

SPRING 2024

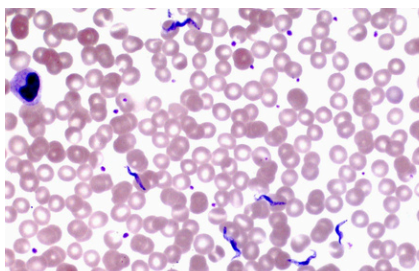
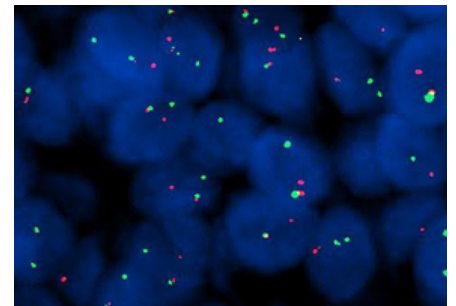


THE PATHOLOGY GAZETTE



INSIDE THIS ISSUE

Chair's Blog
Vice Chairs' Corner
Presentations &
Publications
Faculty Updates
Operational Lab
Trainee Corner
Advancements
Admin Updates
PIRRT
Social Media
Puzzle



"The study of morphology is only one facet of pathology. The pathologist is interested not only in the recognition of structural alterations, but also in their significance. It is not a discipline isolated from the living patient, but rather a basic approach to a better understanding of disease and therefore a foundation of sound clinical medicine."

Stanley L. Robbins, 1915–2003



Liron Pantanowitz MD PhD MHA Chair and Professor of Pathology

Sharing My Vision

It is nearing one year since I returned, like a boomerang, to Pittsburgh to work at UPMC & Pitt. I could not be prouder to work for such an innovative world-class institution. I share UPMC's vision "to be leaders in transforming health care around the world." As the chair of pathology, I too have a vision I aspire to achieve. My vision for our department of pathology involves, in order of priority, the **(i) people, (ii) process, and (iii) artificial intelligence (AI) (Figure 1)**. I share my vision with you to hopefully serve as a guide for decision-making and goal setting, as well as inspire us to work as a team towards a shared purpose and thereby drive collective success.

Take Care of People

Our institution is a large integrated healthcare provider and insurer, has marvelous facilities, utilizes incredible technology, and boasts a global reputation that many envy. However, what really makes us great is the people who work for our organization. They are the secret sauce that makes UPMC/Pitt extraordinary. This is why taking care of the people I work with is my #1 priority. I will relentlessly strive to try make sure they are paid fairly, equipped with resources, treated well, and valued. My success is dependent on their success. To create a conducive environment for teamwork to flourish I emphasize collaboration, open communication, mutual respect, devotion to wellness and shared responsibility. I want everyone to feel heard, included, engaged, and empowered. I have zero tolerance for unprofessional behavior. No one should feel intimidated, harassed or be treated unfairly. I intend to lead by example.

Improve Our Process

To handle the 24 million lab tests our collective UPMC labs receive annually, we rely on countless people to perform many critical and complex tasks. Much of what they do is often manual and taxing. In the process, we also move millions of assets (e.g. paperwork, tubes, specimens, tissue blocks, glass slides) back and forth. This is sometimes necessary but inefficient, slows our turnaround time down, and is prone to human error. Also, post-pandemic we unfortunately no longer have the workforce any more to support these manual workflows. Therefore, we need to be creative, think outside the box, and change some of our processes. This includes consolidation (e.g. centralized lab services) and leveraging technology. We need to try automating more processes. Also, we need to further deploy digital pathology to all our facilities.

- *Digital pathology permits remote access so that pathologists can view scanned slides from anywhere, enabling teleconsultation, improving collaboration, and facilitate second opinions without geographical constraints.*
- *Digital pathology offers us an alternate approach to slide storage and retrieval. Scanned slides can be easily stored in digital archives, allowing for more efficient retrieval when needed.*
- *Digital pathology can enhance workflow. By scanning slides we can probably reduce overall turnaround time in anatomical pathology.*
- *Digital pathology has benefits for education and training. Virtual slides offer interactive learning experiences and access to a broad range of cases, even rare cases where recuts for sharing purposes are no longer possible.*
- *Digital pathology also allows integration with other technologies, such as quantitative image analysis and AI.*

Promote Artificial Intelligence

The era of Computational Pathology has arrived. Computational Pathology involves the application of computational techniques such as AI to analyze and interpret text, tabular and image data. Computational Pathology clearly leverages digital pathology. AI can automate and enhance various aspects of our pathology workflow including diagnosis, prognosis and prediction. AI can assist with several routine tasks (e.g. screening Thin Prep Pap tests) and can offer us next-generation tools to support our research mission. For these, and many more reasons, it was important for our department to have a division of Computational Pathology. I do not intend to replace humans with computers, but rather incorporate more computers into our practice to enhance what humans can do.

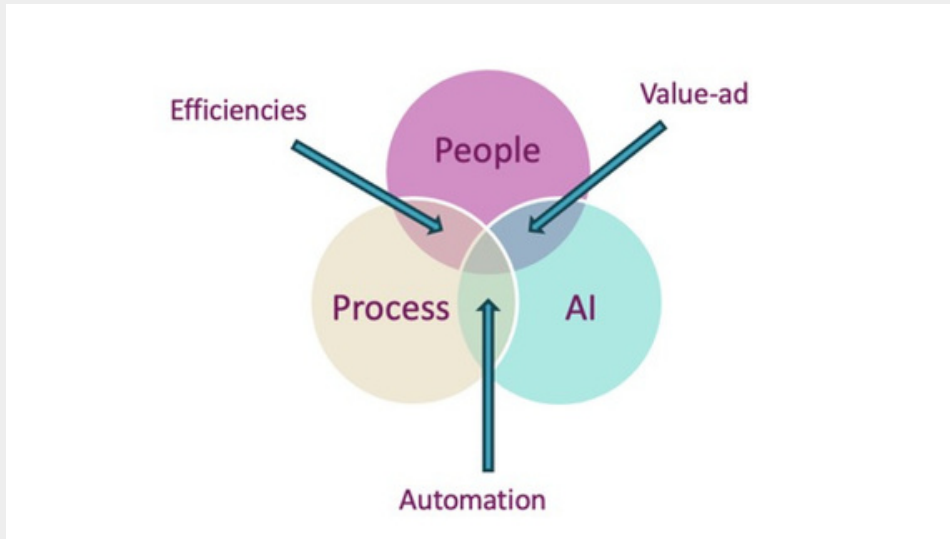


Figure 1. Pathology Chair's Vision

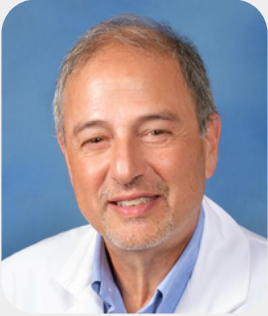
I hope you believe in my vision. I am optimistic it will help create an efficient, innovative and supportive workplace, provide us with direction and motivation, as well as align our efforts toward a common goal. I am also certain that this vision will help us attract and retain talent, continue to support our institution's incredible reputation as a world-class leader in health care, and set the stage for us to not only practice better pathology today, but also into the future.

“Artificial intelligence will put pathologists front and center in patient care decisions.”

Thomas J. Fuchs, Dean of Artificial Intelligence and Human Health,
Professor of Computational Pathology and Computer Science, Icahn
School of Medicine at Mount Sinai

Alan Wells

Exec Vice Chair, Laboratory Medicine



It has been a busy fall for the Section of Laboratory Medicine. In Hematopathology, we have added two faculty members, our own fellow Katelynn Davis and from the Lahey Clinic Majd Jawad, and said a prolonged goodbye to Miroslav Djokic who will remain in our fold as Chief of Pathology for the Pittsburgh VA Health System. These additional experts have allowed us to repatriate all our UPMC specimens to improve diagnostic flexibility and shorten the time to treat patients based on personalized findings. The other divisions

are all gearing up for the systemization of our services and the implementation of a long-awaited new LIS that should be more amenable to real-time analytics. Microbiology has introduced new diagnostics to speed up sepsis and monitor for emergence of new pathogens. Immunopathology is addressing gaps in our ability to help patients with auto-immune neurologic diseases. Transfusion Medicine continues to improve trauma services by pushing whole-blood resuscitation out to the patients at the site of trauma, saving minutes and lives. In all these efforts we are working closely with our partners in the Laboratory Service Center, which is under new leadership at both the SVP level, Tami Minnier, and the VP level, Abbie Mallon.

Members of our Section continue to provide national leadership with our director of Clinical Chemistry, Octavia Palmer, becoming president of Association for Diagnostic and Laboratory Medicine (ADLM; formerly AACC) and our director of Flow Cytometry, Sara Monaghan, joining the council of the International Clinical Cytometry Society (ICCS). This follows on a rich tradition of international leadership in all aspects of Laboratory Medicine among our faculty.

Octavia M. Peck Palmer

Vice Chair of Health Equity, Diversity & Inclusion

The Pathology Health Equity/DEI Working Group is comprised of Drs. Marie DeFrances, Nathan Clemons, Samira Kiani, Lakshmi Harinath, Mariel Bedell, Simmi Patel, and myself. The working group develops and offers educational content that supports faculty in their practice of Pathology and Laboratory Medicine and equips them to employ a lens of DEI to ensure health equity for the patients/individuals they serve through medicine and research. The working group offers content specific to our faculty and trainees and the communities we serve.



Faculty and Trainees:

Health Equity Seminars: The working group seminars (in person and virtually) feature prominent researchers/physicians and leaders who challenge us to rethink how we teach, conduct our research, and practice pathology and laboratory medicine. These seminars will provide a framework that faculty and trainees can operationalize the DEI principles in their careers.

Health Equity Book Club: The book club offers books that enhance awareness of inequities, systematic racism, and misinformation within the medical community. It is a safe space to read, discuss, and strategize complex topics.

VICE CHAIRS' CORNER

Research Opportunities/ Best Practices:

Check out the Health Equity/DEI website for external research funding opportunities (e.g., NIH, NSF) and best practices information focused on creating a work environment of belongingness, eliminating race-based testing algorithms, debunking racial medical myths, designing and diversifying clinical trials and minimizing bias in machine learning algorithms.

Community:

Ask a Laboratorian: We are excited about our new partnership with the University of Pittsburgh's Community Engagement Center (CEC) in Homewood, PA. The Homewood CEC is one of three 'welcoming spaces that create a front door to the University of Pittsburgh in neighborhoods, building stronger communities...'. The working group will offer onsite personal health literacy programming (January 30, 2024) starting with "Ask a Laboratorian," which will educate the public on the role of pathology and laboratory medicine in their quest for health and help them understand their clinical laboratory test results empowering them to advocate for their health needs. As our department learns more about the communities we serve and is responsive clinically to meet the needs, it allows us to create a positive and recognizable public perception of the fields. This opportunity is a door to additional community collaborations.

The working group welcomes new members to serve and input on essential content you want to enhance your work.

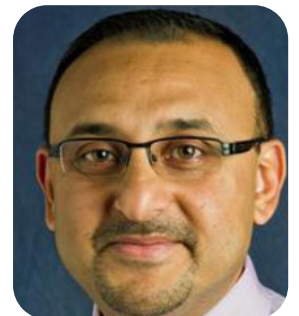
**"Of all the forms of inequality, injustice in healthcare is the most shocking and inhumane."
— Martin Luther King Jr.**

Paul Monga

Exec Vice Chair of Experimental Pathology

The division of experimental pathology within the department of pathology is composed of faculty whose primary mission is original research, teaching, and service/administration-related activities. Currently, there are 33 members in the division engaged in research on eclectic topics ranging from development, regeneration, neoplasia, infection, and metabolism in various kinds of tissues and organs (intestine, liver, breast, brain, prostate, and others). The mission of the division of experimental pathology is 'to investigate cellular and molecular underpinnings of organ health and disease for improving mechanistic understanding, better diagnostics and discovering novel therapies.'

We are paying special attention to ensure DEI within the division. Currently, of the 33 faculty, we have 7 full professors, 10 associate professors, and 16 junior faculty. We have 11 women and 2 underrepresented in science and the efforts will continue to further promote diversity in our division. We would like to welcome Dr. Irina Bochkis as an Associate Professor in the division who will start her appointment on January 1, 2024. She is a joint recruit with the Pittsburgh Liver Institute and her work focuses on transcriptional control of hepatocyte differentiation and function, which she elucidates using techniques such as ChIP-seq and ATAC-seq. Such studies are instrumental in how hepatocyte function is altered in diseases like metabolic dysfunction associated with steatotic liver disease.



VICE CHAIRS' CORNER

Many members of the division are making seminal discoveries in their respective areas of research and are publishing these studies in leading journals. Additionally, they have been invited to give seminars both at other institutions and at national and international meetings. The division has substantial extramural funding from the NIH, foundations, and industry that enables cutting-edge research and translation. Some of the major discoveries include the use of patient cells to generate induced pluripotent stem cells to differentiate towards organ-specific cell types to study the process of gastrulation and early development as well as diseases like PFIC, MASH, and others. Other faculty are researching metastasis, cancer, regeneration, fibrosis, metabolism, and ploidy using organ-on-chip, organoids, mouse models, and humanized mouse models. Several of our faculty have built commercial relationships for more translational projects via the generation of start-ups or sponsored research agreements, and clinical trials are being performed or planned in the regenerative medicine or cancer space. The division members have continued to contribute to the education mission of our department via training of graduate students (Cellular and Molecular Pathology program; Biomedical Engineering program), postdocs, and undergraduates. There is one training grant entitled 'Cellular Approaches to Tissue Engineering and Regeneration' which provides additional training to the matriculated graduate students in regenerative medicine and synthetic biology. Additionally, several graduate-level courses are directed by the division members including Tissue Growth and Differentiation, Cancer Biology, Cell Therapy, Stem Cells, Personalized Medicine, and others. Many of the faculty within our division are providing service as editors-in-chief, associate editors, and on editorial boards of the leading journals in their field. They also serve as officers, committee chairs, and members for various national and international societies and on advisory boards or as consultants of various academic, biotech, and pharma and hence make a global impact on human health in such a capacity.

Rajiv Dhir

Exec Vice Chair of Anatomic Pathology

Dr. Abukhiran has been appointed the Medical Director of the Image Analysis Laboratory. There are ongoing initiatives to expand the adoption and use of Digital Pathology and associated AI applications. We have been using the Ibex Galen algorithm for prostate needle biopsies for a few months now. We are currently evaluating the Ibex solutions for breast and gastric biopsies; with clinical adoption in the first quarter of 24; depending on the outcome of the validation. The GI Pathology COE is also helping develop a specific algorithm for CDH1 gastric cancers for Ibex, with Dr. Singhi being the primary driver.



Dr. Zhao and his colleagues at Magee are validating the Hologic Genius platform for cervical cancer screening in Pap smears; with a likely clinical implementation in calendar year 24. Drs. Khader and Lajara are validating the AlxMed algorithm for urinary cytology; which provides diagnostic guidance as per the Paris system. We have had successful recruitments for some open and new positions with H&N pathology recruiting Dr. Diana Bell; GI Pathology recruited Drs. Shaker and Tolson; Autopsy pathology recruiting Dr. Handte; Dr. Bendon being recruited back for Perinatal Pathology and GU recruiting Dr. Korentzelos. Thoracic Pathology has an ongoing recruitment for the open position; major accolades to Drs. Sica and Cody for handling the stress of a heavy service with only 2 faculty.

VICE CHAIRS' CORNER

A new R25 training grant was awarded to the University of Pittsburgh to support research training of neurology and neurosurgery residents and neuropathology fellows; with Dr. Kofler as one of the PIs. Dr Tom Pearce is one of the Principal Investigators (MPI) on a multi-institutional U24 grant (Brain Digital Slide Archive: An open-source platform for data sharing and analysis of digital neuropathology), together with investigators from Emory University, University of California at Davis, and Northwestern University. Dr. Julia Kofler is one of the Principal Investigators on a recently renewed R01 to "Study the mechanisms underlying the occurrence of psychosis in Alzheimer's disease".

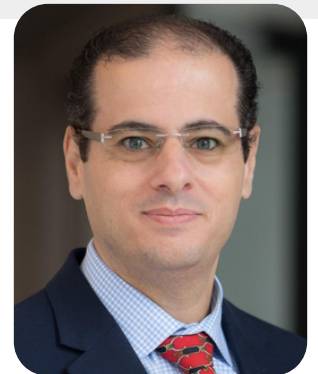


Dr. Lakshmi Harinath received the American Society of Cytopathology Foundation's Investigator Grant for her project titled: "Quality Control and Significance of Digital Pathology and AI in Pap smear Analysis in Underserved Population."

The 17th Annual A. Julio Martinez Memorial lecture was held on September 6th, featuring Dr Clayton Wiley as the keynote speaker in honor of his many contributions to neuropathology education and research. Many of his former trainees and collaborators attended and gave short presentations, including Dr. Elizer Masliah, the current Director of the Division of Neurosciences at the National Institutes of Aging.

Samer Khader **Vice Chair of Wellness**

Pathologists and other laboratory healthcare professionals play a critical role in healthcare, as they diagnose diseases and provide vital information to ensure proper treatment. They also perform essential research that helps us better understand disease. While the pathology profession is incredibly important, it can also be emotionally taxing, sometimes causing stress, anxiety, and burnout, especially in this era of workforce shortage. According to the 2023 Medscape Pathologist Lifestyle, Happiness, & Burnout Report, the percentage of pathologists reporting being happy outside of work has decreased from 85% before the COVID pandemic to 62% after the pandemic. Additionally, about one out of three pathologists is reporting burnout.



To combat these challenges, pathologists must prioritize their well-being. This includes taking regular breaks, getting enough sleep, exercising, eating well, and engaging in activities that bring them joy outside of work. Paying attention to work-life balance is an equally important strategy. Pathologists can also benefit from seeking out support groups or colleagues to discuss challenging cases and share experiences. In addition, healthcare organizations should prioritize the well-being of healthcare professionals. The Department of Pathology at UPMC/Pitt takes our physician and staff well-being very seriously, as reducing burnout among pathologists and other laboratory professionals is important for patient safety and for providing high-quality health care while maintaining their own health and happiness. The Wellness Committee at the Department of Pathology has goals to create a culture of wellness throughout the department. We aim to improve the physical, mental, and emotional well-being of our employees by implementing policies that promote work-life balance, providing access to mental health resources, and fostering a positive work environment. This will be done through acquiring baseline understanding using surveys and direct interaction to determine the status of well-being in the department and implementing wellness initiatives based off of those results. These initiatives will improve work-life balance for our faculty and staff, strengthen social interaction, and help the strategies implemented by the department for retention of pathologists and staff.

VICE CHAIRS' CORNER

We have linked our efforts to other initiatives from other organizations (Thrive Program, CAP, GME and ACGME programs, etc.).

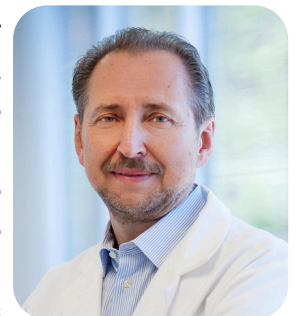
We have also invited a few speakers as part of the wellness program to review our wellness surveys and answer questions about them, as well as talk about methods to mitigate burnout and national efforts in this regard. We also have started on having social activities and get-togethers for the faculty and staff from different divisions. Coffee with the Chair is another popular initiative, where faculty, usually on the junior side, have the opportunity to spend half an hour of casual discussion with the department chair on career goals and how the department can help to propel faculty careers. Additionally, we are planning another initiative called "Monthly Wellness Champion" which can be an important tool to show appreciation to faculty and staff. We will receive nominations (available to all department employees) advocating for a single individual who has done something to improve wellness, tied to the improvement of well-being for another individual who allowed them to accomplish something. One more implemented idea is the creation of an anonymous virtual suggestion box to find solutions for issues and concerns expressed by the faculty and staff.

We have also established and improved the wellness section on the Department of Pathology website, which is where events and resources related to wellness can be found (<https://www.path.pitt.edu/resources/wellness>). Molecular and Genomic Pathology Division works in close collaboration with the AP and CP faculty to expand the menu of molecular tests for diagnosis, prognostication and targeted therapies of cancer and other human diseases. The MGP has completed validation of clinical Whole Transcriptome Sequencing (RNA-Seq) for solid tumors which is expected to be launched by early 2024.

Yuri Nikiforov

Exec Vice Chair of Molecular & Genomic Pathology


One of the main achievements of the Division is the introduction and further expansion of three lab-developed tests, ThyroSeq, PancreaSeq, and GlioSeq, the volume of which continues to grow at UPMC hospitals and nationally. The ThyroSeq test has been successfully licensed by the University of Pittsburgh and UPMC to Sonic Healthcare USA and is in the process of transferring to the Sonic Thyroseq lab in NY, with the continuing increase in the test volume received from the U.S. institutions. The PancreaSeq test volume has doubled over the last two years with MGP lab now serving several major clinical centers in the U.S.



PRESENTATIONS & PUBLICATIONS

Aarabi, Mahmoud

Papers:

- Matalon DR*, Zepeda-Mendoza CJ*, **Aarabi M**, Brown K, Fullerton SM, Kaur S, Quintero-Rivera F, Vatta M. 2023 Clinical, technical, and environmental biases influencing equitable access to clinical genetics/genomics testing: A points to consider statement of the American College of Medical Genetics and Genomics (ACMG). *Genetics in Medicine*, 25(6):100812; *Co-first author
- Carlsen ED, **Aarabi M**, Swerdlow SH. Unexpected MYC::DMD translocation after transformation of follicular lymphoma with IGH::BCL2 and IGH::MYC. 2023 *Br J Haematol*. doi: 10.1111/bjh.18994. PMID: 37485649
- Patwardhan PP, **Aarabi M**, Aggarwal N. 2023 Genomics of  *Seminars in Diagnostic Pathology*. 40(3):195-201
- Sheehan E, Bacon V, Lascurain S, Stone J, Yatsenko S, **Aarabi M**, Skvarca LB, Clemens M, Saller D. 2023 Prenatal and fetal diagnosis of trisomy 18 after low-risk cell-free fetal DNA screening: A report of four cases. *Prenatal Diagnosis*, 43(1):36-41

Presentations:

- Aarabi M. Cancer Diagnosis in Genomics Era: Challenges & Opportunities. USA-Uzbekistan First Health Week and Forum. September 6-10, 2023, Tashkent, Uzbekistan.
- Aarabi M, Alkhunaizi E, Plamondon J, Witchel SF, Wherrett D, Babul-Hirji R, Dupuis A, Chiniara L, George MA, Shuman C, Rajkovic A, Chitayat D, Yatsenko SA. Spectrum of Clinical Presentations and Y Chromosome Aberrations in Patients with X/XY Mosaicism: A 35-year Multicentral Study. American Society of Andrology (ASA) Annual Meeting, April 19-23, 2023, Boston, MA.

Adriana Zeevi, PhD, ABHI (D)

Papers:

- Xu Q, Johnson KP, Hardiman M, Helmick D, **Zeevi Adriana**. Loss of anti-ATIR reactivity in ELISA post-adsorption: False reactivity or interference in the assay? *Hum Immunol* 2023 Apr;84(4):286-289. doi: 10.1016/j.humimm.2023.02.001. Epub 2023 Feb 8.
- El Hag MI, Kaneku H, Jorgensen D, **Zeevi Adriana**, Stevenson H, Yadak N, Hassan M, Du X, Demetris AJ. Morphologic and immunophenotypic evaluation of liver allograft biopsies with contemporaneous serum DSA measurements. *Clin Transplant*. 2023 Apr 25; e14997. doi: 10.1111/ctr.14997. Online ahead of print. PMID: 37096730.
- Puttarajappa CM, Tevar AD, Hoffman W, Degenholtz H, Schinstock CA, Gunabushanam V, **Zeevi Adriana**, Xu Q, Hariharan S. Virtual crossmatch for deceased donor kidney transplantation in the United States: A survey of histocompatibility lab directors and transplant surgeons. *Hum Immunol*. 2023 Mar;84(3): 214-223. doi: 10.1016/j.humimm.2022.12.001. Epub 2022 Dec 27.
- Bailey E, Macedo C, Ossrt J, Gu X, Ramaswami B, Bentlejewski C, **Zeevi Adriana**, Randhawa P, Lefaucheur C, Metes D. Interleukin-21 promotes Type-1 activation and cytotoxicity of CD56 dimCD16bright natural killer cells during Kidney allograft antibody-mediated rejection showing a new link between adaptive and innate humoral allo-immunity. *Kidney Int*. 2023 May 21;50085-2538 (23) 00344-7. doi: 10.1016/j.kint.2023.04.024 online ahead of print. PMID 37220805
- Edward Horn, Qingyong Xu, Julie N. Dibridge, Jessica H. Huston, Gavin W. Hickey, David J. Kaczorowski, Mary E. Keebler, **Zeevi Adriana**. Reduction of HLA donor-specific antibodies in heart transplant patients treated with proteasome inhibitors for antibody-mediated rejection. *Clinical Transplantation*. 2023; e15132. Doi 10.1111/ctr15132
- Hachem RR, **Zeevi Adriana**. What is a clinically significant donor-specific antibody before lung transplantation? *Am J Transplant*. 2023 Nov; 23 (11): 1657-1658. doi: 10.1016/j.ajt.2023.06.005 Epub 2023 Jun 9.
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- Webber SA, Chin H, Wilkinson JD, Armstrong BD, Canter CE, Dipchand AL, Dodd DA, Feingold B, Lamour JM, Mahle WT, Singh TP, Zuckerman WA, Rossano JW, Morrison Y, Diop H, Demetris AJ, Bentlejewski C, Mohanakumar T, Odum J, **Zeevi Adriana**. CTOTC -09 Investigators. *AM J Transplant*. 2023 Aug;23(8): S1600-613 (23)00630-5. doi 10.1016/j.ajt.2023.08.006 online ahead of print

PRESENTATIONS & PUBLICATIONS

Presentations:

- 38th Workshop Scientific Workshop One Lambda-Thermo Fisher. Humoral Theory of Rejection Paul I Terasaki (2023): how it shaped and guided my research career. (Award lecture) 14 March 2024, Carlsbad California.
- 2nd Multidisciplinary Symposium on pulmonary antibody-mediated rejection plenary lecture. HLA and non-HLA donor-specific antibodies; from basics to the future 21 March 2024, Vienna
- International Heart and Lung Transplantation. HLA Testing and Crossmatches in Heart and Lung Transplantation, Core Competencies in Pediatrics. Two sides of the same coin: Significance of HLA and non-HLA antibodies, Plenary, Symposia 14 April 9-13 Prague, Czech Republic



Alesia Kaplan

Papers:

- Yazer MH, Panko G, Holcomb JB, **Kaplan A**, Leeper C, Seheult JN, Triulzi DJ, Spinella PC. Not as "Deadly as once thought" –the risk of D-alloimmunization and hemolytic disease of the fetus and newborn following RhD-positive transfusion in trauma. *Hematology*. 2023 Dec;28(1):2161215.
- Bubar R, Kiss JE, Triulzi DJ, D'Andrea P, Zilich A, **Kaplan A**. How do we...consistently provide high-dose granulocyte products for transfusions in neutropenic patients? *Transfusion*. 2023 Jul;63(7):1267-1276.
- Thant M, Cancelas J, **Kaplan A**. The enhanced direct antiglobulin test in current practice has a limited impact on management of adult patients. *Transfus Apher Sci*. 2023 Aug 17:103768.

Alina Ostrowska

Papers:

- Ortiz K., Cetin Z., Sun Y., Hu Z., Kurihara T., Tafaleng E., Florentino R., **Ostrowska A.**, Soto-Gutierrez A., Faccioli L. Human Hepatocellular response in cholestatic liver diseases. *Organogenesis*, 19:1. doi: 10.1080/15476278.2023.2247576, 2023.
- Faccioli L., Cetin Z., Kocas-Kilicarslan Z., Ortiz K., Sun Y., Hu Z., Kurihara T., Tafaleng E., Florentino R., Wang Z., Xia M., Miedel M., Taylor L., Behari J., **Ostrowska A.**, Constantine R., Li A., Soto-Gutierrez A. Evaluation of Human Hepatocyte Drug Metabolism Carrying High-Risk or Protection-Associated Liver Disease Genetic Variants. *Int J Mol Sci*, 24(17):13406. doi: 10.3390/ijms241713406, 2023.
- Kocas-Kilicarslan Z.N., Cetin Z., Faccioli L.A.P., Motomura T., Amirneni S., Diaz-Aragon R., Florentino R.M., Sun Y., Pla-Palacin I., Xia M., Miedel M.T., Kurihara T., Hu Z., **Ostrowska A.**, Wang Z., Constantine R., Li A., Taylor T., Behari J., Soto-Gutierrez A., Tafaleng E.N. Polymorphisms Associated with Metabolic Dysfunction-Associated Steatotic Liver Disease Influences the Progression of End-Stage Liver Disease. *Gastro Hep Advances*. DOI: <https://doi.org/10.1016/j.gastha.2023.09.011>, 2023.

Amanda Clark

Presentations:

- Great Lakes Breast Cancer Symposium. "Extracellular vesicles regulate the fate of breast cancer cells in the liver metastatic niche." September 2023. Morgantown, WV.
- Allegheny Health Network Cancer Institute Grand Rounds. "Microphysiological systems: next generation preclinical tools for modeling metastatic disease." November 2023. Pittsburgh, PA.

Anthony J. Demetris

Papers:

- Wood-Trageser MA, Lesniak D, Gambella A, Golnoski K, Feng S, Bucuvalas J, Sanchez-Fueyo A, **Demetris AJ**. Next-generation pathology detection of T cell-antigen-presenting cell immune synapses in human liver allografts. *Hepatology*. 2023 Feb 1;77(2):355-366. doi: 10.1002/hep.32666. Epub 2022 Aug 1. PMID: 35819312

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- Hughes CB, Nigmat Y, Villanueva FS, Chen X, **Demetris AJ**, Stolz DB, Pacella JJ, Humar A. Ultrasound-Targeted Microbubble Cavitation During Machine Perfusion Reduces Microvascular Thrombi and Graft Injury in a Rat Liver Model of Donation After Circulatory Death. *Transplant Proc.* 2023 Mar;55(2):485-495. Doi: 10.1016/j.transproceed.2023.02.003. Epub 2023 Mar 4.
- Tieu R, Zeng Q, Zhao D, Zhang G, Feizi N, Manandhar P, Williams AL, Popp B, Wood-Trageser MA, **Demetris AJ**, Tso JY, Johnson AJ, Kane LP, Abou-Daya KI, Shlomchik WD, Oberbarnscheidt MH, Lakkis FG. Tissue-resident memory T cell maintenance during antigen persistence requires both cognate antigen and interleukin-15. *Sci Immunol.* 2023 Apr 21;8(82):eadd8454. Doi:10.1126/sciimmunol.add8454. Epub 2023 Apr 21.
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Presentations:

- Nationwide Children's Hospital Pathology Grand Rounds – OSU College of Medicine. "Update in Liver Transplant Pathology: A Pediatric Perspective toward Pathologist's Contribution to Personalized Medicine". February 1, 2023
- Washington University in St. Louis, Department of Pathology & Immunology. 3rd Annual 2023 Gi/Liver Eminent Speaker series – "Leveraging Strengths of Anatomic Pathology for Personalized Patient Care and Transplantational Research". February 15, 2023.
- 6th International Sam Strober Workshop on Clinical Immune Tolerance. University of Oxford, United Kingdom. "Immune Synapse Formation as a Biomarker". March 25-26, 2024

PRESENTATIONS & PUBLICATIONS

Charleen Chu

Papers:



- PA Otero, G Fricklas, A Nigam, BN Lizama, ZP Wills, JW Johnson & **CT Chu**. Endogenous PTEN-induced kinase 1 regulates dendritic architecture and spinogenesis. *J Neurosci* 42: 7848-7860. Highlighted as Featured Article: <https://www.jneurosci.org/content/42/41/7848>
- M Verma*, L Francis*, BN Lizama*, J Callio, G Fricklas, KZQ Wang, BA Kaufman, L D'Aiuto, DB Stolz, SC Watkins, VL Nimgaonkar, A Soto-Gutierrez, A Goldstein & **CT Chu**. 2023. iPSC-derived neurons from patients with POLG mutations exhibit decreased mitochondrial content and dendrite simplification. *Am J Pathol* 193: 201-212. *Co-first authors. [https://ajp.amjpathol.org/article/S0002-9440\(22\)00360-1/pdf](https://ajp.amjpathol.org/article/S0002-9440(22)00360-1/pdf)
- E Franco, M Gagrani, HL Scanga, RG Areaux, **CT Chu***† & KK Nischal*. 2023. Variable phenotype of congenital corneal opacities in biallelic CYP1B1 pathogenic variants. *Cornea* in press. Epub 2023 Oct 3. DOI: 10.1097/ICO.0000000000003395 *Co-senior authors, †Corresponding author.
- E Franco, N Iqbal, PR Shah, M Alabek, KS Tripi, C Prescott, HL Scanga, **CT Chu*** & KK Nischal*†. 2023. Congenital corneal opacity in 22q11.2 deletion syndrome: a case series. *Cornea* 42: 344-350. *Co-senior authors, †Corresponding author.
- E Franco, HL Scanga, S Jacob, **CT Chu*** & KK Nischal. 2023*. Congenital corneal staphyloma in 8q21.11 microdeletion syndrome. *Ophthalmic Genet* 44: 147-151. *Co-senior authors.
- **CT Chu**. 2022. Mitochondria in neurodegeneration. *Curr Opin Physiol*. 26: 100532. 10.1016/j.cophys.2022.100532
- PR Shah, B Chauhan, **CT Chu**, J Kofler, KK Nischal. Ocular phenotype of Peters-Plus syndrome. *Cornea* 41:219-223.
- O Lopes Abath Neto, ZA Koretz, AI Wald, PP Rath, M Nikiforova & **CT Chu**. Molecular profiling of renal cell carcinoma presenting as iris metastasis. *Am J Ophthalm Case Reports* 27: 101599.

Presentations:

- Chu, CT. PINK1: Neuroprotection in an iPSC model of POLG-related mitochondrial disease. March 21, 2023. AJP Featured Author Seminar via Zoom, ASIP, Rockville, MD.
- Chu, CT. The Pathology of Clinical and Experimental Eye Transplantation. February 9, 2023. Anatomic Pathology Grand Rounds, UPMC, Pittsburgh, PA.
- Chu, CT. A tale of two neurodegeneration genes: PINK1 and VCP. December 9, 2022. Human Genetics Seminar Series. University of Pittsburgh School of Public Health, Pittsburgh, PA.
- Chu, CT. Branching out: new roles for PINK1 in dendritic spine regulation. October 19, 2022. Alzheimer's Disease Research Seminars via Zoom, Texas Tech University Health Sciences Center, Lubbock, TX.
- Chu, CT. The Pathology PI Training Track at the University of Pittsburgh, keynote virtual lecture and live Q&A session, Training Pathologist-Scientists: Strategies to Maximize Success. July 20, 2022. Association of Pathology Chairs 2022, Chicago, IL.

Daniel Geisler

Papers:

- **Geisler DL**, Marshall M, Bastacky SI, Khader SN. Cytopathologic diagnosis of extragonadal germ cell tumors: A 10-year institutional review. *Cancer Cytopathol*. 2023 Sep 25. doi: 10.1002/cncy.22761. Epub ahead of print. PMID: 37747782.

Frank J. Jenkins

Papers:

- **Jenkins FJ**, Minas TZ, Tang W, Dorsey TH, Ambs S. Human herpesvirus 8 infection is associated with prostate cancer among IFNL4-ΔG carriers. *Prostate Cancer Prostatic Dis*. 2022 Apr 25;10.1038/s41391-022-00546-1. doi: 10.1038/s41391-022-00546-1. Epub ahead of print. PMID: 35468990; PMCID: PMC9592685.

George Michalopoulos


Papers:

- Hepatocytes of mice and men: Different regenerative signals? **Michalopoulos GK**. *Hepatology*. 2023 Nov 16. doi: 10.1097/HEP.0000000000000693. Online ahead of print. PMID: 37972957

PRESENTATIONS & PUBLICATIONS

George S. Hussey

Papers:

- Crum RJ, Capella-Monsonís H, Chang J, Dewey MJ, Kolich BD, Hall KT, El-Mossier SO, Nascari DG, **Hussey GS**, Badylak SF. Biocompatibility and biodistribution of matrix-bound nanovesicles in vitro and in vivo. *Acta Biomaterialia*. 155: 113-122 (2023) 
- Crum RJ, Huckestien BR, Dwyer G, Mathews L, Nascari DG, **Hussey GS**, Turnquist HR, Alcorn JF, Badylak SF. Mitigation of influenza-mediated inflammation by immunomodulatory matrix-bound nanovesicles. *Science Advances*. 2023 May 19;9(20):eadf9016. doi: 10.1126/sciadv.adf9016. PMID: 37205761; PMCID: PMC10198633.

Presentations:

Conference Co-chair and Speaker:

- Venue: 12th Symposium on Biologic Scaffolds for Regenerative Medicine, May 18-20th, Napa, CA.
- Title of my talk: The Extracellular Matrix Bound Nanovesicle

Keynote Speaker:

- Venue: Tissue Engineering and Regenerative Medicine International Society – Americas (TERMIS-AM) – 2023 Annual Conference and Exhibition, April 11-14 2023, Boston MA.
- Final Program: <https://am2023.termis.org/2023-final-program/>
- Title of my talk: Engineering the Next Generation of Extracellular Vesicles: Lessons from Nature

Invited Speaker:

- Venue: Cleveland State University, BGES seminar series, September 8th 2023 Title of my talk: Engineering the Next Generation of Extracellular Vesicles: Lessons from Nature

Irina Tourkova

Papers:

- **Irina Tourkova**, Harry Blair. Age-dependent Dysregulation of Bone Matrix and Mineral Transport in Mice. *Journal of Bone and Mineral Research*. Feb. 2023, Volume 38, Number S1, page 228.
- Quitterie Larrouture, **Irina Tourkova**, Liu Shuchang, Kelechi Onwuka, Vladimir Riazanski, Deborah Nelson, Jianhua Luo, Harry Blair, Ora Weisz. Chloride channel 5 knockout mouse show a severe phenotype and an altered bone homeostasis. *Journal of Bone and Mineral Research*. Feb. 2023, Volume 38, Number S1, page 70.
- Dobrowolski SF, **Tourkova IL**, Larrouture QC, Blair HC. Creatine energy substrate increases bone density in the Pahenu2 classical PKU mouse in the context of phenylalanine restriction. *Molecular Genetics and Metabolism Reports*. 2023 Sep; 36: 100996. Published online 2023 Aug 6. doi: 10.1016/j.ymgmr.2023.100996.
- **Tourkova IL**, Larrouture QC, Onwuka KM, Liu S, Luo J, Schlesinger PH, Blair HC. Age-related decline in bone mineral transport and bone matrix proteins in osteoblasts from stromal stem cells. *Am J Physiol Cell Physiol*. 2023 Jul 31. doi: 10.1152/ajpcell.00227.2023.
- Blair HC, Larrouture QC, **Tourkova IL**, Nelson DJ, Dobrowolski SF, Schlesinger PH. Epithelial-like transport of mineral distinguishes bone formation from other connective tissues. *Journal of Cellular Biochemistry*. 22 November 2023. doi.org/10.1002/jcb.30494.

PRESENTATIONS & PUBLICATIONS

Chengquan Zhao

Papers:

- Tang X, Zhang H, Wang T, Jiang W, Jones TE, He Y, Li L, Tong L, Wang C, Wang W, Yang K, Yin R, **Chengquan Zhao**. Single and Multiple High-Risk Human Papillomavirus Infections in Histopathologically Confirmed Cervical Squamous Lesions: Incidences, Distribution, and Associated Detection Rates for Precancerous and Cancerous Lesions. *Lab Invest*. 2023;21;103(11):100234.
- Luo T, Sun X, Zhou H, **Chengquan Zhao**, Li J. Placenta Pathological findings about Mucoepithelioid type II. *J Chinese Pathol*. 2023;52(9):946-948.
- Lu H, Chen Q, Chen Y, Pan Y, **Chengquan Zhao**. Research development on the prognostic value of oncotype DX and Magee equation in breast cancer. *J Wenzhou Med University*. 2023;53(8):684-689
- Jones TE, Matsko J, Elishaev E, Clark BZ, Carter G, Harinath L, **Chengquan Zhao**. Changes over time in Papanicolaou cytology test and HPV test in a large women's academic center laboratory. *J Am Soc Cytopathol*. 2023;12(4):307-313.
- Guo XJ, Wang TN, **Chengquan Zhao**. An updated review on differentiated vulvar intraepithelial neoplasia]. *Journal Chinese Patholol*. 2023; 8;52(6):639-642.
- Wang T, Zhang H, Liu Y, **Chengquan Zhao**. Updates in Cervical Cancer Screening Guidelines, The Bethesda System for Reporting Cervical Cytology, and Clinical Management Recommendations. *J Clin Transl Pathol*. 2023;3(2):75-83.
- Zhong F, Li Z, Sun Y, Xiao Y, Li J, Zhou X, Cong Q, Sui L, Tao X, **Chengquan Zhao**. HPV genotyping of cervical histologic specimens of 61, 422 patients from the largest women hospital in China. *Front Oncol*. 2023;13:1161631.
- Tang X, Jones TE, Jiang W, Austin M, He Y, Li L, Tong L, Wang C, Yang K, Yin R, **Chengquan Zhao**. Extended human papillomavirus genotype distribution in cervical intraepithelial neoplasia and cancer: Analysis of 40 352 cases from a large academic gynecologic center in China. *J Med Virol*. 2023;95(1):e28302.
- Wang T, Baloda V, Harinath L, Jones T, Zhang, Bhargava R, **Chengquan Zhao**. Clinicopathologic diagnosis of dVIN related vulvar squamous cell carcinoma: An extended appraisal from a tertiary women's hospital. *Gynecology and Obstetrics Clinical Medicine*, 2023;3:30-37
- Valentina Zanfagnin, Tiffany Lee, **Chengquan Zhao**. Tiannan Wang Advances in diagnosis, clinical management, and molecular characterization of ovarian Brenner tumors. *Gynecology and Obstetrics Clinical Medicine*

Michael Oertel, PhD

Presentations:

- "The role of Activin A-signaling in cell transplantation, liver regeneration and fibrosis" Meeting Session: Translation of Regenerative Medicine Technologies to the Clinic IPITA-IXA-CTRMS 2023 Joint Congress, San Diego, CA
- Co-moderator -Meeting Session: Cellular Transplantation IPITA-IXA-CTRMS 2023 Joint Congress, San Diego, CA - 10/28/2023:

Mo Ebrahimkhani

Papers:

- Hislop J, Song Q, Keshavarz F K, Alavi A, Schoenberger R, LeGraw R, Velazquez J, Mokhtari T, Taheri MN, Rytel M, Chuva de Sousa Lopes SM, Watkins S, Stolz D, Kiani S, Sozen B, Bar-Joseph Z, **Ebrahimkhani MR**. Modeling post-implantation human development to yolk sac blood emergence. *Nature*. 2023 Dec 13. doi: 10.1038/s41586-023-06914-8. Epub ahead of print. PMID: 38092041.
- Glessner JT, Ningappa MB, Ngo KA, Zahid M, So J, Higgs BW, Sleiman PMA, Narayanan T, Ranganathan S, March M, Prasad C, Vaccaro C, Reyes-Mugica M, Velazquez J, Salgado CM, **Ebrahimkhani MR**, Schmitt L, Rajasundaram D, Paul M, Pellegrino R, Gittes GK, Li D, Wang X, Billings J, Squires R, Ashokkumar C, Sharif K, Kelly D, Dhawan A, Horslen S, Lo CW, Shin D, Subramaniam S, Hakonarson H, Sindhi R. Biliary atresia is associated with polygenic susceptibility in ciliogenesis and planar polarity effector genes. *J Hepatol*. 2023 Dec;79(6):1385-1395. doi: 10.1016/j.jhep.2023.07.039. Epub 2023 Aug 11. PMID: 37572794.
- Lo EKW, Velazquez JJ, Peng D, Kwon C, **Ebrahimkhani MR**, Cahan P. Platform-agnostic CellNet enables cross-study analysis of cell fate engineering protocols. *Stem Cell Reports*. 2023 Aug 8;18(8):1721-1742. doi: 10.1016/j.stemcr.2023.06.008. Epub 2023 Jul 20. PMID: 37478860; PMCID: PMC10444577.
- Hislop JJ, Alavi A, Song Q, Schoenberger RL, Keshavarz F K, LeGraw R, Velazquez JJ, Mokhtari T, Taheri MN, Rytel M, de Sousa Lopes SMC, Watkins SC, Stolz DB, Kiani S, Sozen B, Bar-Joseph Z, **Ebrahimkhani M**. Modelling Human Post-Implantation Development via Extra-Embryonic Niche Engineering. *bioRxiv [Preprint]* (Nature: In review). 2023 Jul 24:2023.06.15.545118. doi: 10.1101/2023.06.15.545118. PMID: 37398391; PMCID: PMC10312773
- Maggiore JC, LeGraw R, Przepiorski A, Velazquez J, Chaney C, Streeter E, Silva-Barbosa A, Franks J, Hislop J, Hill A, Wu H, Pfister K, Howden SE, Watkins SC, Little M, Humphreys BD, Watson A, Stolz DB, Kiani S, Davidson AJ, Carroll TJ, Cleaver O, Sims-Lucas S, **Ebrahimkhani MR**, Hukriede NA. Genetically engineering endothelial niche in human kidney organoids enables multilineage maturation, vascularization and de novo cell types. *bioRxiv [Preprint]*. 2023 May 30:2023.05.30.542848. doi: 10.1101/2023.05.30.542848. PMID: 37333155; PMCID: PMC10274893.

PRESENTATIONS & PUBLICATIONS

- Chao Y, Xiang Y, Xiao J, Zheng W, **Ebrahimkhani MR**, Yang C, Wu AR, Liu P, Huang Y, Sugimura R. Organoid-based single-cell spatiotemporal gene expression landscape of human embryonic development and hematopoiesis. *Signal Transduct Target Ther*. 2023 Jun 2;8(1):230. doi: 10.1038/s41392-023-01455-y. PMID: 37264003; PMCID: PMC10235070.
- Shafritz DA, **Ebrahimkhani MR**, Oertel M. Therapeutic Cell Repopulation of the Liver: From Fetal Rat Cells to Synthetic Human Tissues. *Cells*. 2023 Feb 6;12(4):529. doi: 10.3390/cells12040529. PMID: 36831196; PMCID: PMC9954009

Presentations:

- Talk at the symposium "Cross-talk in Bone Biology: Basic Science and Clinical Implications" organized by the Pittsburgh Center for Interdisciplinary Bone, and Mineral Research (PCIBMR), "Synthetic biology and programmable organoids", May 3, 2023
- Participation in the workshop "Towards engineering embryonic development" at Kyoto University, ASHBI Institute for the Advanced Study of Human Biology, Japan, July 20, 2023
- Participation in the 56th Annual Meeting of the Japanese Society of Developmental Biologists, Symposium: Engineering Development – Latest advances in reconstituting and analyzing embryonic development in vitro. Talk "Programming Morphogenesis with Systems and Synthetic Biology", July 23, 2023, Sendai, Japan
- Seminar talk at Osaka University, Japan, July 26, 2023
- Participation in the JST(Japan Science and Technology Agency) International Symposium on Dynamics of Cellular Interactions in Multicellular Systems in Kyoto, Japan, Talk "Programming Morphogenesis with Systems and Synthetic Biology", July 27, 2023
- Talk at the Magee-Womens Research Institute Seminar Series "Modeling Post-implantation Human Development via Extra-embryonic Niche Engineering" September 13, 2023
- Presentation at the PLRC Annual Retreat: "Human iPSC based organoids" October 17, 2023
- Participation in Virtual Human Development Workshop in Toronto, Canada, October 25-26, 2023
- Moderator during The Liver Meeting in Boston "Basic Research Workshop: Humanized Models: Tools to advance liver disease research, Part 2", November 12, 2023

David Lacomis

Papers:

- Donohue C, Carnaby G, Reilly M, Colquhoun RJ, **Lacomis D**, Garand K. A meta-analysis of post-exercise outcome in people with amyotrophic lateral sclerosis. *eNeurologicalSci*. 2023;100452. <https://doi.org/10.1016/j.ensci.2023.100452>. PMID: 3687593
- **Lacomis D**. What is in the Myopathy Literature? *J Clin Neuromusc Dis* 2023;24:130-139. PMID: 36809200

Paul Otori

Papers:

- **Otori NP**, Cuda JM, Bastacky SI, Yip L, Karslioglu-French E, Morariu EM, Ullal J, Ramonell KM, Carty SE, Nikiforov YE, Schoedel KE, Seethala RR. Molecular-derived risk of malignancy and the related positive call rate of indeterminate thyroid cytology diagnoses as quality metrics for individual cytopathologists. *Cancer Cytopathol*. 2023 Oct 17. doi: 10.1002/cncy.22772. Online ahead of print.
- **Otori NP**, Nishino M. Thyroid Fine Needle Aspiration Cytology Molecular Testing in the USA. *Thyroid FNA Cytology: Differential Diagnosis and Pitfalls*, 3rd ed. Kakudo K, ed. Springer (in press).
- Geisler DL, Karslioglu French E, Yip L, Nikiforova MN, Nikiforov YE, Schoedel KE, Seethala RR, **Otori NP**. A thyroid EIF1AX story: how clinical, cytologic, and molecular surveillance led to appropriate management. *J Am Soc Cytopathol*. 2023;12:105-111.
- Ramonell KM, **Otori NP**, Liu JB, McCoy KL, Furlan A, Tublin M, Carty SE, Yip L. Changes in thyroid nodule cytology rates after institutional implementation of the Thyroid Imaging Reporting and Data System. *Surgery*. 2023;173:232-238.
- Liu JB, Ramonell KM, Carty SE, McCoy KL, Schaitkin BM, Karslioglu-French E, Morariu EM, **Otori NP**, Seethala RR, Chiose SI, Nikiforova MN, Nikiforov YE, Yip L. Association of comprehensive thyroid cancer molecular profiling with tumor phenotype and cancer-specific outcomes. *Surgery*. 2023;173:252-259.

PRESENTATIONS & PUBLICATIONS

- Paniccia A, Polanco PM, Boone BA, Wald AI, McGrath K, Brand RE, Khalid A, Kubiliun N, O'Broin-Lennon AM, Park WG, Klapman J, Tharian B, Inamdar S, Fasanella K, Nasr J, Chennat J, Das R, DeWitt J, Easler JJ, Bick B, Singh H, Fairley KJ, Sarkaria S, Sawas T, Skef W, Slivka A, Tavakkoli A, Thakkar S, Kim V, Vanderveldt HD, Richardson A, Wallace MB, Brahmbhatt B, Engels M, Gabbert C, Dugum M, El-Dika S, Bhat Y, Ramrakhiani S, Bakis G, Rolshud D, Millspaugh G, Tielleman T, Schmidt C, Mansour J, Marsh W, Ongchin M, Centeno B, Monaco SE, **Ohori NP**, Lajara S, Thompson ED, Hruban RH, Bell PD, Smith K, Permuth JB, Vandebussche C, Ernst W, Grupillo M, Kaya C, Hogg M, He J, Wolfgang CL, Lee KK, Zeh H, Zureikat A, Nikiforova MN, Singhi AD. Prospective, Multi-Institutional, Real-Time Next-Generation Sequencing of Pancreatic Cyst Fluid Reveals Diverse Genomic Alterations that Improve the Clinical Management of Pancreatic Cysts. *Gastroenterology*. 2023;164:117-133.e7.
- Liu JB, Baugh KA, Ramonell K, McCoy KL, Karslioglu-French E, Morariu EM, **Ohori NP**, Nikiforova MN, Nikiforov YE, Carty SE, Yip L. Molecular Testing Predicts Incomplete Response to Initial Therapy in Differentiated Thyroid Carcinoma without Lateral Neck or Distant Metastasis at Presentation: Retrospective Cohort Study. *Thyroid*. 2023;33:705-714.
- **Ohori NP**, Nishino M. Follicular Neoplasm of Thyroid Revisited: Current Differential Diagnosis and the Impact of Molecular Testing. *Adv Anat Pathol*. 2023;30:11-23.
- Nishino M, VanderLaan P, Ball D, Troncione G, Bellevicine C, **Ohori NP**, Kondo T, Buffet C. Molecular and Other Ancillary Tests in The Bethesda System for Reporting Thyroid Cytopathology, Third Edition, Springer, 2023.

Presentations:

- Japanese Society of Pathology, 112th Annual Meeting, Shimonoseki, Japan. Ohori NP, Geisler DL, Karslioglu French E, Yip L, Nikiforova MN, Nikiforov YE, Schoedel KE, Seethala RR. Thyroid EIF1AX story: How clinical, cytologic, and molecular surveillance led to appropriate management. April 13-15, 2023.
- Ito Hospital 415th Clinical Conference, Tokyo, Japan. Thyroid Cytology Molecular Testing in the USA: Practice Patterns and Further Applications (in Japanese). Course Director: Dr. Natsuko Watanabe. April 18, 2023.
- Chinese American Pathologists Association (CAPA) Online Education Program, Virtual. A Practical Approach for Cytological Assessment of Common and Uncommon Thyroid Lesions. Role of Molecular Testing. Course Director: Dr. Xiaoying (Carol) Liu. July 23, 2023.
- University of Miami Department of Pathology and Laboratory Medicine Grand Rounds, Virtual. Thyroid Cytology Molecular Testing: Practice Patterns and Further Applications. Course Director: Dr. Carmen Gomez-Fernandez. August 24, 2023.
- American Society of Cytopathology Annual Meeting, Austin, TX. Video Microscopic Tutorial: Case-Based Approach to Critical Concepts and Key Metrics in Molecular Thyroid Cytopathology. November 17, 2023.

Karen Schoedel

Papers:

- Geisler D, French E, Yip L, Nikiforova M, Nikiforov Y, **Schoedel K**, Seethala R, Ohori NP. A Thyroid EIF1AX Story: How Clinical, Cytologic, and Molecular Surveillance Led to Appropriate Management. *J Am Soc Cytopathol* 2023, 12(2):105-111.
- Zilla ML, Wald AI, **Schoedel KE**. Novel PHF1::NUTM2B Fusion in Low-grade Endometrial Stromal Sarcoma. *Histopathology* 2023. PMID 37442640.
- Dooley SW, Gong MF, Carlson LA, Frear AJ, Mandell JB, Zheng A, Bhogal S, **Schoedel KE**, Weiss, KR. Postoperative infection, and bone sarcoma survival; systematic review of the role of infection in bone sarcoma prognosis. *Annals of Joint* 2023; 8:22.
- Karunamurthy A, Miele E, Zilla M, Neyaz A, Patrizi S, Skaugen J, Naous R, Schechter S, Nikiforova M, Wald A, Weiss K, **Schoedel K**, Fritchie K, Alaggio R, John I. DNA Methylation Profiling in the Diagnosis of Dedifferentiated and Undifferentiated Melanomas. Presented at the USCAP 2023.

Presentations:

- Schoedel K, Heim T, Duensing A, Lohse I, Presutti L, Belayneh R, Bhogal S, Singh-Varma A, Chang A, Chandran U, Marker D, Nacev B, Szabo-Rogers H, Weiss K. Grades 2, 3 and Dedifferentiated Chondrosarcomas: A Comparative Study of Isocitrate Dehydrogenase Mutant and Wild-Type Tumors with Implications for Prognosis and Therapy. Presented at the HCC Retreat, Sept 2023.



PRESENTATIONS & PUBLICATIONS

- Schoedel K, Heim T, Duensing A, Lohse I, Presutti L, Belayneh R, Bhogal S, Singh-Varma A, Chang A, Chandran U, Marker D, Nacev B, Szabo-Rogers H, Weiss K. Grades 2, 3 and Dedifferentiated Chondrosarcomas: How does Isocitrate Dehydrogenase Status Apprise Prognosis and Therapy? Presented at MSTs Oct. 2023 (Platform talk) Schoedel K, Heim T, Duensing A, Lohse I, Presutti L, Belayneh R, Bhogal S, Singh-Varma A, Chang A, Chandran U, Marker D, Nacev B, Szabo-Rogers H, Weiss K. Grades 2, 3 and Dedifferentiated Chondrosarcomas: How does Isocitrate Dehydrogenase Status Apprise Prognosis and Therapy? Presented CTOS 2023. Schoedel K, Weiss K, Lesniak A, Szabo-Rogers H. Expression of FOCAD and Prickle 1 during development and neoplasms of the cranial base. Presented at MSTs Oct. 2023.
- Mancinelli L, Schoedel KE, Weiss K, Intini G. A Spatial Transcriptomic "Google Map" of Human Osteosarcoma reveals Common Cell Clusters at the Primary Site and Pulmonary Metastases. Presented CTOS 2023. AHME Presentation April 2023: Schoedel K, McCausland J and Bump G. "Are you A-OK? Creating a Culture of Civility and Respect in your Clinical Learning Environment."

Sungjin Ko

Papers:

- Kim YS, Hurley EH, Park Y, **Sungjin Ko**. Treatment of primary sclerosing cholangitis combined with inflammatory bowel disease. 2023. *Intest Res*. doi: 10.5217/ir.2023.00039
- Kim YS, Hurley EH, Park Y, **Sungjin Ko**. Primary sclerosing cholangitis (PSC) and inflammatory bowel disease (IBD): a condition exemplifying the crosstalk of the gut-liver axis. 2023. *Exp Mol Med*. doi: 10.1038/s12276-023-01042-9
- Minwook Kim, Evan Delgado, **Sungjin Ko**. DNA methylation in cell plasticity and malignant transformation in liver diseases. 2023. *Pharmacol Ther*. doi: 10.1016/j.pharmthera.2022.108334

Presentations:

Date: 08/16/2023. Title of session: Molecular Drivers, Microenvironment, and Precision Medicine. Sponsoring institution: FASEB SRC: The Cholangiocarcinoma Conference. Location: Palm Springs, California.

Timothy N. Perkins

Presentations:

- Killian KN, Kosanovich JL, Lipp MA, Empey KM, Oury TD, **Perkins TN**. RAGE contributes to allergen driven severe neutrophilic airway inflammation in mice. *Front Immunol*. 2023 Jan 26;14:1039997.
- Reynaert NL, Vanfleteren LEGW, Perkins TN. The AGE-RAGE axis and the pathophysiology of multimorbidity in COPD. *J Clin Med*. 2023 May 9;12(10):3366.
- Kosanovich JL, Eichinger KM, Lipp MA, Gidwani SV, Brahmabhatt D, Yondola M, Perkins TN, Empey KM. Exacerbated lung inflammation following secondary RSV exposure is CD4+ T cell-dependent and is not mitigated in infant BALB/c mice born to Pref-vaccinated dams. *Front Immunol*. 2023 Aug 14;14:1206026.

Tung Phan

Papers:

- Phan T**, Cravener Z, Olean J, McCullough M, Gribschaw J, Wells A. Clinical performance evaluation of HCV and HIV-1 assays on the fully automated molecular system Alinity m. *J Clin Virol Plus*. 2023. In press.
- Hikita T, **Phan T**, Okitsu S, Hayakawa S, Ushijima H. A Comparative study of acute gastroenteritis symptoms in single-versus multiple-virus infections. *Int J Mol Sci*. 2023;24(9):8364.
- Phan T**, Hikita T, Okitsu S, Akari Y, Komoto S, Hayakawa S, Ushijima H. Whole genome sequencing and genomic characterization of a DS-1-like G2P[4] group A rotavirus in Japan. *Virus Genes*. 2023;59(5):688-692.

Presentations:

- Invited Speaker. Talk Title: Coronacoaster: clinical laboratory's experience navigating diagnostics for SARS-CoV-2 infections.
- 16th International Conference on Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases. 14-17 November 2023, Dresden, Germany

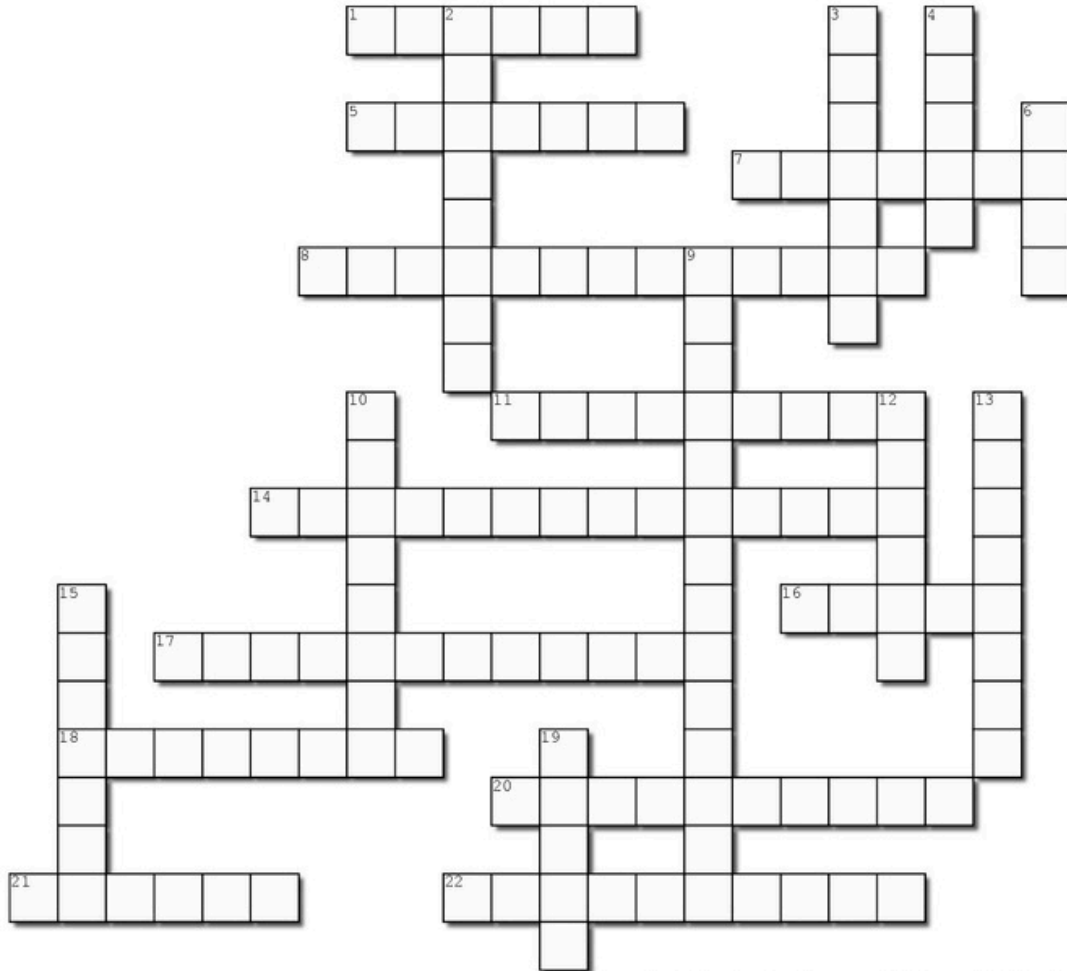
Xiaosong Wang

Papers:

- Han Zhang, Sanghoon Lee, Renee Muthakana, Bin Feng Lu, David N Boone, Daniel Lee, **Xiao-Song Wang**
- Lee S, Deng L, Wang Y, Wang K, Sartor MA, **Wang XS**. InDepthPathway: an integrated tool for in-depth pathway enrichment analysis based on single cell sequencing data. *Bioinformatics*. 2023 Jun 1;39(6):btad325

CROSSWORD

Complete the crossword puzzle below



Created using the Crossword Maker on TheTeachersCorner.net

ACROSS

1. Too many of these immature cells can cause leukemia
5. A common feature shared by Down, Edwards and Patau syndrome
7. The purpose of CPT codes developed by the AMA
8. This IHC stain is often positive in neuroendocrine tumors
11. Feature of urine contributing to the classic triad associated with renal cancer
14. These cells have characteristics of nerve and endocrine cells
16. This lab technique includes direct, indirect, sandwich and competitive types
17. Variability in size, shape and structure of tumor cells
18. Specialized equipment used to cut frozen sections
20. Measure of the volume of RBCs in blood
21. Type of cancer caused by infection with HHV-8
22. Microscopically these tumors are composed of oncocytic cells

DOWN

2. Mycobacteria have a waxy cell wall that makes them resistant to staining
3. This abnormal protein aggregates into insoluble fibrils
4. The outcome of contracting SARS-CoV-2
6. A condition characterized by the presence of M protein in the blood
9. This stain technique combines biochemistry and microscopy
10. A malignancy that affects the blood and bone marrow
12. Condition characterized by a deficiency of hemoglobin
13. A common preservative found in the gross pathology area
15. These tumors account for 1% of adult cancers but 15% of childhood cancers
19. The company that manufactures GT450 slide scanners

Credit: Joshua Pantanowitz for his help in creating this crossword

ANSWERS ON THE LAST PAGE

THE CPOCT DIVISION CONGRATULATES JAMIE ACERO, MHA, CPP, AS THE 2023 POINT-OF-CARE COORDINATOR OF THE YEAR!



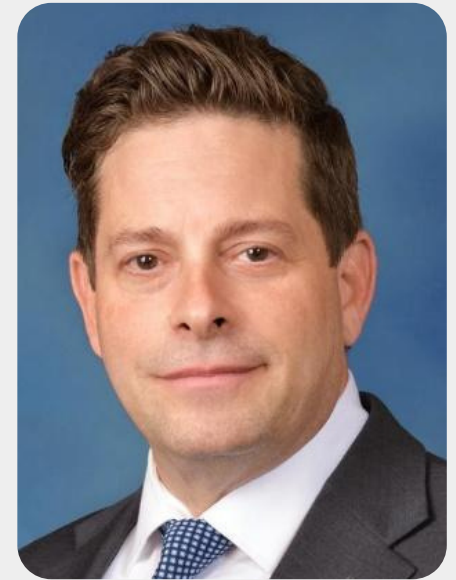
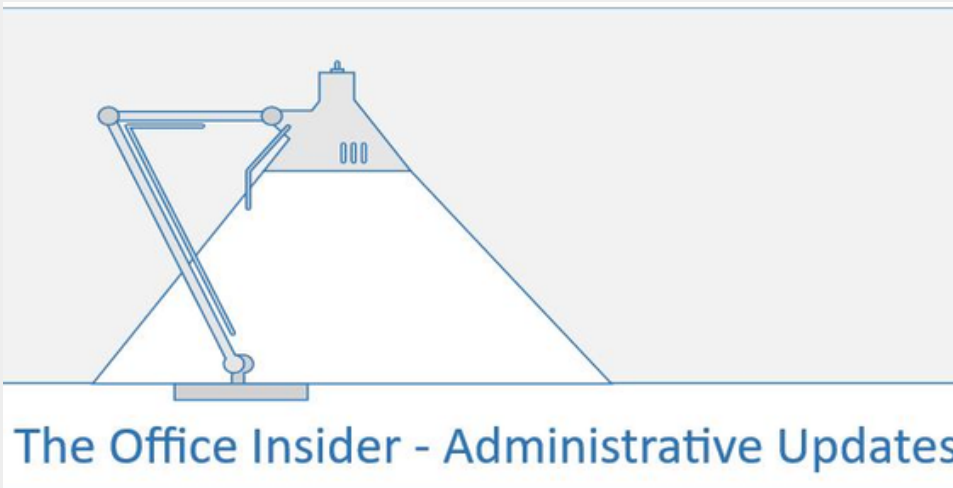
As the Clinical Point of Care Testing (**CPOCT**) Division Jamie Acero leads the Point-of-Care (POC) program for the UPMC health system including 16 hospitals in Western Pennsylvania and a team of 18 POC coordinators. The diverse program consists of a variety of waived and non-waived testing with testing operators in almost every department in the hospital as well as ambulatory surgery centers and community outreach efforts throughout the region.

Jamie has led the team to standardization in regulatory policies, procedures, training and competency, quality assurance, testing platforms, and overall best practices. Jamie is a member of the UPMC Laboratory Service Center leadership team where she excels at connecting traditional main lab methods and techniques with opportunities for POC testing models to optimize patient care and clinical staff needs. These accomplishments have earned the POC program recognition for excellence and innovation by the UPMC laboratory, nursing, and hospital leadership.

Jamie holds a bachelor's degree in biology and a master's degree in healthcare administration. She has 17 years of experience in laboratory medicine, all of which have been at UPMC. Of those years, the 12 spent in POC fueled her career passion and led her to be one of the first to earn the AACC POC Professional Certification in 2019.

She works to share her knowledge and experiences with other POC professionals through participating in POC workgroups and her work with ADLM including the ADLM Education Core Committee. Jamie is president of the 3Rivers POC network and has hosted Whitehat Communication webinars for her colleagues in the POC community.

John Moretti, MHA, MBA Executive Administrator



Many things have changed in the last ten months. After 33 years of leading the Department, Dr George Michalopoulos retired as Chairman. He leaves a legacy of building one of the most specialized pathology groups in the country and establishing a world-renowned research center that remains at the forefront of liver research. Chris Szalkuski also retired alongside Dr Michalopoulos after a distinguished 40+ year career with the University. Former Executive Administrator, Brian Rudolph, moved on from his position in Pathology to be full-time in the Department of Ophthalmology. This change was simultaneous with the opening of the new UPMC Vision Institute at Mercy.

"The secret of change is to focus all your energy not on tearing the old but on building the new." – Socrates

Looking forward to the future has certainly been the approach we have taken since last spring. Dr Pantanowitz brings a new, comprehensive clinical and academic vision to the Department. Our priorities have included a significant update to our faculty compensation plan, successful retention of key faculty members, reorganizing and aligning the clinical management structure for our specialty divisions, assigning Vice-Chairs tasked with overseeing physician wellness, diversity, and professional development, and implementing departmental specific policies for faculty and staff that reinforce our core values. Ongoing projects include the implementation of new digital technology that will modernize diagnostic care and the consolidation of lab services across hospitals. These efforts will benefit both the Pathology service line and the other system specialties that rely on our services by achieving efficiencies and improving quality.

The mission of our administrative team is to operationalize these changes. As the new Executive Administrator for Pathology, I am fortunate to have a hard-working and experienced administrative team that allows for our success. It certainly takes a lot of teamwork and effort to ensure a department with 150+ faculty members successfully functions on a daily basis. I want to use this kick-off newsletter edition to recognize the outstanding people who work in our central administrative offices:



ADMIN UPDATES

Jason Adams - IT Support Manager

Nancy Barca - Team Lead Pre-Award

Amanda Bytzura - Coordinator, CMP

Grace Crawford - Purchasing Coordinator

Jolene Hogle - Clinical Executive Administrative Assistant to the Chair 

Shannon Hozinec - UPP Executive Administrative Assistant

Wendy Jameson - Laboratory Glassware

Cynthia Kouvaras - Post-Award Accounting

Dan McDonald - Post-Award Accounting

Carolyn Nolte - UPP & SOM Faculty/Staff Payroll & HR

Brad O'Malley - Assistant Administrator

Trina Opara-Edwards - Project Analyst - Client Invoicing, Faculty Onboarding, Special Projects

Sherri Peterson - Coordinator, Experimental & Translational Pathology

Brandon Putz - Project Manager - Compensation, Contracting, Special Projects

Beverly Savage - Manager, Research Accounting

William Smith - Pre-Award Processing

Subha Srinivasan - Academic Executive Assistant to the Chair

Allison Torres - Academic Support Coordinator Residency/Fellow Program

Shanning Wang - Pitt Visa Processing


Frances Ward - Pre-Award Processing

Nathaniel Zoffel - Post-Award Accounting

Patricia Zrimsek - Academic Manager Residency/Fellow Program

PIRRT PROGRAM

The PIRRT program allows Pathology housestaff at the University of Pittsburgh to construct individualized research training experiences with the goal of “fast-tracking” to combined diagnostic and independent research faculty positions. Trainees are generally admitted as first-year residents, electing to take their research year after PGY1 or PGY2, or before continuing on to diagnostic fellowship training at UPMC. Following integrated PIRRT research and residency training, our alumni have been highly successful in transitioning directly to positions that allow them to pursue combined investigational and diagnostic careers.

Please join us in welcoming our newest PIRRT trainee,  Laura Molina. Laura is well known to our department having pursued her PhD training with Paul Monga studying YAP1 signaling in the Pitt Medical Scientist Training Program. We would also like to congratulate all of our current and former PIRRT fellows on their accomplishments over the past year!

Laura Molina, MD, PhD

I am so excited to join the PIRRT program this year! I completed the Medical Scientist Training Program at the University of Pittsburgh School of Medicine in 2023, earning an MD and a PhD in Cellular and Molecular Pathology. I am now a PGY1 trainee, on the Anatomic Pathology track. My research is focused on liver and biliary pathobiology, and I aim to explore cellular (re)programming at the intersections of developmental biology and regenerative medicine to create new therapeutic solutions for biliary disease, which is an area of great clinical need. Combined with fellowship training in pediatric pathology, I hope to be well-positioned to move basic science advances in diagnostics and molecular pathology into clinical practice. I also have a passion for teaching, and I hope to contribute to training PhD students, MD students, residents, and future physician-scientists.



My dissertation research in the laboratory of Professor Satdarshan Monga focused on the role of Yes-associated protein 1 (YAP1) in embryonic liver development, tumorigenesis, and liver regeneration, thus integrating my varied interests into a cohesive, interdisciplinary, and intellectually rigorous research experience. I was awarded an NIH NRSA F30 Fellowship Award, and I have published 17+ manuscripts (6 first author, 2 co-first author, and 1 senior author paper published this year and orally presented at the AASLD national meeting). I used pathology wet-lab methods to study genetically modified animal models of disease, and I have contributed to the development of liver tissue clearing and 3D imaging with the Pitt Center for Biological Imaging. I also trained in bioinformatics through coursework at the University of Pittsburgh and an international research collaboration through the Chateaubriand Fellowship studying the molecular biology of liver cancer. Even after finishing my Ph.D. and returning to medical school, I remained active in the lab, mentoring a Fulbright scholar and writing another manuscript on the relationship between YAP and TAZ in liver development and regeneration.

I am currently developing several research projects to be completed during my residency training and with the help of PIRRT funding and mentorship. I will be continuing the study of YAP in biliary regeneration with Dr. Kari Nejak-Bowen and learning how to use cell transplantation in mouse models to repair liver injury. I will also be using molecular pathology techniques to investigate dysregulated signaling pathways in patients with cholestatic liver disease, whether it be PSC and cholangiocarcinoma with Dr. Aatur Singhi, or biliary atresia and Alagille syndrome with Dr. Claudia Salgado. These projects will form the basis of my K/R applications, with the guidance and mentorship of Dr. Oury, Dr. Chu, Dr. DeFrances, Dr. Monga, and the rest of our stellar PIRRT faculty mentors. The support of the PIRRT program will prove invaluable in helping me progress from residency to my first faculty position and to securing starter-level grants to begin funding my own research program within Pediatric Pathology.

UPDATES ON CURRENT PIRRT TRAINEES

Yannis Hadjiyannis, MD

Following his first year of residency, Dr. Hadjiyannis explored several opportunities throughout our institution. Given his past work at the National Institutes of Health (NIH) focusing on immunology and loss of central tolerance, he sought to continue this focus on immunology. Consequently, Dr. Hadjiyannis has decided to join the lab of Dr. Angus Thomson. In this new role, he will explore the use of regulatory dendritic cells (DCregs, also “tolerogenic DCs”) as a novel cellular for organ transplantation and ischemia with the future goal of using them for autoimmunity. More importantly, he has already started his work in the lab and coauthored a review article under the mentorship of Dr. Thomson that will be featured in the journal: *Current Opinion in Organ Transplantation*. Moreover, he will be pursuing two total research years. Consequentially, he has started his application for grants and research funds such as the PICTOR R38 award, Burroughs Wellcome Scholar Physician Scientist Incubator, and Thomas E. Starzl Postdoctoral Fellowship in Transplantation Biology. In addition to this work, Dr. Hadjiyannis is a contributing or first author on several manuscripts currently under review and has been working closely with the Department of Transfusion Medicine on several other studies. He recently presented a poster at the annual association for the advancement of blood and biotherapies.

Kat Killian, DO

Kat Killian, DO After fulfilling her two years in PIRRT with additional support through the PICTOR R38 award, Kat has officially returned as a second-year pathology resident. Her first year of research was devoted to investigating the role of the receptor for advanced glycation end products (RAGE) in severe steroid-resistant neutrophilic airway diseases (SSRNAD) with mentors Dr. Tim Oury and Dr. Timothy Perkins. Her second year saw the publication of her research in *Frontiers of Immunology* and she continued to expand upon these discoveries while broadening her skills in the scientific research process. During her time in PIRRT, she had an opportunity to present her work at two international conferences, the American Thoracic Society and the American Society for Investigative Pathology. She also won an award in the basic science division for her presentation at the University of Pittsburgh Pathology Retreat. Her focus in the upcoming year will be transitioning back into residency and continuing her research when time permits. She is planning to subspecialize in pediatric and thoracic pathology with a focus on future investigations into developmental and occupational lung pathology. This year she and her husband welcomed a baby girl into their life, which has come with both infinite joy and responsibility.

Dimitrios Korentzelos, MD

Dimitrios is currently finishing his Genitourinary Pathology fellowship at the University of Pittsburgh Medical Center (UPMC) and will transition to assistant professor in the division of Genitourinary Pathology at UPMC Shadyside. He recently gave a platform presentation on “Integrated Clinicopathologic and Gene Expression Analysis to Profile Immune Prognostic Indicators in Uterine and Non-Uterine Leiomyosarcoma” at the 2023 Annual USCAP Meeting. Active areas of research include the clinical use of artificial intelligence-based algorithms in prostate cancer diagnosis, quantitative image analysis for predicting response to BCG treatment in non-muscle invasive bladder cancer, and next-generation sequencing studies in certain genitourinary malignancies. On a different note, Dimitrios has been accepted into the Pitt-UPMC Senior Resident and Fellow Leadership Academy, an essential step in his effort to achieve leadership excellence to make a truly meaningful difference on the local and global stage.

Tanner Freeman, MD, PhD

Assistant Professor of Pathology, Division of Molecular Pathology, University of Pittsburgh. Tanner is the medical director at the NRG Oncology Pittsburgh/NSABP Biospecimen Bank and co-investigator on U24 supporting these efforts (U24CA196067). The focus of the Pittsburgh biorepository is the preservation of biospecimens associated with breast and colorectal cancer clinical trials. Tanner serves as the director of the NSABP Molecular Pathology Laboratory and guides correlative science studies related to clinical trial specimens. Tanner functions as the project coordinator for the Multispectral Imaging Core (MIC) at Hillman Cancer Center. Tanner also serves on the Hillman Cancer Center Protocol Review Committee.

Lauren Skvarca, MD, PhD

Lauren is currently the Director of Perinatal Pathology at UPMC Magee Women's Hospital. After completing a one-year clinical instructorship in breast, gynecologic, and perinatal pathology at UPMC Magee Women's Hospital, she transitioned to assistant professor in 2022. Her clinical work focuses on perinatal and gynecologic pathology. Active areas of research include biomarkers of placental vascular injury and quantitative image analysis of placental histopathology lesions. She maintains active collaborations with basic science and epidemiology researchers at Magee Womens Research Institute (MWRI) and clinician researchers in the Departments of OB/GYN, Pediatrics, and Gynecologic Oncology at UPMC Magee Womens Hospital. These collaborations have resulted in co-authorship on several recent publications, including a study evaluating the Rift Valley fever virus in *Nature Communications* (PMID: 37495594). She is a co-investigator on a Beckwith Institute-funded Clinical Transformation Program award to evaluate placenta frozen sections to predict early onset neonatal sepsis. Finally, she is involved in multi-institutional collaborations including as a co-investigator on an R01 focused on developing artificial intelligence algorithms to evaluate placenta images across the world.

UPDATES ON CURRENT PIRRT TRAINEES

Thomas Pearce, MD, PhD

Assistant Professor of Pathology, Division of Neuropathology, University of Pittsburgh

Clinical focus: diagnostic surgical neuropathology, including neoplastic and non-neoplastic central nervous system disorders. Tom is Principal Investigator (MPI) on a U24 grant funded by NIA and NINDS, titled Brain Digital Slide Archive: An open-source platform for data sharing and analysis of digital neuropathology, a multi-institutional consortium which includes the University of Pittsburgh, Emory University, Northwestern University, and University of California Davis.

Co-investigator in the Neuropathology Core of the University of Pittsburgh Alzheimer's Disease Research Center

Tom's research group focuses on developing and applying artificial intelligence and machine learning algorithms for the analysis of whole slide images of neuropathologic tissue sections, with an emphasis on neurodegenerative conditions.

Tom has active collaborations with numerous investigators and clinician-scientists in neurosurgery, neuro-oncology, and related fields at the University of Pittsburgh.

Member of the Awards Committee, American Association of Neuropathologists annual meeting

Tom is a Diagnostic Slide Session Charter Member and maintains the online DSS platform.

Rebecca J. Leeman-Neill, MD, PhD.

Assistant Professor of Pathology and Cell Biology, Columbia University Medical Center

Rebecca continues to divide her time between signing out Hematopathology and translational research pertaining to B cell genomic instability and mechanisms of lymphomagenesis.

Jason Cheng-Hsuan Chiang, MD, PhD

Associate Member of Pathology, Neurobiology & Brain Tumor Program, St. Jude Children's Research Hospital

Jason's research lab focuses on refining the classification of pediatric central nervous system tumors by next-generation sequencing, methylome, and proteome analyses. The current WHO Classification of Central Nervous System Tumours (WHO CNS5) cites 9 of Jason's research publications. Jason is the central pathology reviewer and co-investigator of 10 clinical trials (NCT05835687, NCT00602667, NCT01393912, NCT01783535, NCT01878617, NCT02114229, NCT02792036, NCT03696355, NCT04065776, and NCT04923126) on pediatric brain tumors using novel drugs, immunotherapy, or radiation regimens. Jason receives funding from F. Hoffmann-La Roche Ltd (Roche), the V Foundation for Cancer Research, and NIH. Jason is the Director of the Neuropathology Core of St. Jude's Neurobiology & Brain Tumor Program (NCI Program Project P01CA096832 and P30CA021765). Partnering with St. Jude's Global Pediatric Medicine initiative, Jason helps to establish regional pediatric neuropathology referral centers in Central and South America, Southeast Asia, and the Middle East. Jason has been invited to several institutions and conferences in the US, Central and South America, Europe, and Asia to give presentations on diagnosing and classifying pediatric brain tumors. He continues to receive increasing numbers of domestic and international pediatric neuropathology cases for expert opinion. Jason published 11 research articles in 2023, including 2 first/corresponding author articles in Neuro-Oncology. He received the "Top Downloaded Article in 2021" and "Top Cited Article 2021 – 2022" awards by Brain Pathology.

Julia Kofler, MD.

Associate Professor of Pathology (with Tenure), University of Pittsburgh

Director, Division of Neuropathology, University of Pittsburgh

Neuropathology fellowship director, University of Pittsburgh

Vice Chair of Faculty Affairs, Department of Pathology, University of Pittsburgh

Co-director and Neuropathology Core Leader of the University of Pittsburgh Alzheimer's Disease Research Center (ADRC)

Principal investigator (MPI) on new NINDS R25 training grant N3-PREP (Neurology, Neurosurgery, & Neuropathology Pitt Research Education Program) to support research training of residents/neuropathology fellows

Principal Investigator on 2 NIH R01 grants:

NIA R01 "Genetic and molecular correlates of white matter pathology in Alzheimer's disease" (PI)

Recently renewed NIMH R01 "Accelerating Treatment Development for Psychosis in AD: MODEL AD+P" (MPI)

Principal Investigator on National Sports Brain Bank study to assess neurodegenerative sequelae of contact sport participation, supported by 2 foundation grants

Ed Plowey, MD, PhD.

Director of Translational Neuropathology, Biogen, Cambridge, MA

Craig Horbinski, MD, PhD.

Full Professor (with Tenure) of Pathology and Neurosurgery, Northwestern University

Two active NIH R01s exploring Tissue Factor regulation and epileptogenesis in gliomas.

Biospecimen Core Leader on a recently renewed \$11.5 million NCI P50 brain tumor SPORE at Northwestern.

Medical Director of the Neuropathology Division at Northwestern Memorial Hospital

Director of the Robert H. Lurie Comprehensive Cancer Center Pathology Core Facility

>230 peer-reviewed manuscripts published, h index = 71

ADVANCEMENTS



Newly Appointed Vice Chairs & Faculty Leadership Positions

Dr. Sameer Khader – Vice Chair of Wellness
Dr. Julia Kofler – Vice Chair Faculty Affairs
Dr. Octavia Peck Palmer – Vice Chair of Health Equity, Diversity & Inclusion
Dr. Nidhi Aggarwal – Interim Director of Hematopathology
Dr. Mahmoud Aarabi – Medical Director of Cytogenetics
Dr. Octavia Peck Palmer will serve as the AACC(ADLM) President 8/1/2023-7/31/2024.
Dr. Hooman Rashidi – Exec Vice Chair of Computational Pathology
Dr. Matthew Hanna – Vice Chair of Pathology Informatics
Dr. Bassem Hendawy – Director of Renal Pathology
Dr. Aatur Singh – Director of Translational Pathology
Dr. Ibrahim Abukhiran – Director of Image Analysis Laboratory
Dr. Erika Moore – Director of Hematopathology Automated Testing Labs
Dr. Esther Elishaev – Director of Gynecological Pathology Clinical Trials
Dr. Mushtaq Khalid – Chief of Pathology at UPMC Altoona

New Faculty Roles and Responsibilities in Cytopathology:

Dr. Sameer Khader – System Director of Cytopathology
Dr. Paul Ohori – Director of Cytopathology at PUH
Dr. Chengquan Zhao – Director of GYN Cytopathology
Dr. Sigfred Lajara – Director of FNA Clinic at Shadyside
Dr. Jing Yu – Director of School of Cytotechnology
Dr. Sameer Khader – Director of Cytology Fellowship

New Faculty Hires:

Dr. Hooman Rashidi – Computational Pathology
Dr. Matthew G. Hanna – Pathology Informatics
Dr. Katelynn Davis – Hemepath
Dr. Majd Jawad – Hemepath
Dr. Robert Bendon – Perinatal Pathology
Dr. Nuha Shaker – GI Faculty at Presby
Dr. Gordon C. Handte – Adult autopsy services at Presby
Dr. Terrell Jones – Faculty at Magee
Dr. Akila Mansour – GI Faculty at Presby
Dr. Samaneh Motanagh – Faculty at Magee
Dr. Dimitrios Korentzelos – Faculty at Shadyside



Welcome

TRAINEE CORNER

Residency Program:

New PGY-1 Class – July 2023

Seven new residents have been recruited.

- Bethany Batson MD, PhD – University of North Carolina Chapel Hill School of Medicine
- Wenli Dai, MD, PhD – University of Chicago Pritzker School of Medicine
- Kyle Damen, DO – Marian University College of Osteopathic Medicine
- John Grove, DO – Lincoln Memorial University, Debusk College of Osteopathic Medicine
- Laura Molina, MD, PhD – University of Pittsburgh School of Medicine
- Zobash Noor, MD – Army Medical College
- Tiarra Price, DO – Philadelphia College of Osteopathic Medicine

Fellowship Program:

Fellows – July 2023

Four fellows have been recruited from outside programs together with six internal candidates.

- Raniah Al Amri (Heme) – UPMC – AP/CP residency
- Vandana Baloda, MD (Heme) – UPMC – AP/CP residency
- Shaymaa Hegazy, MD (BST) – UPMC – AP/CP residency
- Jeff Kleinberger, MD, PhD (MGP) – UPMC – AP/CP residency
- Dimitrios Korentzelos, MD (GU) – UPMC – AP/CP residency
- Dana Martin, MD (MGP) – Commonwealth Medical College – AP/CP residency
- Adriana May, MD (NP) – SUNY Upstate University Hospital – AP/CP residency

Clinical Instructors – July 2023

Five clinical instructors have been recruited from outside programs.

- Mustafa Deebajah, MD (Info) – William Beaumont Hospital – AP/CP residency
- Murad Elsadawi, MD (GYN/Breast) – Boston Medical Center – AP/CP residency
- Mustafa Oraibi, MD (GYN/Breast) – University of Louisville – AP/CP residency
- Nuha Shaker, MD (GI) – University of Kentucky – AP/CP residency
- Aly Wilhelm, MD (GI) – University of Texas Medical Branch (UTMB) – AP/CP residency

SOCIAL MEDIA



UPMC Pathology
@UPMCPathology



Congratulations to [@UPMCPathology](#)'s Christi Kolarcik on being selected as one of the Inaugural PittEI3 Fellows!

Pitt Innovates @PittInnovates · Jan 29

We are happy to announce that the Inaugural Cohort for PittEI3 Fellowship has been selected! Congratulations! The new Pitt program will cultivate faculty talent & expand access to Pitt's innovation and entrepreneurship ecosystem. hubs.li/Q02j2bbF0



3:24 PM · Jan 29, 2024 · 559 Views



UPMC Pathology
@UPMCPathology



Last night, a group past and current [@UPMCPathology](#) leaders celebrated Dr. George Michalopoulos' three-plus decades of impacting the field of [#pathology](#) as our former Chairperson. Thank you, Dr. Michalopoulos, for your years of leadership!



10:43 AM · Feb 21, 2024 · 698 Views



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SOCIAL MEDIA



UPMC Pathology
@UPMCPathology

We are thrilled to welcome Dr. Hooman Rashidi to @UPMC as the Executive Vice Chair of Computational Pathology and Director of @UPMCPathology CPACE (Computational Pathology & AI Center of Excellence). He is also the Associate Dean of AI in Medicine @PittTweet School of Medicine



Liron Pantanowitz and 8 others

11:12 AM · Jan 10, 2024 · 1,145 Views



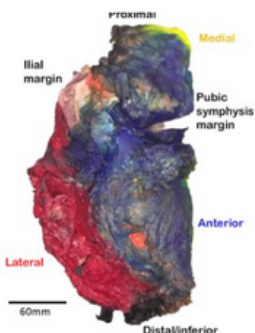
UPMC Pathology
@UPMCPathology

Congratulations to @UPMCPathology's Stephanie Bachman, PA(ASCP) for having her case manuscript highlighted by @PathAssist! Check out the link to read and take the quiz.

AAPA @PathAssist · Feb 1

Now available: the AAPA 2/1 Free CE manuscript & quiz, "An Unusual Presentation of Chondrosarcoma of the Hemipelvis" by Stephanie Bachman. Fellows, check your 📧 or pathassist.org/news/664012 to read the manuscript, take the quiz + earn CE.

Show more



9:42 AM · Feb 2, 2024 · 1,767 Views



UPMC Pathology
@UPMCPathology

Follow

Congratulations to the first winner of the yearly Chair's Award, our rising star Dr. Lauren Skvarca, a perinatal pathologist and an advocate for optimal maternal-fetal health care. She excels at clinical care, is a stellar citizen in our department, and an exemplary team member!



Lauren (Brilli) Skvarca and 6 others



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CROSSWORD ANSWERS

