

## *Pathology and Laboratory Medicine Newsletter*

**Inside this issue:**

Department Admin News	2
Pathology Patient Safety Initiative	3
Clinical Laboratory	4
Transfusion Medicine	5
Laboratory Informatics	6
Residency/Fellowships	7-8
Division of Research	9-10
Department News	11
Graduate Education	12
Golden Apple Awards	13
Research Seminars and	14
McKee Seminar &	15
Upcoming Meetings	16



### *Letter from the Chair*

**From the Test Tube to the Bedside**

The Department of Pathology and Laboratory Medicine is excited to introduce the first issue of our quarterly departmental Newsletter. The Newsletter highlights new developments in the tripartite activities our department featuring: 1) clinical services; 2) educational programs involving medical, dental, and graduate students, post-doctoral fellows, and clinical residents and fellows; and 3) basic science and clinical translational research. Each Newsletter will focus on different accomplishments from these arenas and will include sections highlighting new administrative changes both in the Department and at MUSC, new additions to our collective family, and announcements of new programs and other opportunities.





## News from Department Administration and Business Office...

### Dermatopathology

**John Metcalf, M.D.** is leading the search for an additional dermatopathologist/surgical pathologist.

### Research Investigators

A search is underway for two Research Investigators. The Research Division is looking for one investigator with an interest in cancer microenvironment interactions or cancer stem cell biology, and, one with an interest in hearing impairment and physiology, or genetics.

### Granting of Tenure

Congratulations to **Rick Nolte, Ph.D.**, Director of Clinical Laboratory, for being granted tenure.

### Promotions

Congratulations to **James Madory, D.O.** for his promotion to Assistant Professor.

### Clinical Chemistry Fellowship Training Program

Congratulations to **Yusheng Zhu, Ph.D.**, for his success in obtaining accreditation of his new fellowship program. Dr. Zhu's first fellow will be Alina G. Sofronescu, Ph.D.

### College of Medicine School Curriculum

Congratulations to **S. Erin Presnell, M.D.** being named Second-Year Medical School Curriculum Coordinator.

She joins **Debra Hazen-Martin, Ph.D.**, who is the Associate Dean for Curriculum Integration and Implementation and First-Year Medical School Curriculum Coordinator.



### Ms. Beth Hansell



Congratulations to **Ms. Beth Hansell** who joined Pathology and Laboratory Medicine Administration this past summer. We welcome Beth back into the Department and look forward to working with her.



Clint Infinger, Assistant Business Manager



# Global Initiative for Pathology Patient Safety Excellence

By: Cynthia A. Schandl, M.D., Ph.D., Chief, Global Initiative for Pathology Patient Safety Excellence



**Cynthia Schandl, M.D., Ph.D.**, has agreed to take on the task of heading the department's Global Initiative for patient safety.

## PATHOS

MUSC's newest interest group, PATHOS, is now available for students who would like to learn more about pathology. Since MUSC has produced more pathologists than any other school over the last 20 years, the organization of PATHOS is long overdue. The group, which achieved 49 attendees and 14 dues-paying members in its first semester, was proud to receive \$550 in funding from ASIP in the Fall of 2009. So far, the group has heard from pathology residents, professors and residency program directors regarding the resident experience, MUSC's new post-sophomore clinical research fellowship, and the residency application process. The group looks forward to its second semester. For more information and a spring lecture schedule please contact Grace Daniel at [danielg@musc.edu](mailto:danielg@musc.edu).

Patient safety is of paramount importance throughout medicine. The Department of Pathology and Laboratory Medicine strives to maintain patient safety excellence on all levels and in all areas. Multiple monitors are in place and multiple individuals make it their duty to identify areas at risk and improve them both through evidence-based medicine (the experience and publication of others) and through in-house experience and trial.

The Global Initiative for Pathology Patient Safety Excellence is a new formal division in the Department that may ultimately serve as the repository for patient safety data and the impetus for focal and system-wide improvements to safeguard safety. Initial projects are to include

formal implementation of Ongoing and Focused Professional Peer Evaluations as recently mandated by the Joint Commission (JCAHO). These evaluations will be standardized and electronic and will be reviewed by the Peer Review Committee upon completion. Any areas in need of improvement will be readily identified. Appropriate case reviews followed by remediation will be provided. Benchmarks for success will be set, and these will be met or exceeded by all Pathology Professionals.

Embracing Lean and Toyota Production System (TPS) principles, a second initiative is to provide a web-based interface to all individuals within the Department in order to elicit feedback regarding optimum processes

and ideas for process improvement. Any errors noted by any Departmental employee can thus be recorded for further review, committee discussion, and appropriate implementation of improvement measures or systems.

Ultimately, the goal of the Initiative is to globalize and to centralize patient safety excellence protocols; to identify what works and capitalize on success; and, to identify what fails and eliminate errors. The success of the Initiative will depend upon cohesive Departmental cooperation and enthusiasm, an area where MUSC excels.

## News Around Campus...

### DEAN'S SEARCH

Dr. Jerry Reves, Vice President of Medical Affairs and Dean of the College of Medicine is retiring on July 1, 2010. The search for his replacement is underway.

### DEPARTMENT OF PEDIATRICS

Dr. Lyndon Key has resigned his position as Chair, Department of Pediatrics. Dr. David Habib is serving as Interim Chair. A search is underway for Dr. Key's replacement.

# Highly Multiplexed RT-PCR Assay to Replace Respiratory Virus Culture

By: Frederick S. Nolte, Ph.D., Director, Clinical Laboratory



Nucleic acid amplification tests are the new gold standards for detection of respiratory viruses.

However, considering the number of possible respiratory viruses and the overlap in their clinical presentations, the use of single-target nucleic acid amplification tests was impractical for clinical laboratories.

On November 30<sup>th</sup> we replaced respiratory virus culture with a multiplex, RT-PCR test (Luminex xTAG Respiratory Virus Panel). This FDA-cleared, multiplex, RT-PCR test detects and differentiates

**influenza A virus, influenza B virus, respiratory syncytial virus, parainfluenza virus types 1, 2, and 3, adenovirus, metapneumovirus, and rhinovirus** in a single reaction. The test involves nucleic acid extraction from the nasopharyngeal samples, reverse transcription of viral RNA into cDNA, single tube multiplex PCR amplification and target specific extension, liquid bead microarray sorting, and data acquisition and analysis on a Luminex xMAP instrument (see Figure).

The multiplex RT-PCR test has sensitivity equal to or better than culture, can provide results in a more clinically relevant time frame, and substantially increases our diagnostic capabilities. The new test allows us to subtype **influenza A virus** into three categories, **seasonal H1, seasonal H3, and novel**. This feature is particularly important in defining the epidemiology and antiviral resistance of influenza A virus infections. All of the seasonal H1 isolates from the 2008/2009 flu season were

resistant to the neuraminidase inhibitor, Tamiflu, whereas none of the seasonal H3 and novel H1N1 (swine origin) were resistant.

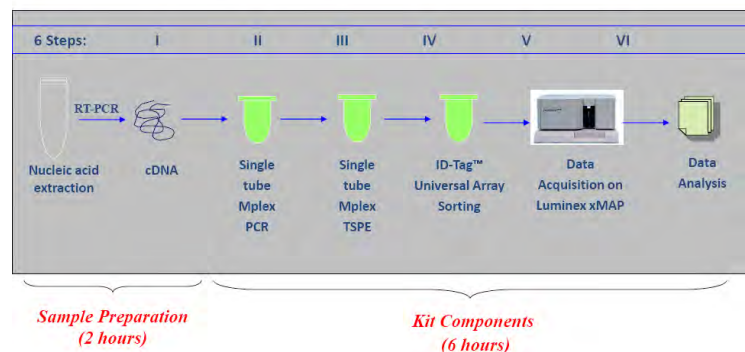
We can also detect two additional viruses that are difficult to grow in culture, metapneumovirus and rhinovirus.

**Metapneumovirus**, first discovered in 2001, is a significant cause upper and lower respiratory tract disease in children and adults, and is very similar to respiratory syncytial virus in its incidence and clinical presentations. Rhinovirus causes approximately two thirds of the cases of the common cold, but has been increasingly implicated as

a major cause of asthma exacerbation and decompensation of chronic lung disease. Rhinovirus is also now recognized as an important cause of lower respiratory tract disease in the very young, the elderly, and in those with chronic illnesses, cancer, immunosuppressive illness or transplants, or underlying pulmonary disease.

**The multiplex RT-PCR test has sensitivity equal to or better than culture, can provide results in a more clinically relevant time frame, and substantially increases our diagnostic capabilities.**

## Luminex xTAG™ RVP



# *Joint Commission Blood Management*

*By: Jerry Squires, M.D., Ph.D., Director of Transfusion Medicine*



The increasing cost of blood products, which has nearly doubled over the past decade, has been an ongoing concern for hospitals. However, it is important to note that this increasing cost has been closely associated with a remarkable increase in blood product safety. For example, the risk of transfusion transmitted disease such as HIV and hepatitis C is now approaching 1 in 2,000,000 transfusions and risks of TRALI and bacterial contamination of blood products have been cut in half. Nevertheless, it is becoming increasingly apparent that quite apart from the diminishing risks associated with transfusion, unnecessary transfusion might significantly compromise patient outcomes. While blood transfusion in appropriate circumstances is “life-saving” and makes many of our current therapeutic procedures possible, inappropriate or unnecessary transfusion is now being shown to lengthen hospital and ICU stay and in some cases is associated with increased 30-day mortality.

In recognition of the costs, risks, and potential benefits of blood transfusion—and the fact the hospitals in the United States generally use more blood on a per patient basis than other countries with advanced medical care systems—the Joint Commission is now planning to bring increased focus to the area of blood management or appropriate blood utilization. Ultimately, this will take the form of a number of new blood management performance measures that will become part of routine Joint Commission evaluations of hospitals. Currently, the Joint Commission is evaluating ten new “candidate” measures; the Transfusion Service of the Pathology and Laboratory Medicine Department at MUSC was selected to act as an “alpha test site” for these measures. The evaluation was carried out by **Jerry Squires**

**MD, PhD, Nancy Reilly Dixon MT (SBB), and James Madory DO** of the MUSC Department of Pathology and Laboratory Medicine / Transfusion Service and **Pat Wagstaff** and **Marilyn Winkel** of the MUSC Medical Director’s Office / Outcomes and Quality Management.

Alpha test sites for these measures were asked by the Joint Commission to review each candidate measure and to assess its medical “appropriateness,” the clarity of measure descriptors, and the accessibility of the data. The MUSC recommendations on these performance measures have been forwarded to Joint Commission to be collated with the responses from 49 other alpha test sites. However, from the perspective of the hospital, this exercise gave us the unique opportunity to provide feedback on these measures at an early stage in their development, and additionally it provided us early insight into the thinking of the Joint Commission regarding blood management initiatives. This, in turn, allows us to even more closely align our own blood utilization review methodology with the upcoming expectations of the Joint Commission.

The proposed Joint Commission measures include a variety of measures to assess the safety and efficacy of blood utilization in the hospital. For example, these measures are intended to insure that there are clear and appropriate clinical indications for transfusions, that patients have provided informed consent for transfusion, that there is adherence to appropriate transfusion “triggers” for red cell, platelet, and plasma transfusion, and that pre-transfusion blood specimen collection/labeling errors are minimized.

Blood management initiatives are becoming more and more important—and widespread—among hospitals in the United States. Participation as an alpha test site for new blood management measures by the Joint Commission places MUSC in a leadership role in this effort.





# Laboratory Information Services Update

By: Jim Madory, D.O.

Medical Director of Laboratory Informatics

Currently, the largest ongoing information technology project in the Department is the upgrade to the laboratory information system, Cerner Millennium. This is a team project involving laboratory information services, members of the various MUSC OCIO Information Services, the Cerner upgrade team, and the multiple database coordinators in the Department. All of these team members work together to develop, implement, and most importantly, test the system before being released into clinical use.

The laboratory information system from Cerner (PathNet) was first implemented at the Medical University of South Carolina in 1988. We were the one of the first clients to install and to utilize the system. This system used “dumb” terminals to access the database containing patient information. In the summer of 2001, the decision was made to upgrade our PathNet application to the latest version of the software now known as Millennium PathNet. The funding was obtained and the project kickoff was Feb. 2002. The upgrade allowed the removal of the dumb terminals and utilization of Windows-based applications for accessing patient information within the database. Blood bank and HLA were the first sections to utilize the new system in March 2004. Two years later, on March 23, 2006, the remaining sections of the laboratory switched from Pathnet Classic to Pathnet Millennium.

The current upgrade being performed is the largest upgrade since the conversion from PathNet Classic to PathNet Millennium. Not only are the applications that will be used to enter and retrieve data being updated but the operating system on which the applications run is being changed as well. As with any change to applications and operating system there will be benefits and changes to the way the system

functions. The upgrade will allow new functionality in the system to provide better information to clinical provider clients and the patients that they serve.

Some of the functions in the system that have been utilized in the past will be changing. There will be work flow changes that will need to take place. Extensive testing is being performed to identify these changes and to determine ways to utilize the new functionality efficiently. Due to the large number of enhancements available in the new version of the software, only selected enhancements will be available when the switch is thrown.

The upgrade project will be completed in the spring of 2010. After the upgrade has been completed the work on the system will not be over. The Laboratory Information Services team and database coordinators will continue to work to provide a reliable and responsive system allowing the laboratory team to serve our clients.



Nancy Reilly Dixon, MPA, MT(ASCP), SBB, and Jim Madory, D.O. review data in the Blood Bank.

# Residency Program Update

By: David Lewin, M.D., Residency Director

CLASS  
OF

2  
0  
1  
3



Keels Allen, M.D.

Matthew Bernstein, M.D.

Evelyn Brunner, M.D.

Kate Lindsey, M.D.

Emily Ogden, M.D.

July 1 saw five new residents start the pathology residency program. Three are from MUSC medical school and two from schools in Texas. The incoming first year residents are: Keels Allen MD (MUSC), Matthew Bernstein MD (MUSC), Evelyn Brunner MD (MUSC), Kate Lindsey MD (Southwestern), Emily Ogden MD (Texas A&M). Dr. Lindsey is the daughter of our own Tim Smith, M.D. The first-year residents began the year with an introductory month, paired with senior residents in surgical pathology and autopsy. Since that time they have hit the ground running with a variety of rotations in both anatomic and clinical pathology. We wish them all well for the start of their careers in pathology.



Tim Smith, MD with residents Ford Rogers, MD and Roger Stone, MD



Residents Anne Bartlett, MD, Evelyn Bruner, MD and Angie Duong, MD

## Where Are They Now....

### Class of 2008

Bruno Dantas  
Jamie Carlo  
Carl Buckner  
Angela Durden

### Fellowship

Cytopathology, Penn  
Cytopathology, MUSC  
Hematopathology, MUSC  
Gastrointestinal Pathology,  
Memphis

### Class of 2009

Drake Branch  
Ahren Rittershaus  
Kelly Rose  
Nancy Stout

### Fellowship

Dermatopathology, MUSC  
Surgical Pathology, Hopkins  
Forensic Pathology, Emory  
Cytopathology, MUSC

### Class of 2010

Paul Eberts  
Benjamin Havard  
David Holloman  
Deborah Spencer  
Mary Wren  
Caroline Massey

### Fellowship-2010

Surgical Pathology, MUSC  
Surgical Pathology, UAB  
Gastrointestinal Path, UCLA  
Molecular Pathology, Emory  
Cytopathology, MUSC  
Family Leave

# FELLOWSHIPS

## Jane K. Upshur, M.D., Post-Sophomore Pathology Fellowship

We have established a **Post-Sophomore Medical Student Pathology Fellowship Program**.

The Department of Pathology and Laboratory Medicine offers three post-sophomore fellowships in Pathology each year. Fellows may choose between a clinical concentration and a research concentration.

The student must have successfully completed the second year of medical school and be in good academic standing. Students may also be considered following their third year of medical school. Students must be eligible for, apply for, and be offered a one-year Leave of Absence from their College of Medicine.

Students are offered a monetary award, a book fund and attendance at a national pathology conference. We have 1 filled and 2 unfilled positions for the 2010 academic year.

Please see our web-site for more information,

[www.musc.edu/pathology/JKUPathfellowship](http://www.musc.edu/pathology/JKUPathfellowship)



“I met Dr. Jane Upshur during my second year of graduate school when I was a student in General and Systemic Pathology Courses. Jane’s dedication to teaching in the Department of Pathology and later, her focused commitment to all of the responsi-

bilities of directing the medical school course were clearly apparent. I remember her as constantly on-the-move; in and out of autopsy, the pathology photo lab, and the teaching labs and I will always remember her enthusiasm when teaching the anatomy pathology of the infant heart in lab. Dr. Upshur conveyed warmth and concern to students and at the same time shared the unique sense of humor we, her friends, still enjoy. It was only after I became a faculty member and parent that I fully appreciated the graceful balance that Jane was able to accomplish early in her career in her role as the first female pathology resident (67-71), first female faculty pathology member (71), and at the same time, devoted mother and wife. I am fortunate to be one of many who consider her a wonderful teacher, valuable mentor, and friend.” **Debra Hazen-Martin, Ph.D.**

## Resident Recruitment for Year 2010

We are recruiting six pathology residents for 2010. We have received 385 applications (134 US graduates and 251 international graduates). We invited 78 individuals to interview and we have interviewed 41 of our anticipated 60 total interviewees. Nationally, there are 578 US graduates applying to pathology (up from 539 last year) and 1,164 international graduates (up slightly from 1,141 last year). There are approximately 525 total pathology resident positions nationally. The interview season runs from November through the end of January. The rank order list is due February 24<sup>th</sup> and Match Day is March 18, 2010.

## Fellowship Recruitment for Year 2011

Interviews are ongoing for all of our fellowships for the 2011 academic year.

Cytopathology - 3 Fellows

Dermatopathology - 1 Fellow

Hematopathology - 1 Fellow

Forensic Pathology - 1 Fellow

Surgical Pathology - 2 Fellows



# Research Division Update

By: *Bradley Schulte, Ph.D.*  
*Vice Chair for Research*



The Division of Research has had a busy and productive 1<sup>st</sup> quarter (7/1/2009 — 9/30/2009). Eleven grant proposals were submitted requesting \$1,979,971 in total costs for the first year budget period. Also, during this period, twelve grants were awarded for a total of \$1,973,558 over a one-year period (see table below). Three of these grants totaling \$366,179 were awarded from American Recovery and Reinvestment Act (ARRA) funds. Congratulations, and thank you to all who participated in the effort to obtain these awards.

Principal Investigator	Title and Sponsor	Award Date and Award
Lazarchick, John	A Multi-Center, Prospective, Open-Labeled, Clinical Trial to Assess the Safety and the Efficacy of a New Intravenous Immune Globulin in Patients with ITP, IG0601, GRIFOIS	7/1/2009 \$39,588
Ogawa, Makio	Fracture Repair by Mouse and Human Hematopoietic Stem Cells (IPA), Federal Subproject, VAMC/IPA	7/1/2009 \$51,437
Cunningham, Lisa	Mechanisms of Sensory Hair Cell Death and Survival (ARRA - Admin Supplement), 3 R01 DC007613-04S2, NIH (ARRA)	7/17/2009 \$172,416
Zhou, Daohong	Cancer Therapy-Induced Long-Term Bone Marrow Injury (ARRA Admin Supplement), 3 R01 CA122023-03S1, NIH/NCI (ARRA)	8/1/2009 \$120,013
Francis, Shimon	NRSA Predoctoral Fellowship to Promote Diversity (Celastrol as a Co-Therapy for Inhibition of Aminoglycoside Induced Ototoxicity), 1 F31 DC010559-01, NIH/NIDCD	8/1/2009 \$34,475
Spyropoulos, Demetri	Growth and Carcinogenic Potential in the Postnatal Mammary Gland, 1 R03 HD060265-01A1, NIH/NICHHD (ARRA)	9/1/2009 \$73,750
Cunningham, Lisa	Mechanisms of Sensory Hair Cell Death and Survival (Minority Supplement), 3 R01 DC007613-04S1, NIH/NIDCD	9/1/2009 \$42,608
Baker, Tiffany	NRSA Predoctoral Fellowship: Heat Shock Protein-Induced Protection Against Cisplatin-Induced Hair Cell Death, 1 F30 DC010522-01, NIH/NIDCD	9/28/2009 \$34,475
Lewin, David	High Resolution Genomic Analysis of Pancreatic Carcinoma, contract with the Medical College of Georgia (08051781)	7/1/2009 \$2,500
Cunningham, Lisa	Mechanisms of Sensory Hair Cell Death and Survival, 5 R01 DC007613-05, NIH/NIDCD	7/1/2009 \$341,586
Lang, Hainan	Experimental and Clinical Studies of Presbycusis (Project 3) , 5 P50 DC000422-22, NIH/NIDCD, (J. Dubno: PD)	8/1/2009 \$385,744
Schulte, Bradley	Inner Ear Ion Transport Mechanisms, 2 R02 DC000713-18, NIH/NIDCD	8/1/2009 \$306,216
Zhou, Daohong	Role of p38 MAPK in HSC Self-Renewal and Radiation-Induced Bone Marrow Injury, 5 R01 A1080421-02, NIH/NIAD	9/1/2009 \$368,750
<b>TOTAL</b>		<b>\$1,973,558</b>

# Research Division Update *(continued)*

## Research Retreat

The Second Research Faculty Retreat was held on the afternoon of October 22<sup>nd</sup> at the Charleston Marriott Hotel. The focus of the agenda was to identify mechanisms to strengthen and expand the Department's research enterprise. It was concluded that the most urgent needs were:

- 1) Provide additional support to facilitate the further development of the research programs of our highly talented young faculty members.
- 2) Build programmatic strength and increase

collaboration through the recruitment of two or three mid-career scientists. The two areas initially targeted were auditory neuroscience with an emphasis on physiology or genetics, and, cancer biology with an emphasis on the microenvironment and cancer development and progression.

- 3) Restructure the Department web site to allow easier navigation and to highlight our research program and research opportunities within the Department.

## Departures



**Tien Hsu, Ph.D.**

A drop-in was held on September 30, 2009, to say goodbye to Tien Hsu, Ph.D., a long time member of our faculty. Tien, along with his wife, Maria Trojanowska, Ph.D. moved to Boston University where they were appointed as Professors in the Department of Medicine. We wish them both well.

## Around the Department.....



Josh Kellner, Graduate Student in Dr. Daohong Zhou's lab



Claire Hinsch, Graduate Student, Dr. Vincent Dammai's Lab



Tanisha Hutchinson, Masters Student, Dr. Omar Moussa's Lab



Melissa Morris Scheiber, Graduate Student in Dr. Dennis Watson's lab



Julie Woolworth, Ph.D., Post-doctoral fellow in Dr. Omar Moussa's lab

## Research Accolades

**Amanda LaRue, Ph.D.** served as an Ad Hoc member of the VA Merit Surgery Study Section on November 16, 2009.



**Lauren A. Kilpatrick, M.D.,** PGY3, Dept. of Otolaryngology, received an AAO-HNSF Resident Research Grant to fund her work in **Dr. Hainan Lang's** laboratory on, "The Role of SDF-1 and Hematopoietic Stem Cells in Spiral Ganglion Preservation."



**Makio Ogawa, M.D., Ph.D.** was an invited speaker at the 71st Annual Meeting of the Japanese Society of Hematology, Kyoto, Japan, October 2009. Dr. Ogawa lecture was entitled "Hematopoietic Stem Cell Origin of Connective Tissues."



## Department Additions

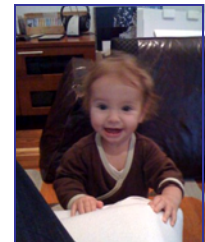
### New Faculty

**Maria Gallego Attis, M.D.** joined the Cytopathology section on August 1, 2009. Maria completed her medical education at University of Miami School of Medicine in Miami, Florida. She completed her residency in Anatomic and Clinical Pathology at the Duke University Medical Center and went on to pursue her cytopathology fellowship at the University of North Carolina in Chapel Hill, N.C. Dr. Gallego Attis' clinical interests include gynecologic pathology with a focus on placental pathology. When not at the scope, Maria, her husband, Brian, along with 1-year old son, Alex, enjoy running, bicycling and exploring downtown Charleston. Welcome Maria!



### Family News

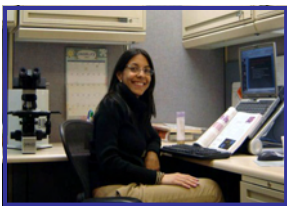
**Tihana Rumboldt, M.D.** (Anatomic Pathology Faculty) and husband, Zoran, added a 2nd daughter to their family. Frida was born on March 19, 2009. Congratulations to the Rumboldt Family!



Resident, **Caroline Massey, M.D.** and husband, Matt, welcomed their first child, Brooks Massey on June 20, 2009. Congratulations!!



## Around the Department.....



Ana Maria Medina, MD,  
Hematopathology Fellow



Sally Self, M.D.,  
Dir. of Diagnostic  
Immunology



David Lewin,  
M.D., Training  
Program Director



Paul Eberts, M.D., Chief  
Resident

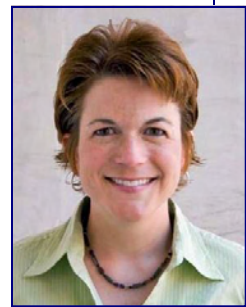


Dayna Wolff, Ph.D.,  
Dir. of Cytogenetics



Pathology Students  
receive National  
Research Service Awards  
from the NIH!

## Graduate Education Update



By Lisa Cunningham, Ph.D.,  
Coordinator of Graduate Studies



The Pathology Graduate Training Program is very pleased to announce that two of our students received individual National Research Service Awards (NRSA) from the NIH to support their dissertation work. The NRSA is a competitive national fellowship program that supports the training of graduate students in biomedical sciences. **Shimon Francis**, a fourth-year Ph.D. student, and **Tiffany Baker**, a third-year MSTP student, each received NRSA's from the National Institute on Deafness and Communication Disorders (NIDCD) for their studies on the inner ear. Both Shimon and Tiffany are in **Dr. Lisa Cunningham's** laboratory.

Tiffany's research is focused on the molecular mechanisms underlying hearing loss caused by the anti-cancer drug cis-platin. Regarding the application process for the NRSA, Tiffany said, "It was beneficial in that it forced me to solidify my experimental plan, to practice grant-writing, and to be critiqued by an actual NIH study section. Receiving NRSA funding has not only boosted my confidence as a new investigator, but it has also made me think more critically about my own studies and experimental design."

Shimon's research is focused on a potential co-therapy aimed at preventing hearing loss caused by ototoxic drugs. "I take pride in knowing that the research we conduct advances our basic understanding of the etiology and pathogenesis of hearing loss. More importantly, our work has clinical relevance. I find comfort in knowing that all of our hard work may someday result in therapies that help real people by preventing this debilitating condition," Shimon said recently. **Dr. Perry Halushka**, Dean of the College of Graduate Studies, said of these awards, "We are very proud of both Shimon and Tiffany. The awarding of their own NRSA's is a testimony to their outstanding potential as scientists and places them amongst the elite PhD and MD/PhD students in the country, respectively. These grants are also a testimony to the outstanding mentorship that they are receiving from Dr. Cunningham. We look forward to their continued success." Congratulations to Tiffany and Shimon!

Perry V. Halushka Student Research Day was Friday, November 6, 2009

Our Department was well represented...

◆ **Dr. Inga Kramarenko (Lisa Cunningham's lab)** received second place for poster presentation by a post-doctoral fellow.

◆ **Tiffany Baker (Lisa Cunningham's lab)** received the Eric James Award for first place oral presentation by a Ph.D. Student.

◆ **Dr. Lauren A. Kilpatrick (Hainan Lang's lab)** received Second Place for Poster Presentation by a resident.

# ***NOMINEES AND WINNERS OF GOLDEN APPLE AWARDS***

***2009-2010***

The Golden Apple Awards were awarded on December 3, 2009, by the College of Medicine Students to teachers and others who assist our students. Congratulations to **Debra Hazen-Martin, Ph.D., Nick Batalis, M.D.** and **Sandy Nelson** for the remarkable achievements! The nominees in each category are listed below and the winners of the Golden Apple have an asterisk by their name.

## **First Year Class**

### **Faculty Award**

Dr. Francis Spinale\*, Dept. of Surgery

**Dr. Debra Hazen-Martin\*, Dept. of Pathology &  
Laboratory Medicine**

Dr. Matthew McEvoy, Dept. of Anesthesiology  
& Perioperative Medicine

Dr. Paul McDermott, Dept. of Medicine, Div. of Cardiology

### **Special Appreciation**

Dr. Alice Libet, Counseling & Psychological Services

Dr. Chris Pelic\*, Associate Dean for Students

Dr. Leonardo Bonilha, Dept. of Neurology

Leslie Fowler, Fundamentals of Patient Care Coordinator

Dr. Lynn Manfred, Assoc. Dean for Curriculum &  
Evaluation

## **Second Year Class**

### **Faculty Award**

Dr. Gabriel Virella\*, Dept. of Microbiology & Immunology

**Dr. Nicholas Batalis, Dept. of Pathology &  
Laboratory Medicine**

### **Special Appreciation**

Artice Smith, College of Medicine Dean's Office

**Sandy Nelson\*, Dept. of Pathology &  
Laboratory Medicine**

Dr. Jason Zauls, Dept. of Radiology

## **Third and Fourth Year Classes**

### **Faculty Award**

Dr. Adam Brzezinski\*, Dept. of Medicine

Dr. Scott Sullivan, Dept. of Obstetrics-Gynecology

Dr. Thomas Smith, Center for Academic Excellence

Dr. Eric Larson, Dept. of Medicine,  
Division of Emergency Medicine

Dr. Diann Krywko, Dept. of Medicine,  
Division of Emergency Medicine

Dr. Pierre Giglio, Dept. of Neurosciences

Dr. Joseph Schoepf, Dept. of Radiology

Dr. Stephen Schabel, Dept. of Radiology

Dr. Angela Dempsey, Dept. of Obstetrics-Gynecology

### **House Staff Award**

Dr. Erin Swanson\*, Resident, Obstetrics-Gynecology

Dr. Jennifer Franklin, Resident, Emergency Medicine

Dr. Chelsea Rainwater, Resident, Medicine

Dr. Leonardo Bonilha, Resident, Neurology

Dr. Robert Bartlett, Resident, Anesthesiology &  
Perioperative Medicine

### **Special Appreciation**

Dr. Christopher Pelic, Associate Dean for Students

**Sandy Nelson, Dept. of Pathology &  
Laboratory Medicine**

Dr. Jeffrey Wong, Senior Associate Dean for Medical  
Education

Beverly Pinder\*, College of Medicine Dean's Office

Suzanne Long, Dept. of Pediatrics



# *Seminar in Pathology*

*All lectures are held Monday at Noon in the Children's Hospital 204 (unless otherwise noted)*

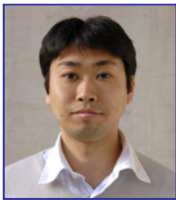
January 11, 2010



"Deciphering the Biological Function of Bves Using Multiple Organ Systems"

**Claire Hinsch**  
**Pathology Graduate Student**  
**Dr. Vincent Dammai's Lab**

January 25, 2010



"Sphingosine Kinase 1 Inhibition And Cardiovascular Risks"

**Hideki Furuya, Ph.D.**  
**Postdoctoral Fellow**  
**Dr. Toshihiko Kawamori's Lab**

February 8, 2010



"Increased Self-renewal and Expansion of Long-Term Hematopoietic Stem Cells by Small Molecule Compounds"

**Joshua Kellner**  
**Pathology Graduate Student**  
**Dr. Daohong Zhou's Lab**

February 22, 2010



"Mitochondrial Dysfunction and Mechanisms of Protection in Aminoglycoside-Induced Hair Cell Death"

**Shimon Francis**  
**Pathology Graduate Student**  
**Dr. Lisa Cunningham's Lab**

## *Pathology Resident Conferences*

*All Pathology Graduate Medical Education lectures are held on the first Wednesday of the month at 8:00 AM in the Children's Hospital 204 (unless otherwise noted)*

February 3, 2010



"Intrauterine Parvovirus B19 Infection"

**Laura Spruill, M.D., Ph.D.**  
**Pathology Resident**

AND



"Ductal Carcinoma In Situ (DCIS) of the Breast: Pathology Report"

**Mokhtar Desouki, M.D.**  
**Pathology Resident**





Spring 2010

**Pratt-Thomas Symposium in Surgical Pathology and the McKee Cytology Seminar** will be held on April 21-24, 2010 at Kiawah Island Golf Resort.

This year the **Pratt-Thomas Symposium** will focus on GI Pathology and Hepatic Pathology.

Invited speakers include:

Dr. Ken Batts, Abbott Northwestern Hospital

Dr. Mary Bronner, Director, GI Pathology, Cleveland Clinic

Dr. Larry Burgart, Abbott Northwestern Hospital Laboratory

Dr. Fatima Carneiro, Department of Pathology, Medical Faculty & IPATIMUP, Porto, Portugal

Dr. Larry Comerford, Division of Gastroenterology, MUSC

Dr. Robert Genta, Professor of Gastroenterology, University of Texas Southwestern Medical Center

Dr. John Goldblum, Chair and Professor of Pathology, Cleveland Clinic, Cerner College of Medicine

Dr. Joel Greenson, Professor of Pathology, University of Michigan Medical Center

Dr. John Hart, Professor of Pathology, University of Chicago

Dr. Gregory Y. Lauwers, Director, GI Pathology Services, Massachusetts General Hospital & Harvard Medical School

Dr. Audrey Lazenby, Director of Anatomic Pathology, Nebraska Medical Center

Dr. David Lewin, Professor of Pathology, MUSC

Dr. Elizabeth Montgomery, Professor of Pathology & Oncology, John Hopkins Medical Institutions.

The **McKee Cytology Seminar**, beginning Friday afternoon, will include invited speakers:

Dr. Edmund S. Cibas, Director of Cytopathology, Brigham and Woman's Hospital, Harvard University

Dr. Haytham Dimashkieh, Oconee Medical Center, Seneca, SC

Dr. Michael R. Henry, Mayo Clinic, Rochester, MN

Dr. M. Timothy Smith, Director, Anatomic Pathology, MUSC

Dr. Michael W. Stanley, United Hospital, St. Paul, MN

Dr. Patricia G. Wasserman, Chief, Cytopathology at North Shore - Long Island Jewish Health System

Dr. Jack Yang, Director, Cytopathology, MUSC.

# Upcoming National Pathology and Pathology-related and Laboratory Medicine-related Meetings

## March 20-26, 2010

USCAP — United States & Canadian Academy of Pathology Annual Meeting  
Washington, DC

## April 17-21, 2010

AACR—American Association for Cancer Research  
Washington, DC

## April 24-28, 2010

ASIP—American Society of Investigative Pathology  
Anaheim, CA

## June 4-8, 2010

ASCO — American Society of Clinical Oncology  
Chicago, IL

## July 25-29, 2010

American Association of Clinical Chemistry  
Anaheim, CA

## September 26-29, 2010

CAP — College of American Pathologists  
Chicago, IL

## October 27-31, 2010

ASCP — American Society of Clinical Pathology, Annual Meeting  
San Francisco, CA

## December 8-12, 2010

San Antonio Breast Symposium  
San Antonio, TX



Laura Spruill, MD, PhD,  
Resident



Allison Ciolino, MD,  
Cytopathology Fellow



Omar Moussa, PhD,  
Assistant Professor



Evelyn Bruner, MD,  
Resident



Caroline Massey, MD,  
Resident



Cindy Welsh, MD  
Assistant Professor



Kate Lindsey, MD,  
Resident



Rick Nolte, PhD, Janice Lage, MD,  
and Jerry Squires, PhD



David Turner, Ph.D.,  
Research Asst. Professor

## MUSC DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE

MUSC Department of Pathology and  
Laboratory Medicine  
171 Ashley Avenue, MSC 908  
Charleston, SC 29425