COVID-19 Testing Milestone

Houston Methodist Department of Pathology and Genomic Medicine Performs One Millionth SARS-CoV-2 PCR Test

On February 1, 2022, at approximately 10:45 in the evening, the Houston Methodist Department of Pathology and Genomic Medicine’s laboratories performed their one millionth SARS-CoV-2 polymerase chain reaction (PCR) patient test.

Occurring approximately 23 months into the SARS-CoV-2 pandemic, this one millionth test represents the incredible dedication of our Department's clinical laboratory team, including faculty and staff from across the Houston Methodist system. PCR SARS-CoV-2 testing is now performed at all seven Houston Methodist hospitals and nine Houston Methodist emergency care centers, including round-the-clock testing at the HMH Molecular Diagnostic Laboratory (MDL), which is responsible for all Houston Methodist employee surveillance testing. Twelve assays are now used on a total of seven different instrument platforms. Prior to the pandemic, the HMH MDL performed approximately 3,000 tests per month, representing a variety of pathogens and conditions. The HMH MDL now reports performing 5,000 tests per day, with increased staffing to accommodate this extraordinary increase in testing capacity.
This testing milestone and the extraordinary response of our Department across the entire Houston Methodist system would not have been possible without every Department member. The resilience and tenacity of our laboratory teams, faculty, and support staff have allowed us to contribute to the mission of Houston Methodist to truly lead medicine, even in the most challenging of times.

Congratulations, all!

(For a look back at our Department's pandemic response, including early testing advances, click here.)
Our Department welcomes Scientist **Jimmy Gollihar, PhD**, and Antibody Discovery and Accelerated Protein Therapeutics (ADAPT) team members **Daniel Boutz, PhD; Andrew Horton, PhD; Thomas Segall-Shapiro, PhD; and Raghav Shroff, PhD**.

Operating under the auspices of the newly formed Center for Infectious Diseases, the ADAPT team will harness their overlapping and unique scientific abilities in areas including protein engineering and directed evolution to perform research involving antibody discovery, antigen design, vaccine development and manufacturing, machine learning and artificial intelligence, and the creation of platform technologies to support rapid response during global health crises.

Dr. Gollihar and the ADAPT team come to the Houston Methodist Research Institute (HMRI) from Austin, Texas, where they were previously involved in collaborative research with the University of Texas and the Department of Defense, including the Army Biological Foundry. Dr. Gollihar was also the founding Chief Technology Officer of BioMADE, a public-private partnership between the DoD and a consortium of US biomanufacturers.

Dr. Gollihar became an HMRI collaborator in the early days of the SARS-CoV-2 pandemic. He was instrumental in the success of convalescent plasma therapy for severely ill COVID-19 patients because of his team's role in the production of antigens necessary for plasma antibody screening.

As the SARS-CoV-2 pandemic has progressed, the need for nimble responses involving therapeutic antibody discovery, antigen design, and vaccine production has become increasingly clear. For this reason, Dr. Gollihar and his team have pivoted from defense department-sponsored research to biomedical work with the Center for Infectious Diseases and the Department of Pathology and Genomic Medicine. Dr. Gollihar hopes that from the current pandemic researchers and governments alike learn the importance of urgent efficiency in the design and manufacture of diagnostics and therapeutics. Dr. Gollihar states that he and his team are "very happy to be here and excited to see what is next."
Welcome, Dr. Gollihar and the ADAPT team!

**In Memoriam: Dr. Ashok Balsaver**

Ashok Balsaver, MD, passed away on January 25, 2022. Dr. Balsaver retired from our Department in June 2021, following 19 years of distinguished service. Renowned equally for his diagnostic abilities, conviviality, and skill in dancing, his colleagues share here some of their fondest memories of Dr. B.

**Jackie Oommen:**

"My favorite memory will always be of Dr. Balsaver pulling me onto the dance floor when I felt too shy to dance. He said 'let loose and just have fun,' and since that moment my journey with the Department has been nothing but that."

**Rosie Benitez:**

"Dr. Balsaver was such an amazing human being and a great doctor. I will always remember him with great gratitude."

**Chiraag N. Gangahar, MD:**

"When I came to Houston Methodist for the first time in August 2018, I interviewed with Dr. Balsaver. He made me feel at home because he shared his experience as a physician in the US Army. It felt good to connect with a fellow military physician. He said, 'You've come to the right place, young man.'"
That's all I needed to hear."

**Michelle Lin, MD:**

"Dr. Balsaver was one of the very first attendings that I worked with as a first-year resident on surgical pathology. I still remember encountering my first case of sevelamer crystals in the GI tract with him, which introduced me to the many fascinating visual wonders and the beauty of pathology. On top of being a wonderful diagnostician, he had the kindest, gentlest soul and was a consummate model of professionalism, humility, and grace. He is dearly missed."  

**Ayaz Kalsekar, MD:**

"As a resident trainee, I have always looked at Dr. Balsaver as my role model of a kind-hearted and well-accomplished individual who always cared about the well-being of others around him. His willingness to listen and amiableness always made me feel welcomed whenever I turned to him for advice. I will never forget his humble smile while crossing paths in the hallway. I've missed his presence when he retired and now, I will miss him even more."

**Donghwa Baek, MD:**

"Dr. Balsaver showed us a GE junction biopsy that nicely showed aggregates of Sarcina organisms. He generously lent me his slide for scanning. I've seen several more since his conference but his case is still the best in my collection. I'm still using the case picture to send my friends on their birthday saying 'Happy birthday and please accept my Sarcina birthday present packages.'"

**Jim Hsu, MD, PhD:**

"I always remembered Dr. Balsaver asking us to call him 'Dr. B,' and his humility and humbleness just to make 'signing out with him' easier. He was always happy to take the GI specimens, or anything really, regardless of how much work he had on his desk, and even came back to point out that *H. pylori* that I had missed, to show that sneaky signet ring cell carcinoma, or even to just come by and chat. Dr. Balsaver, will truly miss you and may you live on in all our memories!"

**Mary Schwartz, MD:**
"Dr. Balsaver was an amazing surgical pathologist, with special expertise in GI pathology. He was my, and my colleagues’, go-to consultant for difficult GI cases. He was most gracious with his time, and would drop whatever he was doing to provide a consultation. When he wasn’t at the scope with a trainee or a faculty seeking consultation, and he wasn’t signing out cases, he would usually be found in his office reading the latest journal that had just arrived, or a recent textbook.

I personally consulted him not only about challenging cases; but about how to handle difficult situations, be it with colleagues, trainees, hospital staff, or about some regulatory matter. He was always wise, fair, calm, insightful, and thoughtful.

We were so privileged to have Ashok as a beloved colleague, friend, and mentor. He is greatly missed. Rest in peace, my friend."

**Drs. Ziad El-Zaatari, Suzanne Z. Powell, and Jessica Thomas Complete Inaugural HMAI Clinician Educator Pathway**

Ziad El-Zaatari, MD; Suzanne Z. Powell, MD; and Jessica Thomas, MD, PhD, MPH, were recently recognized as graduates of the inaugural Houston Methodist Academic Institute Clinician Educator Pathway.

This intensive and highly competitive six-month course was created to foster consistent commitment to educational excellence in members of the Houston Methodist teaching community.

Congratulations, Drs. El-Zaatari, Powell, and Thomas, on this achievement and your commitment to excellence in education!

**Drs. Michelle Lin and Ekene Okoye Present at JASC e-Journal Club**
Michelle Lin, MD, and Ekene Okoye, MD, were invited participants in a panel discussion of the e-journal club of the American Society of Cytopathology.

Drs. Lin and Okoye presented to the journal club on their recent Journal of the American Society of Cytopathology publication "False-negative Papanicolaou tests in women with biopsy-proven invasive endocervical adenocarcinoma/adenocarcinoma in situ: a retrospective analysis with assessment of interobserver agreement." The article, a collaborative effort between our Department and the Department of Pathology in the Faculty of Medicine of Naresuan University in Phitsanulok, Thailand, explores the factors that contribute to false-negative Pap test in patients and the effect of educational instruction on interobserver agreement in these cases.

Available on YouTube, the e-journal discussion allowed Drs. Lin and Okoye to discuss their work at length with a global audience.

Congratulations, Drs. Lin and Okoye!

Dr. Mary Schwartz Announced as Department's Elected Deputy Chair

Congratulations to Mary Schwartz, MD, on being named Elected Deputy Chair of our Department!

A full article will appear in the next edition of The Laboratory Report.

Dr. Suzanne Powell Appointed to CAP Foundation Committee

Congratulations to Suzanne Z. Powell, MD, on the occasion of her appointment to the College of American Pathologists' Foundation Grant Committee. This appointment is for one year, with the possibility of extension in recognition of meritorious service.

Community News

Houston Methodist The Woodlands Hospital

Medical Director Byron Moore, MD, reports:

Houston Methodist The Woodlands Hospital (HMTW) has begun to open the new Healing Tower. The outpatient laboratory has a new spacious location in the Healing
Tower. The hospital laboratory will not move, but will instead gain space adjacent to its current location.

**Helen Schneider** is our new Hematology and Coagulation Specialist.

Two new laboratory positions have been approved at HMTW: Lab Services Supervisor (technical) and Lab Support Supervisor (non-technical). These leadership roles will help with the scheduling and management of their respective personnel.

The Houston Methodist Emergency Care Center in The Woodlands has hired a lab tech and expects to hire a second in order to have coverage for every day of the week.

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**Laboratory News**

**Molecular Oncology Tests Resume in the Molecular Diagnostic Laboratory**

The Molecular Diagnostic Laboratory (MDL) at HMH continues to resume and expand its molecular oncology testing menu to support high-quality patient care throughout the Houston Methodist system. In December 2021, the MDL resumed the 50 Gene NGS Somatic Mutation Test (50GMT) for solid organ tumors in-house. This collaborative effort required the clinical validation of an updated version of our in-house bioinformatics pipeline for next generation sequencing, Houston Methodist Variant Viewer (HMVV) 3.4.1, on a new server. Resumption of clinical testing and ongoing medical technologist training for the 50GMT assay in the MDL has been led by Kristi Pepper, MLS (Molecular Chief Technologist).
The clinical validation of Microsatellite Instability (MSI) testing for solid organ tumors on a new capillary electrophoresis instrument in the MDL is also well underway, thanks to the efforts of Alexia Romero, MLS (Molecular Specialist) under the guidance of Jessica Thomas, MD, PhD, MPH. MSI testing is anticipated to resume in-house at HMH during the first quarter of 2022.

HMH Laboratory Quality Team Welcomes New Team Member

Please help us welcome Ashley Nguyen (née Siverly) as the newest addition to the HMH Laboratory Quality Team. Ms. Nguyen began her career at the HMH campus as an MLS student before obtaining her MBA from Texas Women’s University. She previously demonstrated her leadership skills as a safety officer and as the development and validation lead on various projects including COVID antibody testing.

Welcome, Ashley!

Trainee News

Departmental Twitter Account Continues to Amass Followers
With over 250 followers, the new Department of Pathology and Genomic Medicine Twitter account continues to grow. Keep up with all of the most exciting Department-related happenings, including trainee spotlights, departmental announcements, and challenging unknowns by following @HMPPathology!

Please share your exciting news regarding publications, accomplishments, article interviews, and technology or equipment updates with us so that we may feature it. Any news or content suggestions should be sent to Dr. Heather McConnell or the Pathology Office of Academic Development.

New Faculty

Our Department welcomed Maria M. Gonzalez, MD, as a staff pathologist at Houston Methodist Willowbrook Hospital.

Dr. Gonzalez earned her MD in 2009 from the Ponce School of Medicine in Ponce, Puerto Rico. She completed her AP/CP residency at the University of Texas McGovern School of Medicine and completed a fellowship in Oncologic Surgical Pathology from MD Anderson Cancer Center.

Upon completion of her fellowship training, Dr. Gonzalez joined the faculty of the UT McGovern School of Medicine. She then joined the faculty of Baylor College of Medicine, and she served as Medical Director at St. Luke's Sugar Land Hospital until January 2022.

In addition to her professional interests, Dr. Gonzalez enjoys spending time with her husband and two young sons, as well as exercising and practicing yoga.

Welcome, Dr. Gonzalez!

Faculty Promotions
Edward Graviss, PhD, MPH, FIDSA, was promoted to Full Member at the Houston Methodist Research Institute (HMRI) and Professor of Pathology and Genomic Medicine at the Houston Methodist Academic Institute (HMAI).

Dr. Graviss joined our Department in 2008; in addition to his academic appointments through the HMAI and HMRI, Dr. Graviss holds adjunct appointments with Baylor College of Medicine, the University of Texas School of Public Health, and the School of Biotechnology and Health Tecnológico de Monterrey.

For the past 30 years, Dr. Graviss has conducted a multitude of population-based studies in areas including solid organ transplantation, cardiovascular disease, and infectious diseases. Dr. Graviss has been especially active in research involving *Mycobacterium tuberculosis* (Mtbs).

Dr. Graviss is a frequent collaborator and prolific author who regularly provides his epidemiologic and biostatistical expertise to colleagues from departments and centers throughout the HMRI.

Congratulations, Dr. Graviss!

**Featured Faculty**
Michael Thrall, MD

Hometown: St. Louis Park, Minnesota

Education: BA in History from Brown University; MD from University of Minnesota

Current Role: Staff Pathologist and Professor; Director of Digital Pathology; Director, Cytopathology Fellowship

Fun Facts: Enjoys watching soccer; supports Manchester United F.C.

Advice for Trainees: "Even while choosing a subspecialty, remain interested in everything!"

Dr. Thrall joined our Department as a faculty member in September 2008. While an undergraduate at the University of Minnesota (UMN), Dr. Thrall originally planned on becoming a history professor. However, upon the culmination of his thesis project he had second thoughts and decided to explore medicine as a career instead.

Following the completion of his undergraduate degree, Dr. Thrall undertook the required pre-medical coursework at UMN and assisted with clinical research in the pediatric neurology department, also at UMN.

Xin Yi, PhD

Hometown: Chongqing, China

Education: BSc in Biotechnology from China Agricultural University; PhD in Clinical/Bioanalytical Chemistry from Cleveland State University/Cleveland Clinic

Current Role: Assistant Professor and Co-Director of Clinical Chemistry Laboratories; Co-Director, Clinical Chemistry Fellowship

Fun Facts: Enjoys hiking and travel. Trained as a table tennis athlete and plays weekends at table tennis clubs.

Advice for Trainees: "Clinical chemistry is a great career, even though many people don't know about it. Often, residents spend a lot of time in anatomical pathology, but so many great things are happening right now in clinical pathology, including molecular, informatics, and clinical chemistry, especially with advances made in response to COVID-19."

Dr. Yi joined our Department in 2015, immediately upon the completion of her fellowship training at the University of Chicago in Clinical Chemistry.

Dr. Yi had enrolled initially in a biochemistry PhD program, but found
While in medical school at UMN, Dr. Thrall participated in a six-week surgical pathology rotation, the only pathology rotation that was available at that time. At the end of the six weeks, Dr. Thrall realized that he both enjoyed the rotation and really "had an eye" for the work.

After residency training at UMN, Dr. Thrall completed his cytopathology fellowship at the University of Rochester and was recruited immediately to our Department. Dr. Thrall is currently the Director of Digital Pathology, a position that he chalks up to "a happy accident." While interviewing with former Department Chair Dr. Michael Lieberman, Dr. Thrall was asked about his interest in computers and digital work, at which point Dr. Thrall decided to "give it a try."

This "give it a try" attitude is what Dr. Thrall most hopes to impress upon trainees. He says, "to be an expert, you don't necessarily need to have formal training, but instead just keep working at learning."

In addition to his duties as Director of Digital Pathology, Dr. Thrall is also the director of our Department's Cytopathology fellowship and is a sought-after speaker and peer reviewer.

herself drawn to clinical chemistry and laboratory medicine because of its immediate applicability to patient care and the way in which advancements in clinical research can more quickly inspire further clinical research.

During her doctoral training, Dr. Yi attended meetings of the American Association for Clinical Chemistry where she was able to meet well-placed professionals within the field. Ultimately, Dr. Yi was able to leverage these professional connections while exploring fellowship options.

Dr. Yi believes that many PhD candidates do not know about clinical chemistry or laboratory medicine as career options. She was fortunate to have rotated in a clinical lab during her training, which helped her in choosing her fellowship.

Dr. Yi is incredibly appreciative for everyone in the laboratory, our Department, and Houston Methodist for their hard work and support during the two years of the SARS-CoV-2 pandemic.

Numerous tests have been developed and validated and laboratory staff were always ready to come in on weekends or nights to assist. Dr. Yi states that: "People care and listen. This is not just a place; everyone really works together."

Conferences & Events
**USCAP 111th Annual Meeting**: March 19–24, 2022 in Los Angeles, California

**ACLPS Annual Meeting**: June 23–25, 2022 in Seattle, Washington

**AACC Annual Scientific Meeting and Clinical Lab Expo**: July 24–28, 2022 in Chicago, Illinois

**ASCP 100th Anniversary 2022**: September 7–9, 2022 in Chicago, Illinois

**CAP22**: October 2–11, 2022 in New Orleans, Louisiana

### Grand Rounds Schedule

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<td>April 5, 2022</td>
<td>Peter T. Nelson, MD, PhD</td>
<td>Department of Pathology, University of Kentucky</td>
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<td>May 3, 2022</td>
<td>Sandra J. Shin, MD, MBA</td>
<td>Department of Pathology and Laboratory Medicine, Albany Medical College</td>
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<td>June 7, 2022</td>
<td>Daniel J. Brat, MD, PhD</td>
<td>Department of Pathology, Feinberg School of Medicine, Northwestern University</td>
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<td>September 7, 2022</td>
<td>Sanjeev Sethi, MD, PhD</td>
<td>Anatomic Pathology, Mayo Clinic</td>
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<td>October 4, 2022</td>
<td>Grace E. Kim, MD</td>
<td>Department of Pathology and Laboratory Medicine, University of California, San Francisco Health</td>
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<td>November 1, 2022</td>
<td>Bogdan A. Czerniak, MD, PhD</td>
<td>Department of Pathology, MD Anderson Cancer Center</td>
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<td>December 6, 2022</td>
<td>Luan Truong, MD, PhD</td>
<td>Department of Pathology and Genomic Medicine, Houston Methodist Hospital</td>
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### OAD News

**OAD Members Participate in HMRI-Sponsored Health Science Practicum**
For the second consecutive year, members of the Office of Academic Development (OAD) were invited to participate in the Houston Methodist Research Institute-sponsored Health Sciences Practicum for students of the Jones Futures Academy. Students at the Jones Futures Academy simultaneously earn high school and Associate’s degrees with an emphasis on technological skills to ready them for an evolving workforce.

OAD Scientific Writers Sasha Pejerrey, PhD, Adrienne Winston, and Heather McConnell, PhD, presented students with an introduction to technical writing and shared the diverse paths by which they came to scientific writing in our Department.

Dr. Pejerrey and her team are exceptionally proud to have been asked once again to share their experiences with Houston-area students. The OAD's next speaking engagement is with the Methodist Association for Postdoctoral and Trainee Affairs, in which they will present to PhD students, post-docs, and trainees on the principles of scientific writing.

The Office of Academic Development (OAD) of the Department of Pathology and Genomic Medicine is always here to assist department members with editing manuscripts, grants, posters, presentations, and more. We are available to meet, in person or virtually, to assess how we might assist you. Please contact our general email, pathologyoad@houstonmethodist.org or one of our scientific writers:

Sasha Pejerrey at spejerrey@houstonmethodist.org or 713.441.5889

Adrienne Winston at awinston@houstonmethodist.org or 713.441.3395

Heather McConnell at hmcconnell@houstonmethodist.org or 346.238.4346

There is no charge for the OAD's services, and no project is too big or too small!

If you need help reducing percent overlap within a document for a specific journal requirement or reviewer feedback, please let us know! We have access to
iThenticate and expertise in reducing overlap to whatever percent a particular journal may require.

**Departmental Publications**


Narkcham S, Mody DR, Jones A, Thrall MJ. Rescreening of high-risk HPV positive Papanicolaou tests initially screened as negative is a low yield procedure in the era of HPV genotyping. *Journal of the American Society of Cytopathology*. 2021 Nov 1;10(6):558-564. [https://doi.org/10.1016/j.jasc.2021.05.002](https://doi.org/10.1016/j.jasc.2021.05.002)


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*Mission Editor*

Andrea Diaz De Vivar, MD

*Mission Chair*

Mukul Divatia, MD

*Department Chair*

James M. Musser, MD, PhD
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<td>Thu Ngo, MD</td>
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<tr>
<td>Sasha M. Pejerrey, PhD</td>
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<td>Heather McConnell, PhD</td>
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If you have contributions or feedback for upcoming newsletters, please email us.