CENTER

Debut of the new [Pedsresearch.org](http://www.pedsresearch.org) website: Monday April 18!

A tremendous amount of work has gone into the development and construction of a much more robust website to feature the faculty, research activities, core facilities, collaborations and more, associated with the Emory-Children's Pediatric Research Center. While the website is going live this week, we recognize there is tweaking to be done and additional information added. Barbara Kilbourne has coordinated this effort and will continue to help get it ship-shape. Please let her know of any issues you see at Barbara.Kilbourne@choa.org. THANK YOU, Barbara!

Congratulations to Dr. Subra Kugathasan on the receipt of a major NIH R01 award!



As featured in the April 8, 2011 Atlanta Business Chronicle, **Dr. Subra Kugathasan** has received a significant NIH R01 grant awarded at \$4.8 million over five years to study the genetics of Crohn's disease in African-Americans.

This will be the first large-scale, genome-wide association study followed by targeted sequencing of Crohn's disease susceptibility loci in African-Americans. Previous genetic studies of Crohn's disease were done in people of European descent, and genome-wide association studies have been successful in identifying dozens of variations responsible for contributing to disease risk. Most of these variations, however, are not expected to contribute to Crohn's disease risk in African-Americans. This is due to the genetic differences that exist between the two populations.

It is estimated that about 500,000 North Americans are dealing with Crohn's disease. This research study will involve multiple sites and is planned to recruit 1,500 patients with Crohn's disease nationwide, along with 1,150 controls.

Scientists expect that finding genetic variations linked to Crohn's disease will help doctors find new treatments and better choose between existing treatments for patients with the disease.



NICHD Neonatal Network; 25 years of continuous funding in Department of Pediatrics



Dr. Barbara Stoll has served as the site PI for the Neonatal Research Network (NRN) since Emory joined it in 1991. The grant was just awarded another 5 year cycle, which will make 25 years of continuous NIH funding to work in this Network—possibly the longest continuously funded NIH

project in the Department of Pediatrics!

In 1986, NICHD initiated the NRN to conduct multi-center clinical trials and observational studies in neonatal medicine in order to reduce infant mortality and promote healthy outcomes. Among the areas addressed by the NRN are trials of interventions to prevent and/or treat sepsis, hyperbilirubinemia, intraventricular hemorrhage, chronic lung disease, and pulmonary hypertension as well as studies of the impact of drug exposure on child and family outcome. The Network also supports two observational studies: a registry of very low birth weight (<1500g) infants, for which Dr. Stoll has served as Subcommittee Chair for the last 5 years, and the ELBW Follow-up Study, tracking neurodevelopment, for which Dr. Ira Adams-Chapman serves as Emory PI.

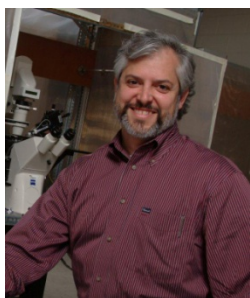
The Neonatal Network has grown from 13 existing centers and 5 new ones which together have over 150,000 live births per year. The NRN



has been a very productive consortium of academic neonatal centers, conducting clinical trials and research studies and making a documented impact on how we care for high risk and sick newborns.

A number of our DOP Neonatologists have had key roles in the Network. In addition to Dr. Stoll, **Dr. Lucky Jain** served as an alternate PI, **Dr. Dave Carlton** is the current alternate PI, **Dr. Ira Adams Chapman** is the Follow Up PI, and **Drs. Shannon Hamrick, Susie Buchter, Anthony Piazza, Ben Lee** (former fellow and faculty), **Andi Shane** and **Conrad Cole** have conducted studies within the Network.

Center for CF Research Blazing Forward



The [Center for Cystic Fibrosis Research](#), led by **Dr. Nael McCarty**, had blazed a path forward to become a major international player in the CF research community. Since the advent of the Center 15 months ago, they have synergized research efforts across interdisciplinary fields to

build an impressively large and growing presence in the CF research community. This would not happen without the Center-based pilot program, and did not happen until the Center for CF Research officially opened its virtual doors last year.

The Center had a substantial number of pilot project proposals submitted this year – 14 proposals, representing a 50% increase above last year's competition. Of those 14, they are funding three, and hope to find funds for a fourth. (Recipients of pilot projects for all Centers will be announced next month).

Per Dr. McCarty, one great consequence of starting the Center-based pilot program is that these new projects get critically reviewed, thus can be improved based on the reviewer comments and then submitted for extramural funding. This year, the Emory-Children's-Georgia Tech team tied for submitting the 3rd highest number of Letters of Intent for the 2011 Cystic Fibrosis Foundation basic research competition comparing all institutions across the world.

Plans are also in the works for 3 major Center-related grant submissions in 2011, including an application for the Cystic Fibrosis Research Development Program to join the existing 11 such programs in the country, a NIH PPG application on CF Related Diabetes and a NIH P30 application for CF Research and Translation Core Centers.

ITN Announces Enrollment of First Participant in T1DAL trial for People Recently Diagnosed with Type 1 Diabetes - here at Children's!

Since joining the Immune Tolerance Network (a NIAID sponsored translational research consortium focusing on clinical immune tolerance) a year and a half ago, the Emory-Children's Type 1 diabetes research team has quickly become one of the most active in national Type 1 diabetes projects. In 2009,



Dr. Mark Rigby conceived of a clinical trial using a novel immunomodulatory agent called alefacept and garnered support from the ITN, NIAID, FDA and drug's manufacturer. After a year-long protocol development period, the T1DAL trial (Inducing remission in Type 1 diabetes with Alefacept) was opened last month, and his team enrolled the first participant in this study nationally. T1DAL is a 15 center randomized controlled trial, aiming to enroll 66 participants nationwide while who are 12-35 years old with newly diagnosed diabetes. It is currently only one of two, federally-supported Type 1 diabetes trial actively recruiting patients. Rigby serves as national Protocol Chair.

"This project brings together key basic and clinical discoveries in many fields inside and outside type 1 diabetes research, over many decades," said Mark Rigby, MD, PhD, in a recent press conference. "In T1DAL, we are targeting what we believe to be the most damaging, rogue immune cells in the body that are actively involved in the destruction of beta cells early on in type 1 diabetes. Due to alefacept's use in the treatment of another immune-based disease and the safety profile established with that illness, we are confident that we will be able to do this with minimal impact on the protective aspects of the immune system. We believe that this is one critical step in the path to finding a cure for this disease."

For more information: www.t1dal.org or <http://clinicaltrials.gov/ct2/show/NCT00965458>
To contact a local study team member: call 404-785T1DM (8136) or email type1diabetes@emory.edu.

ATTENTION POSTDOCS:

Registration is now open for the
4th Annual Postdoctoral Fellow Research Symposium
Thursday, May 26, 2011

Plenary Speaker: Helen S. Mayberg, M.D., FRCPC
You must register [online](#) to receive a lunch ticket
Deadline to Register Friday, May 6th

Emory SOM Newsletter, [THE CORE](#), features cores led by DOP faculty

"**THE CORE**" is published by Emory School of Medicine and features news about the Core Facilities housed in SOM. The Spring 2011 issue includes write-ups featuring cores led by two of our faculty: 1) **The Emory-Children's Pediatric Research Center Flow Cytometry Core**, led by Dr. **David Archer** as Core Director, and **Mr. Aaron Rae** as Technical Director, and 2) the **Robert P. Apkarian Integrated Electron Microscopy Core**, led by Core Director **Dr. Elizabeth Wright** and Technical Director Mr. Hong Yi.



The **Flow Core** article gives an overview on the equipment and services of the core, as well as info on how to set up a user account. More information on what the core provides and how to access their services of the Flow Core can be found [here](#).

The **Robert P. Apkarian Integrated Electron Microscopy Core** is featured with news of the unveiling of new High Resolution Cryo-Transmission Electron Microscopes in the core. The two new microscopes will provide platforms for researchers to investigate the ultrastructure of biological and soft materials samples in two- and three-dimensions. This Core was started through the merging of the former Integrated Microscopy and Microanalysis Facility and the School of Medicine Electron Microscopy Core.

The expanded [Robert P. Apkarian Integrated Electron Microscopy Core](#) is a university wide research resource core located in Cherry L. Emerson Hall on the Emory campus. Users of this Core can decide on their own level of involvement in the project based on time and funding availability. The facility is also set to accommodate the needs of both experienced and inexperienced users. For experienced users, experiments can be conducted either in their own laboratory or at the core facility where all the reagents are available. For inexperienced users, the core facility offers training at all levels. Alternatively, the core facility staff can conduct entire experiments for the users. Services include:

- Conventional TEM & SEM imaging of biological and material specimens

- Cryo high resolution SEM imaging of frozen-hydrated specimens
- Conventional light microscope imaging
- Standard EM & LM sample embedding
- Ultrathin and semithin microtomy
- Negative staining
- High pressure cryo-fixation & cryo-immobilization
- Ultrathin metal film coating
- Cryosubstitution and embedding
- EM and LM Enzyme-cytochemistry
- EM and LM Immunocytochemistry
- Immunofluorescent staining
- Histology
- Morphometry and stereology

For more information on the Electron Microscopy Core, please contact Dr. Liz Wright at erwright@emory.edu.



Expanded Recycling Efforts in the ECC Building are around the corner!

The receptacles have been ordered and the program will kick off in the coming weeks! We are catching up to the rest of Emory, and joining the University's overall goal of reducing Emory's total waste stream by 65% by 2015. Last year alone, the program was able to divert 49% of the University's waste from the landfill. Interestingly enough, Emory's Recycling Center facility also handles recycling for the CDC, area schools and retirement communities.

The ECC Building will actively recycle the following materials:

- White Paper
- Aluminum Cans
- Corrugated Cardboard
- Clear, Brown, and Green Glass
- Ink Jet/Toner Cartridges
- Mixed Paper
- Plastics #1-#6
- Electronics

Receptacles for white paper, mixed paper, glass, cans, and plastics will be located on floors 2-5. Look for more details to come!

REMINDER to those PIs involved in clinical trials:

Specific training on "Key Concepts in Clinical Trial Research" are now required and must be completed by June 1, 2011. The modules can be found at Emory Learning Management System website: www.emory.edu/elms-training. There are still a few bugs in the system, so please alert OCR if you encounter problems.

Reminder to Wear Personal Protective Equipment (PPE) in the Lab

Remember –for the safety of our researchers, it is imperative to make sure that staff are trained in the use of PPE when conducting wet lab-based research. Choice of PPE is based on potential exposures involved:

- **Eye:** Glasses, goggles & face shields
- **Gloves:** Appropriate for the type of procedure
- **Clothing:** Gowns, lab coats, aprons, coveralls
- **Respirators:** Appropriate for the type of procedure

All staff working in our labs must fulfill the required training requirements for the work being conducted. This is the responsibility of each PI with wet lab-based research. **Accidents do happen!**

ALSO – remember that for the safety of the staff that work in the ECC building, *no gloves should be worn when operating the elevator buttons or opening doors.*

CDC posts “Guidelines for Biosafety Laboratory Competency”

The CDC has posted "[Guidelines for Biosafety Laboratory Competency](#)" as a supplement to Morbidity and Mortality Weekly. According to the CDC, "These guidelines for biosafety laboratory competency outline the essential skills, knowledge, and abilities required for working with biologic agents at the three highest biosafety levels (BSLs) (levels 2, 3, and 4). The competencies are tiered to a worker's experience at three levels: entry level, midlevel (experienced), and senior level (supervisory or managerial positions). These guidelines are intended for laboratorians working with hazardous biologic agents, obtained from either samples or specimens that are maintained and manipulated in clinical, environmental, public health, academic, and research laboratories."



Some interesting articles are published in the monthly NIH publication, *Extramural Nexus*. Recent articles include:

[Sunset of the A2 Resubmission Applications](#) with discussion about whether ending the ability for second resubmissions has impacted the funding of meritorious applications on upon initial submission. While the NIH feels that it has achieved the goal of quicker funding of meritorious applications, there is plenty of response from the public on both sides of the question.

[Myth Busting: Number of Grants per Investigator](#)
“There are many urban legends about NIH funding, only some of which have some basis in fact. For example, we often hear that there are many successful PIs who continuously add to their bounty by piling on more and more NIH awards. Is this true?”
This article addresses this question and discusses the average number of NIH grants a PI holds in a given year.

[Correlation Between Overall Impact Scores and Criterion Scores](#)

“Among the changes NIH implemented under its *Enhancing Peer Review initiative* was the assignment of scores to each of five individual criteria for research grant applications: *significance, investigator(s), innovation, approach, and environment*. The purpose of these criterion scores is to provide additional information to the applicant, but... (it can also be used) to examine reviewer behavior.”