The College of American Pathologists (CAP) accreditation inspection team visited several Houston Methodist entities from September 17th to 19th as part of the biennial accreditation process. The laboratories at the Houston Methodist Hospital, Houston Methodist Sugar Land Hospital, Houston Methodist West Hospital, and Houston Methodist Kirby Emergency Care Center successfully retained their CAP accreditation. All laboratory directors noted that the 25-member inspection team from the Hospital of the University of Pennsylvania was very thorough and requested demonstrations of various processes pertaining to laboratory operations.

“I am extremely proud of the performance of all of our Methodist facilities that were inspected. Our pathologists, technical directors, and laboratory staff deserve all of the credit for the superb job they did before and during the inspection. Special thanks to our residents and fellows for conducting two mock inspections that greatly assisted our preparation,” said James M. Musser, M.D., Ph.D., Chair of the Department of Pathology and Genomic Medicine.

Mr. Manuel Hinojosa, Administrative Director of Laboratory Services at Houston Methodist Hospital, added, “The Laboratory Accreditation Program is an essential part of maintaining the highest quality of care and service for our patients. The inspection team found that the Houston Methodist Hospital system maintains many outstanding laboratory facilities.” Their thoughts were echoed by Ms. Donna Hermis, Director of the Houston Methodist Sugar Land Hospital laboratory, “The inspection went extremely well. The inspection team validated the excellent quality of service our laboratory provides to our patients.” Ms. Melody Peeples, Director of the Houston Methodist West Hospital laboratory, said, “The inspection was conducted in a very collegial manner. The accreditation team reviewed our procedures to ensure they safeguard our patients’ safety.”

The CAP Laboratory Accreditation Program is internationally recognized and unique in that its inspection teams are comprised of practicing laboratory professionals. Furthermore, CAP inspections go beyond regulatory compliance and assist laboratories with establishing protocols for providing the highest level of patient care and achieving standards of excellence. Together, retaining the CAP accreditation helps ensure that the Houston Methodist Hospital laboratories are providing our patients the best service possible. For more information on the CAP Laboratory Accreditation Program, please visit www.cap.org

Table of Contents

2 New Diagnostic Procedures In Sugar Land
   New Diagnostics Tests From Microbiology Laboratory
3 Department Welcomes New Faculty
   Dr. Leveque Receives Blood Banking Award
4 Dr. Youli Zu Awarded Two Grants
   Dr. Matthew Cykowski Receives Award
5 Dr. Adriana Rosato Awarded NIH Grant
6 Department Hosts Special Seminars
7 Dr. Luan Truong Travels To Vietnam
8 Former Trainees: Where Are They Now?
9 In Memoriam: Donald G. Weilbaecher, M.D.
Houston Methodist Sugar Land Hospital Implements New Diagnostic Procedures

Houston Methodist Sugar Land Hospital recently expanded its diagnostic repertoire to include endobronchial (EBUS) and endoscopic (EUS) ultrasound testing. Performed in a dedicated endoscopy suite, the two procedures are non-invasive alternatives to major surgeries and are used to diagnose and stage cancer and detect infections. Both procedures are performed by a multidisciplinary team that includes a pulmonologist (EBUS) or gastroenterologist (EUS), an anesthesiologist, pathologist, and endoscopy staff. The premise of the EBUS procedure is to collect lung or thoracic lymph node biopsies through a transbronchial needle aspiration guided by an ultrasound probe to allow visualization of internal structures. Similarly, the EUS procedure obtains biopsies from tissues surrounding the gastrointestinal tract. After the specimens are obtained and while the patient is still sedated, they are rapidly and thoroughly examined by the pathologist to ensure specimen quality and determine types of cells present. “EBUS is a rapid process that provides a reliable and non-invasive alternative to performing open-chest surgery to gain access to thoracic lymph nodes,” explained Dr. Seema Mullick, Medical Director of Laboratory Services at Houston Methodist Sugar Land Hospital. “We are extremely proud to be the only community hospital in the Fort Bend area to offer these highly sophisticated procedures to our patients,” she stated.

Both EBUS and EUS were implemented in early 2014. Currently, there are four pulmonologists and one gastroenterologist performing these procedures. However, Dr. Mullick estimates that as the hospital continues to expand, the service volume will increase.

New Tests Available from Houston Methodist Diagnostic Laboratory: Gastrointestinal Pathogen Assay

The Microbiology Laboratory of the Houston Methodist Hospital recently validated and implemented a real-time PCR assay to detect the 22 most common gastrointestinal pathogens that cause diarrhea, including Adenovirus (type 40 and 41), Astrovirus, Campylobacter species, Clostridium difficile (Toxin A/B), Cryptosporidium species, Cyclospora cayetanensis, Entamoeba histolytica, Escherichia coli O157, Enteropathogenic E. coli, Enteroinvasive E. coli, Giardia lamblia, Norovirus, Plesiomonas shigelloides, Rotavirus, Salmonella species, Saporvirus, Vibrio cholerae, and Yersinia enterocolitica.

Diarrhea, which is commonly caused by an infection of the gastrointestinal tract by one or more pathogens, is a significant source of morbidity and mortality worldwide. In the United States, approximately 375 million episodes of diarrhea are estimated to occur annually. Children, the elderly, and immunocompromised individuals are particularly susceptible to severe disease.

Real-time PCR is a highly sensitive and specific method to detect the presence of nucleic acid from pathogens in a clinical specimen. The new Gastrointestinal Pathogen Assay can rapidly detect organisms that are difficult to identify using traditional culture-based methods. The assay is FDA-approved and has a 4-hour turnaround time after receipt in the laboratory.

For more information on the Gastrointestinal Pathogen Assay or any Microbiology Laboratory test, please contact:
Dr. James Davis: jrdavis@houstonmethodist.org, Dr. Randall Olsen: rjolsen@houstonmethodist.org, or Ms. Patricia Cernoch: pcernoch@houstonmethodist.org
The Department of Pathology and Genomic Medicine Welcomes Two New Faculty Members

Meredith Reyes, M.D.
Associate Director of Transfusion Medicine and Co-Director of Community Pathology Laboratory Services, Houston Methodist Hospital

Dr. Meredith Reyes joined the Department of Pathology and Genomic Medicine on October 1, 2014. Dr. Reyes comes to Houston Methodist Hospital from Baylor St. Luke’s Hospital. She will serve as Associate Director of Transfusion Medicine and Co-Director of Community Pathology Laboratory Services.

Dr. Reyes received her M.D. degree and completed her residency in clinical pathology at The University of Texas Health Science Center at Houston. Following residency, she continued her training with a fellowship in Blood Banking and Transfusion Medicine in the Department of Pathology and Immunology at Baylor College of Medicine.

Rajeev Singh, M.D., M.B.A.
Director of the Tissue and Serum Biorepository, Houston Methodist Hospital and Houston Methodist Research Institute

Dr. Rajeev Singh joined the Department of Pathology and Genomic Medicine on October 13, 2014, as the Director of the Tissue and Serum Biorepository. Dr. Singh comes to Houston Methodist Hospital and Houston Methodist Research Institute from the Singapore National University Hospital, where he was Deputy Head of the Tissue Repository.

Dr. Singh received his M.D. degree and Postgraduate Qualification in Pathology from the Armed Forces Medical College in Pune, India. He then earned a Masters in Business Administration from Duke University. Dr. Singh brings over 25 years experience as a general physician, pathologist, and biobanker. In his current position, Dr. Singh will work closely with Dr. David Bernard to oversee and enhance the day-to-day operations of the serum and tissue biorepository.

Dr. Christopher Leveque is Honored for his Leadership as the Medical Director of Transfusion Services

September 2014 commemorated the Gulf Coast Marrow Donor Program’s 1,000th bone marrow collection, culminating in a celebration and an award ceremony held in Crain Garden on September 23rd. As part of this celebration, the Gulf Coast Marrow Donor Program honored Dr. Christopher Leveque for his leadership of the Houston Methodist Hospital Blood Bank and Transfusion Service. Due in part to Dr. Leveque’s tireless efforts, the program continues to grow, and this year, more than 100 individuals have donated their bone marrow and stem cells.

The Gulf Coast Marrow Donor Program began its partnership with the Stem Cell and Gene Therapy Program, which is operated by Houston Methodist Hospital, Baylor College of Medicine, and Texas Children’s Hospital, in 1991 by collecting bone marrow samples from unrelated donors. Working in tandem with the National Marrow Donor Registry, the program expanded in 1999 to include peripheral blood stem cell donations. For more information about the Gulf Coast Marrow Donor Program or to become a donor, please visit www.giveblood.org
Dr. Youli Zu Awarded Two Grants to Improve Cancer Cell Detection

Dr. Youli Zu was recently awarded a 3-year grant from the Cancer Prevention and Research Institute of Texas (CPRIT) for his application titled “Accurate and high-throughput detection of breast and ovarian cancer cells in whole blood”. His proposal aims to develop a one-step, aptamer-based assay that will identify circulating tumor cells (CTCs) in cancer patient blood.

Dissemination of cancer cells from the primary tumor to distant tissues and organs is the major cause of cancer-related deaths. Over the past decade, many clinical studies have shown that CTCs present in the bloodstream are associated with disease progression, recurrence, and ultimately patient survival. However, it has been a challenge to develop methods to accurately identify and enumerate CTCs due to their scarcity. To date, the only FDA-approved technology relies on a complicated, multi-step process that can lead to loss and damage of already very rare cells and takes over 20 hours to complete.

To address this important clinical issue, Dr. Zu and his team plan to develop a revolutionary single-step platform that will allow for rapid identification of CTCs. This new assay will be based on aptamer technology, an area of active research in Dr. Zu’s laboratory. Aptamers are short DNA or RNA sequences that function similarly to antibodies and preferentially bind their target proteins on the surface of cancer cells. Once the CTC detection technology is developed, the one-step assay will offer a system for accurate detection of CTCs without a lengthy isolation protocol.

In addition to the CPRIT award, Dr. Zu and his partners at Telovision, LLC, have received a grant from the Small Business Technology Transfer Program at the National Institutes of Health. The grant, titled “A simple assay system for rapid detection of circulating tumor cells”, will provide funds to commercialize this technology.

Dr. Zu is Medical Director of Hematopathology and Director of the Cancer Pathology Laboratory in the Department of Pathology and Genomic Medicine. He is also Professor of Pathology and Laboratory Medicine at Weill Cornell Medical College of Cornell University. For more information on Dr. Zu and his research, please visit www.houstonmethodist.org/youlizumdphd

Dr. Matthew Cykowski Receives the O.T. Bailey-Helena Riggs Award

Dr. Matthew Cykowski, a neuropathology fellow in the Department of Pathology and Genomic Medicine, received the Diagnostic Slide Session O.T. Bailey-Helena Riggs Award at the 90th annual meeting of the American Association of Neuropathologists. The meeting was held in Portland, Oregon, from June 12th to 15th, 2014. Dr. Cykowski presented a case describing the involvement of the central nervous system in Chagas’ disease, a tropical disease caused by the infection with Trypanosoma cruzi, a protozoan organism spread by insects. Dr. Cykowski is a PGY6 neuropathology fellow in the Department and plans to pursue an active research program studying neurodegenerative disorders.
Dr. Adriana Rosato Awarded a Grant to Study Methicillin-Resistant Staphylococcus aureus Infections

Dr. Adriana Rosato received a grant from the National Institute of Allergy and Infectious Diseases for her application titled “Molecular bases of DAP-resistance-mediated sensitization to beta-lactams in MRSA.” This study will evaluate molecular mechanisms associated with daptomycin (DAP) resistance in methicillin-resistant Staphylococcus aureus (MRSA) infections.

MRSA infections pose a significant health risk because they occur both in the community and in healthcare settings, where they can induce infections of surgical sites, bacteremia, and form biofilms. Importantly, MRSA infections are difficult to treat because these bacteria are resistant to a vast majority of antibiotics. DAP is a relatively new antibiotic that was FDA-approved in 2003 for treatment of systemic and life-threatening infections caused by Gram-positive bacteria, including MRSA. However, DAP-resistant MRSA strains have been recently identified.

Prior studies in Dr. Rosato’s laboratory identified several mechanisms of DAP resistance in previously-sensitive MRSA strains. Importantly, they also showed that these DAP-resistant bacteria become sensitive to oxacillin, a beta-lactam class of antibiotics, although the mechanism of this sensitization had not been identified. Studies proposed in this application will evaluate the molecular mechanisms underlying DAP resistance and oxacillin re-sensitization.

Dr. Rosato is a research scientist in the Department of Pathology and Genomic Medicine at Houston Methodist Hospital and Associate Member of the Houston Methodist Research Institute. Prior to joining the Department in 2010, Dr. Rosato was Assistant Professor in the Department of Internal Medicine at Virginia Commonwealth University. For more information about Dr. Rosato’s research, please visit www.houstonmethodist.org/Rosato

Houston Methodist Hospital Graduate Medical Education Office Recognizes Department Members for their Service

The Houston Methodist Hospital Graduate Medical Education (GME) Office recently acknowledged several faculty members and residents from the Department of Pathology and Genomic Medicine for their service. Drs. Dina Mody, Suzanne Powell, and Arthur Zieske were recognized for their outstanding service and commitment to teaching cytopathology, neuropathology, and clinical pathology, respectively. Additionally, Jaclyn Jerz, M.D., a fourth-year resident in the Department, was recognized for her continued participation in GME activities. Congratulations!
Dr. David Morens Presents a Special Seminar on Emerging Infectious Threats

The Department of Pathology and Genomic Medicine hosted a special seminar presented by Dr. David Morens, Senior Adviser to the Director of the National Institute of Allergy and Infectious Diseases at the National Institutes of Health on September 22, 2014. Dr. Morens’ talk, titled “Chikungunya, Ebola, and Other Emerging Threats: Emergence and Pathogenesis”, provided an overview of several types of hemorrhagic fevers that pose a significant health threat to the world, with special emphasis on the current Ebola epidemic ravishing West Africa.

Viral hemorrhagic fevers are caused by viruses that belong to four distinct families. Of these, dengue virus is the most common cause of infection and death in tropical and subtropical regions of the world. Dr. Morens noted that up to 1/3 of the world’s population is at risk of contracting dengue fever. This is especially important as international travel leads to wider dissemination of previously contained, geographically-localized infectious diseases. Dr. Morens also discussed the ongoing Ebola epidemic. While previous Ebola outbreaks occurred in rural regions of Africa, most current cases have been diagnosed in urban, highly-populated areas. Since Ebola is transmitted through contact with the infected individual’s body fluids, the population density in the affected regions has contributed to the spread of the disease. Dr. Morens noted that until vaccines and better treatment strategies are developed, disease containment is the best strategy to curb further spread. Finally, he concluded that novel diagnostics, capable of detecting diseases during their incubation periods, are urgently needed. Three days after presenting at Methodist, Dr. Morens was detailed to West Africa to assist with the response to the Ebola outbreak.

Prior to accepting his current position at the National Institutes of Health, Dr. Morens was Professor of Tropical Medicine at the John A. Burns School of Medicine and Chairman of the Epidemiology Department at the School of Public Health at the University of Hawaii.

“It is critically important to develop novel diagnostics to identify biomarkers of incubating infections. Until then, disease containment is our best strategy to curb further infection spread.”
- Dr. David Morens

Special Seminar Announcement:
“Epidemic Ebola Disease in West Africa, 2014: Personal Experience and Observations”

The seminar will be presented by George Risi, M.D., M.Sc., on Friday, October 31st, and will be held at 2:00 p.m. in the John F. Bookout Auditorium in the Houston Methodist Research Institute (HMRI R2-306).

Dr. Risi is the infectious disease adviser and Director of the Regional Referral Hospital and Patient Isolation Facility at the St. Patrick Hospital in Missoula, Montana. The facility was built about 10 years ago to supplement the biosafety level 4 laboratory at Rocky Mountain Laboratories, part of the National Institute of Allergy and Infectious Diseases.

Dr. Risi recently returned from spending four weeks with the World Health Organization in Sierra Leone caring for Ebola patients. He then spent time in Havana, Cuba, training about 165 health care workers who were traveling to West Africa to help with the Ebola epidemic.
Dr. Luan Truong Travels to Vietnam to Promote Better Management of Nephrotic Syndrome

Dr. Luan Truong, Medical Director of Renal Pathology for the Department of Pathology and Genomic Medicine, traveled with a group of internationally renown experts in pediatric nephrology to several hospitals throughout Vietnam from June 21st to July 11th. For three weeks, the group visited all major children’s hospitals in Vietnam: two in Ho Chi Minh City, one in Hue, one in Hanoi, and one in Thai Binh. At each hospital, Dr. Truong and the other visiting physicians provided medical education through formal didactic lectures, one-on-one consultations with local nephrologists and pathologists, and participated in ward rounds. Dr. Truong also supported the establishment of a new pediatric Lupus Club, which provides patients’ families with lectures and discussion sessions related to their disease management.

The inaugural Lupus Club meeting was held on July 3, 2014, and was a remarkable success, with 105 families in attendance. When asked about his impression of the trip, Dr. Truong stated that he “learned more from patients, their parents, and local physicians than what he was able to teach them.”

The trip was sponsored by NephCure Kidney International, a non-profit organization committed to supporting Nephrotic Syndrome research, and Caring and Living As Neighbors, an Australian-based, non-for-profit organization dedicated to enhancing the quality of life of children living with chronic health conditions in resource-poor countries. Dr. Truong was the only renal pathologist invited to participate in the trip.

Ms. Minnie Chirala is Named the Class of 2014 Clinical Instructor of the Year

Ms. Minnie Chirala, a Houston Methodist Hospital laboratory histotechnologist, was selected as the Class of 2014 Clinical Instructor of the Year at The University of Texas MD Anderson Cancer Center School of Health Professions Program in Histotechnology. “Minnie is a dedicated special stain histotechnologist guru, and we are extremely happy she was recognized by this award,” said Dr. Mary Schwartz. Congratulations!
Dr. Jian Chen completed his residency in clinical pathology and fellowship in transfusion medicine and blood banking at the Department of Pathology and Genomic Medicine at Houston Methodist Hospital in 2013. He is currently Assistant Professor of Clinical Transfusion Medicine and Associate Director of the Coagulation Laboratory at the Ohio State University College of Medicine. Dr. Chen received his M.D. from Shandong Medical University in China in 1993 and then joined the Institute of Space Medicine and Engineering, also in China, as a postgraduate research associate. In 2001, he was accepted into the Department of Pathology at the University of Alabama at Birmingham (UAB), where he received his Ph.D. in 2005. He then elected to continue his research training as a postdoctoral fellow at the UAB School of Medicine. He is board certified in clinical pathology and transfusion medicine.

After completion of his residency and fellowship training, Dr. Chen was recruited to Ohio State University (OSU) in 2013. His clinical duties include apheresis and blood banking, management of the coagulation laboratory, cytogenetics, and chemistry signout. When asked about his new position, Dr. Chen stated, “I am enjoying my first year as an attending physician. The OSU transfusion medicine service is similar to that at Houston Methodist, so I had no difficulty adjusting.”

In addition to his clinical duties, Dr. Chen is an accomplished research scientist. While at UAB, his research focused on immunology and was extended to hematopoiesis as he worked with Drs. Leveque and Chandler at Houston Methodist Hospital. Dr. Chen has co-authored 19 peer-reviewed articles, one book chapter, and presented his research at numerous national and international scientific meetings. As a new faculty at OSU, Dr. Chen is currently in the process of identifying a mentor who will assist him on his path to becoming an independent physician scientist.

“I know that I received superior training at Houston Methodist that prepared me for my current position. I am honored to be a member of the Methodist family.” - Dr. Jian Chen

**Upcoming Department of Pathology and Genomic Medicine Grand Rounds**

On November 4, 2014, Dr. Maryalice Stetler-Stevenson will present her talk titled “Flow cytometric biomarkers for diagnosis and prognosis in plasma cell dyscrasia.”

Dr. Stetler-Stevenson is a staff clinician and Chief of the Flow Cytometry Unit in the Laboratory of Pathology at the Center for Cancer Research at the National Cancer Institute. Dr. Stetler-Stevenson’s research focuses on diagnostic clinical flow cytometry and immunophenotyping of hematolymphoid malignancies.

On December 2, 2014, Dr. Chen Liu will present his work on “Alteration of genome-wide epigenomic regulation in liver carcinogenesis.”

Dr. Liu is the Associate Chair of the Department of Pathology and Director of Gastrointestinal and Liver Pathology Division at the University of Florida. His research interests encompass pathogenesis of liver and pancreatic cancers, as well as the mechanisms associated with Graft-Versus-Host Disease. His recent work defines epigenetic changes associated with alcohol abuse and hepatitis that promote liver carcinogenesis, as well as provides experimental evidence for metabolism-induced regulation of liver cancer epigenetics.
Dr. Donald Weilbaecher, retired Medical Director of the Autopsy Service at Houston Methodist Hospital and Associate Professor in the Department of Pathology and Laboratory Medicine at Weill Cornell Medical College of Cornell University, passed away on September 26, 2014.

Dr. Weilbaecher received his M.D. degree and completed his clinical internship at the Louisiana State University in New Orleans. After serving in the military, he completed an anatomic and clinical pathology residency at Baylor College of Medicine (BCM), and then joined the faculty of the BCM Department of Pathology. Dr. Weilbaecher was promoted to Assistant Professor in the BCM Department of Pathology in 1979, and remained at Baylor for 25 subsequent years. In 2004, Dr. Weilbaecher joined the faculty at the Weill Cornell Medical College, and was promoted to Associate Professor in 2006. He served as Medical Director of the Autopsy Service at the Houston Methodist Hospital (HMH) for many years, and retired in 2012 at the age of 70.

Dr. Weilbaecher was an expert in cardiovascular pathology and co-authored numerous publications with many renowned cardiovascular surgeons, including Drs. Michael DeBakey, Rafael Espada, and E. Stanley Crawford. He also worked closely with the former chair of the Department of Pathology at Baylor and HMH, the late Dr. Jack Titus (pictured), an internationally recognized authority on cardiovascular pathology.

In addition to his clinical and research interests, Dr. Weilbaecher had a keen interest in educating the next generation of pathologists. Many departmental trainees and young faculty benefited from his willingness to share his knowledge of cardiovascular pathology and autopsy.

“I have many fond memories of Dr. Weilbaecher. I had encountered several problematic cases as a first year resident, and his guidance and expertise with the conduction system had helped me tremendously,” said Dr. Deborah Citron, Associate Professor of Pathology at BCM. Another formed trainee, Dr. Chris Finch, echoed these thoughts, “I will forever feel indebted to Dr. Weilbaecher for his kindness and gentle spirit he displayed while teaching us.” “Dr. Weilbaecher will certainly be deeply missed by all who knew and worked with him over his many years with Baylor and Houston Methodist Hospital,” said Dr. Rodolfo Laucirica, Professor of Pathology and Immunology at BCM.

Although Dr. Weilbaecher retired two years ago, he continues to have a presence in the HMH department, being quoted and talked about a lot. Said Dr. Mary Schwartz, Director of Anatomic Pathology at HMH, “What he taught many of us is being passed on to the next generation of pathologists. He will be deeply missed.”
October is breast cancer awareness month. Women in the United States have about a 12% lifetime risk of developing breast cancer, which is highly treatable when diagnosed in the early stages. To improve early diagnosis, several Houston Methodist Hospitals hosted annual breast cancer awareness events.

**Houston Methodist Willowbrook Hospital** hosted its second annual “Paint the Night Pink” on Wednesday, October 1, 2014. This free event featured live music, dinner, chair massages, onsite mammograms, and physician consultations. Additionally, a panel of experts discussed a variety of breast cancer-related topics, ranging from treatment strategies to procedures offered by the hospital, including innovative, padded mammogram machines.

**Houston Methodist Sugar Land Hospital** partnered with the Sugar Land Town Square for the 5th Annual “Catwalk on City Walk” fashion show. The event was held on Wednesday, October 8, 2014, and showcased the fashion of several local boutiques. All proceeds from this fun annual event went to the Houston Methodist Sugar Land Hospital Pretty in Pink Cancer Fund, which assists local cancer patients with various non-hospital costs. Additionally, during the month of October, Veritas Steak and Seafood restaurant in Town Square is offering a unique Pretty in Pink menu, with a portion of the sales also donated to the Pretty in Pink Cancer Fund.

**Houston Methodist West Hospital** hosted its annual “Positively Pink” event on Saturday, October 18, 2014. This free, family-fun event aimed to raise breast cancer awareness and promote disease prevention. Positively Pink featured live music, food, children’s activities, and shopping booths. Additionally, the hospital’s breast cancer physician team provided complementary health screenings and information on nutrition, stress reduction, and cancer prevention. Visitors were able to visit with the hospital’s women’s health specialists and sign up for their annual mammograms.
Recent Publications


