

**Jay M. McDonald, MD**

**Robert and Ruth Anderson Professor and Chair**

**MESSAGE FROM THE CHAIR**

The search for the new Chair of Pathology continues. As I said previously, I have agreed to remain as Chair until my replacement has been named. It is important that the Department and its faculty continue to maintain our high standards of clinical, scientific and scholarly activities.

We are very pleased to announce that the Department of Pathology at UAB has achieved a landmark NIH funding rank among pathology departments nationwide. Our departmental NIH funding has exceeded \$17 million placing us in a 7<sup>th</sup> or better position in the country.

Total departmental research funding including other governmental agencies and organizations has surpassed the \$27 million per year mark. Considering that in 1990 the total research funding for the Department was less than \$1 million, this a remarkable achievement and a credit to our productive faculty.

The department is currently seeking funding to endow two professorships honoring Dr. Hazel Gore and Dr. Robert Mowry. Should you wish to support either of these endowments, please contact Bruce Alexander at [cba@uab.edu](mailto:cba@uab.edu).

Sincerely,

**Jay M. McDonald, M.D.**

**PATHOLOGY IN FOCUS  
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**Department of Pathology Web  
Site** <http://www.path.uab.edu>

**KEEP IN TOUCH.....Newsletter**  
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**FACULTY EXPERIENCE**



Dr. Bill Benjamin and Jamie Burns, MT (ASCP) from the UAB Medical Microbiology laboratory in Africa

**UAB Clinical Pathology Expertise Helping Patients in Africa**

Read the fascinating account of William Benjamin's recent trips to Africa:

August and September 2006 I spent in Namibia, a sparsely populated desert country in southwest Africa. I was acting as a consultant in the Centers for Disease Control/American Society of Microbiology International Laboratory Capacity Building Program. We (2 Americans and two Russians) worked in the Namibian Institute of Pathology which is based in the capital, Windhoek, and has 31 satellite laboratories that perform AFB smears. Most of their tuberculosis diagnosis is based on Ziehl Neelsen stained AFB smears and our consulting team found that there is no quality control of the smears, with technologists expected to read too many slides/day with no oversight. They were just starting to develop culture and anti-tuberculosis drug testing capabilities and did not have a good concept of containment of *M. tuberculosis* aerosols. To my surprise my skin test did not convert. The team taught a week long workshop for supervisors from the central and outlying laboratories and then visited 2 of the satellite laboratories to evaluate the effectiveness of the training. We also visited one technologist laboratory which worked with the Himba people to determine the level of competence in smaller laboratories that did not send a technologist to our workshop. We found more attention to detail in the smaller laboratories, mainly because of the lower workload. We found the technologists to be hard working and dedicated.

From 4/24-5/11 and 8/6 – 8/17/07, I went to Lusaka, Zambia to consult on developing *M. tuberculosis* culture capability in the Center for Infectious Disease Research Zambia (CIDRZ) laboratory. This laboratory was built in 2004 to support the treatment of HIV positive patients in Lusaka. Since 2004 the UAB led research endeavor has recruited and placed under medical care 70,000 HIV positive patients. Both of these south African countries have about a 20%

HIV positive rate in cord blood and some areas of each country have about a 1%/year tuberculosis disease rate which is fueled by AIDS. In this case we were developing a *Mycobacterium tuberculosis* diagnostic laboratory from the floor up. They have state of the art equipment, but when I was there, there were neither microbiologists nor technologists who had worked in microbiology in the laboratory. I unpacked a fluorescent microscope and put it together, installed the MGIT liquid culturing equipment, learned and taught the technologists how to use the autoclave. I made reagents and taught the technologists how to do AFB staining and read the slides and use the MGIT and Löwenstein Jensen culture systems. The laboratory is striving to be CLIA-certified in all sections. They do about 700 blood specimens a day with CD4 counts, chemistries, (mostly liver enzymes), hematology and some HIV viral loads. The working conditions are challenging, with electricity outages, problems with the backup generator, and water outages occurring fairly often.

Because of my travel to malarious areas, I am unable to donate blood in the US so I donated in each of these two countries. The blood collection practices used there are very different than those used here.

## MESSAGE FROM THE PATHOLOGY FACULTY ADVISORY COUNCIL

The Faculty Advisory Council membership represents the faculty in all Divisions within Pathology. Members of the Council are appointed for a two year term with staggered end dates to allow for continuity. New members were appointed in January. Below is the current FAC membership:

**Aleodor Andea, MD**-Anatomic Path  
**David Chhieng, MD**-Anatomic Path  
**William Benjamin, PhD**-Lab Medicine  
**Stephen Moser, PhD**-Lab Medicine  
**John Shacka, PhD** -Forensic/Neuropath  
**Rakesh Patel, PhD** -Molecular & Cellular

## MESSAGE FROM THE FAC

We are beginning a new year and we are taking this opportunity to survey the faculty for ideas aiming to improve our academic and clinical activities. Realizing that there will be a change in the Chair, we would like to target issues which would be of the most value to the incoming Chair. Please contact your divisional representative with your ideas, suggestions, and concerns. We will compile them into a list which will be sent back to the faculty for prioritization.

## ACCOLADES



**Casey T. Weaver, MD**

The Board of Trustees of the University of Alabama has appointed Casey T. Weaver, M.D. as the first holder of the **Wyatt and Susan Haskell Endowed Professorship in Medical Excellence**. Congratulations to Casey.



**Dan R. Welch, PhD**

**Leonard H Robinson Professor of Pathology**

The School of Medicine has awarded Dr. Danny R. Welch the **2008 Dean's Award for Excellence in Mentorship**

## FACULTY PROFILE



**Michael J. Klein, MD**

**Professor of Pathology, Head of Surgical Pathology, Div. of Anatomic Pathology**

Dr. Michael J. Klein, head of the section of Surgical Pathology at UAB, will give the 2008 San Antonio Society of Pathologists annual seminar and the 2009 cancer seminar of the California Tumor Tissue Registry.

Dr. Klein came to UAB in 2003 after 16 years at the Mt. Sinai School of Medicine, and prior to that time was director of clinical laboratories at the Hospital for Joint Diseases Orthopaedic Institute in New York. He established an international reputation in the surgical pathology of bone and joint diseases and as a medical educator. He headed the musculoskeletal pathophysiology course at NYU for 25 years and at Mt. Sinai for 16 years and was voted best teacher at Mt. Sinai for 10 of his 16 years there. He delivered the Henry Jaffe memorial lecture in 2003 and the Founders' lecture of the International Skeletal Society in 2005.

Dr. Klein is co-author of more than 170 peer-reviewed articles. Although most of these are orthopedically related, his paper describing renal oncocytoma was the first in the medical literature to delineate this kidney tumor as a separate and benign clinicopathologic entity. He is presently authoring and editing the upcoming Atlas of Orthopedic Non-tumor pathology for the Armed Forces Institute of Pathology. This volume, unlike its counterpart in neoplastic diseases, will be more cross-disciplinary in terms of its approach to diseases of bones and joints. Dr. Klein hopes that it will help to increase the national presence of the Center for Metabolic Bone Disease from the clinical and pathologic standpoint.

## FACULTY PROFILE



**Zdenek Hel, Ph.D.**

**Assistant Professor of Pathology  
Div. of Molecular and Cellular Pathology**

Dr. Zdenek Hel received his Ph.D. in Experimental medicine in 1997 from the McGill University, Montreal, Canada. As a graduate student at McGill, he worked on the molecular mechanism of post-transcriptional control of cytokine production under the supervision of Dr. Danuta Radzioch. Dr. Hel then pursued his postdoctoral research training in the laboratory of Dr. Genoveffa Franchini in National Cancer Institute, NIH, Bethesda. During the period of his training in Dr. Franchini's laboratory, he focused on the development of new prophylactic HIV vaccines and their testing in the rhesus model. He was also involved in the testing of a new concept of therapeutic vaccination of infected individuals. In 2003, Dr. Hel joined Department of Pathology at the University of Alabama at Birmingham as an assistant professor. In 2003, Dr. Hel received the Howard Hughes Medical Institute Junior Faculty Award.

At UAB, Dr. Hel has focused on two research areas: immunotherapy of cancer and pathogenesis of HIV infection. His laboratory has recently demonstrated that immune control of tumor growth may be achieved via immunization with antigen-expressing activated B cells that are considerably easier to work with in clinical settings than the commonly used dendritic cells. In addition, new data from the laboratory demonstrated that immune response against the desired antigen can be "hardwired" into the genome of the patient via genetic modification of hematopoietic stem cells resulting in long-term proliferation of antigen-specific T cells. Finally, recent preliminary data from the lab suggest a specific block of production of IgA antibodies to new mucosal pathogens in HIV-1-infected individuals. It is likely that the perturbation of mucosal intestinal barrier in HIV-1-infected patients is associated with increased susceptibility to local opportunistic infections resulting in an absorption of toxins, bacterial products, and other environmental antigens to the systemic compartment. This leakage can be a major driving force behind the massive depletion of CD4+ T cells characteristic of HIV-1 infection.



## FROM THE CHIEF RESIDENTS



Carrie Knight, M.D.

### Anatomic Pathology



Meredith Lakey M.D.

### Clinical Pathology

We hope that everyone had a happy holiday season and a great beginning to the new year! Already, 2008 is off to a busy start for the residents and fellows. Many residents are assisting with teaching medical and dental student pathology courses as well as recruiting and interviewing candidates for the residency program. We are also preparing for UAB's upcoming mock CAP inspection and for our program's evaluation by the ACGME Residency Review Committee.

### USCAP Meeting 2008

Several of our residents and fellows have had abstracts accepted for presentation at the upcoming USCAP Meeting in Denver, Colorado, in March.

**Leona Council, MD**, will give a platform presentation entitled "Myofibroblasts vs. Smooth Muscle Cells and Muscularis Propria vs. Muscularis Mucosa: A Potential Role for Immunohistochemistry in Staging Bladder Carcinoma?" Her faculty mentor is Dr. Omar Hameed.

### Poster presentations will include:

**Zhaohai Yang, MD, PhD**: "Attenuated D2-40 Staining Pattern in Breast Myoepithelial Cells: A Potential Caveat in the Diagnosis of Lymphatic Invasion" with faculty mentors Dr. Omar Hameed and Dr. Amy Adams and "Prevalence of Elevated Hemoglobin A2 Measured by Capillary Electrophoresis" with faculty mentor Dr. Vishnu Reddy.

**Zhijie Yan, MD**: "Diagnostic Utility of Mammaglobin and GCDPF-15 in the Identification of Metastatic Breast Carcinoma in Fluid Specimens" with faculty mentors Dr. David Chhieng and Dr. Isam Eltoum.

**Holly Burford, MD**: "E-Cadherin, CD10 and Progesterone Receptor: An Immunohistochemical Trio To Distinguish Pancreatic Endocrine Neoplasm from Solid-Pseudopapillary Neoplasm of the Pancreas" with faculty mentors Dr. Nirag Jhala and Dr. Darshana Jhala.

**Nicole Balmer, MD**: "CK8/18 Expression Profiles and the Diagnostic Utility of a CK5/p63/CK8/18 Antibody Cocktail in the Evaluation of Papillary Lesions of the Breast" with faculty mentors Dr. Omar Hameed and Dr. Amy Adams

**Ranleigh Fleshman, MD**: "HoxB13 Expression Predicts Increased Disease-Free Survival in Colorectal Carcinoma" with faculty mentor Dr. Aleodor Andea.

**Shaoying Li, MD**: "Hydrops Fetalis: A Fifteen Year Review" with faculty mentors Dr. Ona Faye-Petersen and Dr. Stephanie Reilly.

**Shi Wei, MD, PhD**: "Is ER and/or PR Expression Specific Enough To Confirm the Diagnosis of Metastatic Carcinoma of Breast or Gynecological Origin?" with faculty mentors Dr. Omar Hameed and Dr. Nassar Said-Al-Naief.

**Marian Kraemer, MD**: "Surface SMAD4 Protein Expression in Hyperplastic Polyps of the Stomach" with faculty mentor Dr. Nirag Jhala.

**Carrie Knight, MD**: "Helicobacter pylori Infection in the Stomach: Is This an Invasive Organism?" with faculty mentor Dr. Nirag Jhala and "Bradycardia and Syncope as a Presentation of Cardiac Allograft Rejection Involving the Conducting System" with faculty mentor Dr. Silvio Litovsky.

### Upcoming Meetings

#### Academy of Clinical Laboratory Physicians and Scientists

The ACLPS 2008 Annual Meeting will be held in June in Philadelphia. The deadline for abstract submission is February 22.

#### College of American Pathologists

The CAP 2008 Annual Meeting will be held in September in San Diego. Abstract submissions will be accepted February 1 through March 28.

### RESIDENT SOCIAL



Xiaojun Wu, MD, PhD, Meredith Lakey, MD, Marian Kraemer, MD, Shuting Bai, MD, PhD, and Carrie Knight, MD, get caught on camera at our Resident Social at Rojo in November

### UPCOMING EVENTS:

**Thursday, May 22, 2008 6:00 PM**

Resident and Fellow Outgoing Reception and Award, Vestavia Hills Country Club

## ROBERT B. AND JEAN G. ADAMS FOUNDATION, INC.

### Adams Resident Research Fund

Several of the USCAP and other resident research projects this year have been facilitated by the Adams Resident Research Fund, which is supported by the **Robert B. and Jean G. Adams Foundation, Inc.**

Residents may apply for these funds by submitting a hypothesis with proposed study methods and budget, along with a statement of support from a faculty mentor.

Upon completion of the project, the awardee will submit a summary to include the findings of the research and acceptance of the work for presentation or publication.

The residents are very appreciative of this resource, and are pleased with its success in encouraging clinico-pathologic and translational research within our program.

Since its inception in 2006, recipients of the **Adams Resident Research Fund** have been:

#### Preeti Sharma

"Intramyocardial vascular amyloid deposition in patients with autopsy-proven cardiac amyloidosis"

#### Xiuli Liu

"Progesterone receptor and estrogen receptor expression in solid pseudopapillary neoplasm"

#### Regina Meara

"Diagnostic utility of five mesothelial markers in the identification of mesothelial cells in peritoneal and pelvic fluid specimens"

#### Jeremy Henderson

"Plasmacytic-type Posttransplant Lymphoproliferative Disorder presenting in bone marrow"

#### Shi Wei

"Comparison of the diagnostic efficacy of 2 antibodies as breast cancer markers in fluid specimens"

#### Carrie Knight

"*Helicobacter pylori* infiltration in gastric carcinoma"

#### Nick Hilliard & Dara Wakefield

"Study of the p16 expression as a surrogate marker for JPV infection in 50 tricholemmomas"

#### Meredith Lakey

"Definitive diagnosis of hematologic malignancies using fine needle aspirate (FNA) specimens"

#### Liz Hanson

"Gynecologic Lymphomas and expression of Smac"

#### Zhijie Yan

"Diagnostic utility of mammaglobulin and GCDPF the identification of metastatic breast carcinoma in fluid specimens"

## **PATHOLOGY GRADUATE PROGRAM**

**Scott W. Ballinger, PhD,  
Program Director**

The Molecular and Cellular Pathology Graduate Program is now accepting applications for Fall 2008. Please see the Graduate Program's website at <http://peir.path.uab.edu/pathgrad/> for more information.

Applications are also being accepted for the PREP program. For more information, please see the PREP Program's website [http://peir.path.uab.edu/pathgrad/article\\_88.shtml](http://peir.path.uab.edu/pathgrad/article_88.shtml)

**Mr. Ralph Patterson** is staff coordinator for the Pathology Graduate Program. He replaces Theresa Henson. Mr. Patterson can be reached at (205) 934-2445.

## **TEACHING**

Two new graduate level courses are being offered in Pathology: PAT 777 "Autopsy Experience" for Spring 2008 (Dr. Bruce Alexander, course director) and PAT 778/IBS 709 "New Perspectives in Cardiovascular Biology" for Summer 2008 (Dr. Scott Ballinger, course director).

## **ACHIEVEMENTS**

Congratulations to **Christopher Dodd** (mentor, Dr. Casey Weaver) who on December 14, 2007 successfully defended his thesis entitled "Toll-like Receptor Stimulation Can Lead to Differential Production of IL-23 and IL-12."

Congratulations to **Kun Yuan** (mentor, Dr. Gene Siegal) who successfully defended his thesis on December 20, 2007, entitled "Effects of Defucosylation on Human Breast Cancer Cells."

### **AWARDS:**

Congratulations to **Thomas Bodenstein** (mentor, Dr. Dan Welch) who was awarded 1st Place, the John R. Durant Award for Excellence in Cancer Research, for his poster presentation at the Comprehensive Cancer Center Annual Research Retreat (2007).

Congratulations to **Anne Diers**

(mentor, Dr. Aimee Landar) who received

- 1) UAB Graduate Student Association Travel Award (2007)
- 2) Cayman Chemical Travel Award (2007).

Congratulations to **Mick Edmonds** (mentor, Dr. Dan Welch) who won the Tamasa Rani Award for Excellence in Breast Cancer Research (2007).

Congratulations to **Joo-Yeun Oh**

(mentor, Dr. Victor Darley-USmar) who was given the Center for Free Radical Biology (CFRB) Travel Award to attend and present his research at the 15th Annual Gordon Research Conference in Ventura, CA (2008).

Congratulations to **Ashlee Preston**

(mentor, Dr. Victor Darley-USmar) who received

- 1) Cayman Chemical Travel Grant (2007)
- 2) Center for Free Radical Biology (CFRB) Travel Award to attend the Society for Free Radical Biology and Medicine (SFRBM) National Meeting (2007).

Congratulations to **Melissa Talbert**

(mentor, Dr. Joanne Murphy-Ullrich) who won the F30 Predoctoral Dental Scientist Training Fellowship Award from the National Institute of Dental and Craniofacial Research (NIDCR) (2007).

Congratulations to **Lauren Van Duyn**

(mentor, Dr. Joanne Murphy-Ullrich) for her 1st Place Poster Award for Pathology Medical Student Research Day.

Congratulations to **Dario Vitturi**

(mentor, Dr. Rakesh Patel) who received the Center for Free Radical Biology (CFRB) Travel Award to attend and present their research at the 15th Annual Gordon Research Conference in Ventura, CA. (2008).

Congratulations to **John Wang**

(mentor, Dr. John Mountz) who

- 1) Was recognized as a Semi-finalist for the Samuel B Barker award Excellence in Research by a Graduate Student (2007)
- 2) Received a Travel Award to the Arthritis Research Conference, Atlanta, GA (2007)
- 3) Was named Centocor Scholar in Rheumatology by the Southern Section of the American Federation for Medical Research (2008)
- 4) Received 3rd Place for the Southern Society for Clinical Investigation (SSCI) Young Investigator Award (2008).

## **UPCOMING EVENTS:**

**Joo-Yeun Oh** will present her Dissertation February 22, 2008. 2:00 PM.  
Bevil Building , Room 170

Saturday in May 2008 - Program Picnic and Awards Ceremony

## **ACCOLADES FOR THE PROGRAM**

The Chronicle of Higher Education pointed readers to new data just released from Academic Analytics. The UAB Pathology graduate program is ranked among the top 3 programs in the country for faculty scholarship and is included in a very prestigious cohort. The for-profit company, owned in part by the State University of New York at Stony Brook, recently compiled its third annual Faculty Scholarly Productivity Index — a ranking of graduate programs at research universities based on what purports to be the first objective measurement of per-capita scholarly accomplishment. The measurement this year considers the number of faculty in a given program; the number of books and journal articles they have written; the number of times other scholars have cited them; and the awards, honors, and grant dollars they have received. The net result is a measure of overall faculty productivity compared to other departments at other research institutions, and indicates how doctoral programs rank nationally. The UAB Pathology program ranked #3 nationally.

This is yet another example of the excellent work being done by our faculty and students within our program. Consequently, UAB Pathology continues to be one of the leading Pathology graduate programs in the nation, and the Molecular and Cellular Pathology graduate program continues to educate and train future scientists in translational research.

### **Top Ten Pathology Programs 2007**

1. U. of California at San Diego
2. Columbia University
3. **U. of Alabama at Birmingham**
4. U. of Michigan at Ann Arbor
5. Duke University
6. Johns Hopkins University
7. University of Washington
8. Case Western Reserve Univ.
9. University of Chicago
10. U. of Pittsburgh, main campus



# DEPARTMENT OF PATHOLOGY HOLIDAY PARTY PICTURES

## Residents and Fellows



Ryan Kraemer, and Marian Kraemer (PGY-1), Liz Hanson (PGY-1) and Richard Kerr.



Sharman Sanders, Darrell Sanders, (PGY-1), Emily Reisenbichler, (PGY-1) and John Scroggins



Emily Reisenbichler, John Scroggins, Marian and Ryan Kraemer, Ami Linder and Greg, Kathrina Alexander, David Leeson, Darrell and Sharman Sanders



Yabing Chen and Hui Wu with Sarah and Jay McDonald



Vishnu and Sarala Reddy, Upender Manne, Selvarangan Ponnazhagan and Nirag Jhala



Bill and Marty Simmons, Marsha Moore, and Karen Lewis



Row 1 – Kedar Vaidya  
Row 2 –Erin McCoy, Quinglan Liu, Li Wang, Ziaomong Guo  
Row 3 – Keith McCoy, Jason Ashley, Daniel Clements



Rob and Susan Hardy, Joanne Murphy-Ullrich and David Ullrich



Dennis and Nancy Kucik, Xu Cao, Li Ming Cao and Yabing Chen

**And a fun time was had by all.....**



UAB President Carol Garrison and Julian Banton

