UVA Path Report

News from the UVA Department of Pathology

VOLUME 3 | NOVEMBER 2017

A Message from the Chairman

Perhaps because pathologists predominantly work in labs and behind microscopes and don't often interact with patients, there is a perception that, in general, we are introverted and not well engaged with the outside world. Well nothing is further from the truth as far as the UVA Department of Pathology is concerned, and, in this issue of our annual newsletter, we highlight just some of the ways our faculty are engaged on the national and international scene. From supporting a women's health screening clinic in southwest Virginia to heading a national research consortium on salt-induced disease to lobbying Congress on healthcare matters to supporting an international effort to understand diseases in malnourished children within developing countries, members of the UVA Department of Pathology and our colleagues in UVA Medical Laboratories are engaged far outside the sphere of our local diagnostic services and are making a difference in the world. Please check out the vignettes in the newsletter and realize these are only highlights of the many outreach activities of our faculty, staff and trainees.

On the local scene, under the direction of Robin LeGallo, MD, our teaching in the new medical school curriculum earned very high engagement scores and teaching evaluations from the medical students. Their positive experiences with pathologists in the first two years of the curriculum has driven an unprecedented demand for our third and fourth year elective rotation in pathology. This rotation is almost continuously full with about half of the medical class choosing to experience our diagnostic clinical services. To help us with this volume of students, we have created a resident director of medical school education position in our residency training program to give formal recognition and support to one of our resident physicians who helps coordinate the activities of the medical students in our department.

Drs. LeGallo, Atkins and Mills are a few of many UVA Department of Pathology members making a difference in our community and beyond.

Speaking of our residency training program, our current residency director, Kristen Atkins, MD, after being trained in communication techniques at the Alan Alda Center for Communicating Science, has together with Janet Cross, PhD, director of the pathology PhD training program and assistant dean for graduate research, created a curriculum teaching effective communication and presentation methods to our resident physicians and graduate students. Our current first year residency class soaked up this training in their Residents as Teachers curriculum and then participated as teachers for 41 undergraduate students from across the U.S. in the Summer Research Internship Program (SRIP), also directed by Dr. Cross. The SRIP is an immersive, 10-week laboratory research experience with professional development opportunities. As part of the summer experience, this year's trainees benefited from an educational session on human papillomavirus (HPV) presented by the first year pathology residents. The residents developed and executed a beautifully conceived session covering the detection of HPV and diagnosis of cervical cancer, the molecular pathways that contribute to HPV-induced cancers, and approaches for prevention of HPV. The session was very well received by the trainees, with many identifying it as the highlight of the summer program.

So as you can see, not only are the faculty of our department actively engaged with the outside world in their clinical, research and educational endeavors, we are training the next generation to do so as well. Please turn the page and see what else we've been up to.

–Christopher Moskaluk, MD, PhD

Inside This Issue

In Focus: Expanding Our Reach

See, Test and Treat at UVA Wise

by Kristen Atkins, MD

As pathologists, we deliver patient care daily but often get disconnected from interacting with patients. At Virginia's first See, Test and Treat initiative in Norton, Virginia, UVA faculty, residents, cytotechnologists, and medical students reached out to women in need of cancer screening and provided information about sustaining good health. See, Test and Treat is a program sponsored by the College of American Pathologists in which pathologists lead outreach health clinics to people in the community who do not have full access to healthcare. The first initiative happened August 6 and was led by Theresa Emory from Williamsburg. "We were thrilled to join in the efforts," said Dr. Atkins. "As a physician, it was a poignant reminder of why I went into medicine. As a program director, it was incredibly rewarding to watch our trainees connect with the public and engage in healthcare conversations."

All women were eligible for Pap tests, mammograms, physical exams, and routine blood tests. That is the "see and test" part. The women then waited for their results. Two of our cytotechnologists, Lynn Fellenstein and Kaycee McCoy, joined other cytotechnologists and pathologists from Washington, DC, Virginia, and Tennessee and screened the Pap slides. If abnormalities were found in any of the tests, the patients met with physicians to discuss next steps and a follow-up appointment was made, the "treat" part. The tests, exams, education and follow-up were free.

Kaycee McCoy, left, and Lynn Fellenstein

Clockwise, from left, are Ashley Volaric, MD; Kristen Atkins, MD; Casey Morrison; Anna Dusenbery, MD; and Emily Towery, PSF.

While the women waited for the results, they and their families were provided lunch and education opportunities. They met with pathology residents Ashley Volaric, MD, and Anna Dusenbery, MD, post-sophomore pathology student fellow Emily Towery, PSF, and fourth year UVA medical student Casey Morrison. "The trainees' goals were two-fold: first to take the stigma away from HPV and second to get the patients and families to ask how to prevent the abnormalities. This allowed us to discuss coming back next year and getting their children vaccinated," said Dr. Atkins.

Learning about disparities in healthcare is a required milestone for all trainees. Getting into the community and talking to people who struggle for healthcare access and information is an excellent teacher. "See, Test and Treat was a wonderful opportunity to both observe and participate in an extremely well-organized public health event that serviced over 50 women in Norton, Virginia. I really enjoyed teaching the women about the importance of cervical cancer screening and learning from them in return the importance of self-care and family care. The women and the event were inspiring," said Dr. Volaric.

The relief on women's faces when they were told their screening tests were normal was powerful for all the volunteers. This program will be offered next summer as well and UVA Pathology hopes to have an even stronger presence.

In Focus: Expanding Our Reach

The Felder Hypertension, Salt Sensitivity and Biomedical Engineering Laboratories

by Robin A. Felder, PhD

Robin Felder, PhD, is the principal investigator of a prestigious multi-investigator, multi-institutional grant from the National Institutes of Health, known as a Program Project Grant, with the goal of understanding the mechanisms of salt sensitivity and hypertension. Dr. Felder's collaborators include Robert Carey, MD, of the UVA Department of Medicine; Pedro Jose, MD, PhD, of Georgetown University; and Scott Williams, PhD, of Case Western Reserve. Dr. Carey manages the clinical trial portion of the Program Project Grant where the effect of high- and low-salt diets on blood pressure is being tested in volunteers. Dr. Jose manages the transgenic mouse colonies where human genes are inserted into mice to validate that specific human gene variants cause similar diseases in mouse models. Dr. Williams provides human genetics data analysis so the research group can discover new genetic causes of human hypertension and salt sensitivity to blood pressure. This collaboration will build on Dr. Felder's track record of developing innovative genetic and cell-based tests, which collectively may be needed by over half of the adult population to screen for salt sensitivity.

Salt sensitivity, which affects 60 percent of the hypertensive and 25 percent of the normotensive adult population, is under-diagnosed since an individual can have normal blood pressure and still be salt sensitive. Salt sensitivity is also more prevalent in minority populations and, thus, results in significant health disparities in terms of treatment and the accomplishment of therapeutic benefit. Salt sensitivity, independent of blood pressure, can lead to a 60 percent increase in the chance of stroke, blindness, heart failure, and kidney disease.

There is a wide target market for these novel diagnostic tests that can provide cardiovascular health information well beyond the blood pressure cuff. This is particularly important since the odds of obtaining a correct blood pressure in a doctor's office have been demonstrated to be less than 50 percent in many settings. Genetic markers known as single-nucleotide polymorphisms (SNPs), by themselves or via an interaction with genes controlling the renin-angiotensin-aldosterone system, have a strong positive association with essential hypertension and salt sensitivity across racial and ethnic subpopulations. Genetic tests can be followed by blood and urine tests to further refine the diagnosis. Since there is a strong environmental impact on blood pressure and salt metabolism, the diagnostic tests being developed include dietary protocols to determine an individual's personal cardiovascular issues and the best therapeutic approach.

iStock.com/Getty Images

To further advance better medical care in this field, the Felder lab has developed an app that can guide health practitioners through the differential diagnosis of hypertension and salt sensitivity.

Once an individual knows where they are in the blood pressure and salt spectrum, then they can follow the appropriate approach to good health, whether it involves dietary changes (e.g., reducing salt), increased exercise, or the need for drugs to control blood pressure. To find new therapies, the Felder Lab has also developed a unique RNA antisense agent that selectively targets the gene product whose aberrant activity leads to hypertension and/or salt sensitivity. They developed and are using unique drug discovery tools (primary human cell lines, transgenic mice, and transfected cell models for high content screening) to develop new therapies to treat the underlying causes of hypertension, not just its consequences. In addition, their strategy fits today's pharmaceutical focus on pharmacogenomic therapeutic platforms. Therefore, they have incorporated a number of pharmacogenetics tests that can predict, with varying degrees of certainty, the best therapeutic approach for treating each person based on their genetic predisposition and salt sensitivity index (each person's ideal daily salt consumption target).

Dr. Felder has also founded a biomedical engineering laboratory next to his biochemistry lab that develops novel instruments, robotics, and automation to support their biomedical research. This laboratory has developed technologies that have led to 22 patents and the formation of six companies. Ultimately, it is this mechanism by which scientific discoveries generated in the UVA Department of Pathology may have their greatest impact, by the commercialization of diagnostic tests and therapies for widespread use in healthcare.

In Focus: Expanding Our Reach

Pathologists on the Hill: Standing up for Healthcare Access and Reform

by Anne M. Mills, MD

It is a tumultuous time for healthcare and conversations about health policy are increasingly cacophonous. Controversies surrounding coverage rage and the priorities of policymakers, insurers, caregivers, and the public are often at odds. As a relatively small subspecialty without routine direct patient contact, the pathology perspective is easily drowned out. Pathologists also experience stress from all sides as the dueling pressures of precision and population medicine manifest in our laboratories: do we invest in cutting-edge cancer diagnostics to provide the best care for a few, or do we throw our resources into informatics to mine routine laboratory data to optimize care for many? This decision making is confounded by the fact that while both approaches are desperately desired by the American people, neither is adequately (if at all) reimbursed in the existing insurance system.

Many pathologists feel understandably frustrated and elect to focus on immediate patient care rather than engaging in policy debate. Tempting though it is to restrict our gaze to the microscope, pathologists will remain myopic at our and our patients' peril. Results from pathology labs guide 70 percent of medical decisions and our clinical colleagues — let alone insurers, lawmakers, and patients — cannot keep up with the explosion of available tests or their appropriate indications. As guardians of patient specimens and masters of their analysis, pathologists are able to guide testing in a way that maximizes resources, enhances rational utilization, and optimizes outcomes.

This starts in our local labs, but it doesn't end there. Effecting real change requires altering the way medical testing is viewed by policymakers so that insurance coverage determinations reflect best practices. This spring I joined UVA pathology resident Ashley Volaric, MD, and fellow Brian Willis, MD, at the annual College of American Pathologists (CAP) Policy Meeting in Washington, D.C., to take action on this mission alongside over 150 other pathologists from across the nation. This year's agenda focused on obtaining support for the Local Coverage Determination Clarification Act of 2017. This legislation was drafted by the CAP, carries bipartisan support, and is widely endorsed by the medical community. Local Coverage Determinations (LCDs) prescribe which services can be covered by Medicare within a geographic region. LCDs are drafted with minimal physician participation; the Medicare Administrative Contractors (MACs) that develop LCDs often include only a single doctor and this individual may have never practiced medicine.

Unfortunately, but not surprisingly, the lack of clinical input in LCDs often results in denial of coverage for warranted services. There is also variability in LCDs across the country, so that services covered by Medicare in one state may be denied in another. Also troubling is the fact that LCDs are often carbon copied and, without review, converted into National Coverage Determinations (NCDs), which impact Medicare coverage for the entire country. Medicare is used as a guideline for private insurers so that, before long, denials encoded in LCDs become standard across insurers. Of relevance to molecular labs, LCDs have also been subject to commercial influences so that large companies are able to get proprietary tests included as allowable assays, whereas equivalent tests done for a lower price in local labs are denied coverage.

Anne Mills, MD, and Brian Willis, MD, second and third from left, join Ashley Volaric, MD, far right, and other CAP Policy Meeting participants in Washington, DC.

The proposed legislation calls for transparency in the LCD process, elimination of "back-door" conversion to NCDs, and establishment of an appeal process for when LCDs fail to reflect evidence-based guidelines. At the policy meeting, we spent two days learning about this bill and one day on the hill meeting with our representatives and their staff to garner support. The UVA team joined community pathologists from across Virginia in the offices of Senators Tim Kaine and Mark Warner and discussed how Virginians' access to care is impaired by current regulations. In addition to this advocacy work, highlights of the meeting included keynote speeches from former Senate Majority Leader Tom Daschle and Chuck Todd, chief political correspondent for Meet the Press.

We left the meeting informed and invigorated. There is an incredible amount of work to be done to ensure that our patients can obtain and afford the care they need and pathologists are well-positioned to do it. We invite you to join us at the upcoming CAP Meeting in April to help fight for healthcare access!

In Focus: Expanding Our Reach

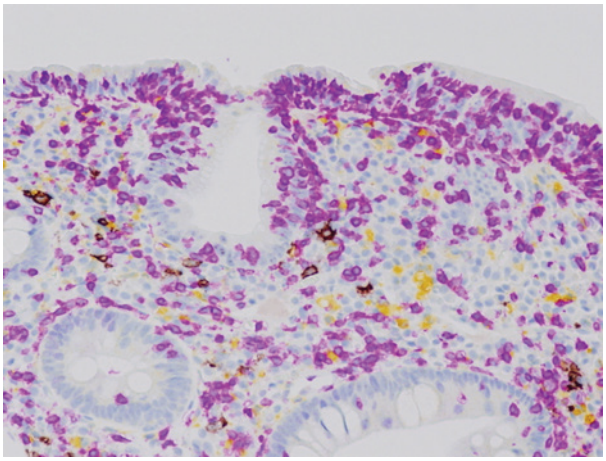
Gates Foundation-Funded EED Study in Developing Countries

It has been discovered that many malnourished children in developing countries do not adequately respond to nutritional and anti-infection interventions. The term environmental enteric dysfunction (EED) has been coined to describe this syndrome of intestinal inflammation that reduces gut absorptive function leading to malnutrition and growth stunting that is resistant to therapy. For the past five years, the Bill & Melinda Gates Foundation has supported an EED consortium initially focused on the discovery of noninvasive biomarkers for this disease. The consortium has recruited medical teams in Zambia, Bangladesh, and Pakistan, as well as gastroenterologists and scientists in the U.S. to study this disease in young children in these developing countries. UVA faculty in the specialties of pediatric gastroenterology, Sean Moore, MD, and Sana Syed, MD, and infectious diseases James Nataro, MD, PhD, MBA, William Petri, MD, and Chelsea Marie, PhD, are part of this consortium.

With the realization that tissue biopsies are critical to understanding the pathophysiology of the disease, pathologists with specialty expertise in gastrointestinal diseases have also been recruited to the consortium, including Chris Moskaluk, MD, PhD. With his experience in creating scoring systems of intestinal inflammation that he previously developed for studies in both animal models and human subjects, Dr. Moskaluk became the lead pathologist in creating and testing a histology scoring system to capture the range of pathologic features present in small intestinal biopsies taken from children that meet the criteria for EED.

With the help of the Gates Foundation, clinics in the consortium countries have been outfitted with state-of-the art facilities to safely perform endoscopy on small children, and the study design only recruits children for whom this procedure is indicated in the care of their condition. Local ethics panels oversee the studies in their respective countries. The biopsies taken are first used for clinical diagnosis at the study site hospitals, but are then shared with the consortium for advanced scientific study.

At left, the clinic building in Zambia where children with EED are seen. At right, inside the clinic, Dr. Moskaluk points out a histology figure used to explain EED to children's mothers.



Triple immunohistochemical stain of inflamed small intestine showing T cells (purple), B cells (brown) and macrophages (yellow)

The histologic slides are scanned on digital pathology systems so that pathologists across the world can call up the images to provide independent histologic assessments. Portions of the biopsies are subjected to RNA gene profiling and the gut contents are subjected to next-generation DNA sequencing to identify the entire gut microbiome present in the small intestines of the study participants. Dr. Moskaluk also oversees the implementation of tissue biomarker analysis, with the plan to use tissue microarray technology and multicolor immunohistochemistry to study a wide range of biomarkers of the immune system and epithelial cell function.

So far Dr. Moskaluk has traveled to Seattle (home of the Gates Foundation) and to Lusaka, Zambia to give talks on the histopathology of EED and participate in the organization and planning of future research in this field. He had the opportunity to visit the clinic and the hospital in Zambia where children with this disorder are treated. "The knowledge, skill and dedication of the health professionals looking after these children are equal to anything I've seen in the U.S., but they are working in difficult situations with poor infrastructure. My visit there has strengthened my resolve to do what I can to help them in their work," said Dr. Moskaluk.

Faculty and Staff: Moving On

Retiring Faculty

David Bruns, MD, retired from the Department of Pathology in 2017 after devoting 45 years of his professional career to UVA. David obtained his BS in chemical engineering at Washington University and his MD from St. Louis University. He completed his internship, training in experimental pathology, and residency in clinical pathology at Washington University and Barnes Hospital. After an instructorship at Washington University, David joined the UVA Department of Pathology as an assistant professor in 1972, rising to the rank of professor. His clinical service included oversight of the clinical chemistry and toxicology services in UVA Medical Laboratories, and he co-founded the molecular diagnostics service at UVA. David is author on over 186 peer-reviewed journal articles and 34 book chapters and he has written or edited nine books, including Tietz Fundamentals of Clinical Chemistry and Molecular Diagnostics. His work includes scientific laboratory investigation into regulation of calcium-binding proteins, development of novel clinical chemistry and protein assays, clinical chemistry assay improvement and quality control. He is a noted international expert in determining diagnostic accuracy in laboratory tests and has served on numerous panels to create standards in this area. His work has been recognized with numerous awards, including the Clinical Scientist of the Year award from the Association of Clinical Scientists and the Award for Outstanding Contributions to Clinical Chemistry by the American Association for Clinical Chemistry. David was editor-in-chief of Clinical Chemistry, the premier journal in his field, for 17 years. Further evidence of his high standing in the medical and scientific community was his election as president of the Academy of Clinical Laboratory Physicians and Scientists as well as president of the Association of Clinical Scientists. In retirement, David has been traveling with his wife, Liz, as they visit family scattered across the country. He also hopes to tackle the many books that have languished on his bookshelves unread as he plied his busy career. Having been granted professor emeritus status, he also looks forward to continuing some teaching and mentoring of medical trainees in the Department of Pathology.

Dr. David Bruns

Jim Patterson, MD, retired from the Department of Pathology in 2016 after a professional career that included military service and spanned many years in Virginia, including 20 years at UVA. Jim obtained his MD at the Medical College of Virginia (now Virginia Commonwealth University) and completed a dermatology residency there. He saw active duty in the U.S. Army Medical Corps from 1976-1982, achieving the rank of Colonel and serving as the Chief of Dermatology Service at the U.S. Military Academy at West Point. During this time, he also completed a fellowship in dermatopathology at the Armed Forces Institute of Pathology. In 1982, Jim joined VCU as a faculty member in both the dermatology and pathology departments, shifting his career from dermatology to dermatopathology and becoming the Director of Dermatopathology and a tenured associate professor during his time at VCU. In 1996, Jim joined the UVA Department of Pathology as a tenured professor and Director of Dermatopathology. He is author on over 200 peer-reviewed publications and 37 book chapters, and has written or edited 15 books, including Weedon's Skin Pathology. Jim served as president and a member of the board of directors of the American Society of Dermatopathology, as president of the Virginia Dermatological Society, and as a delegate to the Medical Society of Virginia. He has earned the position of fellow of the American Academy of Dermatology, the American College of Physicians, and the Royal Society of Medicine. Perhaps most notably, he served as director, president, and member of the executive committee of the American Board of Dermatology. A person occupying such roles has been judged by a national consensus to be among the best clinicians in that particular field and, indeed, Jim has been consistently named to many "best of" lists, including America's Top Dermatologists, America's Top Physicians, and Best Doctors in America. Jim served as director of the UVA dermatopathology fellowship program for many years, winning numerous awards for his clinical investigations and his teaching activities. As professor emeritus, he continues to participate in teaching and writing at UVA on the topic of dermatopathology. In retirement, Jim has been traveling with his wife, Julie, and plans to work on his golf game and indulge in the study of the American presidency.

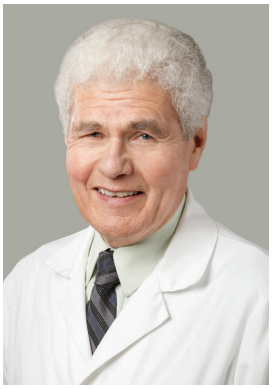
Drs. Jim Patterson and David Bruns

Dr. Jim Patterson

Faculty and Staff: Moving On

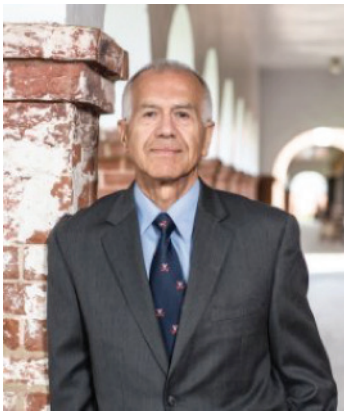
Retiring Faculty

Larry Silverman, PhD, retired from the Department of Pathology in 2017 after a professional career that included military service as well as appointments at several universities, including 20 years of service at UVA. Larry completed his BS in chemistry from Washington & Jefferson College, his PhD in physiological chemistry from Ohio State University, and fellowship training in clinical chemistry at the National Institutes of Health. During his training, he served as medical lab specialist in the U.S. Army from 1969-1971. Larry began his academic career as assistant professor at the University of Southern California and also served as Director of Clinical Chemistry at Good Samaritan Hospital in Los Angeles. In 1979, he moved to the University of North Carolina, where he spent the majority of his career, rising to the rank of professor of pathology and laboratory medicine, genetics and molecular biology. During this time, he became an early leader in the developing field of molecular pathology. In 2002, Larry was enticed to move to UVA where he became Scientific Director of Molecular Diagnostics and Medical Director of Immunology. Larry is author on 111 peer-reviewed publications, with his major contributions being in the area of clinical genetic analysis. He was author on many papers describing clinical assays for disease alleles in inherited syndromes, most notably cystic fibrosis. He also helped pioneer the use of a mysterious new analytic technique called PCR in clinical genetic analysis in the 1980s and 1990s. His expertise gave Larry national prominence and he has been sought out for service by a variety of federal agencies and national organizations. These include the FDA Molecular & Clinical Genetics Panel Medical Devices Advisory Committee, the FDA Immunology Medical Devices Advisory Committee, the CLIA Advisory Committee and the U.S. Anti-Doping Agency. He also served on the board of editors for the journal Clinical Chemistry, as director of the American Board of Clinical Chemistry and chair of the Molecular Diagnostics Board Exam Committee. In addition, he has been a consummate educator, active in all areas from the medical school curriculum to residency and fellowship training. Best wishes to Larry and his wife, Janice, as they embark on the next stage.



Dr. Larry Silverman

Frank Butros, MBA, retired from the department in 2017 after devoting 19 years of his professional career to UVA. Frank completed his BS at the Detroit Institute of Technology, his MS at Wayne State University, and his MBA at the Florida Institute of Technology. Frank began his career as an administrative laboratory director at Saint Joseph Mercy Health System in Michigan, followed by a five-year term as administrative director at Detroit Medical Center University Laboratories at Wayne State University. He then headed south, where he became a lead administrator in the Department of Laboratory Medicine and Pathology at MD Anderson Cancer Center. In 1998, Dr. Tom Tillack recruited Frank to UVA as chief operating officer of the Department of Pathology. Since then, Frank has been the steady hand of the department as it responded to a variety of policy and procedure changes instituted by different UVA School of Medicine administrations in place throughout his tenure. His expertise, wisdom, calm demeanor, and advice to take the long view of things, even in times of immediate crisis, have served the Department of Pathology well. We hope Frank will continue to take the long view and, with his wife, Joyce, enjoy a happy and fulfilling retirement.



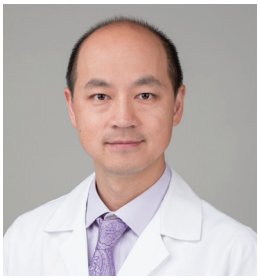
Frank Butros

Retiring Staff

Gene McClurken retired from the Department of Pathology after an incredible 41 years of service in central administration. It is not clear exactly why an aerospace engineer took a job with a pathology department, but we think it had something to do with wanting to stay in Charlottesville, something that many of us can relate to. Gene was first hired as a research administrative officer and, using his engineering skills, he introduced the use of personal computers to what was a 19th century operation, eventually replacing manual typewriters and hand-written ledgers in our billing and administration. Gene had so many roles during his time here, it is hard to describe his exact position, but he was in charge of billing, coding, research infrastructure, space management, telephones, computers, parking, etc. During the planning for his retirement, his duties had to be distributed to several other people, which underscores Gene's role in keeping the Department of Pathology together during his long tenure. We wish him and his wife Laurel a long and happy retirement — where else but in Charlottesville?

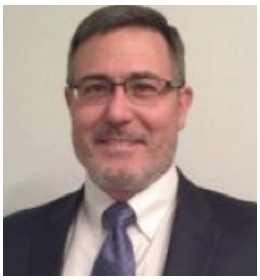
Gene and Laurel McClurken

Faculty and Staff: Moving In, Moving Up



New Faculty

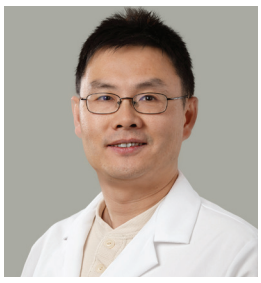
Jinbo Fan, PhD, joined the Department of Pathology in 2017 as an assistant professor. He completed a doctorate in neurobiology at the Chinese Academy of Sciences in Shanghai in 2003 and a postdoctoral fellowship at Massachusetts Institute of Technology in Cambridge. He also completed a fellowship in clinical cytogenetics and genomics as well as a fellowship in clinical molecular genetics and genomics at Children's Hospital of Philadelphia in 2017. His clinical interests include cytogenetics and molecular genetics and genomics. His research interests include genetic predisposition to human diseases, genomic profiling of cancer, and translating genetic research discoveries into better patient care. He is a member of the American College of Medical Genetics and Genomics and the Association for Molecular Pathology. His outside interests include basketball and travel.



Raymond Selig, JD, joined the Department of Pathology in 2017 as chief operating officer. Though new to this position, Ray has been with UVA Health System for five years, initially starting as the administrator for the Department of Dentistry. In between administrator positions, Ray spent time crunching numbers and managing budgets as the UVA Physicians Group Manager of Financial Planning and Analysis. While Ray has an immense passion for his work within the healthcare system, he originally entered the workforce as an attorney — earning his juris doctor from New York Law School in 1990. Immediately after graduation, Ray dove into his father's law practice where he oversaw and nursed its growth from a small practice to a prominent firm within the city. After ten years, Ray sold his practice and followed the winding roads to Charlottesville in order to spend more time with his children. During his first years here, Ray worked as the administrator for Christ Community Church and COO for M-CAM, an intellectual asset finance firm, before joining UVA. Aside from his passion for business and finance, Ray enjoys biking in the summer, skiing in the winter, working out at the gym all year round and, most of all, spending time with his family and friends.

Katia Sol-Church, PhD, joined the Department of Pathology in 2017 as research professor and director of the DNA Sciences Core Laboratory. She completed a doctorate in molecular genetics at McGill University and postdoctoral work at the DuPont Merck Pharmaceutical Corp. She was a principal research scientist, head of the Biomolecular Core Laboratory, at the Alfred I duPont Hospital for Children from 1994-2017 and research associate professor of pediatrics at Thomas Jefferson School of Medicine. She was also director of the Delaware-INBRE Centralized Research Instrumentation Core at the University of Delaware from 2013-2017. Her clinical interests include RASopathies and cancer predisposition syndromes. Her research interests include deciphering the cause of rare genetic disorders and applying omics technologies to advance biomedical research excellence. She is a member of the American Society for Human Genetics and the Association of Biomolecular Resource Facilities. Away from the bench, Katia enjoys sailing the Chesapeake, singing in groups, nature walks, reading science fiction, and the performing arts.

Joesph Wiencek, PhD, joined the Department of Pathology in 2017 as an assistant professor. He completed a doctorate in clinical-bioanalytical chemistry at Cleveland State University, an internship in clinical chemistry at Cleveland Clinic and a fellowship in clinical chemistry at Vanderbilt University School of Medicine. His clinical interests include all things clinical chemistry from cradle to grave. His research interests include preanalytical variation in laboratory testing, enzymology and transfusion chemistry. He is a member of the American Association for Clinical Chemistry, the Association for Pathology Informatics, and the Academy of Clinical Laboratory Physicians and Scientists. His outside interests include rowing, hiking and his three wonderful dogs.

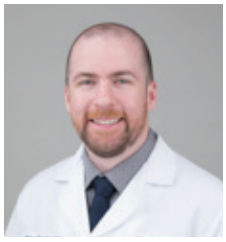


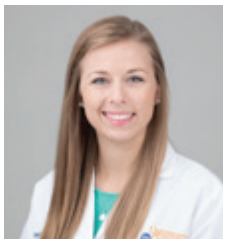
Faculty Promotions

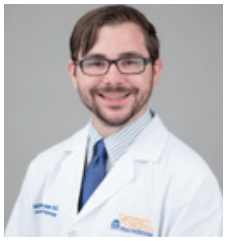
Hui Li, PhD, has been awarded tenure.

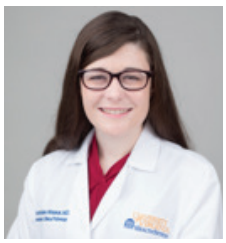
Congratulations to Dr. Li on achieving this momentous milestone.

First Year Trainees









First Year Residents

Michael Crawford, MD, received his bachelor's in chemistry and classics from Case Western Reserve University. He later received his master's in applied anatomy, also from CWRU. After a three-year foray into virology research, Mick attended Northeast Ohio Medical University, where he earned his MD. When he's not getting lost in the hospital, Mick enjoys hiking, backpacking, starscape photography, board games, dead languages, and pretending to enjoy the gym.

Bre Ana David, MD, is from the Bronx, New York. She received a BS in clinical laboratory science/technology from the University of Vermont. As an ACP BOR-certified medical technologist, she worked as a generalist at the White River Junction VA Medical Center in Vermont for 1.5 years before moving back to New York City. She was employed part-time in hematology and special coagulation at Montefiore Medical Center and subsequently accepted a full-time position at New York Presbyterian Hospital (Weill Cornell) in immunopathology. Bre Ana trained for 2.5 years at New York Presbyterian in bone marrow aspirate specimen bedside preparation, bone marrow and peripheral blood morphological assessment of a wide range of hematological disorders/malignancies, performing and interpreting specialized immunostain for acute leukemia, and limited flow cytometric interpretation. This experience ignited her passion to enroll in medical school and eventually become a pathologist. She has also engaged in translational research at the Memorial Sloan Kettering Cancer Institute in the Dr. Marcel van Den Brink laboratory. She enjoys learning about the ever-promising world of immunotherapy, spending time with her wonderful daughter, South Indian classical dance, "patio gardening," and baking.

Anna Dusenbery, MD, received her undergraduate degree from the University of Pennsylvania and her medical degree from the University of Maryland before coming to UVA for residency. She is still undecided as far as which subspecialty to pursue within pathology. Outside of the hospital, Anna enjoys spending time outdoors, especially running, hiking, and swimming. Whenever she gets the chance to visit Deep Creek Lake near her hometown in western Maryland, she can be found waterskiing or kayaking.

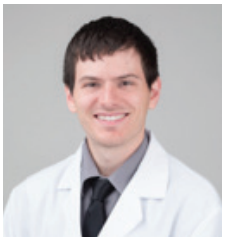
Sarah Gradecki, MD, is from Mequon, Wisconsin, and graduated from the University of Notre Dame in 2013. She received her MD from the University of Virginia in 2017. Outside of the hospital, Sarah enjoys hiking, fishing, and exploring the local restaurants, music, and events that Charlottesville has to offer. Sarah has an interest in pursuing a fellowship in dermatopathology and hopes to ultimately have a career in academic medicine.

Nick Jaeger, MD, is from Capon Bridge, West Virginia, a rural town west of Winchester, Virginia. Nick attended West Virginia University as an undergraduate, obtaining degrees in biology, chemistry, and biochemistry. He then went to medical school at West Virginia University and took advantage of the post-sophomore fellowship in pathology offered while enrolled. During this year, he met his future wife, Emma, a behavioral health counselor specializing in school-age child therapy. They were just married in May at the beautiful Shenandoah National Park. Nick and Emma are very excited to be living in Charlottesville and to join the University of Virginia pathology family. Nick would like to pursue a career in academic pathology, subspecializing in hematopathology and dermatopathology.

Rachel Whitehair, MD, is from Keyser, West Virginia. She graduated from West Virginia University in Morgantown, West Virginia, in 2013 with a bachelor's degree in biology and a minor in religious studies. She spent her summers during her undergraduate years as a science and math teacher as well as camp counselor at the regional math and science center summer program in Frostburg, Maryland. She then went on to West Virginia University School of Medicine and received her MD in May 2017. While in medical school, Rachel met her fiancé, Kevin, a general surgery resident here at UVA. Rachel is also very close to her brothers, Ryan, a chemical engineer, and Leyton, a seventh grader at Keyser Middle School. She spends her free time cooking, reading food blogs, doing pilates, patio gardening, and entertaining her two cats, Lila and Sheldon. Rachel has an interest in renal and thoracic surgical pathology, but is still undecided about fellowships. She hopes to work in academic practice in the future.

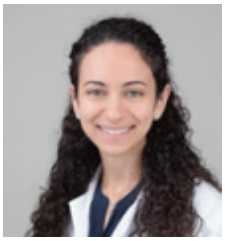
First Year Trainees

First Year Fellows

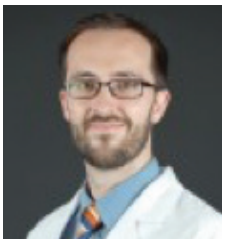


James Bush, MD, is from Kansas City, Kansas, and received an undergraduate degree in biology from Kansas State University. He received his MD at the University of Kansas and completed pathology residency training there as well. He is currently a dermatopathology fellow at UVA. He has three children and likes to golf and fish in his free time.

Zachary Chinn, MD, grew up on Oahu, Hawaii, and has played soccer basically since he started walking. After high school, he moved to Los Angeles (Eagle Rock) where he attended Occidental College and majored in biology. After a short break post-college doing research and working, he returned to Hawaii to attend John A. Burns School of Medicine. He found the light in pathology and traveled to Emory University for residency, which he completed in July 2017. He is a gynecologic pathology fellow at UVA. In his free time, he likes outdoor activities, including soccer and hiking.



Mary Eid, MD, received her undergraduate degree at UC Berkeley followed by a medical degree at George Washington University. She then completed her residency training at the National Institutes of Health before coming to UVA as a dermatopathology fellow.



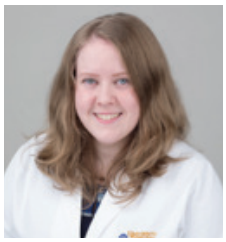
Jacob Grange, MD, received his undergraduate education at Brigham Young University, where he was fortunate enough to meet his wife and discover an interest in cancer biology. He then attended medical school at UT Southwestern in Dallas, Texas, where he found his path to pathology during the first-year histology course. Coincidentally, UT Southwestern is an academic rival of Baylor College of Medicine where Jacob's co-fellow Ali Nichols trained, which comes between them once a year when U.S. News and World Report ranks medical schools (Baylor is ahead again this year). During pathology residency training at UVA, Jacob found particular interest in cytopathology, GI/hepatic pathology, and in keeping Dragon dictation running smoothly. He stayed at UVA for the cytopathology fellowship and is grateful to continue training here another year. His outside interests include being outdoors with his four children and watching films, old and new, with his wife.

Ali Nichols, MD, earned a BS in neuroscience at the University of Texas at Dallas. She attended medical school at Baylor College of Medicine in Houston, Texas. She joined us for anatomic and clinical pathology residency in 2013. She is staying with us as a cytopathology fellow for the 2017-2018 academic year. Her academic interests are mostly centered on education of medical students and residents. Her outside interests include caring for her husband and daughter as well as cooking, hiking and movies.

First Year Trainees

First Year Fellows

Koby Sarpong, PhD, received his BS degree in biochemistry from the University of Ghana, MS in chemistry from Missouri State University and a PhD in biochemistry from Washington University in St. Louis. His doctoral thesis was conducted in the laboratory of Dr. Ron Bose, where he used bioanalytical approaches to study the intrinsically disordered C-terminal tails of EGFR proteins. He is currently a clinical chemistry fellow with special interests in pediatric and maternal research. Koby enjoys spending time with his family, traveling across the U.S., the outdoors, watching soccer and playing Scrabble.



Emily Towery is a post-sophomore fellow from Oak Ridge, Tennessee. She received her BS in biology and MS in biology from Austin Peay State University in Clarksville, Tennessee. She is completing her MD at the University of Tennessee Health Science Center in Memphis. Emily has interests in transfusion medicine and surgical pathology. In her free time, she enjoys PC gaming and cooking.

Chris Wenzinger, MD, is originally from Front Royal. He lived in Charlottesville while an undergraduate in biology at the University of Virginia. After graduating, he attended Eastern Virginia Medical School in Norfolk and decided to pursue a career in pathology. Following medical school, he moved to Charleston, South Carolina, where he married his wife, Sarah, a pediatrician, and completed his AP/CP residency at the Medical University of South Carolina. The two moved back to Virginia following the birth of their son, Peter, in May of this year. Chris is a hematopathology fellow at UVA. When not visiting with family and friends on the weekend, he enjoys reading (fiction and nonfiction), amateur astronomy, day hikes, movies, and kayaking.

Entering Grad Students

Morgan Simpson is a second-year graduate student in the Petri Lab. Her current project focuses on *Clostridium difficile* and the host response during infection. More generally, her academic interest lies in innate immune responses to infectious disease. Morgan went to Virginia Tech for her undergraduate education, where she majored in biochemistry. When not in lab, she enjoys reading, creative writing, and skating.

Zollie White III is from Florida, having been born in Pensacola and raised in Tallahassee. He received a BS in chemistry from Morehouse College in 2013. He then joined the Postbaccalaureate Research Education Program at the University of Alabama at Birmingham (UAB PREP) where he stayed for two years doing research projects related to studying erythropoiesis in the absence of hemoglobin as it pertains to Beta Thalassemia and better understanding the mechanisms responsible for oxygen free radical injury and the developing intestine in the context of necrotizing enterocolitis. In 2015, he arrived at UVA in the MD-PhD program. He later joined the lab of Dr. Adam Goldfarb, working in the field of red blood cell development with application to anemia. He enjoys spending time with his wife and children (plants for now), church, and going on adventures. He loves sports, including basketball, football, soccer and rugby.

Alumni News

Hongyan Dai, MD, PhD, completed her dermatopathology fellowship at UVA in 2017. She is a dermatopathologist in the Department of Pathology and Laboratory Medicine at the University of Kansas Health System in Kansas City.

Christopher Heitz, MD, completed his AP/CP residency in 2016 and hematopathology fellowship at UVA in 2017. He is in community practice with Highlands Pathology Consultants, PC at their Holston Valley Medical Center in Kingsport, Tennessee.

Joseph McDermott, MD, completed his dermatopathology fellowship at UVA in 2016. He is a staff pathologist and medical director at the David Grant Medical Center, Travis AFB, California.

Yaseen Mohiuddin, MD, completed his hematopathology fellowship in 2015 and gynecologic/breast fellowship in 2016 at UVA. He is in community practice at Rochester Regional Health in Rochester, New York.

Garrett Mullins, PhD, DABCC, completed his clinical chemistry fellowship at UVA in 2017. He is a principal research scientist (clinical chemist) at Eli Lilly and Co. in Indianapolis.

Clinical Chemistry fellowship program director Dr. Dede Haverstick celebrates with graduating fellow Dr. Garrett Mullins.

Graduating fellow Dr. Brian Willis celebrates with gynecologic pathology fellowship director Dr. Mark Stoler.

Hematopathology fellowship program director Dr. Nadine Aguilera celebrates with graduating fellow Dr. Christopher Heitz.

Dermatopathology fellowship program director Dr. Alejandro Gru, second from right, celebrates with graduating fellows, from left, Drs. Jessica Kwock, Patrick Voorhees and Hongyan Dai.

Lindsey Serkes, MD, completed her AP/CP residency in 2016 and cytopathology fellowship in 2017 at UVA. She is in community practice with Grand Traverse Pathology, PLLC, in Traverse City, Michigan.

Anne Stowman, MD, completed her AP/CP residency in 2015, dermatopathology fellowship in 2016 and Dermatopathology research fellowship in 2017 at UVA. She is an assistant professor and dermatopathologist at the University of Vermont Medical Center in Burlington, Vermont.

Brian Willis, MD, completed his gynecologic pathology fellowship at UVA in 2017. He is a dermatopathology fellow at Emory University in Atlanta.

Min Yu, MD, PhD, DABCC, completed her clinical chemistry fellowship at UVA in 2016 and served as an instructor in the UVA Department of Pathology until 2017. She is an assistant professor and associate director of clinical chemistry at the University of Kentucky in Lexington, Kentucky.

Philanthropy

Faculty, trainees and alumni at 2017 USCAP UVA Pathology dinner.

Year-End $5K Matching Gift for Pathology Trainee Research and Career Development Fund

The UVA Department of Pathology recently received notification of an anonymous year-end matching gift of $5,000 for the Pathology Trainee Research and Career Development Fund. Please take advantage of this exciting opportunity to **have your generosity matched dollar for dollar** for the benefit of UVA Pathology trainees.

Every trainee in the UVA Pathology training programs is expected to participate in research projects that illuminate disease mechanism, advance diagnostic procedures or improve the quality of pathology/laboratory medicine clinical services. We also strongly encourage trainees to present their work for peer review at national meetings. While the cost of these projects and travel expenses vary widely, the department currently provides $2,000 annually to each clinical trainee to help support these activities. With tightening budgets, such allocation is becoming increasingly difficult to maintain. Please don't miss this chance to **do twice the good** with a donation that will help offer an invaluable learning opportunity for a trainee and support an advancement in the fields of diagnostic pathology and laboratory medicine.

Make a donation by Dec. 31 and you will double the impact of your gift, no matter the size. No gift is too small. Every $25 becomes $50, every $100 becomes $200, and together we can match the generosity of our anonymous donor in supporting our trainees.

Cytogenetics and Molecular Genetics Fellowship

A major missing piece to our training programs has been specialized training in molecular diagnostics. Eli Williams, PhD, has taken on the task of creating this two-year fellowship program and the department has decided to self-fund this program without institutional support. We could use your help in supporting this fellowship to enhance UVA's role in shaping the burgeoning fields of molecular diagnostics and clinical genomics.

Sponsor a Pathology Summer Fellowship

The eight-week Summer Enrichment Program in Pathology provides second-year medical students with hands-on experience in disease diagnosis. Each intern rotates through all AP and laboratory medicine services. Please consider supporting our profession by contributing a donation to support a medical student in this program. The cost of hosting each student is $2,500. With your support, we hope to provide two student stipends in 2018.

Honor a Faculty Mentor

Thank your favorite faculty mentor by making a gift to the Department of Pathology in his or her honor.

Donations can be made online by clicking on the "Make a Gift" button on the UVA Pathology website at med.virginia.edu/pathology or by check or credit card using the enclosed self-addressed return envelope.

Grants and Contracts

New Grants and Contracts

PI: James Gorham, MD, PhD
Institute for Transfusion Medicine
A Transfusion Safety Officer
01/01/17-12/31/19
Total Budget: $250,000

PI: John Luckey, MD, PhD
National Heart, Lung, and Blood Institute
Cytokine Control of Red Blood Cell Alloimmunization
12/15/16-11/30/20
Total Budget: $2,076,596

PI: Mani Mahadevan, MD
National Institute of Arthritis & Musculoskeletal & Skin Disease Grant
RNA Toxicity and Muscle Regeneration
02/20/17-12/31/21
Total Budget: $1,980,788

PI: Anne M. Mills, MD
UVA Cancer Center Cancer Control & Population Health Pilot Grant
Targetable Immune Regulatory Molecule Expression in High-Grade Serous Ovarian Cancer in African American Women
03/01/17-08/31/19
Total Budget: $25,000

PI: Chris Moskaluk, MD, PhD
Adenoid Cystic Carcinoma Research Foundation
Disrupting the MYB-driven Phenotype in Adenoid Cystic Carcinoma
09/01/16-08/31/18
Total Budget: $424,268

PI: Melinda Poulter, PhD
Cepheid
Reproducibility/Precision of the Xpress Strep A Assay
04/14/17-04/13/18
Total Budget: event-based

Other Active Grants and Contracts (Federal Funding)

PI: Thomas Braciale, MD, PhD
National Institute of Allergy and Infectious Diseases Grant
CTL Response to Influenza Virus
09/01/91-11/30/17
2017 Budget: $395,000

PI: Timothy Bullock, PhD
National Cancer Institute Grant
Immunotherapeutic Nanoparticle Delivery to Melanoma with MR-guided FUS
06/01/15-5/31/20
2017 Budget: $79,789

National Cancer Institute Grant
BLIMP-1 Mediated Regulation of CD8+ TIL
01/01/13-12/31/17
2017 Budget: $686,810

PI: Robin Felder, PhD
National Heart, Lung and Blood Institute Grant
Molecular Mechanisms in Salt Sensitivity of Blood Pressure
06/01/16-05/31/21
2017 Budget: $2,336,656

Madeleine Pharmaceuticals, Inc
National Heart, Lung and Blood Institute Grant (SBIR)
Development of a Novel Drug Treatment for Decompensated Heart Failure
05/01/16-02/28/18
2017 Budget: $106,020

PI: Adam Goldfarb, MD
National Heart, Lung, and Blood Institute Grant
Controlling an Ontogenic Masterswitch to Maximize Thrombopoiesis
09/10/15-05/31/19
2017 Budget: $445,926

National Institute of Diabetes & Digestive & Kidney Diseases Grant
Validation of Aconitase-Isocitrate Pathway as a Target for Anemia Treatment
04/01/16-03/31/19
2017 Budget: $237,000

National Institute of Diabetes & Digestive & Kidney Diseases Grant
Dissection and Manipulation of the Cellular Response to Iron Restriction
02/01/08-06/30/18
2017 Budget: $343,650

PI: James Gorham, MD, PhD
Emory University Contract
Adverse Effects of RBC Transfusions: A Unifying Hypothesis
05/04/15-07/31/18
2017 Budget: $38,563

Bloodworks Northwest Contract
Serious Hazards of Transfusion & Cellular Therapies: Mechanisms & Intervention
07/01/15-04/30/18
2017 Budget: $30,965

PI: Hui Li, PhD
National Cancer Institute Grant
CIS-Splicing of Adjacent Genes in Prostate Cancer
09/22/14-08/30/19
2017 Budget: $327,850

PI: Chris Moskaluk, MD, PhD
National Cancer Institute Grant
Biospecimen Procurement & Tissue Microarray Manufacture for the CHTN
04/24/14-03/31/19
2017 Budget: $564,427

PI: Kenneth Tung, MD
National Institute of Allergy & Infectious Diseases Grant
Zona Pellucida: Immunopathologic Study
09/01/93-10/31/17
2017 Budget: $395,000

PI: Scott Vande Pol, MD, PhD
National Cancer Institute Grant
Papillomavirus E6 Structural Consortium
07/01/15-06/30/20
2017 Budget: $443,504

Total Annual Federal Funding: $6,431,160

Other Active Grants and Contracts (Non-Federal Funding)

Principal Investigators:

Timothy Bullock, PhD

Helen Cathro, MBChB

Alejandro Gru, MD

Dede Haverstick, PhD

Hui Li, PhD

Chris Moskaluk, MD, PhD

Melinda Poulter, PhD

Total Annual Nonfederal Funding: $526,674

Publications and Awards

Selected Faculty Publications

Journal Articles

Kurant D, Fisher SI, Tang W, **Aguilera NS**. B-Lymphoblastic leukemia/lymphoma arising in treated plasma cell myeloma: A rare second malignancy. Human Pathology: Reports 2017;10:6-63.

Cho BB, Kelting SM, **Gru AA**, **LeGallo RD**, **Pramoonjago P**, Goldin TA, Heitz CT, **Aguilera NS**. Cyclin D1 expression and polysomy in lymphocyte-predominant cells of nodular lymphocyte-predominant Hodgkin lymphoma. Ann Diagn Pathol. 2017 Feb; 26:10-15.

Strickland SW, Campbell ST, Little RR, **Bruns DE**, **Bazydlo LA**. Prevalence of Rare Hemoglobin Variants Identified During Measurements of Hb A(1c) by Capillary Electrophoresis. Clin Chem. 2017 Sep 13.

Mullins GR, **Bruns DE**. Air bubbles and hemolysis of blood samples during transport by pneumatic tube systems. Clin Chim Acta. 2017 Oct; 473:9-13.

Bachmann LM, Yu M, **Boyd JC**, **Bruns DE**, Miller WG. State of harmonization of 24 serum albumin measurement procedures and implications for medical decisions. Clin Chem 2017; 63:770-9.

Yu M, **Bruns DE**, Jane JA Jr, Nass RM, Oldfield EH, Vance ML, Thorner MO. Decrease of Serum IGF-I following Transsphenoidal Pituitary Surgery for Acromegaly. Clin Chem. 2017 Feb; 63(2):486-494

Mullins GR, **Harrison JH**, **Bruns DE**. Smartphone monitoring of pneumatic tube system-induced sample hemolysis. Clin Chim Acta. 2016 Nov 1; 462:1-5

Mullins G, **Harrison J**, **Bruns D**. Under pressure. The Pathologist 2017; Issue #0117.

Burris HA, Infante JR, Ansell SM, Nemunaitis JJ, Weiss GR,Villalobos VM, Sikic BI, Taylor MH, Northfelt DW, Carson WE 3rd, Hawthorne TR, Davis TA, Yellin MJ, Keler T, **Bullock T**. Safety and Activity of Varlilumab, a Novel and First-in-Class Agonist Anti-CD27 Antibody, in Patients With Advanced Solid Tumors. J Clin Oncol. 2017 Jun 20; 35(18):2028-2036.

Bullock TN. TNF-receptor superfamily agonists as molecular adjuvants for cancer vaccines. Curr Opin Immunol. 2017 Jul 24; 47:70-77

Bullock TN. Stimulating CD27 to quantitatively and qualitatively shape adaptive immunity to cancer. Curr Opin Immunol. 2017 Apr; 45:82-88.

Park SH, Lee YJ, Sabri SS, **Cathro HP**. Sodium Tetradecyl Sulfate-Induced Acute Allergic Interstitial Nephritis. Cardiovasc Intervent Radiol. 2017 Jul; 40(7):1125-1128

Luo MJ, **Fan JB**, Wenger TL, Harr MH, Racobaldo M, Mulchandani S, Dubbs H, Zackai E, Spinner S, Conlin L. CMIP Haploinsufficiency In Two Patients With Autism Spectrum Disorder and Gastrointestinal Issues. Am J Med Genet Part A 173:2101-2107, 2017.

Felder RA, Jose PA, Xu P, Gildea JJ. The Renal Sodium Bicarbonate Cotransporter NBCe2: Is it a Major Contributor to Sodium and pH Homeostasis? Curr Hypertens Rep, 2016, Sep;18(9):71.

Zhao Z, Paquette C, Shah AA, **Atkins KA**, **Frierson HF**. Fine Needle Aspiration Cytology of Diffuse-Type Tenosynovial Giant Cell Tumors. Acta Cytol. 2017; 61(2):160-164.

Elagib KE, Lu CH, Mosoyan G, Khalil S, Zasadzińska E, Foltz DR, Balogh P, **Gru AA**, Fuchs DA, Rimsza LM, Verhoeyen E, Sansó M, Fisher RP, Iancu-Rubin C, **Goldfarb AN**. Neonatal expression of RNA-binding protein IGF2BP3 regulates the human fetal-adult megakaryocyte transition. J Clin Invest. 2017 Jun 1; 127(6):2365-2377.

Khalil S, Holy M, Grado S, Fleming R, Kurita R, Nakamura Y, **Goldfarb A**. A specialized pathway for erythroid iron delivery through lysosomal trafficking of transferrin receptor 2. Blood Advances 2017; 1(15):1181-1194.

Gru AA, **Williams ES**, Cao D. Mixed Gonadal Germ Cell Tumor Composed of a Spermatocytic Tumor-Like Component and Germinoma Arising in Gonadoblastoma in a Phenotypic Woman With a 46, XX Peripheral Karyotype: Report of the First Case. Am J Surg Pathol. 2017 Sep; 41(9):1290-1297.

Davick JJ, **Wick MR**, **Gru AA**. Development of a biclonal cutaneous T-cell lymphoproliferative process during treatment with immune checkpoint inhibitors for metastatic melanoma. Melanoma Res. 2017 Aug; 27(4):383-386.

Davick JJ, Gaughan E, Barry M, **Gru AA**. Primary Cutaneous Small/Medium CD4+ T-CELL Lymphoproliferative Disorder Occurring in a Patient With Metastatic Melanoma. Am J Dermatopathol. 2017 Jul 14.

Gru AA, Salavaggione AL. Vasculopathic and vasculitic dermatoses. Semin Diagn Pathol. 2017 May; 34(3):285-300

Gru AA, Salavaggione AL. Lichenoid and interface dermatoses. Semin Diagn Pathol. 2017 May; 34(3):237-249

Gru AA, Salavaggione AL. Common spongiotic dermatoses. Semin Diagn Pathol. 2017 May; 34(3):226-236.

Gru AA. Introduction to inflammatory dermatoses: Histological clues for the practicing pathologist. Semin Diagn Pathol. 2017 May; 34(3):210-219

Edwards LR, Wilson BB, **Gru AA**. A 75-Year-Old Man With Progressive Generalized Erythroderma and History of Anaplastic Large Cell Lymphoma. Am J Dermatopathol. 2017 Apr 7.

Pruitt LG, Kidd LL, **Gru AA**. A 56-Year-Old Woman With Multiple Subcutaneous Painful Nodules in the Absence of Renal Disease. Am J Dermatopathol. 2017 Mar 31.

Gru AA, Jaffe ES. The Landscape of Cutaneous Lymphomas in 2016, An Introduction. Semin Diagn Pathol. 2017 Jan; 34(1):1-2

Gru AA, Jaffe ES. Cutaneous EBV-related lymphoproliferative disorders. Semin Diagn Pathol. 2017 Jan;34 (1):60-75.

Tian F, Patterson AT, Davick JJ, Ing SW, Kaffenberger BH, **Gru AA**. The cutaneous expression of vitamin K-dependent and other osteogenic proteins in calciphylaxis stratified by clinical features and warfarin use: A case control study. J Am Acad Dermatol. 2016 Oct; 75(4):840-842

Publications and Awards

Selected Faculty Publications

Journal Articles

Gru AA, Hurley MY, Salavaggione AL, Brodell L, Sheinbein D, Anadkat M, Porcu P, Frater JL. Cutaneous mantle cell lymphoma: a clinicopathologic review of 10 cases. J Cutan Pathol. 2016 Dec; 43(12):1112-1120.

Kaffenberger BH, Zhang E, Duncan JR, Jaglowski S, Klisovic RB, Devine SM, Wong HK, **Gru AA**. Endothelial chimerism in chronic sclerotic-type chronic graft-versus-host disease (GVHD) and GVHD-associated angiomatosis. Br J Dermatol. 2016 Oct; 175(4):782-4.

Kumar S, **Li H**. In Silico Design of Anticancer Peptides. Methods Mol Biol. 2017; 1647:245-254.

Xie Z, Jia Y, **Li H**. Studying Protein-Protein Interactions by Biotin AP-Tagged Pulldown and LTQ-Orbitrap Mass Spectrometry. Methods Mol Biol. 2017; 1647:129-138.

Qin F, Zhang Y, Liu J, **Li H**. SLC45A3-ELK4 functions as a long non-coding chimeric RNA. Cancer Lett. 2017 Sep 28; 404:53-61

Chwalenia K, Facemire L, **Li H**. Chimeric RNAs in cancer and normal physiology. Wiley Interdiscip Rev RNA. 2017 Jun 7.

Tang Y, Qin F, Liu A, **Li H**. Recurrent fusion RNA DUS4L-BCAP29 in non-cancer human tissues and cells. Oncotarget. 2017 May 9;8(19):31415-31423.

Xie Z, **Li H**. Fusion RNA profiling provides hints on cell of origin of mysterious tumor. Mol Cell Oncol. 2016 Nov 29; 4(1):e1263714.

Xie Z, Babiceanu M, Kumar S, Jia Y, Qin F, Barr FG, **Li H**. Fusion transcriptome profiling provides insights into alveolar rhabdomyosarcoma. Proc Natl Acad Sci U S A. 2016 Nov 15; 113(46):13126-13131.

Kumar S, Razzaq SK, Vo AD, Gautam M, **Li H**. Identifying fusion transcripts using next generation sequencing. Wiley Interdiscip Rev RNA. 2016 Nov;7(6):811-823.

Lopes MBS. The 2017 World Health Organization classification of tumors of the pituitary gland: a summary. Acta Neuropathol. 2017 Aug 18.

Mete O, **Lopes MB**. Overview of the 2017 WHO Classification of Pituitary Tumors. Endocr Pathol. 2017 Aug 1

Lopes MB, Sloan E, Polder J. Mixed Gangliocytoma-Pituitary Adenoma: Insights on the Pathogenesis of a Rare Sellar Tumor. Am J Surg Pathol. 2017 May; 41(5):586-595

Arneja A, Salazar JE, Jiang W, Hendrickson JE, Zimring JC, **Luckey CJ**. Interleukin-6 receptor-alpha signaling drives anti-RBC alloantibody production and T-follicular helper cell differentiation in a murine model of red blood cell alloimmunization. Haematologica. 2016 Nov;101(11):e440-e444.

Kim YK, Yadava RS, Mandal M, Mahadevan K, Yu Q, Leitges M, **Mahadevan MS**. Disease Phenotypes in a Mouse Model of RNA Toxicity Are Independent of Protein Kinase Cα and Protein Kinase Cβ. PLoS One. 2016 Sep 22; 11(9): e0163325.

Mills AM, Champeaux A. Financial Health for the Pathology Trainee: Fiscal Prevention, Diagnosis, and Targeted Therapy for Young Physicians. Arch Pathol Lab Med. 2017 Sep 20.

Mills AM, Dill EA, **Moskaluk CA**, Dziegielewski J, **Bullock TN**, Dillon PM. The Relationship Between Mismatch Repair Deficiency and PD-L1 Expression in Breast Carcinoma. Am J Surg Pathol. 2017 Sep 13.

Mills AM, Gradecki SE, Horton BJ, Blackwell R, **Moskaluk CA**, **Mandell JW**, **Mills SE**, **Cathro HP**. Diagnostic Efficiency in Digital Pathology: A Comparison of Optical Versus Digital Assessment in 510 Surgical Pathology Cases. Am J Surg Pathol. 2017 Sep 4.

Willis BC, Sloan EA, **Atkins KA**, **Stoler MH**, **Mills AM**. Mismatch repair status and PD-L1 expression in clear cell carcinomas of the ovary and endometrium. Mod Pathol. 2017 Jul 28.

Zadeh SL, Duska LR, **Mills AM**. Androgen Receptor Expression in Endometrial Carcinoma. Int J Gynecol Pathol. 2017 Jun 2.

Sloan EA, **Moskaluk CA**, **Mills AM**. Mucinous Differentiation With Tumor Infiltrating Lymphocytes Is a Feature of Sporadically Methylated Endometrial Carcinomas. Int J Gynecol Pathol. 2017 May; 36(3):205-216.

Mills AM, Dirks DC, **Poulter MD**, **Mills SE**, **Stoler MH**. HR-HPV E6/E7 mRNA In Situ Hybridization: Validation Against PCR, DNA In Situ Hybridization, and p16 Immunohistochemistry in 102 Samples of Cervical, Vulvar, Anal, and Head and Neck Neoplasia. Am J Surg Pathol. 2017 May; 41(5):607-615.

Dill EA, **Gru AA**, **Atkins KA**, Friedman LA, Moore ME, **Bullock TN**, **Cross JV**, Dillon PM, **Mills AM**. PD-L1 Expression and Intratumoral Heterogeneity Across Breast Cancer Subtypes and Stages: An Assessment of 245 Primary and 40 Metastatic Tumors. Am J Surg Pathol. 2017 Mar; 41(3):334-342.

Mills AM, Gottlieb C, Ring KL. PD-L1 Pitfalls: Emphasizing the importance of membranous localization and correlation with tumor cell and macrophage distributions. Gyn Oncology Reports 2017 Epub ahead of print.

Sloan EA, Ring KL, Willis BC, Modesitt SC, **Mills AM**. PD-L1 Expression in Mismatch Repair-deficient Endometrial Carcinomas, Including Lynch Syndrome-associated and MLH1 Promoter Hypermethylated Tumors. Am J Surg Pathol. 2017 Mar; 41(3):326-333.

Mills AM, Paquette C, Terzic T, Castle PE, **Stoler MH**. CK7 Immunohistochemistry as a Predictor of CIN1 Progression: A Retrospective Study of Patients From the Quadrivalent HPV Vaccine Trials. Am J Surg Pathol. 2017 Feb; 41(2):143-152.

Mills AM, Policarpio-Nicholas ML, Agaimy A, **Wick MR**, **Mills SE**. Sclerosing Microcystic Adenocarcinoma of the Head and Neck Mucosa: A Neoplasm Closely Resembling Microcystic Adnexal Carcinoma. Head Neck Pathol. 2016 Dec; 10(4):501-508.

Tchernev G, Voicu C, Mihai M, Lupu M, Tebeica T, Koleva N, Wollina U, Lotti T, Mangarov H, Bakardzhiev I, Lotti J, França K, Batashki A, **Patterson JW**. Basal Cell Carcinoma Surgery: Simple Undermining Approach in Two Patients with Different Tumour Locations. Open Access Maced J Med Sci. 2017 Jul24; 5(4):506-510.

Gulseren D, Kwock JM, **Patterson JW**. A case of combined desmoplastic trichoepithelioma and compound melanocytic nevus. J Cutan Pathol. 2017 May 16.

Publications and Awards

Selected Faculty Publications

Journal Articles

Tchernev G, Pidakev I, Lozev I, Lotti T, Cardoso JC, **Patterson JW**. Undermining plastic surgery as a possible option for treating basal cell carcinoma of the forehead. Wien Med Wochenschr. 2017 Apr; 167(5-6):131-133.

Tchernev G, Chokoeva AA, Vidolova NG, Ivanova B, Mangarov H, Nikolovska D, **Patterson JW**. Erythema gyratum repens: a pathogenetic mystery and therapeutic challenge. Wien Med Wochenschr. 2017 Apr; 167(5-6):117-119.

Patterson JW, Tchernev G, Chokoeva AA, **Wick MR**. Sclerosing epithelioid fibrosarcoma. Wien Med Wochenschr. 2017 Apr; 167 (5-6):120-123.

Robbins KM, Stabley DL, Holbrook J, Sahraoui R, Sadreameli A, Conard K, Baker L, Gripp KW, **Sol-Church K**. Paternal uniparental disomy with segmental loss of heterozygosity of chromosome 11 are hallmark characteristics of syndromic and sporadic embryonal rhabdomyosarcoma. Am J Med Genet A. 2016 Dec; 170(12):3197-3206.

Gripp KW, Robbins KM, Sheffield BS, Lee AF, Patel MS, Yip S, Doyle D, Stabley D, **Sol-Church K**. Paternal uniparental disomy 11p15.5 in the pancreatic nodule of an infant with Costello syndrome: Shared mechanism for hyperinsulinemic hypoglycemia in neonates with Costello and Beckwith-Wiedemann syndrome and somatic loss of heterozygosity in Costello syndrome driving clonal expansion. Am J Med Genet A. 2016 Mar; 170(3):559-64.

Stelow EB, Bishop JA. Update from the 4th Edition of the World Health Organization Classification of Head and Neck Tumours: Tumors of the Nasal Cavity, Paranasal Sinuses and Skull Base. Head Neck Pathol. 2017 Mar;11(1):3-15.

Stelow EB, Wenig BM. Update From The 4th Edition of the World Health Organization Classification of Head and Neck Tumours: Nasopharynx. Head Neck Pathol. 2017 Mar; 11(1):16-22.

Stelow EB. Glandular Neoplasia of the Sinonasal Tract. Surg Pathol Clin. 2017 Mar; 10(1):89-102.

Tung KS, Harakal J, Qiao H, Rival C, Li JC, Paul AG, Wheeler K, **Pramoonjago P**, Grafer CM, Sun W, Sampson RD, Wong EW, Reddi PP, Deshmukh US, Hardy DM, Tang H, Cheng CY, Goldberg E. Egress of sperm autoantigen from seminiferous tubules maintains systemic tolerance. J Clin Invest. 2017 Mar 1; 127(3):1046-1060.

Husain AN, Colby TV, Ordóñez NG, Allen TC, Attanoos RL, Beasley MB, Butnor KJ, Chirieac LR, Churg AM, Dacic S, Galateau-Sallé F, Gibbs A, Gown AM, Krausz T, Litzky LA, Marchevsky A, Nicholson AG, Roggli VL, Sharma AK, Travis WD, Walts AE, **Wick MR**. Guidelines for Pathologic Diagnosis of Malignant Mesothelioma: 2017 Update of the Consensus Statement From the International Mesothelioma Interest Group. Arch Pathol Lab Med. 2017 Jul 7

Wick MR. Panniculitis: A summary. Semin Diagn Pathol. 2017 May; 34(3):261-272.

Wick MR. Bullous, pseudobullous, & pustular dermatoses. Semin Diagn Pathol. 2017 May; 34(3):250-260

Wick MR. Psoriasiform dermatitides: A brief review. Semin Diagn Pathol. 2017 May; 34(3):220-225.

Wick MR. Disorders characterized by predominant or exclusive dermal inflammation. Semin Diagn Pathol. 2017 May; 34(3):273-284.

Wick MR. Granulomatous & histiocytic dermatitides. Semin Diagn Pathol. 2017 May; 34(3):301-311.

Marchevsky AM, Walts AE, **Wick MR**. Evidence-based pathology in its second decade: toward probabilistic cognitive computing. Hum Pathol. 2017 Mar; 61:1-8.

Wick MR, Santa Cruz DJ, **Gru AA**. Non-lymphoid lesions that may mimic cutaneous hematopoietic neoplasms histologically. Semin Diagn Pathol. 2017 Jan; 34(1):99-107

Mukhopadhyay S, Feldman MD, Abels E, Ashfaq R, Beltaifa S, Cacciabeve NG, **Cathro HP**, Cheng L, Cooper K, Dickey GE, Gill RM, Heaton RP Jr, Kerstens R, Lindberg GM, Malhotra RK, **Mandell JW**, Manlucu ED, **Mills AM**, **Mills SE**, **Moskaluk CA**, Nelis M, Patil DT, Przybycin CG, Reynolds JP, Rubin BP, Saboorian MH, Salicru M, Samols MA, Sturgis CD, Turner KO, **Wick MR**, Yoon JY, Zhao P, Taylor CR. Whole Slide Imaging Versus Microscopy for Primary Diagnosis in Surgical Pathology: A Multicenter Blinded Randomized Noninferiority Study of 1992 Cases (Pivotal Study). Am J Surg Pathol. 2017 Sep 28.

Wiencek J. Ask the expert: Turning the tide in clinical chemistry education. Clinical Laboratory News: An AACC Publication 2017; Volume 43, Number 11.

Wiencek J, Colón-Franco J, Bissonnette S, Utz A and Woodworth A. The endocrine diagnostic management team (DMT) pilot study. Am J Clin Pathol 2017;147(suppl_2):S170.

Wiencek J, Bowman C, Adams B, Sussman C, Sephel G, Linton MF, Nichols JH and Woodworth A. Falsely decreased CO2 in patients with hypertriglyceridemia. J Appl Lab Med: An AACC Publication 2017;1(7):1-3.

Wiencek JR, Booth GS, Nichols JH. A Primed Hemoglobinopathy Screen. Clin Chem. 2017 Aug; 63(8):1423-1424.

Wiencek J and Booth GS. Sickle cell trait in the blood supply. J Appl Lab Med: An AACC Publication 2017; 1(6):773-775.

Wiencek J, Nichols J. Issues in the practical implementation of POCT: overcoming challenges. Expert Rev Mol Diagn. 2016; 16(4):415-22.

Wiencek JR, Hirbawi J, Yee VC, Kalafatis M. The Dual Regulatory Role of Amino Acids Leu480 and Gln481 of Prothrombin. J Biol Chem. 2016 Jan 22; 291(4):1565-81.

Publications and Awards

Selected Faculty Publications

Book Chapters

Gildea JJ, Van Sciver RE, McGrath HE, Kemp BA, Jose PA, Carey RM, **Felder RA**. Dopaminergic Immunofluorescence Studies in Kidney Tissue. Methods Mol Biol. 2017;1527:151-161.

Mete O, Kovacs K, **Lopes MBS**. Neurocytoma. In: Tumours of the Piuitary Gland. WHO Classification of Tumours of the Endocrine Organs, 4th Ed. Lloyd RV, Osamura RY, Klöppel G, Rosai J (eds). Internatioanl Agency for Research on Cancer, Lyon, 2017, pp. 49-50.

Lopes MBS, Kontogeorgos G, Lloyd RV, Tihan T. Mesenchymal and Stromal Tumors. In: Tumours of the Piuitary Gland. WHO Classification of Tumours of the Endocrine Organs, 4th Ed. Lloyd RV, Osamura RY, Klöppel G, Rosai J (eds). Internatioanl Agency for Research on Cancer, Lyon, 2017, pp. 55-59.

Lopes MBS, Roncaroli F, Tihan T. Germ Cell Tumors. In: Tumours of the Piuitary Gland. WHO Classification of Tumours of the Endocrine Organs, 4th Ed. Lloyd RV, Osamura RY, Klöppel G, Rosai J (eds). Internatioanl Agency for Research on Cancer, Lyon, 2017, pp. 61-62.

Lopes MBS. Classification, Pathobiology, Molecular Markers, and Intraoperative Pathology. In: Transspheoidal Surgery: Complications Avoidance and Management Techniques. Laws ERJr, Cohen-Gadol AA, Schwartz TH, Sheehan JP (Eds.). Springer International Publishing AG, 2017, pp 113-144.

Lustig L, Rival C, **Tung KSK.** Autoimmune orchitis and Autoimmune ovarian disease. In Rose NR, Mackay IR eds. The Autoimmune diseases (5th Ed), Elsevier, 2018.

Wiencek J, Colby J and Nichols JH. Rapid assessment of drugs of abuse. In Gregory S. Makowski, editor: Advances in Clinical Chemistry, Vol 80, ACC, UK: Academic Press, 2017, pp. 193-225.

*A more complete picture of faculty and trainee publications can be found on the UVA Department of Pathology website at: **med.virginia.edu/pathology**.*

Awards

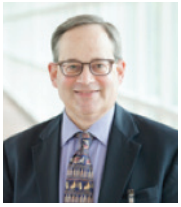
Kristen Atkins, MD, will receive the President's Award at the American Society of Cytopathology in November 2017.

Breanna Brenneman, an experimental pathology (EP) grad student in the Purow Lab was selected for the Tomorrow's Professor Today program. Offered through the UVA Center for Teaching Excellence, this program is a professional development opportunity for graduate students that is "designed to facilitate the transition from student to academic professional" by providing training and credentials in teaching while preparing the participants for the challenges of academia.

Pedro Costa-Pinheiro, an EP grad student in the Kester Lab, was awarded a 2017 Wagner Fellowship by the UVA School of Medicine. These annual fellowships are made in honor of the late Dr. Robert R. Wagner, former chair of the UVA Department of Microbiology and founding director of UVA Cancer Center, from a fund established by his wife, Mary Wagner, after his death in 2001.

Erik Dill, MD, won the International Society of Breast Pathology Best Breast Pathology Clinical Abstract at USCAP 2017.

Robin Felder, PhD, was invited by Secretary David J. Shulkin, head of the Veterans Affairs (VA), to participate in a five-person panel of medical automation and robotics experts to help the Veterans Affairs with their largest transformation and modernization effort in history in Washington, DC, in June 2017.



Jim Gorham, MD, PhD, was elected to the National Blood Foundation Hall of Fame in 2017. "NBF was the very first grant for my nascent research lab as an independent principal investigator and was instrumental in launching our early research efforts focusing on cytokines in transfusion biology, tolerance, and autoimmunity. The NBF holds a special place in my heart," he said.

Paige Kulling, of the Loughran Lab, received a Trainee Travel Award for the Conference on Cytokine Signaling in Cancer in Heraklion, Greece, in June 2017. She was also awarded The Intersociety Council for Pathology Information (ICPI) Trainee Travel Award to attend the Association for Molecular Pathology Annual Meeting in Salt Lake City (award announced September 2017).

Robin LeGallo, MD, received the Robert Bennett Bean Teaching Award from the UVA Medical School Class of 2017.

Camille Lewis, of the Vande Pol Lab, and **Alexandra "Ali" Harris** of the Munson Lab, were recognized with trainee awards for their outstanding presentations at the Commonwealth of Virginia Cancer Research Conference in September 2017.

Hui Li, PhD, will receive the Dean's Award for Excellence in Research in November 2017. This award is given to a researcher who has made significant research contributions with notable scientific and/or clinical impact.

Ashley Volaric, MD, won a Leadership Development Award from the College of American Pathologists. This award provides a stipend towards the cost of pathology meetings, continuing medical education courses and other programs to develop the recipient's leadership in the field of pathology and laboratory science.

Joesph Wiencek, PhD, received the Excellence in Resident Education, Clinical Pathology Fellow Teaching Award, Vanderbilt in 2017, the Paul E. Strandjord Young Investigator Award, Academy of Clinical Laboratory Physician and Scientists in 2016, and the AACC/NACB Academy Distinguished Research Award (top 2 percent of submitted research), the Management Sciences and Patient Safety Distinguished Research Award, MPS Division of AACC, and the Christopher R. Frings Award, Southeast Section AACC during the 2017 American Association for Clinical Chemistry Annual Scientific Meeting & Clinical Lab Expo.

Min Yu, MD, PhD, was selected by the London publication The Pathologist for its Power List of Rising Stars in pathology and laboratory medicine.

National Presentations

Oral Presentations

Alagib K. An IGF2BP3-Cdk9 pathway governs the human fetal-adult megakaryocyte transition. 58th Annual meeting of the American Society of Hematology (ASH), San Diego, California, December 2016.

Alagib K and **Goldfarb A**. Controlling an Ontogenic Master Switch to Maximize Thrombopoiesis. Stem Cell-derived Blood Products for Therapeutic Use. National Heart, Lung and Blood Institute, NIH, Bethesda, Maryland, May 12, 2017.

Bruns DE. How Accurate Do Glucose Meters Need to Be? Biomarkers in Diabetes. IFCC Meeting, Cape Town, South Africa, October 26, 2017.

Bruns DE. Emerging Biomarkers: Will Any of these Be Used in Patient Care in 2027? Biomarkers in Diabetes. IFCC Satellite Meeting, Cape Town, South Africa, October 27, 2017.

Kaczmarczyk JA, Roberts RR, Saul RG, Gildea JJ, **Felder RA**, Whiteley GR; Blonder J. Comparative microsomal proteomics of the NCI-H23 lung cancer cell line grown in 2D and 3D culture", ASMS, Washington DC, June 2017.

Felder RA. Eldercare monitoring technologies in the future. Mid-Atlantic Telemedicine Conference, Washington, DC, April 2017.

Felder RA. 3D, the next cell culture frontier. Society for Laboratory Automation and Screening online webinar.

Felder RA. Automation of 3D human cell culture. Society for Laboratory Automation and Screening, Washington, DC, January 2017.

Felder RA. Worldwide review of clinical laboratory automation. Riyadh, Saudi Arabia, December 2016.

Felder RA. Human Stomach Gastrin is Regulated by Sodium Through SCN7a and Modulated by the Dopamine 1 Receptor. American Heart Hypertension Council, September 2016.

Felder RA. Dopamine D2 receptor is associated with inverse salt sensitivity. American Heart Hypertension Council. September 2016.

Felder RA. Human cell culture for regenerative medicine. FDA, August 2016.

Felder RA. Human cell automated biorepositories. Cancer Treatment Centers of America, July 2016.

Lopes, MBS. An Update of the WHO Classification of Tumors of the Pituitary Gland, 4th Edition. The Matthew T. Moore Lecture, 93rd Annual Meeting of the American Association of Neuropathologists, Orange County, California, June 8-11, 2017.

Tung, KSK. Molecular Mechanisms and Immune Consequences of Pathogen Reservoirs: Battling Unseen Enemies, NIAID Symposium, NIH, September 19-20, 2017.

Wiencek J and Nichols JH. Effect of seasonal temperature on specimens stored outside in courier lock boxes. AACC Annual Meeting, San Diego, California, August 1, 2017.

Wiencek J. Innovative Applications in the Work-Up of Primary Aldosteronism: Assays and Diagnostic Management Teams. AACC Annual Meeting, San Diego, California, August 2, 2017.

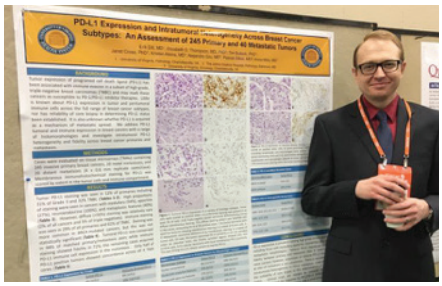
Wiencek J. Emergent Red Cell Exchange for a Pediatric Patient with a Complicated History of Sickle Cell Trait. SES-AACC Meeting. Vanderbilt University. Nashville, Tennessee, June 3, 2017.

A number of our trainees have also given oral presentations at national meetings, a listing of which can be found on the UVA Department of Pathology website at: ***med.virginia.edu/pathology***

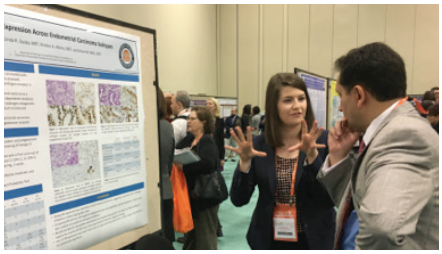
Poster Presentations

Our faculty and trainees have also authored a wide selection of poster presentations, several of which are highlighted here.

A more complete listing can be found at:
med.virginia.edu/pathology/2017/04/27/uscap-2017-representation



Erik Dill, MD, at the U.S. and Canadian Academy of Pathology meeting in March 2017



Sarah Zadeh, MD, at the U.S. and Canadian Academy of Pathology meeting in March 2017

The Department of Pathology 2017 Annual Research Day was a big success, with 31 poster presentations. Congratulations to the award recipients listed below.

Best Clinical Podium Presentation
Garrett Mullins (Clinical Chemistry Fellow)

Best Basic Science Podium Presentation
Paige Kulling (MCBD Grad Student, Loughran Lab)

Best Clinical Poster Presentation
Ashton Brock (Clinical Chemistry Fellow)

Best Basic Science Poster Presentation
Peter Balogh (MCBD Grad Student, Goldfarb Lab)

Final Notes

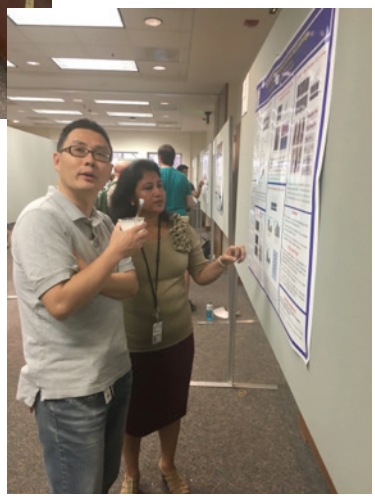
2018 Calendar of Events

March 17-23
United States and Canadian Academy of Pathology (USCAP)
107th Annual Meeting
Vancouver Convention Centre
Vancouver, BC, Canada

Alumni Dinner at USCAP
Check UVA Pathology website for date/time

April 27
UVA Department of Pathology
14th Annual Research Day
Pinn Hall Conference Center
Charlottesville, Virginia

Dr. Tim Bullock and graduate student Monique Anderson at Annual Research Day 2017



Drs. Hui Li and Jyoti Thaikoottathil at Annual Research Day 2017

Digital Pathology Study Update

The UVA Department of Pathology is one of four institutions that partnered with Philips Healthcare in a pivotal study of digital whole slide imaging (WSI) vs. conventional light microscopy for primary diagnosis in surgical pathology. Based on the study results, the FDA approved the use of the Philips digital pathology system in 2017. This approval will increase the use of digital pathology as a primary means of histologic diagnosis, freeing pathologists from microscopes and their place of work in proximity to the histology lab. UVA Pathology is pleased to have been part of this effort.

Moving Up!

The UVA Department of Pathology cracked the top 30 of pathology departments in terms of NIH research dollars granted. We are now No. 29 and looking up!

Source: Blue Ridge Institute for Medical Research

UVA Health System
Department of Pathology
PO Box 800214 | 1215 Lee St.
Charlottesville, VA 22908

UVA Path Report is an annual publication of the UVA Department of Pathology at UVA Health System

Editors: Donna Barnd, PhD, and Barbara Becker

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For more information, please visit:
medicine.virginia.edu/pathology