

>> PATHOLOGY IN FOCUS

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Message from the Chair

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The Department of Pathology is in the midst of a major faculty recruiting effort. This activity has

resulted in the hiring of six newly appointed faculty members in the Anatomic Pathology, Neuropathology, and Molecular and Cellular Pathology Divisions. Several outstanding candidates have been interviewed for the Director's

position in the newly established Division of Informatics and for Section Head of Surgical Pathology and I look forward to these important leadership positions being filled in the near future. This academic year, we will also launch recruitment efforts for investigators with research interests in cancer, immunology and bone pathobiology. UAB is an exceptional place to work as evidenced by our recent ranking of fifth in the "Best Places to Work in Academia" Survey published by *The Scientist*

magazine and high rankings, third and eleventh, respectively, for student diversity and student happiness in Princeton Review's 2010 edition of "The Best 371 Colleges". As I complete my first year as chair, I am grateful for the opportunity to lead such an outstanding department and look forward to its future growth and development.

Best wishes, Kevin A. Roth, M.D., Ph.D.

Faculty Profile: Walter C. Bell, M.D.

Pathology In Focus
fditorial Committee
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C. Bruce Alexander, M.D.

Nirag C. Jhala, M.D. Rakesh Patel, Ph.D. Walter C. Bell, M.D. Marisa B. Marques, M.D. Majd Zayzafoon, M.D., Ph.D. Angie Schmeckebier Margaret Dotzler

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Dr. Walter
Bell joined
the UAB
Surgical
Pathology
faculty in
1999. He is
a native
Mississio-

pian and attended medical school at the University of Mississippi School of Medicine. He then came to UAB where he completed a combined residency in Anatomic and Clinical Pathology and a surgical pathology fellowship under the directorship of Dr. Cesar Moran. While in training, Dr. Bell developed an interest in Head and Neck pathology and as a fellow began to lead a weekly Head and Neck Pathology conference for the Otolaryngology faculty and residents. Soon after joining the UAB faculty, he was able to spend a short time at the AFIP in their division of ENT and endocrine pathology to obtain specialized training in this area of pathology. Dr. Bell signs out on the general surgical pathology service and has a continued interest in head and neck, thyroid, and parathyroid pathology.

Medical education has always been a priority for Dr. Bell. He has been awarded the Leonard H. Robinson teaching award in Anatomic Pathology three times and has been active in resident recruiting through continuous service on the Residency Selection Committee

beginning the year he joined the faculty. In 2005, Dr. Bell was appointed as Associate Residency Program Director for Anatomic Pathology. Aside from the residency program, Dr. Bell's greatest teaching commitment has been to the sophomore Dental and Optometry students. He served as course director for the combined Dental/Optometry Systemic Pathology Course from 2001 - 2009. He is also active in Medical Student recruitment, serving on the Medical School Admissions Interview Committee since 2005. On a national level. Dr. Bell serves on the American Society of Clinical Pathologists, Anatomic Pathology

Cont'd

Faculty Profile: Walter C. Bell, M.D. Cont'd.

CheckPath Committee which prepares the CheckPath cases for distribution nationally to practicing pathologists as a quality assurance and continuing medical education program.

Dr. Bell's research interests focus on development and progression of squamous cell carcinoma. He is involved in collaborative studies with Dr. Chandrika Piyathilake in the Department of Nutrition focusing on the role of DNA methlylation

in squamous carcinoma and dysplasia. He is also active in tissue resources for research, working closely with Dr. Bill Grizzle, director of the UAB Tissue Collection and Banking Facility. He recently led a round table discussion on the impact of warm ischemia on research tissue specimens at the annual International Society of Biologic Repositories meeting.

Dr. Bell's wife, Melissa, is upper school principal for Evangel Classical Christian School, a small private school in Alabaster which his three children, Charlie, Dru, and Bonnie attend. Time away from work is largely filled with transporting children to various school and sporting events and with the occasional highland bagpipe lesson. It only has nine notes, how hard can it be to learn to play?

Faculty Profile Cont'd: R. Pat Bucy, M.D., Ph.D.



Dr. Pat Bucy is a professor in our department and the Medical Director of the Flow Cytometry Lab. He is also a scientist for

the UAB AIDS Center, the Comprehensive Cancer Center, and the UAB Arthritis Center and has secondary appointments in Microbiology and Medicine. He came to UAB in 1987 after receiving his M.D./ Ph.D. degree from Washington University and completing residency training at Barnes and Jewish Hospitals. Dr. Bucy's research interests revolve around the regulation of immune responses by T cells, particularly the forms of regulation that develop in vivo in situations with chronic antioen presence such as HIV infection. Since 1983, he has received over \$10 million in grant support and has published nearly 100 manuscripts, as well as 8 books and

book chapters. His national recognition is exemplified by his work as an Ad Hoc member of the Immunological Sciences, the Anesthesiology, and the Immunobiology Study Sections of the NIH. He is also a guest reviewer for over a dozen journals, including the Journal of Immunology, the Journal of Clinical Immunology, the American Journal of Pathology, and Science.

Dr. Bucy also devotes much of his time to teaching students and residents. After many years of serving on the Medical Scientist Training Program (MD/PhD prooram) Committee, he was its Director from 2002-2006. He has also supervised many graduate students and post-doctoral fellows in his laboratory since 1990. In addition to teaching flow cytometry to our residents, Dr. Bucy became the primary faculty advisor to residents preparing for the Laboratory Medicine Seminar (a.k.a. "shark tank") in recent

years. His expertise in evidencebased medicine is valuable to all participants of the seminar whether they are the presenters or not. His renewed interest and involvement in resident training has been recently recognized by his nomination to be Associate Director of the Laboratory Medicine Residency Program effective July 20. We welcome Pat to this new role and hope to continue to work and learn from him

Pat is one of the longest serving members of the Department. He built a strong cellular immunology research laboratory focused on transplantation and later funding AIDS research. Currently, he is working collaboratively with his wife, Professor Judith Kapp. Pat is active clinically as Section Head of Flow Cytometry, providing medical leadersip to this activity within UAB Hospital Laboratories.

Accolades



Dr. Peter G. Anderson was

accepted as a Fullbright

Specialist.

Dr. Peter G. Anderson was accepted as a Fulbright Specialist. The Fulbright Specialists Program

promotes linkages between US academics and professionals and their counterparts at universities abroad. The program is designed to award grants to qualified US faculty and professionals, in select disciplines, to engage in shortterm collaborative 2-6 week projects at higher education institutions in over 100 countries worldwide. Fulbright Specialist's project activities focus on the strengthening and development needs of higher education institutions. As a Fulbright Specialist, Dr Anderson

will help universities in underserved/undeveloped areas develop medical/health sciences curricula.



Dr. Victor Darley-Usmar was awarded the University of Alabama at Birmingham Dean's Award for Excellence in Mentoring.



Dr. Pat Bucy is the new Laboratory Medicine Residency Associate Program Director, effective July 20,

2009. Dr. Bucy actively seeks to improve the scientific rigor of the Laboratory Medicine Seminars and has been actively involved in training our residents. Our thanks to Dr. Bucy for being willing to serve in this important training role.

Spotlight on Pathology Support: Veronica Greenough



Ms. Ronnie Greenough is currently an DAII in the Division of Anatomic Pathology. Her many

clude support of the Surgical Pathology Section Head, coordination of the Anatomic Pathology Fellowship and faculty clinical rotation schedule as well as assistance with the Orthopedic Tumor Board. To facilitate the ease in document

execution, she recently became a Notary Public for the department.

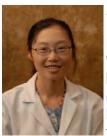
Ronnie grew up just outside New York City and moved to Alabama in 1980. When her voungest son started school full time she came to work at UAB, in Microbiology, the Streptococcal Research Lab at Children's Hospital, and finally in Anesthesiology. While she was working at UAB she was also a student, and when she graduated with a degree in Business Administration with an Accounting major, she decided to leave UAB for the world of accounting. After four

years she realized it was more exciting working in UAB's research and clinical environment and she came back to UAB in the Department of Pathology in September 7NNR.

Ronnie and her husband Joe have been married for 35 years and live quietly with two German Shepherds.

Where are they now?

From the Pathology Graduate Program



Dr. Wu returned to UAB as

Pathology Resident.

Xiaojun Wu, M.D., Ph.D. Dr. Xiaojun Wu obtained her Ph.D. degree in Pathology from UAB in

May, 2004, after obtaining her M.D. degree from Zhejiang Medical University in China in 1998. In the UAB Pathology Graduate Program, she was guided and instructed in Dr. McDonald's laboratory, where her research focused on the mechanisms of osteoporosis and other metabolic bone diseases and she became intrigued by the complex and not well-known cellular interaction in the bone marrow. In 2004-2005, Dr. Wu was a Post Doctoral Fellow at Emory Univer-

sity, working in the field of osteoimmunology. One of her projects received the Most Outstanding Abstract Award at the annual meeting of the American Society for Bone and Mineral Research (ASBMR) in 2005. In 2007, Dr. Wu returned to UAB as a Pathology Resident. She is the recipient of the Autopsy Abstract Award at the annual meeting of United States and Canadian Academy of Pathology in 2009. She currently has two projects that receive support from the Adams Resident Research Fund. She has published in journals such as Cell Metab. J Bio Chem. Crit Rev Eukarvot Gene Expr. J Bone Miner Res. AIDS Res Hum Retroviruses, Endocrinology, and J Cell Biol. When she finishes her residency training in 2011, Dr. Wu plans to start a Hematopathology Fellowship.



From the Pathology Residency Program Meredith Lakey, M.D. Dr. Meredith Lakey com-

pleted her residency training at UAB in June, 2008, after receiving her M.D. degree from LSUHSC-Shreveport in Shreveport, Louisiana, in 2002. With inspiration from Dr. Vishnu Reddy, she completed a Hematopathology Fellowship at the Mayo Clinic in Rochester, Minnesota. She is currently doing a Surgical Pathology Fellowship, as a junior faculty member, at Johns Hopkins Hospital in Baltimore, Maryland. After she completes this fellowship year, Dr. Lakey plans to seek permanent employment.

From the Chief Residents...

From the Chief Residents

As the academic year begins we'd like to take time to welcome our new residents and fellows who are settling in and have done a great job in transitioning to our program. Thanks to all the residents and faculty who have worked so hard in getting everyone up to speed.

Mark Steciuk and Amanda Crawe

Chief Residents, 2009-2010

Goodbyes and Congratulations

The 2009 Outgoing Reception was held on May 21st at the Vestavia Hills Country Club and was a great success. Although every year it is difficult to say goodbye to our departing residents and fellows we wish them well in their future plans.

Congratulations to Ami Linder who won the Kracke Award for Best Presentation in Anatomic Pathology, Mark Steciuk who won the Jay M. McDonald Award for Excellence in Laboratory Medicine, and Zhaohai Yang and Shi Wei who received the Roger Denio Baker Prize in

Anatomical Pathology. Congratulations and thank you to Dr. Aleador Andea who won the Leonard H. Robinson Award for Excellence in Resident Education in Anatomic Pathology and to Dr. Marisa Marques who won the Shu T. Huang Award for Excellence in Laboratory Medicine Education. Thanks to everyone for your hard work and dedication. A special thanks goes out to Karen Lewis for organizing the event, and to the 2008-2009 Chief Residents, Diane Peterson and Jeremy Henderson.

From the Chief Residents Cont'd....



Shi and Zhaohai receive the Baker Prize.



Dr. Andea receives his teaching award.



Mark wins the McDonald award.



It is bittersweet saying goodbye to our Associate Program Director

for Laboratory Medicine, **Dr. Marla Troughton**, who has accepted a position as the Associate Medical Director for BioLife Plasma Services, a branch of Baxter Healthcare. We thank her for her service and dedication to our program and its residents and wish her luck in her future endeavors.

Advocacy Training

At UAB we are proud to train not only excellent physicians but also excellent citizens and active members of the community. In these troubled economic times it is more important than ever that physicians make their voices heard in shaping the national debate on health care reform. Congratulations to the following residents who all took time to receive advocacy training and helped convey the interests of pathologists to our elected representatives.

Virginia Dailey, Elizabeth Kerr, and Marian Kraemer attended the CAP Advocacy School in Washington D.C. this past May. There they received training and experience in advocating for the interests of pathologists. Just recently they put their training to work, attending a town hall meeting in Birmingham with Representative Artur Davis, the Democratic representative to the U.S. House from Alabama's seventh district.

Amberly Nunez attended ASCP Capitol Hill Day in April in Washington D.C. There she received advocacy training and met with staffers from the offices of Senator Richard Shelby, the Republican senior senator from Alabama, Senator Jeff Sessions, the Republican junior senator from Alabama, and Representative Artur Davis, the Democratic representative to the U.S. House from Alabama's seventh district.

Publications and Presentations

Research is not a required part of our resident training program. Nevertheless a large percentage of our residents opt to do research on an ongoing basis in addition to their clinical responsibilities. In the past year UAB Pathology residents presented 27 abstracts at national meetings and produced 16 publications. Congratulations to all the residents for their hard work and thank you to the faculty for their help in fostering the academic interests of our residents and providing extensive opportunities and resources.

ACLPS Meeting 2009

Several of our residents presented abstracts at the annual meeting of the Academy of Clinical Laboratory Physicians and Scientists in June at Redondo Beach, California. Darrell Sanders presented "Acquired Hemophilia and Viral Disease: An Association with Prognostic Significance?" (mentor: Dr. Margues). Amberly Nunez presented "Diagnostic usefulness of EUS-FNAB and flow cytometry in the diagnosis of a deep-seated lymphoproliferative process." (mentor: Dr. D. Jhala). Emily Gorman presented "A Multidisciplinary Approach Leads To Proper Diagnosis And Treatment Of Cryoglobulinemia - A Case Report," (mentors: Dr. Huang and Dr. Marques).

From the Chief Residents cont'd...



Marian, Ginny, and Liz at CAP Advocacy School in Washington, D.C



Amberly with her poster at the ACLPS annual meeting.



Emily with her poster at the ACLPS annual meeting.



Darrell, Amberly, and Emily at ACLPS

From the Graduate Students:

Awards:

Angela Gullard: Received an American Association for Dental Research Student Research Fellowship for her research proposal "Altered Dentin Matrix Protein Expression in Hyperactivated TGFbeta-1 Mouse CED Model".

Erin McCoy: Voted the Outstanding Molecular and Cellular Pathology Graduate Student for Service. Erin was also awarded the Carmichael Scholarship in June 2009.

<u>Jessica Brenneman</u>: Received an American Heart Association Predoctoral Fellowship.

Lidong Zhai: Received a travel award from the Shock meeting for his abstract "the Separate Effects of TNF-alpha and Reactive Oxygen Species (ROS) on Acute Insulin Resistance Following Trauma and Hemorrhage" in June 2009.

Saman Khaled: Received a \$500 Scholars-in-Training (SIT) Travel Award to the Radiation Research Society Annual Meeting, to be held in Savannah, GA. A total of 145 SIT abstracts were submitted for consideration.

Saman also submitted an abstract to the Radiation Research Society entitled "Monocytic Adhesion to Human Aortic Endothelium Depends on Dose, Quality, and Time after Irradiation" which was accepted for both a poster presentation and a mini-symposium at the 55th Annual Meeting in Savannah, GA.

Dario Vitturi: Received a travel award at the 3rd Role of Nitrite in Physiology. Pathophysiology and Therapeutics Meeting for his abstract entitled "Sodium Nitrite Prevents Hypertension Associated with the Hemoglobin-based Blood Substitute HBOC-201".

Brian Dranka: Received the "Most Outstanding Graduate Student Award". This was awarded by the Graduate School.

Melissa Roden: received 3rd Place School of Dentistry Scholars Symposium—Advanced Basic Science Category.

Melissa was also a student participant in the 2008 ADA/Dentsply Student Clinician Research Program at the ADA Meeting in San Antonio, Texas.

Anne Diers: Received a travel grant to attend the AACR Annual Meeting in Denver from the Susan G. Komen for the Cure North Alabama Affiliate.

Scott Tanner: Received a travel grant for the International Congress of Mucosal Immunology Pre-Congress Workshop.

Shaoning Jiang: Received both a DRTC travel award and a GSA travel award.

Mahendra Mavalli: Thesis work was accepted for an oral presentation at The Endocrine Society's 91st annual meeting in Washington, DC for his abstract entitled "Disruption of Growth Hormone Receptor in Mouse Skeletal Muscle Induces Myofiber Type Switching, Reduces Muscle Strength and Increases Body Fat".

Blake Zelickson: Appointed to the Cardiovascular Pathophysiology T32 Training Grant.

Graduate Student Publications:

Hill BG, Reily C, Oh JH, Johnson MS, Landar A. Methods for the Determination and Quantification of the Reactive Thiol Proteome. Free Radic Biol Med 2009, [Epub ahead of print].

Rodriguez C, <u>Vitturi DA</u>, He J, Vandromme M, Brandon A, Hutchings A, Ruelii LW, Kerby JD, Patel RP. Sodium Nitrite Theraphy Attenuates Hypertensive Effects of HBOC -201 via Nitrite Reduction. *Biochem J* 2009 (Epub ahead of print)

Prime TA, Blaikie FH, Evans C, Nadtochiy SM, James AM, Dahm CC, <u>Vitturi DA</u>, Patel RP, Hiley CR, Abakumova I, Requejo R, Chouchani ET, Hurd TR, Garvey JF, Taylor CT, Brookes PS, Smith RA, Murphy MP. A Mitochondria-Targeted S-Nitrosothiol Modulates Respiration, Nitrosates Thiols, and Protects Against Ischemia-Reperfusion Injury. *PNAS* 2009; 106:10765-10769.

Vitturi DA, Teng X, Toledo JC, Matalon S, Lancaster JR Jr., Patel RP.
Regulation of Nitrite Transport in
Red Blood Cells by Hemoglobin
Oxygen Fractional Saturation. Am
J Physiol Heart Circ Physiol 2009;
296:H1398-1407.

Vitturi DA, Krzywanski DM, Postlethwait EM, Patel RP. Chapter 12 in *Redox Signaling and Regulation* in Biology and Medicine. Jacob C and Winyard PG (eds.), Wiley-VCH, 2009.

Pallero MA, <u>Roden MT</u>, Chen Y-F, Anderson PG, Lemons J, Brott BC, Murphy-Ullrich JE. Stainless Steel Ions Stimulate Increased Thrombospondin1-Dependent TGF-[beta] Activation by Vascular Smooth

Graduate Program Director:

Rakesh Patel, Ph.D.

Graduate Program Support:

Nicole Newton

934-2445

From the Graduate Students cont'd ...

Publications cont'd:

Muscle Cells: Implications for In-Stent Restenosis. Journal of Vascular Research, in press. Shen X, Wan C, Ramaswamy G, Mavalli M, Wang Y, Duvall CL, Deng LF, Guldberg RE, Eberhart A, Clemens TL, Gilbert SR. Prolyl Hydroxylase Inhibitors Increase Neoangiogenesis and Callus Formation Following Femur Fracture in Mice. J Orthop Res, 2009 (Epub ahead of print) Chuang GC, Yang Z, Westbrook DG, Pompilius M, Ballinger CA, White CR, Krzywanski DM, Postlethwait EM, Ballinger SW. Pulmonary Ozone Exposure Induces Vascular Dysfunction, Mitochondrial Damage and Atherogenesis. Am JPhysial Lung Cell Mal Physial 2009; (Epub ahead of print) Higdon AN, Dranka BP, Hill BG, Oh JY, Johnson MS, Landar A, Darley -Usmar VM. Methods for Imaging and Detecting Modification of Proteins by Reactive Lipid Species. Free Radic Biol Med 2009; 47:201-212.

General News:

The MCP Graduate Program held its annual summer picnic May 30, 2009 under the pavilion at Wald Park in Vestavia Hills. We enjoyed catering from Jim 'N Nicks, the annual student/faculty kickball game and the award presentation for 2008-2009 achievements.

Awards received:

Dr. Danny Welch - Voted Most Outstanding Faculty of the Year by the MCP Graduate Students in appreciation for leadership and dedication to graduate student

education.

Thomas Bodenstine - In appreciation for outstanding service as 2008-2009 Presiding Officer

Jason Ashley - In appreciation for outstanding service as 2008-2009 Vice Presiding Officer

Erin McCoy - Voted Most Outstanding MCP Graduate Student of the Year by the MCP graduate students for outstanding leadership and service.

Recognized Brian Dranka -Awarded the Most Outstanding Pathology Graduate Student by the Graduate School.

Thank you to all that came out and enjoyed the fun and we hope to see everyone there again next year!



Jason Ashley and Erin McCoy with



Good food and good fun were enjoyed by all!



Thomas Bodenstine receiving his award.



Dr. Welch receiving his award.





Pathology Grant Awards

The following grants were recently awarded to pathology faculty:

WILLIAM GRIZZLE

NIH/Harvard/Beth Israel Deacon-

Molecular Markers for Evaluating Prostate Biopsies

\$103,776 7/1/09-1/31/11

CASEY WEAVER

NIH

Control of Chromatin Landscapes in Effector Tcell Lineage Specifications

\$848,883 3/1/09-2/28/11

DANNY WELCH

UAB/CCC CPDG Program Epigenetics of BRMSI Suppression of Reeast Metastasis \$25,000 3/1/09-2/28/10

YABING CHEN

NIH

Molecular Signaling in Oxidative Stress-Induced Vascular Calcificatinn

\$1,846,399 4/1/09-3/31/14

JAY M. MCDONALD

UAB/CCC CPDG Program Novel Strategies for Sensitizing Tumor Cells to FAS-Mediated Apoptosis

\$25,000 4/1/09-3/31/10

JOANNE MURPHY-ULLRICH

HAR DRTC

Thrombospondin-I and Islet Graft Survival and Matrix Production \$47,417 4/1/09-3/31/10

SELVARANGAN PONNAZHAGAN

Gene-Engineered and Targeted Stem Cell Therapy for Myeloma 5/1/09-4/30/14 \$1,495,038

KEVIN A. ROTH

NIH

Multi-Modal Lysosomotropic Death Therapy for Malignant Peripheral Nerve Sheath Tumors

5/1/09-4/30/12 \$779,774

DANNY WELCH

NIH/Morehouse/Tuskegee Marehouse School of Med/ Tuskegee Univ/UAB CCC Partner-

\$56,652 *curr yr 5/1/09-4/30/12

VICTOR DARLEY-USMAR

Seahorse Bioscience Collaborative Agreement Between Victor Darley-Usmar (UAB) and Seahorse Bioscience \$63,141 6/1/09-5/31/10

ANDRA FROST

ΠΠΠ

Primary Cilia in Breast Cancer Progression

\$362,500 6/1/09-5/31/11

SCOTT BALLINGER

AHA

Mitochondrial Haplotype, Function and Damage Play a Role in Cardiovascular Disease Susceptibility 7/1/09-6/30/11 \$4.354

VICTOR DARLEY-USMAR

NIH/NHLBI

Predoc Training Program in Cardiovascular Pathophysiology \$1,001,460 7/1/09-6/30/14

JOANNE MURPHY-ULLRICH

Thrombospondini TGFbeta Activatinn and In Stent Resetenasis \$164.304 7/1/09-6/30/11

CASEY WEAVER

CCFA (Matthew Palmer) Mechanisms of Vitamin D-Mediated Protection Against IBD \$164.806 7/1/09-6/30/11

DANNY WELCH

II2 I\2.7A

Uncovering the Mechanisms of Osteosarcoma Metastasis Suppression by MTBP

7/1/09-6/30/13 \$51,792

RALPH SANDERSON

NIH

Heparanase Regulation of Myeloma Metastasis: Mechanism and Ther-

\$1,792,085 7/3/09-4/30/14

YABING CHEN

Molecular Signaling in Oxidative Stress-Induced Vascular Calcification

\$758,767 7/15/09-6/30/11

UPENDER MANNE

Predictive Molecular Markers of Colorectal Cancer

\$146,438 7/17/09-6/30/11

PATRICIA DEVILLIERS

UAB FDGP

Novel Target for the Treatment of Head and Neck Squamous Cell Carcinoma: The Sonic Hedgehog Pathway \$20,000 8/15/09-8/14/10 If anyone has any news items, accolades, etc. to be put in the quarterly newsletter, please send it to the Path In Focus email address at: pathinfocus@uab.edu.

Thank you.