Stories of the Zika virus’ emergence and rapid spread throughout Central and South America have been featured on the front pages of all major media outlets for the past several weeks. Zika virus is similar to other mosquito-borne viruses such as West Nile, Dengue, and Chikungunya, and is also transmitted by Aedes mosquitoes. However, the recent identification of Zika virus in semen and urine of infected patients suggests that human-to-human transmission may be possible. Although direct causation has not been proved, epidemiological studies have associated Zika virus infection during pregnancy with infant microcephaly (underdeveloped brains) and eye defects. An association between Zika virus infection and Guillain-Barré syndrome (GBS) also has been suggested. Taken together, these findings are cause for great medical concern.

In response, the Department of Pathology and Genomic Medicine at Houston Methodist Hospital teamed up with Texas Children’s Hospital to develop, validate, and implement the first hospital-based rapid test for Zika virus. This direct Zika test was developed in a matter of weeks as part of the L.E. and Virginia Simmons Collaborative in Virus Detection and Surveillance. This collaborative program was made possible by the generosity of Mr. and Mrs. Simmons, and is designed to facilitate rapid development of tests for virus detection in a large metropolitan area.

The molecular diagnostic assay can be performed on serum, plasma, cerebrospinal fluid, amniotic fluid, and urine specimens. Typically, samples from patients suspected of being infected with the virus would be sent to a public health laboratory such as the Centers for Disease Control and Prevention. The turnaround time for results could be weeks to a month, but our test can render results within hours. “The rapidity of this test is especially important, and will give physicians the information they need to better manage their patients,” said Dr. Randall Olsen, Director of Molecular Diagnostics. In addition, the rapidity of the test will enable public health officials at the national and state level to control the spread of Zika in the region.
patients,” said Randall Olsen, MD, PhD, Director of the Houston Methodist Molecular Diagnostics Laboratory, who with James M. Musser, MD, PhD, Chair of the Department of Pathology and Genomic Medicine, led the Houston Methodist team. This was done in collaboration with James Versalovic, MD, PhD, and James Dunn, PhD, from Texas Children's Hospital. After details of the test were released on Wednesday, February 24th, over 500 major national and local news outlets published the story, including the Houston Chronicle, New York Times, Washington Post, and Time Magazine.

Additionally, the Department of Pathology and Genomic Medicine has implemented an active deferral policy for blood donation for the Houston Methodist Eileen Murphree McMillin Blood Donor Center. Potential donors are asked if they have recently traveled to a Zika-endemic area in the past month. If donors respond affirmatively, they are deferred from donating blood for 28 days based on recommendations by the American Association of Blood Banks (AABB), CDC, and FDA. “Our mandatory deferral policy safeguards our blood supply and protects our patients from the Zika virus,” said Tina Ipe, MD, Associate Medical Director of Transfusion Medicine.

To date, all confirmed Zika virus infections in the US have been acquired during travel to a CDC-designated Zika endemic area. However, local transmission, particularly in Texas where Aedes mosquitoes are common, may occur. Most infected people remain asymptomatic or have a mild self-limiting illness with fever, fatigue, arthritis, and malaise.

To read more about the rapid Zika virus test, please go to: “Rapid detection test for Zika virus” on the HMH website. For questions regarding Zika virus testing, or any molecular diagnostics test, please contact Ms. Heather Hendrickson at: HLHendrickson@houstonmethodist.org or Dr. Randall Olsen at: RJOlsen@houstonmethodist.org.

Drs. Cagle, Powell, and Musser Named to The Pathologist Power List

The November 2015 issue of The Pathologist, a UK publication, features the inaugural Top 100 Power List. Three faculty members in the Department of Pathology and Genomic Medicine at Houston Methodist Hospital made it to this prestigious group. In alphabetical order they are Philip Cagle, MD, James Musser, MD, PhD, and Suzanne Powell, MD. A fourth physician in the top 100, Jerad Gardner, MD, completed his residency training in the Department.

The Power List recognizes individuals with exceptional achievements who have had an impact on pathology. One of the goals of the list is to highlight the integral role of pathology and laboratory medicine in patient care and the molecular revolution. Nominations were solicited from the journal’s readers, and an independent broad-based judging panel of eminent lab professionals selected the top 100. Congratulations!
Dr. Mary Schwartz to Receive the 2016 John W. Overstreet Award

Dr. Mary Schwartz, Medical Director of Surgical Pathology, has been chosen to receive the prestigious John W. Overstreet Award. This award is given annually to a Houston Methodist physician who “exemplifies the best of the medical profession.” Dr. Schwartz is a tireless advocate of excellence in patient care. She is an inspiration to hundreds of trainees and an invaluable resource to our clinicians. We are proud and extremely fortunate to have her as our colleague. Please join our Methodist physicians in congratulating Dr. Schwartz on this well-deserved award at the Doctor’s Day celebration at noon on March 30 in Crain Garden!

Dr. Philip Cagle to Receive the Chinese American Pathology Association (CAPA) Honorary Award

Philip T. Cagle, MD, Medical Director of Pulmonary Pathology and Editor-in-Chief of the Archives of Pathology & Laboratory Medicine, will be the first recipient of the Chinese American Pathology Association (CAPA) Honorary Award. This is the highest accolade that CAPA presents to a world-renowned pathologist who also has been a strong supporter and advocate for CAPA. Dr. Cagle will receive the award at the 14th CAPA Annual Business Meeting on March 12, 2016, at the United States and Canadian Academy of Pathology (USCAP) annual meeting in Seattle. The ceremony will take place at the Sheraton Hotel, SH Metro Ballroom A, at 3:00 pm. Dr. Cagle will give a brief speech to the CAPA members and pathologists from China attending the meeting. If you are attending USCAP, please stop by and congratulate Dr. Cagle on this honor.

Request for Applications: Department Microgrants

The Department of Pathology and Genomic Medicine has invited proposals for the Winter 2016 round of microgrants. This mechanism is designed to foster innovation and increase efficiency and expansion of our clinical services. Projects that are designed to help decrease diagnostic errors and increase patient safety (broadly defined) are especially encouraged. Each selected project will receive a budget and the work must start and be completed in a maximum of 4-6 months. The departmental review committee will consider several criteria in its assessment, including clinical need, likelihood of a significant return on investment, involvement of residents and/or fellows and multiple faculty, and likelihood of leading to external peer-reviewed publication and funding. Applicants are strongly encouraged to collaborate with colleagues from other Methodist departments, and if appropriate, colleagues in the Department of Pathology and Laboratory Medicine at Weill Medical College of Cornell University.

The results from two studies supported by department microgrants are currently in press. A study by Dr. Suzanne Crumley et al used next-generation sequencing of matched primary and metastatic rectal adenocarcinomas to determine genetic mutations associated with metastasis. The article is published in the Archives of Pathology and Laboratory Medicine and can be accessed here. A second study by Dr. Mathew Cykowski et al investigated the deposition of the TDB-43 protein in age-related neurodegenerative diseases and its functional significance. The results are currently in press in the Journal of Neuropathology and Experimental Neurology.

The department anticipates funding up to six projects. The proposals will be reviewed and funding decisions will be made on a rolling basis until March 15, 2016. The proposals should be sent electronically to Ms. Liz Al-Ateeqi at LizA@houstonmethodist.org.
New Books Published by Department Faculty

Lung and Pleural Pathology
Dr. Philip Cagle, Medical Director of Pulmonary Pathology in the Department of Pathology and Genomic Medicine, has published the book “Lung and Pleural Pathology.” Doody's medical reviews calls it “the first textbook to fully cover the revolution in pulmonary pathology.” Congratulations to Dr. Cagle and his faculty colleagues in the department who contributed chapters to this comprehensive textbook. These include Drs. Roberto Barrios, Yimin Ge, Blythe Gorman, Abida Haque and Hidehiro Takei. It also includes former trainees and visitors to our department, including Dr. Kirtee Raparia, currently at Northwestern University Medical Center, and Drs. Mizuki and Michiya Nishino of Harvard Medical School. Many recent graduates of our training program also contributed, including Drs. Eunice Choi, Sergio Pina-Oviedo, and Haijun (Steve) Zhou.

Advances in Surgical Pathology: Bladder Cancer
Congratulations to Dr. Jae Ro, Director of Surgical Pathology for the Department of Pathology and Genomic Medicine, and former Department member Dr. Quihui (Jim) Zhai, on their book “Advances in Surgical Pathology: Bladder Cancer.” The book provides a comprehensive overview for diagnosing bladder neoplasms, with emphasis on new developments and recent advances. The book received excellent reviews from the independent professional review service at Doody’s Enterprises, Inc., which stated: “This is an excellent resource for pathologists who wish to quickly review the fundamentals of bladder biopsies. Overall, this is a valuable resource for pathologists...” Dr. Alberto Ayala, Vice Chair of the Department and Dr. Mukul Divatia contributed chapters, and Dr. Philip Cagle, Medical Director of Pulmonary Pathology, is one of the series editors. Excellent work!

Archives of Pathology and Laboratory Medicine: 90 Years
The Archives of Pathology and Laboratory Medicine celebrated 90 years in publication this past January. The journal’s Editor-in-Chief, Dr. Philip Cagle, is Director of Pulmonary Pathology for the Department of Pathology and Genomic Medicine. The 90th anniversary cover article was dedicated to smartphone microscopy, a relatively new and low-cost method of sharing patient data for long-distance surgical pathology consultation. This technologically-inspired cover illustrates how far the discipline of pathology has come in 90 years. Archives, the longest continuously-published clinically-oriented pathology journal in the U.S., has been on the forefront of documenting those changes. This is especially true under the leadership of Dr. Cagle, who in the past decade has made Archives the most widely read pathology journal in the U.S. There are several department faculty members involved with the journal as section editors and/or on the editorial board, and who contribute tremendously to the quality of the content. Dr. Cagle has written an editorial on the 90th anniversary of Archives, which can be accessed here.
The Department of Pathology and Genomic Medicine and the Research Institute, in conjunction with UT Health Science Center, Houston, hosted the 4th Texas Tuberculosis Research Symposium (TTRS) on Friday, January 22nd in the John F. Bookout Auditorium. More than 100 tuberculosis researchers from the Texas Medical Center and beyond attended, including faculty, postdoctoral fellows, and graduate students.

The day-long event featured 16 speakers reporting recent findings in tuberculosis epidemiology, animal models, drug resistance, biomarkers, vaccines, and several other key topics pertinent to this global crisis. Susan Dorman, MD, Associate Professor of Medicine in the Division of Infectious Diseases at Johns Hopkins School of Medicine, delivered the morning keynote talk describing her translational TB research and treatment clinical trial data. The afternoon keynote talk closed the symposium, with Deepak Kaushal, PhD, Director of the Tulane National Primate Research Center (TNPRC) and the Tulane University School of Medicine, providing data on his TB non-human primate vaccine studies.

Dr. Edward Graviss, Director of the Tuberculosis Laboratory and member of the Department of Pathology and Genomic Medicine, organized the symposium with co-organizers, Drs. Jeffrey Actor and Chinnaswamy Jagannath, both from the Department of Pathology and Laboratory Medicine at UT Health Science Center, Houston. Researchers continue to use new and cutting edge technologies to answer fundamentally basic, clinical, translational, and public health questions regarding tuberculosis. The tremendous success of this meeting can be seen in the research topics discussed, and the overall attendance, participation and interactions between researchers.

The journal *Tuberculosis* has invited all speakers and poster presenters to submit a manuscript based on their presentations at the meeting to a special supplemental edition to be edited by Drs. Graviss and Actor and published in 2017.

The World Health Organization estimates that one third of the total world population is infected with *Mycobacterium tuberculosis*, and that 1.6 million people died from tuberculosis in 2014. More research on containment, diagnosis, treatment, and prevention is desperately needed to stop the spread of this disease.

Congratulations to all for an extremely successful symposium!

New Scholars Platform and the Department Academic Report

The Houston Methodist Hospital Institute for Academic Medicine (IAM) launched the Scholars platform on February 8th, 2016. This program tracks the research activity of all faculty members within the IAM, including publications, invited talks, meeting and working group participation, grants, clinical trials, and other academic activities. Starting with data from 2015 and moving forward, this program will be used to automatically update research activity and online faculty profiles. It will also help to identify complementary research interests with the aim of fostering collaboration across departments and institutes. The Department of Pathology and Genomic Medicine is ranked first in research activities and second in publications throughout Houston Methodist and the Research Institute. Great work to all of our outstanding faculty, residents, and fellows who contributed to this fantastic accomplishment!

For assistance in accessing Scholars or a tutorial on how to use the interface, please contact Kathryn Stockbauer, PhD, Manager of Academic Development, at: KStockbauer@houstonmethodist.org.

“That our department ranked 1st in activities and 2nd in publications is further proof of the dedication to research and academic pursuits of our superb faculty.”

- James M. Musser, MD, PhD
Chair, Department of Pathology and Genomic Medicine
Conference News

Houston Methodist Residents Win at Texas Society of Pathologists Annual Meeting

The 95th Annual Meeting of the Texas Society of Pathologists was held at the Hilton Anatole Hotel in Dallas on January 15-17, 2016. Dr. Michael Deavers gave a talk titled “Common Problems in Gynecologic Pathology” and two of our trainees were winners in the abstract competition: Dr. Chunyan Liu won 2nd place and Dr. Brandon Driver won 3rd. Congratulations!

Poster Titles:

Chunyan Liu, MD, PhD; Kristi Pepper, MB (ASCP); Heather Hendrickson, MB (ASCP); Philip T. Cagle, MD; Bryce P. Portier, MD, PhD. “Clinical Validation of a Novel Commercial RT-qPCR Screening Assay for Detection of ALK Translocations and Amplifications in NSCLC”.

Brandon R. Driver, MD; Roberto Barrios, MD; Yimin Ge, MD; Abida Haque, MD; David Tacha, PhD; Philip T. Cagle, MD. “Folate Receptor Alpha Expression Level Correlates With Histologic Grade in Lung Adenocarcinoma”.

PISA to be hosted by Department in 2016

The Department of Pathology and Genomic Medicine will host the 2nd annual meeting of Pathobiology for Investigators, Students, and Academicians (PISA). The meeting, “Breakthroughs in Biology: From Underlying Pathogenesis to Translational Medicine”, will take place on October 20-22, 2016, in the John F. Bookout auditorium at the Houston Methodist Research Institute. The deadline for abstract submission is June 30th, 2016.

The website is still under construction, but please continue to check back at www.pisa2016.org for event details.

Department to Host Alumni Reception at USCAP

Dr. James M. Musser, Chair of the Department of Pathology and Genomic Medicine, will host an alumni reception at the United States and Canadian Association of Pathologists (USCAP) Annual Meeting to be held this year from March 12th to 18th in Seattle, Washington. The reception will take place on March 14th from 5:00 – 7:00 pm in the SH Boren Room of the Sheraton Seattle Hotel. All current trainees, resident and fellow alumni, and faculty are encouraged to stop by and say hello to their colleagues!

Save the Dates: Upcoming Conferences

Houston Society of Clinical Pathologists (HSCP): St. Regis Hotel, Houston, April 16, 2016

Cancer Biomarkers: Department of Pathology and Genomic Medicine, September 10, 2016

The Department of Pathology and Genomic Medicine hosted the Chair’s Lecture on Wednesday, February 24th. The speaker, Karen Kaul, MD, PhD is the Duckworth Family Chair of Pathology and Laboratory Medicine at NorthShore University HealthSystem, in Evanston, Illinois. Dr. Kaul addressed some of the many challenges and opportunities facing the rapidly evolving field of clinical pathology. She noted that pathology diagnoses dictate 70% of downstream decision-making and spending, and that clinical laboratories are the primary source of medical information. Dr. Kaul also discussed computational pathology, noting that pathologists are in a unique position to analyze the wealth of data generated by health-care information systems to streamline test ordering and facilitate physician communication. She also touched on the burgeoning field of personal pharmacogenomics and the challenges the clinical laboratory faces regarding implementing standard practice protocols for these cutting-edge tests. If you were unable to attend the seminar and would like a copy of Dr. Kaul’s presentation, please contact Ms. Liz Al-Ateeqi at LizA@houstonmethodist.org.

Remaining Grand Rounds for 2016

April 5
Jerad Gardner, MD
University of Arkansas for Medical Sciences
Soft Tissue Pathology

May 3
L. Jeffery Medieros, MD
MD Anderson Cancer Center
Hematopathology

June 7
Ming Zhou, MD
New York University School of Medicine
Update on the 2016 WHO Classification of Renal Tumors

October 4
Lynette Sholl, MD
Dana-Farber, Harvard Cancer Center
Interpretation of NGS Gene Panel Reports

November 1
Natasha Rekhtman, MD
Memorial Sloan Kettering Cancer Center
Management of Cytology Specimens for Biomarker Testing

December 6
Chung Che (Jeff) Chang, MD, PhD
University of Central Florida
Hematopathology

(No Grand Rounds July - September)

IN THE NEXT ISSUE:
The L.E. and Virginia Simmons Community-Wide Virus Detection Program
Fine-needle aspiration at Houston Methodist and outlying hospitals
The Inaugural Houston Methodist Lung Cancer Symposium, October 8-9, 2016
PUBLICATIONS [Nov 2015 - Mar 2016]


PUBLICATIONS [CONTINUED]


Takei, H., Rouah, E, Ishida, Y. Brain metastasis: clinical characteristics, pathological findings and molecular subtyping for therapeutic implications. Brain Tumor Pathol, 2016, 33, 1-12.


Truong, L, Mai, K. Obstructive nephropathy: What the surgical pathologist should know. Pathology Case Reviews, 2015, 20, 250-255.


