Major Grants to Two Emory Pathology-Based Research Teams (see Comment)

Two teams of researchers led by Emory Pathology faculty got well-deserved kudos for their work recently from the National Institutes of Health (NIH). It came in the form of a combined $23 million in renewed NIH funding for their cutting-edge research, which is aimed at improving safety and efficacy of blood transfusions and vaccines.

One team, led by Associate Professor and Vice Chair John Roback, M.D., Ph.D., has been supported by the NIH for the past six years to study rare but sometimes harmful side-effects associated with the more than 15 million blood transfusions that are performed annually in the U.S. The 5-year, $8.6-million renewal of their NIH Program Project (P01) award will support their ongoing effort to understand how the properties of red blood cells may change during prolonged storage, and whether this affects the outcomes of transfusion. Working with Drs. Dean Jones (Medicine) and Kirk Easley (Biostatistics), Dr. Roback will use metabolomic profiling to search for biomarkers that may predict red-cell lifespan, vasoactive effects, and adverse transfusion outcomes. Professor Cassandra Josephson, M.D., will extend her clinical studies of more than 600 perinatal transfusions to evaluate a potential link between storage duration and necrotizing enterocolitis. Other lead investigators include Drs. Ned Waller (Heme/Onc), focusing on alloimmunization, and Jim Zimring, previously at Emory Pathology and now at the Puget Sound Blood Center in Seattle, who is developing mouse models to address similar transfusion issues. The newly renewed P01 is a signature program of our renowned Center for Transfusion and Cellular Therapies.

Nobody who heard the dazzling Grand Rounds presentation by Candida Professor Bali Pulendran, Ph.D., on April 20, will be surprised that the NIH is investing in his research, too. Dr. Pulendran and a consortium of investigators he leads have just received word of a 5-year, $15-million renewal of their NIH U19 contract to search for the factors that promote and predict successful immune responses to vaccines in humans. The team comprises investigators at Emory (including Drs. Rafi Ahmed and Mark Mulligan) and at universities in Boston, Berkeley, Chicago, Denver, São Paolo, and San Francisco, together with several major pharmaceutical firms. Their goal is to use genomics and other systems-biology approaches to dissect innate and adaptive immune reactions to widely used pneumococcal and varicella zoster vaccines, focusing particularly on why efficacy of a given vaccine may differ among individuals or between infants and the elderly. Known as a Human Immunology Project Consortium, or HIPC, Dr. Pulendran’s is one of three such contracts awarded by NIH this year, and is the only one among seven competing HIPC awards that was successfully renewed. An authority on dendritic cells and immunization, Dr. Pulendran is widely credited with launching the field now known as "systems vaccinology" (see Pulendran et al., Immunity 33:516, 2010).

COMMENT: These new awards are especially remarkable in light of the historically difficult funding environment today. They highlight the importance of innovative, collaborative team science that addresses major issues in human health and disease. And they’re an impressive testament to the world-class investigators we have on our Emory Pathology faculty.

To contribute to the next newsletter, send an email to Donna Martin (dmart06@emory.edu).
We search far and wide, but oftentimes the very best faculty candidates are right here at Emory already. That’s how we found our newest recruit, Dr. Yue Xue, who joins us as an Assistant Professor in Anatomic Pathology on August 1. She wasn’t always so close by, though. Born in China and trained at Harbin Medical University there, Dr. Xue first came to the U.S. in 1999 to earn a Ph.D. in Pathology at the University of Kansas, where her thesis research focused on how physical interactions between signaling factors and oncoproteins can modulate the activities of cellular signal-transduction pathways. She then completed two successive postdoctoral research fellowships, the first at Northwestern University and the second at the University of Michigan, before enrolling in 2009 as a resident in Pathology at Dartmouth-Hitchcock Medical Center in New Hampshire. She emerged four chilly years later, fully trained in AP and CP, and went on to spend a year in the highly regarded Oncologic Surgical Pathology fellowship at Memorial Sloan-Kettering Cancer Center in New York City. Luckily for us, Dr. Xue had her sights set next on the very best gastrointestinal (GI) and liver pathology training program around, which naturally brought her to our GI Pathology fellowship at Emory last year. So it came to pass: When we searched nationwide for a gifted teacher and diagnostician to join our EUH-based surgical pathology and GI subspecialty team, the choice was obvious, and she agreed to give us a try. We chalk up another successful search, and welcome Dr. Xue aboard with pride and delight.

Speaking of outstanding new recruits, we are delighted to welcome Lynn Hansen as our new Associate Residency Coordinator, beginning August 1. Ms. Hansen comes to us from sunny San Diego with five years of experience supervising residency programs at the Scripps Mercy Hospital and Naval Medical Center there. That, plus her training in mathematics, Master’s degree in teaching, and past experience as a Girl Scout troop leader, make her an ideal match for this post. She will work closely with Mary Lou Mojonnier, filling the role vacated by Jay Wilson, who retired in late June after 13 years in our Department and 20 years at Emory.

Emory’s Midtown campus has one of the busiest and fastest-growing Head and Neck (H&N) oncology programs in the country, so it’s natural that Dr. Chris Griffith would join our faculty there. His passion for H&N diagnostics, and his road to Midtown, can be traced back to his training in the M.D./Ph.D. program at SUNY Upstate in Syracuse, where his thesis research was aimed at using epithelial-specific regulatory signals from the human papillomavirus to create genetically engineered oncolytic viruses that could selectively infect and eliminate oral squamous-cell carcinomas. That training imbued him not only with skills in practical molecular biology but also with a keen interest in H&N cancers, which he carried with him to the Pathology residency at the University of Pittsburgh. Pursuing that passion, Dr. Griffith switched from his initial AP/CP track to complete AP training only, and then spent a year in Pittsburgh’s renowned clinical fellowship in Cytopathology at the same institution, from which he graduated at the end of June. Dr. Griffith’s rare combination of expertise in H&N pathology, cytopathology, and molecular biology underpin his current research efforts, which are aimed at developing better morphologic and molecular tools to classify salivary carcinomas. Those skills, together with his strong commitment to scholarship and teaching, also make him an outstanding addition to our Department’s faculty and to our H&N Pathology team at Midtown. He will join us as an Assistant Professor on August 1. Please join in welcoming Dr. Griffith onto our Emory Pathology faculty.

Pathology has two seats at the table of the Dean’s Advisory Committee. Professor Jeanette Guarner, M.D., and Assistant Professor Colleen Kraft, M.D., are each nearing the end of the first year of their three-year terms. Elected by School-wide balloting, the 10-member Committee meets monthly to offer candid advice on major issues to Dean Larsen from the faculty’s perspective.
Case Reports

A lot of exciting work paid off in March for Assistant Professor Zhentao Zhang, Ph.D. In fact, it paid off twice. At a reception hosted by Dean Chris Larsen on March 25, Dr. Zhang was honored as one of Emory's four Postdoctoral Millipub Awardees for 2014, for his discovery that the activity of an endogenous brain protease called asparagine endopeptidase (or AEP) gives rise to the neurofibrillary tangles that are a hallmark of Alzheimer's disease (see Zhang et al., Nature Medicine 20:1254, 2014). His work suggests that inhibiting AEP might arrest or prevent Alzheimer's pathogenesis. A few days earlier, he had been awarded a $100,000 research grant from the BrightFocus Foundation to develop AEP-related biomarkers in cerebrospinal fluid as novel diagnostic tests for that disorder. Dr. Zhang conducts this research with his collaborator and mentor, Professor Keqiang Ye, Ph.D.

July 1 was a big day for Associate Professor Eileen Burd, Ph.D., who directs our Clinical Microbiology laboratory. On that day, Dr. Burd commenced her role as the newly elected Vice Chair of the American Board of Medical Microbiology, which sets national standards for certification in that subspecialty, and she also began a yearlong term as Chair of the Clinical Microbiology Division of the American Society for Microbiology (ASM). She had been Vice Chair of that ASM Division for the past year.

Our faculty and trainees brought home even more honors than expected from this year’s meeting of the U.S.-Canadian Academy of Pathology (USCAP), held in Boston last March. In addition to the Arthur Purdy Stout prize bestowed on Associate Professor Adeboye Osunkoya, M.D., and the Distinguished Pathologist Award to Professor Sharon Weiss, M.D. (see our March 2015 Newsletter), both Dr. Weiss and our Professor and Vice Chair Volkan Adsay, M.D., received Distinguished Achievement Awards in their respective specialties of soft tissue and gastrointestinal pathology. On top of that, Assistant Professor Uma Krishnamurti, M.D., Ph.D., was senior author of the year’s Best Poster in the category of breast pathology, and our Soft Tissue Pathology fellow Michael Clay, M.D., walked away with the prize for Best Poster in that category, too, for his research with Dr. Weiss and others. Congratulations to all!

Interesting Links

Pathologists in the News

Annie Winkler
Emory News Center
Emory banking plasma from Ebola survivors

http://news.emory.edu/stories/2015/04/hspub_banking_ebola_plasma/campus.html?
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EB_040915

Alexis Carter
CAP Today
Workflow, regulatory unknowns tax molecular IT

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Ebola Team
Emory News
‘Team Ebola’ to receive DAISY award for exceptional nursing

http://news.emory.edu/stories/2015/04/team_ebola_npsf_daisy_award/campus.html?
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Dan Brat
New York Times
Brain Tumor’s Genetic Makeup Critical to Treatment, Research Finds
