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October 24, 2010

Research and Discovery

In the Emory Department of Pediatrics and Emory-Children's Center

Numerous Changes at NIH Related to Proposals

NIH is dropping the 2-day window for error correction effective January 25, 2011.

This window has been available for a period of two days AFTER the stated deadline, and we have had to use it several times! **Proposals will now need to be submitted via Grants.gov 2 days ahead of deadline** in order to have time to correct any errors and hence **PI's will need to plan ahead accordingly.**. See NIH NOT-OD-10-123.

New Time Limit for NIH Resubmission Applications

NOT-OD-10-140 announces the implementation of a new time limit between the submission of a New, Renewal, or Revision application and a Resubmission (A1 version) of that application to the National Institutes of Health (NIH). The time limit is intended to stimulate new research directions for projects that were not successful initially and may have become outdated over the course of several years.

The NIH will not accept a Resubmission that is submitted later than **thirty-seven months** after the date of receipt ("receipt date") of the initial New, Renewal, or Revision application. Applications must be submitted for the dates listed in the appropriate Funding Opportunity Announcement (FOA) in the NIH Guide for Grants and Contracts.

New NIH Policy on Post-Submission Application Materials effective September 25, 2010

NOT-OD-10-115 announces that for the majority of applications submitted for the September 25, 2010 receipt date and thereafter, the only post-submission grant application materials that the NIH will accept are those resulting from unforeseen administrative issues.

Post-submission grant application materials are those submitted after submission of the grant application but prior to the initial peer review. This option is to be used when an unexpected event such as the departure of a participant, natural disaster, etc. has occurred, not to correct oversights/errors discovered after submission of the application.

Acceptable post-submission materials include:

- Revised budget page(s) (e.g., change in budget request due to new funding or institutional acquisition of equipment)
- Biographical sketches (e.g., change in senior/key personnel due to the hiring, replacement, or loss of an investigator)
- Letters of support or collaboration resulting from a change in senior/key personnel due to the hiring, replacement, or loss of an investigator
- Adjustments resulting from natural disasters (e.g., loss of an animal colony)
- Adjustments resulting from change of institution (e.g., PI moves to another university)
- News of an article accepted for publication (a copy of the article should **not** be sent)

Unacceptable post-submission materials (for all applications except those listed under Exceptions below) include:

- Updated Specific Aims or Research Strategy pages
- Late-breaking research findings
- New letters of support or collaboration that do not result from a change in senior/key personnel due to the hiring, replacement, or loss of an investigator

There are exceptions to this policy – please read the full notice for complete details.

Updated Electronic Application Forms Required for F, K, T and D Submissions with Due Dates of January 25, 2011 and Beyond

Notice NOT-OD-11-008 announces that applicants targeting **due dates on or after January 25, 2011** MUST download and use a new version of the SF424 (R&R) application packages for the following programs:

- Individual National Research Service Awards (Fs)
- Individual Research Career Development Award Programs (Ks)
- Institutional Training and Career Development Programs (Ts) and Other Training Grants (Ds)

NIH, AHRQ, CDC, FDA & NIOSH to Require Use of Updated Electronic Application Forms in 2011

In Notice NOT-OD-11-007 NIH, AHRQ, CDC, FDA and NIOSH are transitioning to updated electronic application forms packages (ADOBE-FORMS-B1). For deadlines on or before May 7, 2011, most applicants (exceptions include Fs, Ks, Ts and Ds which are required to use the new forms after January 25, 2011) may use either ADOBE-FORMS-B or ADOBE-FORMS-B1 forms. **For deadlines after May 7, all applicants will be required to use ADOBE-FORMS-B1 forms**.

Highlights on Research

Studies on AIDS Therapies:

Dr. Thomas North

The newest member to our *Laboratory of Biochemical Pharmacology Division,* led by Dr. Raymond Schinazi, is **Dr. Thomas North**. He joined us this month from UC Davis, where he was a member of the Center for Comparative Medicine in the School of Veterinary Medicine.

Dr. North's laboratory has recently developed a non-human primate model for AIDS therapy that mimics important aspects of highly active antiretroviral therapy (HAART) in humans. This model uses rhesus macaques infected with a chimeric virus (RT-SHIV) consisting of simian immunodeficiency virus containing the reverse transcript from HIV-1. The major focus of the laboratory is to use this model for detailed analyses of cell and tissue sanctuaries of virus that evade HAART through the establishment of viral latency, or through residual replication of virus. An important goal is to use this model to test novel strategies that may lead to eradication of virus from an infected host. They have developed sensitive PCR and RT-PCR methods to detect virus in tissue reservoirs, and sensitive assay to detect the low level viremia that escapes HAART. Ongoing studies include comparison of viral decay kinetics and maximal virus load suppression with several intensified HAART regimens, evaluation of agents hypothesized to reactivate latent virus, comprehensive analysis of drug levels in tissue and possible inverse correlations of drug levels with residual virus replication, and viral sequence/phylogenetic analyses to determine tissue sources of residual viremia. By moving to Emory University he will be expand this work in collaboration with several other Emory scientists. His work is supported through funding from NIH.

Research on RSV and other respiratory viruses:

Dr. Larry Anderson

Dr. Anderson joined the Division of Pediatric Infectious Disease on October 1 this year. He comes to Emory from the Centers for Disease Control and Prevention. His research program will focus on the immunopathogensis of respiratory viral infections, especially respiratory syncytial virus (RSV). He will also assist Dr. Spearman in running the division and help other staff develop their research programs. His research program will focus on understanding viral contributors to RSV disease pathogenesis especially that associated with the RSV G protein. This protein has a chemokine motif that modulates the host response to infection and likely is an important contributor to pathogenesis of disease. Work at CDC in animal model systems suggested that binding this region of the G protein with a MAb will both neutralize the virus and decrease the virus-induced host immune response that likely contributes to severity of disease. This work provided the foundation for recently initiated clinical studies of a human monoclonal antibody for treatment and prevention of RSV disease. Dr. Anderson, with collaborators at CDC, University of Georgia and Emory, are now exploring how understanding the role that this chemokine motif and other viral proteins play in RSV disease can help in the design of a safe and effective vaccine. He will also be developing collaborative studies to apply pathogen discovery tools to diseases of unknown etiology and understand the role of respiratory virus infections in asthma.

Translational Research Focus: Dr. Anne Fitzpatrick

Dr. Anne Fitzpatrick is a member of our *Division of Pulmonary, Allergy/Immunology, Cystic Fibrosis and Sleep*, led by Dr. Arlene Stecenko.

Dr. Fitzpatrick's translational research program is focused on the clinical and molecular abnormalities of the lung that lead to severe asthma in children. Whereas children with mild-to-moderate asthma have a favorable response to low-dose inhaled corticosteroid treatment, children with severe asthma have ongoing symptoms and persistent airway inflammation despite high doses of inhaled and even oral corticosteroids. Through ongoing and published studies, Dr. Fitzpatrick's laboratory has shown that children with severe asthma also have profound airway "oxidant stress" associated with increased inflammatory signalizing and impaired innate immune defenses. While the clinical ramifications of increased airway oxidant stress remain unclear, her laboratory is studying how airway oxidant stress regulates the glucocorticoid receptor and the response to corticosteroids in children with severe asthma. Dr. Fitzpatrick's long-term goal is to translate these laboratory findings into improved clinical treatments to reduce corticosteroid insensitivity in this population of children for whom there are very few therapeutic alternatives. Her research is supported by grants from the National Institutes of Health and the Children's Center for Developmental Lung Biology.

Research focus on Leukemia and other Hematologic disorders: Dr. Zhenqi Wang, PhD

Dr. Zhenqi Wang arrived earlier this year from Case Western Reserve University where he was a member of Kevin Bunting's lab. He is now a member of our *HemOnc Division and the Aflac Cancer Center and Blood Disorders Service*, led by Dr. Bill Woods.

Dr. Wang's research is focused on understanding the role of signal transducer and transcription factor 5 (STAT5) in normal hematopoietic stem cell and leukemic hematopoietic cell function. STAT5 is a latent transcription factor that upon activation can bind to specific sites in the promoters of a wide range of target genes. STAT5 mediated signaling is tightly regulated in normal hematopoiesis. However, aberrant STAT5 activation is very common in adult and pediatric leukemia. Because STAT5 plays an important role in normal hematopoiesis and hematopoietic stem cell, direct and full inhibition of STAT5 causes significant immune suppression, cytopenia and stem cell dysfunction. Dr. Wang's goal is to target STAT5 regulated down-stream target genes with few side effects. They are also interested in identifying the genome wide STAT5-regulated microRNA expression signature. The ultimate goal is to test novel therapeutic intervention by targeting STAT5 regulated genes or microRNAs for treatment of STAT5-driven leukemia.

Introducing our Newest Research Administrators

A few recent changes are noted below – Our research team is evolving as we work to meet your needs!

Ms. Sylvia Ennis, who joined us this past Spring, has moved from research administration to become the new Business Manager for our Neonatology and Infectious Disease divisions. Sylvia's strong background prepares her well for this role. She will be an excellent asset for those two divisions.

Ms. Cindy Parry, BFA, CRA, joined us this past week to lend her expertise in research administration to our HemOnc division. She holds a Certification in Research Administration (CRA), which is a nationally recognized achievement. For the past 6 years she has served as the research administrator for the Endocrinology Division in Emory's Department of Medicine, where she handled clinical trials as well as grants. She also served as their interim Department Administrator twice during those 6 years. Before her position in DOM Endocrinology, she was in Emory's Department of Surgery, managing their residency program.

Cindy was nominated this year for DOM's Mary Dell McDonald Outstanding Service Award, a significant honor. We are delighted to have her join the DOP! Cindy joins Jay Creel to serve the grants management needs of our Division of Hematology and Oncology.

Link to the Sept 2010 Emory Office of Sponsored Programs Newsletter here.

Ms. Kathy Zusmanis, BS, MBA, has just joined us and will be our primary point person for **clinical trials**. Kathy started her career at Emory with hands-on research experience as a Lead Research Specialist in the Endocrinology Division of the Department of Medicine. From there, she moved to the Department of Orthopedics as a senior business manager and a research specialist, where she gained experience in managing clinical trials. Next stop was the Emory Office of Clinical Research, where she honed her skills at negotiating clinical trial budgets, helping interpret protocol requirements, and also training users on Siteminder clinical trial software. She spent the last 2 years in the Department of Neurology, continuing to work with clinical trials, as well as pre- and post-award management.

As our clinical research enterprise continues to grow, Kathy, Liz McCarty, and Adam Castellaw will work together with our partners at Children's to build the necessary support.

Fun Fact: *How many grants and clinical trials in DOP are currently being uploaded and routed in EPEX?*
27

Changes at Emory Related to Clinical Research

As federal regulations related to research compliance continue to tighten up, Emory is responding to keep our faculty and staff educated and within the bounds of best practices.

Newly created Department of Clinical Trial Audit and Compliance (CTAC)

This new department was established through the Trustees of Emory University as an independent entity reporting to the Executive VP for Health Affairs. It is led by **Anne Adams, JD**, Chief Compliance Officer of Emory Healthcare and Interim VP for Emory University Clinical Trials Compliance, and **Stephanie deRijke, RN, MSN, FNP, CIP**, Director, Clinical Trials Audit and Compliance. The goal of the department is to be a value-based program that will ensure safety of those in our community that are willing to participate in clinical trials, foster a culture of responsibility and stewardship, and ensure high quality research in accordance with ethical principles, federal regulations and institutional policies.

To accomplish their mission, they will audit a sample of clinical trials from each department and provide education, tools, and corrective and preventative action plans when needed. As part of this mission, they will be reviewing clinical trial monitoring reports to determine areas for review and topics for educational initiatives as well as demonstrating areas of clinical trial excellence.

All PIs must ensure that either they or one of their clinical research team members forwards a copy of every monitoring report from visits conducted after October 1, 2010, both from internal and external monitors or auditors to CTAC. They must be sent within 10 business days of receipt to: ctcompliance@emory.edu. CTAC encourages you to submit a written corrective and preventative action plan with your report.

NEW REQUIREMENT FOR CLINICAL TRIALS EFFECTIVE OCTOBER 1, 2010:

COPIES OF ALL INTERNAL AND EXTERNAL MONITORING REPORTS MUST BE SENT TO ctcompliance@emory.edu WITHIN 10 DAYS OF RECEIPT.

ERMS go-live date is December 13, 2010 for Pediatrics

Emory Office of Clinical Research has been transitioning to the **Electronic Research Management System (ERMS)** in 2010. ERMS is a web-based clinical research financial management tool used to assist Emory Healthcare and Emory University with their joint Research Billing Compliance Program. It facilitates communication of subject enrollment and study visit activity with the impacted billing departments/units, e.g., EUH/EUHM, TEC, IDS, EMCF, EML, OCR, etc. Finally, ERMS eliminates data entry duplication through process and system improvements of the existing billing forms.

When billing forms are submitted, ERMS sends an automated e-mail to the Emory Healthcare billing departments (and OCR) listing clinic or hospital visit items and services that are study-related and grant-billable. The ERMS 'smart' software supports billing compliance by providing a financial safety net to reduce the possibility of errors and increases the capture of possible grant-billable items.

ERMS also pre-populates the billing forms with subject demographic information entered by the Clinical Research Coordinator after a new subject is consented. This is a significant improvement over the current billing forms in which subject information had to be re-entered with each billing form submission. ERMS archives this information to be re-used for future billing forms or to notify the impacted departments when a subject is on study or off study.

Pediatrics is the last department in SOM to go live on ERMS due to the numerous complexities that exist in our arena. All of our clinical research coordinators and nurses employed by either Emory or Children's have been attending training this past month and through those training sessions OCR has been made aware of those unique situations we have such as the majority of our trails not having Emory billables and thus not necessarily on OCR's radar, non-Emory employees needing access to the system, infants changing names between study visits, subjects having multiple medical records depending on the hospitals where they are seen. Due to these complexities, OCR delayed our implementation to December 13.

A BIG THANK YOU to all of the research coordinators and nurses and their patience as we work through this transition!

Metrics for the Month: Publications

Amelia Randall, a member of our research admin team has been busy this month updating research indices for faculty, and gathering metrics to report to School of Medicine, Woodruff Health Sciences, and Children's. This month we'll look at publications, which are an important reflection of the quality and stature of our research activities and our faculty and staff.

To date in 2010, we have had publications in some of the top journals, as measured by **Impact Factor**. Below is a table showing our publications in journals with an impact factor > 9, the top 2% of journals.

What is the Impact Factor?

Journal Impact Factor is from Journal Citation Report (JCR), a product of Thomson ISI (Institute for Scientific Information). The impact factor is a **measure of the frequency with which the "average article" in a journal has been cited in a given period of time**.

The impact factor for a journal is calculated based on a three-year period, and can be considered to be the average number of times published papers are cited up to two years after publication. For example, the impact factor 2010 for a journal would be calculated as follows:

A = the number of times articles published in 2008-9 were cited in indexed journals during 2010

B = the number of articles, reviews, proceedings or notes published in 2008-2009

Impact factor 2010 = A/B

Journal	Impact Factor	Articles/Authors
New England Journal of Medicine	47.050	Barbara Stoll, MD, Susie Buchter, MD & David Carlton, MD
Lancet	30.758	Ann Mertens, PhD
JAMA	28.899	Miriam Vos, MD
Nature Medicine	27.136	Paul Spearman, MD
J Clinical Oncology	17.793	Ann Mertens, PhD
Annals Internal Medicine	16.225	Ann Mertens, PhD
J Natl Cancer Institute	14.069	Ann Mertens, PhD; Karen Wasilewski-Masker, MD & Ann Mertens, PhD
Ann Rev Pathology – Mechanisms of Disease	13.5	Miriam Vos, MD
Cell Host & Microbe	13.021	Paul Spearman, MD & Jason Hammonds, PhD
Gastoenterology	12.899	Subra Kugathasan, MD
Hepatology	10.84	Nitika Gupta, MD
Amer J Resp & Crit Care Med	10.689	Anne Fitpatrick, PhD; Dawn Simon, MD
Blood	10.555	Kevin Bunting, PhD (3) Jeanne Hendrickson, MD & James Zimring, MD (2)
Proc Natl Acad Sci	9.432	Nael McCarty, PhD & Karen Bernard, PhD
Circulation Res	9.214	Yangan Wang, PhD
J Allergy & Clin Immuno	9.165	Anne Fitzpatrick, PhD & Lou Ann Brown, PhD

Another publication metric used at Emory is the H Factor. As a reminder, your H Factor is a calculated number based on publication and citation data, developed by J.E. Hirsch at UCSD (***PNAS* 102**:16569-16572, 2005).

What is the H Factor?

A scientist has index h if h of his or her Np papers have at least h citations each and the other (Np – h) papers have ≤h citations each, where Np equals the total number of papers published.

Looking at the 70 DOP faculty members for whom we prepared research indices this year, we compiled statistics regarding H Factor, categorized by level of appointment and comparing them to overall SOM figures.

Assistant Professor in DOP [46 Faculty]

- Median H Factor – 6.0
- Mean H Factor – 6.2
- H Factor Range – 1 to 20

Top 3*: David Archer, PhD (20), Jason Hansen, PhD (15), Tim Denning, PhD & Richard Plemper, PhD (14)*

Associate Professor in DOP [16 Faculty]

- Median H Factor – 11.0
- Mean H Factor – 11.7
- H Factor Range – 4 to 21

Top 3*: Kevin Bunting, PhD & Muxiang Zhou, PhD (21), Barry Warshaw, MD & Nael McCarty, PhD (17), Tobey MacDonald, MD (14)*

Professor in DOP [15 Faculty]

- Median H Factor – 23.0
- Mean H Factor – 25.9
- H Factor Range – 7 to 56

Top 3*: Raymond Schinazi, PhD (56), Barbara Stoll, MD (47) & Ronald Joyner, MD, PhD (44)*

If we look at School of Medicine data for faculty successfully promoted in 2008-2009, we get a feel for the context in which this metric is used: