Message from Chair:

By the time this newsletter is out, I will have completed my initial “100 days” as a proud member of the UAB Medicine community. Evidently, the mere thought of a mid-career transition is a soul searching experience that is froth with anxiety and trepidations. Now that I have irreversibly and full heartedly jumped into the commitment, I must say that the incredible team of pathology staff, faculty and administrators as well as the UAB system wide chairs and leaders made my transition seamless and most enjoyable. For that I sincerely thank each and every one of you for your most hospitable, genuine and welcoming support.

To my pathology team of employees, faculty and trainees: I promise to do my best to build upon the great successes of my predecessors and spare no efforts in supporting you to thrive and achieve your highest professional career goals.

I truly believe that, as a field, we are on the doorsteps of a golden era of pathology and lab medicine. I eagerly await working closely and interacting with all of you. I value your input, insights and feedback as we strive together to make our great department a world class leader in a most exciting discipline in healthcare.

Best,
George J. Netto, M.D.
UAB Pathology Twitter Handle Coming Soon to a mobile device near you

We are creating a twitter handle for our department to use as a “what is new” and an educational soundboard to the increasingly thriving pathology community (especially the millennials generation of pathology professionals).

We will assign a resident, fellow or postdoc to rotate through the function of handling postings to the account. All are welcome to feed the account with posts that you deem worthy of broadcasting to the outside world. Grants, publications, presentations at national meetings, awards, discoveries, scientific images, interesting cases (adhering to HIPAA compliance rules) and educational cases/quiz.

Toward the latter, our Chief Residents will be approaching faculty members and fellows to contribute a “UAB Pathology Case of the Week” to post representative images (a POLL format multiple choice Dx answers). Subsequently, a second tweet will follow, within a week, with the correct answer and answers survey performance. A link to our Department website Case of The Week tab will be also included; where a short paragraph and additional images on the case will be posted.

We appreciate your future contributions and engagement in this activity once it is launched.

UPDATE!! Pathology Twitter Account has been created—https://twitter.com/UABPathology

Where Are They Now?

Diane C. Peterson, MD, is Chief Medical Examiner, in the Jackson County Medical Examiner’s Office. Her favorite memory of her time as a Pathology resident is talking to the plasmapheresis and leukopheresis patients before and during procedures, especially the long-term patients whom she would see frequently. Obviously, talking to patients is not something she does anymore. Although she does get a chance to talk with families, which can be similar, it is just not the same.

After a Forensic fellowship at UAB, Dr. Peterson returned closer to home. She has been working at the Jackson County Medical Examiner’s Office in Kansas City, MO the entire 6 years that she has been out of fellowship. She started as a Deputy Medical Examiner. In September 2015, Dr. Peterson became Interim Chief ME after the retiring of the previous Chief. She then interviewed for and was appointed the Chief ME position in February of this year. This has expanded her workload, but more importantly it has expanded her contacts in the area. As Chief, she is also on the command staff of her local mass fatality group, Kansas City Regional Mortuary Operations Group. She is able to work with individuals from both Kansas and Missouri as part of these efforts. It has also expanded her visibility in the media. Her office previously did not have much of a presence in the public eye, other than that coming from other agencies. Dr. Peterson has represented their office on two different positive news pieces and will be a one-time guest on a local radio show. They have also published a few articles on the County website about activities/progress the office is involved in.

Dr. Peterson thoroughly enjoyed her time at UAB. She has even referred local pathology residents to look at UAB, one of whom will be an upcoming fellow at UAB. She enjoyed the camaraderie and team effort in the grossing room and autopsy suites. She tries to encourage the same in her office. They have a difficult job to do. “It is made easier when we work together and help each other”.

UPDATE!! Pathology Twitter Account has been created—https://twitter.com/UABPathology
Faculty Profile: Scott Ballinger, PhD

Scott W. Ballinger, PhD is a Professor in the Department of Pathology, Division of Molecular and Cellular Pathology. He currently serves as the director of the NHLBI funded pre-doctoral T32 program in Cardiovascular Pathophysiology, the director of the NIH funded Diabetes Research Center’s Bioanalytical Redox Biology core, is a regular member of the NIH SIEE study section, is on the editorial board of the Journal of Molecular Medicine, served as the past chair (2007 – 2012) for Vascular Wall Biology study section for the American Heart Association, and is currently on the Unified Peer Review Steering committee for the same organization. Scott has served on numerous NIH, AHA, VA, and DoD study sections including NIH RO1, T32, SEP, EIA, and mouse metabolic phenotyping applications. He has also served as a peer reviewer for the Mitochondrial Research Foundation, the James and Esther King Biomedical Research Program, and the Tobacco – Related Grants program for the state of California. He is also the vice-chair for the School of Medicine Faculty Council, serves as a member of the Department of Pathology promotion and tenure committee, is the course master for GBS 707 (Biochemistry), GBS 758 (New Perspectives in Cardiovascular Biology), and regularly lectures for several GBS courses. He has been supported by various NIH, AHA, and DoD grants for the past two decades, and to date has served as the mentor for 11 graduate students.

Scott was born in Los Alamos, New Mexico and raised in a small rural town (San Leanna, population 211) in central Texas. His father was the local town doctor, and his family raised beef cattle. Scott attended Texas A&M University, originally intending to major in “Range Sciences”, but soon discovered that he had a knack for genetics and biology. Consequently, after his first year at Texas A&M, he switched his major to Zoology. After receiving his bachelor’s degree, he entered into the Wildlife & Fisheries graduate program at Texas A&M under the encouragement of Dr. John Bickham, a biologist who specialized in evolutionary biology and systematics of turtle and bat species. For his master’s research project, Scott worked in west Texas studying deer genetics and population biology. For these studies, he used both protein allozyme and mitochondrial DNA analyses to determine the levels of genetic exchange occurring between two different species of deer. As he was completing this work, he met Dr. Douglas Wallace, a pioneer in mitochondrial genetics, and decided to pursue his PhD under his mentorship at Emory University. Scott’s dissertation studies were in both molecular anthropology and mitochondrial genetic disease. His work outlined the evolutionary relationship between mainland Asia populations and Native Americans, and was also the first to identify a connection between mitochondrial genetic mutations and diabetes. For his postdoctoral studies he moved to Vermont, working with Dr. Richard Albertini at the Vermont Cancer Center located at the University of Vermont in Burlington. There, he received the Alexander Hollaender Distinguished Fellowship from the Department of Energy, and his first research grant from the American Lung Association to study the effects of the environment upon mitochondrial damage and dysfunction. After spending three years in Vermont, he obtained his first faculty position at the University of Texas Medical Branch in Galveston, working with Drs. Marschall Runge, Ben van Houten, and Cam Patterson studying the impact of mitochondrial DNA damage on cardiovascular disease development. After 5 years in Texas he was recruited to UAB in 2002 to become an active member in MCP and the Center for Free Radical Biology. In 2015 he was inducted into the College of Science Academy of Distinguished Former Students at Texas A&M University for his work on the effects of the environment upon mitochondrial damage and disease development. His most recent area of interest is in mitochondrial – nuclear genetic interaction processes and their relevance to common disease (cardiovascular, cancer and obesity).

Outside of academics, Scott spends his time with his wife, Cyndi, refereeing and managing 4 children [Bryson, Elizabeth (aka Quinn), Celia, and Zach] ranging from 5 – 19 years old, a white West Highland terrier (Angus) and 2 cats (Chip and Marshmallow). Much of his time is dominated by activities related to the kids, or fixing things around the house.
FROM THE CHIEF RESIDENTS:
We are already half way through this academic year – time flies! We have had quite a productive quarter for publications, accolades and attendance at national meetings. Congratulations also to all our residents who have landed amazing fellowships this year! We continue to thank our faculty, residents, fellows, and staff for their dedication, hard work, and commitment to our department!

~ Ginger and Abha (Chief Residents 2016-2017)

CONGRATULATIONS ON FELLOWSHIPS
Joseph Drwiega: Surgical Pathology, UAB (2018-2019)
Alex Feldman: Pediatric Pathology, Nationwide Children’s Hospital Columbus, Ohio (2018-2019)
Zheng Ping: GI Pathology, University of Miami (2018-2019)
Scott Taylor: Surgical Pathology, UAB (2018-2019)
Elizabeth Staley: Transfusion Medicine, Washington University in St. Louis (2018-2019)
Briana Gibson: Hematopathology, University of Utah (2018-2019)
Tiangshen Shen: Breast Pathology, Northwestern University (2018-2019)

ACCOLADES
Alex Feldman was appointed affiliate member of the Constitution and By-laws Committee for the American Association of Neuropathologists, effective September 2016.
Tiansheng Shen received the John R. Durant Award for Excellence in Cancer Research-Postdoctoral Fellow Category-Third Place, for poster presentation entitled "The Prognostic Value of E-cadherin and β-catenin in Triple Negative Breast Cancer" with faculty mentors Dr. Shi Wei and Dr. Gene P. Siegal.
Abha Soni was appointed to serve as a liaison between the CAP Residents Forum Executive Committee (RFEC) and the AMA Resident and Fellow Section (AMA/RFS), a 2 year position effective November 2016.

POSTER PRESENTATIONS
Simmons S. “Active patient blood management by transfusion services reduces hospital blood use" with previous mentors Dr. Jill Adamski, Dr. Kinard, Dr. Lu, and the UAB Transfusion Medicine faculty, at the AABB Conference 2016.
From the Chief Residents Cont’d....

PUBLICATIONS


Shen T, Wei S, Siegal GP. Clinicopathologic factors associated with metastatic breast cancer at presentation.- Accepted for publication in Pathology-Research and Practice.


Research and Festivities!

Our wonderful residents at an early morning didactic.

Dr. Ullman, Dr. Soni and Dr. Graham (pictured left to right) proudly representing UAB at the annual ASDP 2016 meeting in Chicago.
From the Chief Residents Cont’d....

Dr. Duncan and Dr. Feldman with their posters at the annual ASCP 2016 meeting in Las Vegas, NV.

Dr. Baumgartner’s birthday dinner (left) and our residents and fellows at our annual Halloween Party (right).
From the Chief Residents Cont’d....

Resident “selfies” with our celebrity resident, Dr. Koenig, pictured on the North Pavilion elevator. Gabe Koenig was recognized by UAB Hospital as an exemplary resident representative for the Department of Pathology. We’re so proud!
Blood management at UAB – new successes
Prepared by: Marisa B. Marques, MD                                     August 5, 2016

Four years ago, the Joint Commission and the American Medical Association convened a National Summit on Overuse in Chicago, Illinois in September of 2012. The summit created five work groups with the charges to: 1. Validate the evidence and data on overuse of the intervention; 2. Review guidelines and quality measures; and 3. Identify or develop strategies for organizations and key stakeholders to reduce overuse. “Appropriate blood management” was one of the work groups, and Dr. Marisa B. Marques, UAB Hospital Transfusion Services’ Medical Director, represented the American Society for Clinical Pathology (ASCP) at the summit. Her invitation was not by accident. UAB had been working on blood management for 5 years, and had become a national model for improving the utilization of blood products, especially red blood cells (RBC). In 2007, UAB Hospital’s RBC utilization had reached a peak slightly over 40,000 units per year, or 0.88 units per patient discharged. In 2012, that number had plummeted 27% (0.64 units per discharge). Since then, despite being the only level I trauma center in Alabama, and having started an adult ECMO program in 2013, our monthly RBC utilization per discharge averages 0.54 units.

UAB’s successful decrease in RBC utilization came about because of a hospital-wide commitment to improving quality of care by avoiding the risk of transfusions. It has been known for more than a decade that “more is less in transfusion”. There are many published studies showing that “too many” RBC transfusions may be associated with harm in selected patients. For this reason, the currently accepted hemoglobin “trigger” for transfusion of non-bleeding patients has become 7 g per deciliter, which has been in the UAB guidelines since 2008. Recent efforts led by Dr. Loring Rue and the Quality Team to improve compliance with this recommendation have led to more impressive results. While the percentage of RBC orders for non-surgical patients with hemoglobin greater than 7 g per deciliter was 49% in March of 2015, it dropped to 33% in October (Figure 1). Considering the acuity of our patient population, this figure is quite remarkable. Once again, UAB can be considered a model institution, as our practice aligns with the recommendations of the national campaign Choosing Wisely of the American Board of Internal Medicine (ABIM). In response to the ABIM request to medical societies to “develop evidence-based lists of five tests/procedures that may be overused in their field”, five included RBC transfusions in their lists: AABB (the Transfusion Medicine society), American Society of Anesthesiologists (ASA), American Society of Hematology (ASH), Critical Care Societies Collaborative, and the Society of Hospital Medicine (SHM). In addition to remind their members about the proper hemoglobin trigger, AABB and ASH also recommend “Don’t transfuse more units of blood than absolutely necessary” or “Don’t transfuse more than the minimum number of red blood cell (RBC) units necessary to relieve symptoms of anemia or to return a patient to a safe hemoglobin range (7 to 8 g/dL in stable, non-cardiac in-patients), respectively. In line with these statements, UAB has also seen a steady increase in the number of orders for one unit of RBC in the last 16 months, from 61% to 80% (Figure 2)! This improvement in ordering practices has translated into a significant decrease in the number of RBC units prepared in the Transfusion Services “in case the patient needs” and not transfused to that intended recipient. While such units are not lost because they stay in the laboratory, they consume highly skilled medical technologists’ time in order to tag them for a patient and, subsequently, release them again into the general inventory. The impact of this change can be seen by the fact that in March of 2015, 2318 units were prepared and not used, while in October,1805 “extra” units were ordered, a decrease. If we estimate that each ordered but not transfused unit consumes 10 minutes of a technologist’s time, a decrease of units in this time-period represents savings of 102 hours a month! Thus, proper blood ordering and utilization as UAB has strived to accomplish have significant implications for the health system, from more efficient personnel management to improved quality of patient care.

Figure 1:

![Percent of orders with Hgb > 7 g/dL](chart1)

Figure 2:

![Percent of orders for 1 RBC unit](chart2)
Laboratory Medicine Participates in a Phase 3 Clinical Trial on Therapeutic Efficacy of Caplacizumab in Treatment of Acquired Autoimmune Thrombotic Thrombocytopenic Purpura

Huy P. Pham, M.D., M.P.H., Lance A. Williams, M.D., and X. Long Zheng, M.D., Ph.D.

Thrombotic thrombocytopenic purpura (TTP) is a rare, but deadly disease that, once diagnosed, can affect patients for their entire lives. In a normal individual, when endothelial injury occurs, von Willebrand factor (VWF) is released from the endothelial cells to assist with platelet adhesion to the site of injury. To prevent the chains of VWF and platelets from becoming too large, a proteolytic enzyme called ADAMTS13 cleaves the VWF multimer at specific cleavage sites. If this did not occur, ultra large von Willebrand factor (ULVWF) multimers would form and be susceptible to being forced off the site of injury as platelet-rich thrombi, potentially clotting small vessels all over the body. Currently, TTP is thought to be partly caused by either a congenital or acquired deficiency of ADAMTS13, leading to deposition of platelet rich thrombi all over the body. The consequences of such thrombi can be strokes, seizures, myocardial infarctions, etc. The congenital form is due to an inherited deficiency of the enzyme, while the acquired form is secondary to an autoantibody/inhibitor to the enzyme.

The current standard of care treatment for acquired TTP is daily therapeutic plasma exchange (TPE) plus adjunctive immunosuppressive therapies. TPE is thought to replenish ADAMTS13 and remove autoantibodies that block ADAMTS13 function. However, even with prompt TPE and immunosuppressive treatment, the mortality in TTP patients remains as high as 20%. Thus, novel treatment modalities should be further investigated. One such approach is the use of caplacizumab, which is an anti–VWF humanized single-variable-domain immunoglobulin (Ablynx, Belgium) targeting the A1 domain of VWF and preventing its interaction with platelets. In recent published results of the phase 2 randomized, controlled clinical trial (Peyvandi et al. N Engl J Med. 2016; 374: 511-522), the time to platelet normalization is significantly reduced (39%) with caplacizumab as compared with placebo (P=0.005) but at the cost of an increased tendency of bleeding.

Given the promising result in phase 2 trial, a phase 3 multi-centered, randomized, double blind, placebo controlled study is undergoing with the goal to recruit 132 subjects with the clinical diagnosis of TTP. The subjects will be randomized in a ratio of 1:1 to either receive caplacizumab or placebo in addition to the standard of care. The primary endpoint of the study is the number of days required for the subjects to normalize their platelet counts. Several secondary endpoints are TTP-related mortality, TTP recurrence, and major thromboembolic and/or bleeding events. The study is currently enrolling at many sites throughout the world – with the Division of Laboratory Medicine, the University of Alabama at Birmingham (UAB) being one of the participating sites. In collaboration with hematologists Drs. Paschal and de Idiaquez, the faculty in Transfusion Medicine and Apheresis will be responsible for recruiting patients for this clinical trial. Approximately 2 patients at UAB to be enrolled in this trial due to constrains. If successful, caplacizumab may represent the first pharmacotherapy that targets at the pathogenesis of TTP specifically.
Success in Anniston Blood Management Program — a Result of Leadership and Teamwork
Lance A. Williams, M.D. and X. Long Zheng, M.D., Ph.D.

Blood management programs are focused on encouraging the use of less blood products in patients that are stable and non-bleeding. These programs are the result of many studies over the past 15 years that report relative equivalence in outcomes between patients that are transfused aggressively versus those that are transfused conservatively. Blood management programs are now prevalent in university hospitals across the world, but are less common in community hospitals because in such settings there is often no transfusion medicine specialist available to lead the effort. UAB is the exception to this case with our Community Pathology Practice Program (CPPP). This program not only extends our reach in Anatomic Pathology to facilities in Montgomery and Anniston, but it also provides these hospitals access to all specialties within Clinical Pathology, which gives them unparalleled access to our Pathology experts.

After we assumed the Pathology responsibilities in Anniston / Regional Medical Center (RMC) (February 2015), we knew that there was an opportunity to improve the blood usage; however, our experience told us that such changes would not be easy, since such changes require a change of perception and practice among physicians and nurse practitioners. Prior to our arrival, RMC was transfusing 524 units per month, equating to 0.24 units per patient discharge. Knowing the difficulties in changing practice, we set a goal of reducing usage by 10% in our first year.

After gathering baseline data from Mr. Kuruvilla George, UAB’s CPPP liaison, our team started out by revising the current transfusion guidelines to be more evidence-based, and to encourage physicians to transfuse one unit of blood at a time rather than two. We then disseminated the guidelines via laminated cards and by presenting our initiative at committee meetings. Next, we created a process of auditing usage on a monthly, daily, and on-the-spot basis. This required the diligence of our Blood Bank staff (Chad, Becky, Allison, Candice, Kris, Melissa, Holly, Stephen, Teresa, Komlan, Gordon, Holly T., Jacinta, Janice, and Anna) and often involved consulting a Transfusion Medicine (TM) physician (Drs. Marisa Marques, Huy Pham, Robin Lorenz, Lance Williams, and Long Zheng) late at night to speak with the ordering physician about the necessity of transfusion. For significant outliers, official letters were created to inform them of their over-usage patterns. Though this effort required many hours of tedious work, we thought the payoff would be worth it and we were right (Fig 1).

![Fig 1. Total RBC Usage at RMC between April 2015 and October 2016](image)

Thanks to the efforts of our team, total blood usage at RMC has dropped dramatically. RMC has gone from transfusing 524 units per month before UAB’s arrival to just 245 and 297 units in September and October 2016, respectively. This is a decrease of nearly 50%. Though we only initially planned on decreasing usage by 10%, the efforts of our team, and the support from medical leadership (Dr. David Zinn), hospital administration (Mr. Joe Weaver), and laboratory leadership (Arlon Sheffield, Gala Bynum, and Becky Wilson) allowed us to achieve significant results in a relatively short period of time. More importantly, the results have been sustainable.

We learned many lessons in this endeavor, which we hope to use in other programs as the CPPP reaches out to other hospitals in the State of Alabama. First, medical and administrative leadership must be on-board and support the program in order for it to succeed. Secondly, physician and nurse practitioners must be educated sufficiently so that a “new normal” is created in their practice. And lastly, such a program cannot be successful without dedicated and skilled technologists to recognize overuse and communicate it to the Pathologist. We are lucky to have such an excellent team at RMC, which ultimately lead to our success.
Clinical pathology informatics research at UAB is taking a new step into the worlds of Big Data analysis and of quality improvement with Dr. Allen Bryan’s new project, “INFECTALYTICS”. This project aims to analyze and visualize the connections between results and quality metrics inside the clinical laboratories and the corresponding clinical treatments and outcomes out on the hospital and clinic floors. With every passing year, the importance of laboratory-generated quality metrics to insurance company negotiations, Medicare payments, and published hospital rankings continues to increase. Despite this rising emphasis, quality assurance on the wards and in the labs has traditionally been trapped in silos, limiting the possible ways and means to intervene. By taking advantage of UAB’s integrated laboratory and hospital databases, Dr. Bryan hopes in the next three years to measurably impact not only the microbiology lab’s internal quality metrics, but also the clinical outcomes of wards throughout the hospital.

Dr. Bryan and the INFECTALYTICS team will be building on the Cerner system’s ability to collate an electronic medical data warehouse (MDW) from the live electronic health record (EHR). A HIPAA-compliant limited data set filtered of patient identifiers will be probed for such details as culture results, susceptibility profiles, contamination rates, prescription patterns, readmission and follow-up results, and clinical outcomes. They will be applying probabilistic statistical models from graph-network theory, analogous to those mathematical models used to describe online social networks, predict the course of epidemics, and analyze complex interactions in cell biology and immunology. Important to this project is the ability to readily visualize the connections discovered by this process, leveraging the recent development of open-source software for creating images that readily present the huge data sets of the modern digital age.

Extending beyond the department’s more common funding sources, the INFECTALYTICS project is powered by a U47 cooperative agreement with the Centers for Disease Control and Prevention (CDC), who are collaborating every few weeks with teams at UAB. While centered at the Division of Laboratory Medicine, the diverse set of skills involved has required cross-collaboration to be built across the UAB Campus. In addition to our own Laboratory Medicine technical staff and valiant programmers in Pathology Informatics, the team includes UAB Hospital’s Infection Prevention faculty, an epidemiologist from the School of Public Health, and staff at the UAB Informatics Institute and Center for Clinical and Translational Science (CCTS).

With connections stretching throughout the university and on to the national quality improvement initiatives of the CDC, INFECTALYTICS hopes to showcase the relevance of pathology, laboratory medicine, and informatics to quality improvement – here at UAB, and eventually across the country.
Joyce I. Wilson obtained a BS degree in Microbiology, then completed a one-year internship at UAB, and stayed with UAB for 46 years during her career holding various leadership positions. Joyce first began employment in the Stat Lab stationed in the Kracke building performing 20 patient specimens a day! Later as the Technical Supervisor, Joyce moved to the new Spain Wallace building built in 1979. Joyce later graduated to Quality where she reigned as the leader over Quality for Hospital Labs and assisted Pathology for over half of her career. Joyce is viewed as the Quality expert by other disciplines within the UAB Medicine healthcare system as well. Within the last year of Joyce’s career, she agreed to lead the Cell Therapy Lab for UAB Medicine. The opportunity was enjoyable since Joyce was able to learn about another area, and she developed additional relationships with great leaders and people in the field of cell therapy. Joyce shared the following when she reached the 46-year mark prior to her retirement party, “Never stop learning, no matter what stage of life you are engaged.” Joyce has left a legacy and we treasure the difference she has made in addition to the relationships she has established.

We wish Joyce the best for her next stage of extended travel, continued learning, and time spent with friends and family.

Thank you, Joyce!

With our Love,

Sherry Polhill and all of the UAB Medicine Hospital Lab teams
Accolades

“Dr. Vishnu Reddy and Dr. Silvio Litovsky win Medical Student Argus Teaching Awards”

Several Pathology teaching faculty were recently honored at the 2016 Argus Awards Ceremony. Silvio Litovsky, M.D. won the award for best educator in the cardiovascular module and Vishnu Reddy, M.D. received the award for best educator in the Hematology/Oncology module. The Argus Awards recognize UAB School of Medicine teaching faculty and give medical students the opportunity to honor their mentors, professors, courses and course directors for outstanding service to medical education. Faculty are nominated through course evaluations and the students vote to select award winners in each category.

Other Pathology teaching faculty who were also singled out for their excellent teaching abilities were Jennifer Gordetsky, M.D. nominated as best educator in the Reproductive system module and Lawrence Williams, M.D. nominated as best educator in the Hematology/Oncology module.

In addition, several modules directed by pathology teaching faculty were also recognized and nominated for Argus awards. These include:

- Best MS1 Introductory Module - Fundamentals of Medicine: Block 4 director Dr. Peter Anderson and Block 5 director Dr. Ken Waites.
- Best MS1 Organ Module - Cardiovascular directed by Dr. Silvio Litovsky and Pulmonary directed by Dr. C. Bruce Alexander.
- Best MS2 Organ Module - Hematology/Oncology directed by Drs. Vishnu Reddy and Deniz Peker and the Reproductive Systems module directed by Dr. Jennifer Gordetsky

Pathology faculty well-represented at international metastasis meeting

Members of the MCP division recently made noteworthy contributions to the mission of the Metastasis Research Society (MRS), an international society dedicated to advancing research on processes fundamental to cancer metastasis and facilitating exchange of information between researchers, clinicians, industry, and patients. Drs. Douglas Hurst and Rajeev Samant serve as members of the Board of Directors of MRS since 2014. Dr. Lalita Shevde-Samant initiated and chaired the Early Career Ambassadors of the MRS (ECAM) and The Early Career Leadership Council (ECLC) of the society. Each served on the organizing committee for the 16th Biennial Congress of the Metastasis Research Society held in collaboration with the 12th National Congress of the Chinese Society of Tumor Metastasis in Chengdu, China, from September 16-20, 2016. Dr. Shevde-Samant also organized the ECAM Satellite Symposium held in conjunction with the main meeting. The scientific program was designed to provide an opportunity for international participants to exchange the latest information, ideas, and practices on cancer metastasis and to encourage discussions on issues important for metastasis research. The program (http://www.2016mrsmeeting.org/static/resources/upload/ueditor/file/20160330/1459318005996015347.pdf) comprised 11 cutting-edge topics in metastasis research. Presentations and discussions on “Heterogeneity and metastatic evolution” were chaired by Dr. Hurst and the session titled “Advanced imaging in metastasis research and treatment” was chaired by Dr. Samant. Dr. Shevde-Samant introduced the special session for the ECAM invited speaker. Board members, organizing committee, and invited speakers were also invited guests for the opening ceremony to celebrate the generous government support from the Congress of the Chinese Sichuan province that received media publicity http://english.cctv.com/2016/09/18/VIDEEF7baMCT4wc9uE0tWIWu160918.shtml.

UAB Pathology faculty member Dr. Douglas Hurst chairing the session “Heterogeneity and metastatic evolution”.

Photo by Jianzhong ‘Jake’ Liu.

UAB Pathology faculty member Dr. Lalita Shevde-Samant chairing the ECAM Satellite Symposium.

Photo by Jianzhong ‘Jake’ Liu.
Accolades Cont’d....

Yabing Chen -
Selected as one of the top ten reviewers for the AHA journal of Arteriosclerosis Thrombosis and Vascular Biology (ATVB) in 2016. This is an award that ATVB recognizes the top 10 performing reviewers that have made extraordinary contributions to the journal in providing many high quality reviews in a timely manner.

Doug Hurst -
Monica Lewis successfully defended her doctoral dissertation and graduated August 13, 2016. She accepted a position as a postdoc in the UAB MERIT program (Mentored Experiences in Research, Instruction, and Teaching) under the direction of Dr. Nabiha Yusuf in the Department of Dermatology.

Rakesh Patel -
Recipient of the Society for Redox Biology and Medicine (SfRBM) Mentoring Excellence Award for 2016.

Rajeev Samant -
Served as a Review Panel Member (October 2016) for National Cancer Institute: Cancer Tissue Engineering Collaborative: Enabling Biomimetic Tissue-Engineered Technologies for Cancer Research (U01)
Hawley Pruitt (Cancer Biology), a graduate student from Dr. Rajeev Samant’s group received “The John R. Durant Award for Excellence in Cancer Research” and 1st place for the presentation of her work in the UAB-CCC annual retreat.

Yang Yang -
Timothy N Trotter, Graduate Student, received an ASH Abstract Achievement Award from American Society of Hematology (ASH) for his highly ranked ASH annual meeting abstract entitled “Osteocyte apoptosis attracts myeloma cells to bone and supports progression through regulation of the bone marrow microenvironment”. He also received a Pathology Travel Award to attend 58th ASH Annual Meeting and Exposition held in San Diego, CA, December 3-6, 2016.
Gowda Sreerama Pramod, Postdoctoral Fellow, won first place in the 2016 Birmingham Magic City Tennis Tournament. Pramod is on the left.)
Accolades Cont’d....

Clinical Science Trumpet
Newsletter of the Association of Clinical Scientists
Lori Millner, PhD, NRCC, FACS, Editor
Vol 36, No 3—September 2016

ACS Annual Meeting: Birmingham, Alabama
May 17-20, 2017
Grand Bohemian Hotel, Birmingham, Alabama

The 137th Meeting of the Association of Clinical Scientists will be held in Birmingham, Alabama, on May 17th through 20th, 2017. It is being hosted by the Department of Pathology, University of Alabama at Birmingham, School of Medicine. The meeting theme will be Disruptive Innovations in Healthcare. The Program Co-Chairs are, Drs. Gene Siegel and Robert Hardy, cordially invite you to plan to attend another outstanding Association meeting.

The Claude P. Brown Memorial Lecture will be presented by X. Long Zheng, M.D., Ph.D., Robert B. Adams Endowed Professor and Director of Division of Laboratory Medicine, Department of Pathology, University of Alabama at Birmingham with a talk entitled New Treatments for Thrombotic Thrombocytopenic Purpura.

FRIDAY RECEPTION AND BANQUET
The Association’s annual reception and banquet will be held on Friday evening and will include a presentation of the Association’s annual awards. The banquet speaker will be James B. McClintock, PhD, Endowed University Professor of Polar and Marine Biology at the University of Alabama at Birmingham. He will present From Penguins to Plankton—The Dramatic Impacts of Climate Change on the Antarctic Peninsula.

continued on page 2
Pathology Publications and Invited Talks:

Doug Hurst


Raj Soorappan

Invited as a Co-Chair/Speaker for Phytocongress – 2016 at the Sastra University, Tanjavure, Tamil Nadu, India-613401 on July 20, 2016. Title: Reductive Stress Cardiomyopathy and Phytochemical Based Treatment.

Invited presentation at Department of Environmental Biotechnology, Bharathidasan University, Trichy-620 024, Tamil Nadu, India on July 22, 2016. Title: Redox Biology of Cardiomyopathy and Potential Therapy.

Redox Biology (June-2016) A biphasic effect of TNF-\(\alpha\) in regulation of the Keap1/Nrf2 pathway in cardiomyocytes.


J Heart Lung Transplant. (July 2016) as a co-first/co-corresponding author with his Biomedical Engineering collaborators (Dr. Sethu Palaniappan) in the Department of medicine, UAB: Evaluation of the effect of diminished pulsatility as seen in continuous flow ventricular assist devices on arterial endothelial cell phenotype and function.


J Thorac Cardiovasc Surg (Oct 2016) as co-author with his clinical team (Dr. Louis Dell’Italia) in CCVC, UAB: Disruption of desmin-mitochondrial architecture in patients with regurgitant mitral valves and preserved ventricular function.


Am J Pathol (July 2016) – Nuclear Factor-Erythroid-2-Related Factor 2 in Aging and Lung Fibrosis (Dr. Victor Thannickal).


Free Radic Biol Med. (July 2016) – Redox biology and the interface between bioenergetics, autophagy and circadian control of metabolism (Drs. Chatham, Darley-Usmar, Young, Zhang and Wende).

Soory Varambally’s group had multiple papers published:


Adam Wende -

Invited speaker for the Diabetic Complications Session at the 2016 International Conference on Diabetes and Metabolism in Seoul, Korea
# Pathology Grants Awarded...

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution/Company</th>
<th>Project Title</th>
<th>Amount</th>
<th>Start Date—End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allen Bryan</td>
<td>CDC</td>
<td>“INFECTIONALYTICS H.A.I. Prevention and Hospital Q.I. Via Correlative Visualization Analysis”</td>
<td>$1,028,322</td>
<td>09/01/16—08/31/19</td>
</tr>
<tr>
<td>Victor Darley-Usmar</td>
<td>Leidos</td>
<td>“Development of FX11, A Lactate Dehydrogenase A (LDHA) Inhibitor”</td>
<td>$454,636</td>
<td>08/01/16—07/31/17</td>
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<tr>
<td>Zdenek Hel</td>
<td>NIH</td>
<td>“Neutrophil Dysregulation as a Driving Mechanism of Cardiovascular Disease in HIV-1-Infection”</td>
<td>$2,275,622</td>
<td>09/01/16—05/31/20</td>
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<tr>
<td>Upender Manne</td>
<td>NIH</td>
<td>“Administrative Supplement (US4) to Support Development of PDX at UAB CCC”</td>
<td>$167,123</td>
<td>09/01/16—08/31/17</td>
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<tr>
<td>NIH</td>
<td>“Morehouse School of Medicine / Tuskegee University / University of Alabama Cancer Center Partnership”</td>
<td>$162,279</td>
<td>09/01/16—08/31/17</td>
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<tr>
<td>NIH</td>
<td>“Morehouse School of Medicine / Tuskegee University / University of Alabama Cancer Center Partnership”</td>
<td>$6,025,062</td>
<td>09/01/16—08/31/21</td>
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<tr>
<td>Joseph Messina</td>
<td>VA—IPA</td>
<td>“Trauma and Hemorrhage-Induced Skeletal Muscle Insulin Resistance “</td>
<td>$129,312</td>
<td>07/21/16—07/20/18</td>
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<tr>
<td>Joanna Murphy-Ullrich</td>
<td>NIH</td>
<td>“2016 American Society for Matrix Biology Biennial Meeting, The ECM Microenvironment, a Regulatory Force in Aging and Disease”</td>
<td>$36,051</td>
<td>09/15/16—08/31/17</td>
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<tr>
<td>Rakesh Patel</td>
<td>NIH/New Health Science Inc.</td>
<td>“Regulatory Approval &amp; Commercialization of an RBC Processing and Storage System to Improve Transfusion Therapy”</td>
<td>$72,046</td>
<td>08/01/16—03/31/17</td>
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<tr>
<td>Huy Pham</td>
<td>Ablynx NV</td>
<td>“ALX0681-C301: Phase III Double-Blind, randomized Parallel Group, Multi Center Placebo Controlled Trial”</td>
<td>$103,342</td>
<td>10/04/16—10/03/20</td>
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<tr>
<td>Ralph Sanderson</td>
<td>Leukemia &amp; Lymphoma Society</td>
<td>“Optimizing Small Molecule Inhibitors of Heperanase for Myeloma Therapy”</td>
<td>$600,000</td>
<td>10/01/16—09/30/19</td>
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<tr>
<td></td>
<td>U.S.-Israel Binational Science Foundation</td>
<td>“Heparanase regulation of tumor progression via exosomes and autophagosomes”</td>
<td>$90,000</td>
<td>10/01/16—09/30/20</td>
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<tr>
<td>Adam Wende</td>
<td>UAB/CHAAMPS</td>
<td>“Regulation of Cardiac Gene Expression in African American Men in Heart Failure”</td>
<td>$100,000</td>
<td>07/01/16—06/30/17</td>
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<td>NIH</td>
<td>“Glucose-Mediated Remodeling of Cardiac DNA Methylation”</td>
<td>$367,500</td>
<td>09/01/16—08/31/17</td>
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</tr>
</tbody>
</table>
Dear UAB Department of Pathology Friends and Colleagues:

The UAB Department of Pathology is recognized nationally for excellence in biomedical research, undergraduate and graduate medical education, and diagnostic pathology. This rise to prominence has been accomplished through the hard work and dedication of numerous Department of Pathology faculty and trainees who have made UAB a phenomenal environment for pathology education and clinical practice. Several decades ago, the former Departments of Anatomic Pathology and Clinical Pathology of the University of Alabama School of Medicine merged into a single Department of Pathology of the UAB Health System. More than 250 residents have received their graduate training in Pathology at UAB and have gone on to populate the state, region and the nation. In fact, the vast majority of Pathologists in the state of Alabama have received some or all of their training here at UAB. This program of excellence in graduate medical education has been appropriately balanced by a world-class graduate program that has similarly trained generations of scientists who fill academia, industry and government service. Our department has been bolstered in recent years by an ever increasing number of post-doctoral fellows, clinical fellows and junior faculty members who have achieved academic, research, and/or clinical excellence, and ascended to leadership positions at UAB or other institutions.

Please consider making a gift to the Department of Pathology at UAB to support our missions of clinical practice, teaching, research and service. Any amount would be most gratefully received and would be fully deductible*. One could direct it to a particular area of need, to fund current and future endowed professorships or create new awards, prizes or similar recognition opportunities to honor yourself, a family member, a favorite professor, etc.

We would be pleased to assist you and your professional advisors in including the UAB Department of Pathology in your estate plan or in exploring other giving strategies. A simple tear off sheet is found below.

* One should always check with their tax advisor.

Thank you for your serious consideration of this request.

________________________________________________________

Please fill out each of the 3 Sections:

A1—Enclosed, please find my contribution to the UAB Department of Pathology in the amount of:

___ $50
___ $100
___ $500
___ $1000
___ Other: _____________________

Please make all checks payable to the UAB Department of Pathology and return them to Ms. Lynne Roden, Departmental Administrator, 500 22nd Street South; Suite JNWB 404, Birmingham, AL 35294-0500.

Cont’d...
A2—Please contact me to discuss further:

Name: _________________________________________
Address: _______________________________________
Telephone Number: ______________________________
E-mail Address: _________________________________
*Please indicate your preferred means of communication.

B—I wish to direct this gift to the Department towards:

___ Where the need is the greatest
___ Teaching
___ Research
___ Named Chairs or Professorships
___ Awards for teaching/research/clinical excellence
___ Naming opportunities (Rooms, collections, equipment, etc.)

C—Person(s) and complete address to be acknowledged for tax purposes:
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Do you want this gift to be anonymous? Yes ___  No ___

Do you want to honor a particular person or event?
Specifics: _______________________________________________________

D—if you prefer to donate via credit card, please call the UAB Development office at (205) 975-5659.