

Connections



Staff Spotlight

Central Admin Staff Appreciation

New Faculty

Drs. Ku, Lahoutiharahdashti
and Mendoza

Education

EE Just@Columbia Scholars Present Research at CUPP



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Columbia Pathology and Cell Biology Report

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As the summer begins to wind down and we prepare for the autumnal equinox next month, I am reminded of all the challenges we faced and the accomplishments we have achieved together throughout the previous year. In partnership with NYP and under the guidance of our Executive Vice Chair of Anatomic Pathology, Dr. Glen Markowitz, and our Associate Director of Digital Pathology, Dr. Michael Miller, we have successfully begun the transition to digital pathology, and by the year's end Anatomic Pathology expects to become fully digital scanning nearly 2500 slides per day. This July, the long-awaited faculty compensation plan was launched, and thus far, the response has been overwhelmingly positive from our faculty. Much work has gone into this plan, and I want to thank the Leadership at NYP for their commitment to seeing this plan through. I also would like to thank our Department Administrator and Chief Financial Officer Joann Li, our Executive Director of Finance and Business Operations, Yasmeen Majoka, and all the members of our administrative team for the time, focus, and immense effort they have all committed to very important, though daunting task. This achievement provides us with the ability and means to ensure our ability to continue to recruit and retain the very best faculty. Furthermore, they achieved this herculean task while closing the books this fiscal year with the department in a positive balance. Kudos, once again!

Other ongoing projects and initiatives in Pathology that I would like to highlight include our focus on professional development and new wellness initiatives in Pathology and Cell Biology headed by Drs. Tiffany Thomas and Krystalyn Hudson include an upcoming pilot program to provide AED/CPR training to members of our department (inspired by the tragic loss of our dear colleague and friend, Teresa Wood). I welcome other ideas from our faculty and staff on elevating and enhancing workplace wellness, well-being, and the sense of community in our department.

This year, seven of our faculty received promotions, and I would like to congratulate Larisa Debelenko and Miroslav Sekulic in AP; Mythily Ganapathi, Jun Liao, Tiffany Thomas, and Krystalyn Hudson in CP, and Brian Karolewski in the Institute of Comparative Medicine. This July, we onboarded seven new residents. I would like to welcome Kevin Wang, MD/PhD, from the University of California Irving School of Medicine; Luke Dawson, MD from East Tennessee State University James H. Quillen College of Medicine; Damon Ceylan, MD from Rutgers Robert Wood Johnson Medical School; Alberto Ardura-Fabregat, MD/PhD from Universidad de Navarra Facultad de Medicina Albert Ludwig University and Harvard Medical School; Jennifer Quinter, MD from Geisinger Commonwealth School of Medicine; Brandon Litvak, MD from Sackler School of Medicine, and Peter Koch, MD/PhD from Columbia University Vagelos College of Physicians and Surgeon. We are expecting great things from you all!

I would like also to introduce a project in the Department of Pathology and Cell Biology called the Precision Digital Medicine Initiative (PDMI). Based out of our Digital and Computational Pathology Laboratory (DCPL) and distinct and separate from our clinical efforts in digital pathology in Anatomic Pathology, the focus of this initiative is to provide an integrative interface for multiple data streams, including digital pathology, radiology, genomic data, and anonymized clinical data. This will be accomplished through the development of a cloud-based digital platform hosted by the DCPL that will be used to facilitate collaborations across the CUIMC and enable partnerships with commercial entities, including biotech and life sciences companies. Pathology has entered the digital age, and the new frontier is data integration. The Department of Pathology and Cell Biology plans to be at the head of this new wave. Please look forward to hearing more about the PDMI in the future.

Finally, as most of us have heard, there has been some change in leadership at the University and the Medical Center. Minouche Shafik announced last week that she would be stepping down as President of the University. This news also arrived with the announcement that Dr. Katrina Armstrong would be taking leave as our Dean to serve as the interim president of Columbia University and that James McKiernan would serve as the interim Dean. Although this has been a lot to digest for the department, I embrace these new developments with optimism and the new potential and opportunities they bring. As our new Dean commented last week, we have not lost Dr. Armstrong as Dean; we have gained her as a president. I look forward to an exciting and new future for our department.

Best wishes,

Kevin L. Gardner, M.D., Ph.D.

Chair, Pathology and Cell Biology

STAFF SPOTLIGHT: FACULTY

Honors and Awards

Carol Troy Selected for the 2024 Ludwig Pilot Grant Program

[Dr. Carol Troy](#), professor of pathology and cell biology at CUMC, has been selected for the 2024 Ludwig Pilot Grant Program in Neurodegeneration for her application entitled ***“Leveraging a clinically relevant model of Alzheimer’s Disease to identify and target critical pathways of neurodegeneration using non-invasive cell permeant peptides.”*** [The Carol and Gene Ludwig Pilot Grant Program in Neurodegeneration](#) was created to provide grants to support high-risk/high-reward research projects in promising areas of neurodegenerative disease, to build a cohort of researchers focusing on the mechanisms of neurodegeneration and translation of the new knowledge into clinically useful tools.

Francesca Bartolini Wins HICCC 2024 Velocity Cancer Research Pilot Award

[Dr. Francesca Bartolini](#), associate professor of pathology and cell biology, has won the HICCC 2024 VELOCITY Cancer Research Pilot Award for her application (in collaboration with Dr. Robert Wechsler-Reya of Neurology) titled: ***“The INF2/mDia Axis: Pioneering a Path to Novel Therapies for SHH-Medulloblastoma”***.

Phyllis Faust Presents 20+ Year Research at AANP 2024 Meeting

At the June 2024 American Association of Neuropathologists (AANP) 100th Annual Meeting, [Dr. Phyllis Faust](#), professor of pathology and cell biology at CUMC, presented research findings, 20 years in the making and published in the *Annals of Clinical and Translational Neurology*, that could eventually help relatives of deceased essential tremor (ET) patients know their hereditary risk of getting the disease. Dr. Faust also won the AANP Asao Hirano Award for “Best Clinico-Pathologic Paper in Neurodegeneration.” Read the [research article](#) of her groundbreaking work.

Elizabeth Stone Receives Funding from AABB

A grant application by [Dr. Elizabeth Stone](#), assistant professor of pathology and cell biology at CUMC, has been selected for funding from the Association for the Advancement of Blood & Biotherapies (AABB) Foundation.

STAFF SPOTLIGHT: FACULTY

Faculty Promotions



[Larisa Debelenko, MD, PhD](#) was promoted to Professor of Pathology and Cell Biology at CUMC



[Jun Liao, PhD](#) was promoted to Associate Professor of Pathology and Cell Biology at CUMC



[Mythily Ganapathi, PhD](#) was promoted to Associate Professor of Pathology and Cell Biology at CUMC



[Miroslav Sekulic, MD](#) was promoted to Associate Professor of Pathology and Cell Biology at CUMC



[Krystalyn Hudson, PhD](#) was promoted to Associate Professor of Pathology and Cell Biology



[Tiffany Thomas, PhD](#) was promoted to Associate Professor of Pathology and Cell Biology at CUMC



[Brian Karolewski, VMD, PhD](#) was promoted to Associate Professor of Clinical Pathology and Cell Biology

Honors and Awards (con't)

Dr. Govind Bhagat to speak at ASCP Webinar



On July 16th, Dr. [Govind Bhagat](#), professor of pathology and cell biology at CUIMC, was invited to speak at a webinar organized by the American Society for Clinical Pathology (ASCP). The title of the talk was *Promoting Diagnostic Excellence by Improving the Communication of Urgent and Unexpected Diagnoses in Anatomic Pathology*, where Dr. Bhagat and the panel emphasized the importance of following guidelines for communicating urgent diagnoses in anatomic pathology, addressed communication barriers, and offered recommendations for timely and effective communication. Dr. Govind has also authored multiple chapters for a few prominent pathology textbooks that have just been published or will be published within the next 2 months.

- [Hematopathology 3rd edition](#). Editors: Jaffe ES MD, Arber DA, Campo E, Quintanilla-Fend L, Orazi A, Rimsza LM, Swerdlow SH
- [Morson and Dawson's Gastrointestinal Pathology 6th edition](#). Editors: Bateman AC, Greenson JK, Lauwers GY, Loughrey MB, Novelli MR, Sheahan K, Shepherd NA
- [Haematolymphoid Tumours, WHO Classification of Tumours, 5th Edition, Volume 11](#). Editors: WHO Classification of Tumours Editorial Board

STAFF SPOTLIGHT: FACULTY

New Faculty

Amy Ku, MD, PhD

Assistant Professor of Pathology and Cell Biology at CUMC



Dr. [Amy Ku](#) earned her MD/PhD from the University at Buffalo and Roswell Park Cancer Institute, where she studied tumor immunology. Under the mentorship of Dr. Sharon Evans, she studied how myeloid-derived suppressor cells (MDSC), which arise in the setting of cancer, impede anti-tumor immune responses by limiting naive and effector T-cell trafficking into lymph nodes and tumor tissue, respectively. Her work has been published in multiple peer-reviewed journals and presented at national and international conferences. Dr. Ku then moved to New York City for residency training in anatomical and clinical pathology at Columbia University Irving Medical Center, where she served as Chief Resident in her third year of training. She continued to complete fellowship training in Hematopathology at Columbia and is now completing fellowship training in Surgical Pathology while staying on as faculty member.

Arash Lahoutiharahdashti, MD

Assistant Professor of Pathology and Cell Biology at CUMC



Dr. [Arash Lahoutiharahdashti](#) is a cytopathologist and surgical pathologist. He received his MD at Iran University of Medical Sciences. He completed his anatomic and clinical pathology residency training at Hofstra North Shore-LIJ Pathology Residency Program at Lenox Hill Hospital, followed by cytopathology training at The Leopold G. Koss Division of Cytology, Albert Einstein College of Medicine, Montefiore Medical Center. He started as a faculty member at the University of Rochester Medical Center before relocating to Columbia University. He has published several peer-reviewed articles in pathology.

Rachelle P. Mendoza, MD

Assistant Professor of Pathology and Cell Biology at CUMC



Dr. [Rachelle Mendoza](#) completed her anatomic and clinical pathology residency training at SUNY Downstate Medical Center. She was awarded the Robert Furchgott Scholar in 2019 for her study on the tumor microenvironment of cervical cancer in the predominantly African American patient population. As chief resident during the pandemic's peak, she published several diagnostic and clinical studies on COVID-19. She then proceeded to complete her gynecologic pathology and cytopathology fellowship training at the University of Chicago, where she had the opportunity to publish seminal papers on the molecular characterization of ovarian steroid cell tumor, endometrial carcinoma with heterogenous MMR expression, HER2-overexpressed squamous cell carcinoma of the cervix, lung adenocarcinoma with isolated TP53 mutation and lung spindle cell carcinoid tumors. She received a Stowell-Orbison Certificate of Merit in 2023 for her study on the diagnostic utility of repeat fine-needle aspiration biopsies on thyroid nodules. Rachelle received her medical degree from De La Salle Health Sciences Institute in the Philippines. She then became an assistant professor in Microbiology and the associate director for the institution's Center for Biopharmaceutical Research, where she served as the principal investigator of several early phase drug development clinical trials. She was also involved in drug discovery plant-based research and has published on the anti-cancer activity of a local plant, *Smallanthus sonchifolius*.

STAFF SPOTLIGHT: FACULTY

Pathology Faculty Featured in Columbia Media

[Legacy Unfulfilled: Rh Disease, Mostly Eradicated at Home, Persists Worldwide](#)

As the founding executive director of WIRhE, the Worldwide Initiative for Rh Disease Eradication, which aims to provide global access to anti-D immunoglobulin, a life-saving drug that prevents Rh disease, Dr. Steve Spitalnik has been instrumental in addressing Rh incompatibility. This condition can lead to severe health issues for newborns. Despite the success in high-income countries, Dr. Spitalnik's work highlights the ongoing challenge of ensuring this essential treatment's worldwide availability and affordability. **(Source: ColumbiaMedicine)**

[How to Keep the Food in Your Cooler Safe to Eat](#)

Few things beat the heat, like a picnic at the beach or barbeque at a local park. But are the burgers sitting in the cooler for hours still safe to eat? And is the leftover potato salad okay to take home? ColumbiaDoctors Health Insights asked Dr. Daniel Green to talk about the bacteria found in coolers and share tips for reducing the risk of foodborne illnesses. **(Source: ColumbiaDoctors)**

[Study Offers New Detail on How COVID-19 Affects the Lungs](#)

A new study by Columbia researchers found that ferroptosis, a form of cell death, occurs in severe COVID-19 patient lungs. The finding indicates that halting ferroptosis with therapeutic drug candidates could improve COVID-19 outcomes. **(Source: ColumbiaNews)**

[The Life-Changing Doctors You Never Meet](#)

Patients rarely see pathologists, but they play a vital role in their care. ColumbiaDoctors spoke with Drs. Stephen Lagana (surgical pathologist) and Daniel Green (clinical microbiologist) to talk about how integral pathologists are to patient care. **(Source: ColumbiaDoctors)**

RESEARCH

Research Study

The [Center for Advanced Laboratory Medicine \(CALM\)](#) was recently able to serve as a clinical trials site for the first de-novo FDA clearance for a molecular assay to detect *Candida auris*. This emerging and frequently drug-resistant fungal pathogen has the potential to spread quickly through healthcare facilities and cause invasive and deadly infections in immunocompromised patients. The US Centers for Disease Control and Prevention has also called *Candida auris* a critically important fungal pathogen. The Simplexa *Candida auris* assay can rapidly test swab samples from patients in only hours to see if they are colonized to identify the pathogen early and stop the spread of infection. Traditional culture methods for identification, which are the current standard, take days and specialized laboratory skills that are not available in many facilities. Being able to rapidly detect *Candida auris* with a highly sensitive and specific test while cutting down the time to detection from days to hours can potentially make a significant difference in stopping the nosocomial spread of this pathogen.



(Above) Entrance of the CALM lab, 15th floor of the Vagelos College of Physicians and Surgeons (VP&S).



(Left) Group photo of the CALM members.

Research Honors & Awards



Dr. Suyeon Kim (left), a postdoc fellow and member of the Hee Won Yang Lab, has been awarded a postdoc fellowship from the National Research Foundation of Korea for the year 2024.

Additionally, Dr. Sungsoo Kim (right), another postdoc fellow of the Yang Lab, has received a postdoc fellowship from the Precision Oncology Systems Biology program of the Herbert Irving Comprehensive Cancer Center for the years 2024 to 2025.



Dr. Flavia Dei Zotti, a postdoctoral research scientist in Dr. Krystalyn Hudson's laboratory, was selected to give an oral presentation entitled "Novel Approaches to Treat Autoimmune Hemolytic Anemia Secondary to Immune Checkpoint Inhibitors in a Mouse Model" at the 2024 International Society of Blood Transfusion (ISBT) Annual Meeting in Barcelona, Spain.

Useful Information

There are many tax advantages to giving appreciated stock to the Department of Pathology and Cell Biology. In donating appreciated securities, you avoid capital gains tax and qualify for a charitable income tax deduction for the full value of the securities. Please visit www.giving.cuimc.columbia.edu/ways-give/gifts-securities for more information.

Visit the [Pathology and Cell Biology Giving Page](#) for more information on how to make a gift to one of our many worthwhile educational or research funds. Thank You!

RESEARCH

Recent Publications

- [Alzheimer's disease CSF biomarkers correlate with early pathology and alterations in neuronal and glial gene expression](#). Ali S. Ropri, Tiffany G. Lam, Vrinda Kalia, Heather M. Buchanan, Anne Marie W. Bartosch, Elliot H. H. Youth, Harrison Xiao, Sophie K. Ross, Anu Jain, Jayanta K. Chakrabarty, Min Suk Kang, Deborah Boyett, Eleonora F. Spinazzi, Gail Iodice, Robert A. McGovern, Lawrence S. Honig, Lewis M. Brown, Gary W. Miller, Guy M. McKhann, **Andrew F. Teich**. *Alzheimer's and Dementia* doi: <https://doi.org/10.1101/2024.06.11.24308706>
- [Comparative Analysis of Ischemia-Reperfusion Injury in Heart Transplantation: A Single-Center Study Evaluating Conventional Ice-Cold Storage versus the Paragonix SherpaPak Cardiac Transport System](#). Dor Lotan, Cathrine M Moeller, Afsana Rahman, Gal Rubinstein, Daniel Oren, Yonatan Mehlman, Andrea Fernandez Valledor, Ersilia M DeFilippis, Jayant Raikhelkar, Kevin Clerkin, Justin Fried, David Majure, Yoshifumi Naka, Yuji Kaku, Koji Takeda, Kyung Taek Oh, Adil Yunis, Paolo C Colombo, Melana Yuzefpolskaya, Farhana Latif, Gabriel Sayer, Nir Uriel, **Miroslav Sekulic** PMID: 39007406 DOI: [10.1111/ctr.15397](https://doi.org/10.1111/ctr.15397)
- [Maternal inheritance of functional centrioles in two parthenogenetic nematodes](#). Aurélien Perrier, Nadège Guiglielmoni, Delphine Naquin, Kevin Gorrichon, Claude Thermes, Sonia Lameiras, Alexander Dammermann, Philipp H Schiffer, Maia Brunstein, **Julie C Canman**, Julien Dumont PMID: [PMC11258339](https://pubmed.ncbi.nlm.nih.gov/39007406/) DOI: [10.1038/s41467-024-50427-5](https://doi.org/10.1038/s41467-024-50427-5)
- [Cytoplasmic vacuolization and ectopic formation of perineuronal nets are characteristic pathologies of cytomegalic neurons in tuberous sclerosis](#). Alexander A Sosunov, Guy McKhann li, Guomei Tang, **James E Goldman**. PMID: 39024216 DOI: [10.1093/jnen/nlae079](https://doi.org/10.1093/jnen/nlae079)
- [Dynamic establishment and maintenance of the human intestinal B cell population and repertoire following transplantation in a pediatric-dominated cohort](#). Fu J, Hsiao T, Waffarn E, Meng W, Long KD, Frangaj K, Jones R, Gorur A, Shtewe A, Li M, Muntnich CB, Rogers K, Jiao W, Velasco M, Matsumoto R, Kubota M, Wells S, Danzl N, Ravella S, Iuga A, **Vasilescu ER**, Griesemer A, Weiner J, Farber DL, Luning Prak ET, Martinez M, Kato T, Hershberg U, Sykes M. *Front Immunol*. 2024 Jun 28;15:1375486. doi: 10.3389/fimmu.2024.1375486. eCollection 2024. PMID: 39007142
- [Biomarkers of immunotherapy in glioblastoma](#). Savage WM, Yearly MD, Tang AJ, Sperring CP, Argenziano MG, Adapa AR, Yoh N, **Canoll P**, Bruce JN. *Neurooncol Pract*. 2024 Apr 1;11(4):383-394. doi: 10.1093/nop/npae028. eCollection 2024 Aug. PMID: 3900652
- [Suppressing PD-L1 Expression via AURKA Kinase Inhibition Enhances Natural Killer Cell-Mediated Cytotoxicity against Glioblastoma](#). Nguyen TTT, Gao Q, Mun JY, Zhu Z, Shu C, Naim A, Rogava M, Izar B, Westhoff MA, Karpel-Massler G, **Siegelin MD**. *Cells*. 2024 Jul 6;13(13):1155. doi: 10.3390/cells13131155. PMID: 38995006
- [Prospective, longitudinal study of cancer predictors and rates in a New York City cohort of 598 patients with acromegaly](#). Freda PU, Bruce JN, Jin Z, Kostadinov J, Khandji AG, **Cremers S**, Post KD. *J Clin Endocrinol Metab*. 2024 Jul 10:dgae469. doi: 10.1210/clinem/dgae469. Online ahead of print. PMID: 38986012
- [The global role of G6PD in infection and immunity](#). Shah SS, **Stone EF, Francis RO**, Karafin MS. *Front Immunol*. 2024 Jun 13;15:1393213. doi: 10.3389/fimmu.2024.1393213. eCollection 2024. PMID: 38938571



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RESEARCH

Recent Publications (con't)

- [Anemia From Inflammation After Intracerebral Hemorrhage and Relationships With Outcome](#). Roh DJ, Poyraz FC, Mao E, Shen Q, Kansara V, Cottarelli A, Song S, Nemkov T, Kumar A, **Hudson KE**, Ghoshal S, Park S, **Agarwal S**, Connolly ES, Claassen J, Kreuziger LB, **Hod E**, Yeatts S, Foster LD, Selim M. J Am Heart Assoc. 2024 Jul 16;13(14):e035524. doi: 10.1161/JAHA.124.035524. Epub 2024 Jul 9. PMID: 38979830
- [Biological and genetic determinants of glycolysis: Phosphofructokinase isoforms boost energy status of stored red blood cells and transfusion outcomes](#). Nemkov T, Stephenson D, Earley EJ, Keele GR, Hay A, Key A, Haiman ZB, Erickson C, Dzieciatkowska M, Reisz JA, Moore A, Stone M, Deng X, Kleinman S, **Spitalnik SL**, **Hod EA**, **Hudson KE**, Hansen KC, Palsson BO, Churchill GA, Roubinian N, Norris PJ, Busch MP, Zimring JC, Page GP, D'Alessandro A. Cell Metab. 2024 Jun 27:S1550-4131(24)00232-8. doi: 10.1016/j.cmet.2024.06.007. Online ahead of print. PMID: 38964323
- [FLT1 activation in cancer cells promotes PARP-inhibitor resistance in breast cancer](#). Tai Y, Chow A, Han S, Coker C, Ma W, Gu Y, Estrada Navarro V, Kandpal M, **Hibshoosh H**, Kalinsky K, Manova-Todorova K, Safonov A, Walsh EM, Robson M, Norton L, **Baer R**, Merghoub T, **Biswas AK**, **Acharyya S**. EMBO Mol Med. 2024 Jul 2. doi: 10.1038/s44321-024-00094-2. Online ahead of print. PMID: 38956205
- [Admission Viscoelastic Hemostatic Assay Parameters Predict Poor Long-Term Intracerebral Hemorrhage Outcomes](#). Sieh L, Peasley E, Mao E, Mitchell A, Heinonen G, Ghoshal S, **Agarwal S**, Park S, Connolly ES, Claassen J, Moore EE, Hansen K, **Hod EA**, **Francis RO**, Roh DJ. Neurocrit Care. 2024 Jul 2. doi: 10.1007/s12028-024-02051-w. Online ahead of print. PMID: 38955933
- [The Role of Alpha-Synuclein in Synucleinopathy: Impact on Lipid Regulation at Mitochondria-ER Membranes](#). Barbuti PA, Guardia-Laguarta C, Yun T, Chatila ZK, Flowers X, Santos BF, Larsen SB, Hattori N, Bradshaw E, Dettmer U, Fanning S, Vilas M, **Reddy H**, **Teich AF**, Krüger R, Area-Gomez E, **Przedborski S**. bioRxiv [Preprint]. 2024 Jun 17:2024.06.17.599406. doi: 10.1101/2024.06.17.599406. PMID: 38948777
- [The dynamics and longevity of circulating CD4\(+\) memory T cells depend on cell age and not the chronological age of the host](#). Bullock ME, Hogan T, Williams C, Morris S, Nowicka M, Sharjeel M, van Dorp C, **Yates AJ**, Seddon B. bioRxiv [Preprint]. 2024 Jun 25:2023.10.16.562650. doi: 10.1101/2023.10.16.562650. PMID: 38948729
- [The Role of Ergothioneine in Red Blood Cell Biology: A Review and Perspective](#). **Thomas TA**, **Francis RO**, Zimring JC, Kao JP, Nemkov T, **Spitalnik SL**. Antioxidants (Basel). 2024 Jun 13;13(6):717. doi: 10.3390/antiox13060717. PMID: 38929156
- [DPEP Inhibits Cancer Cell Glucose Uptake, Glycolysis and Survival by Upregulating Tumor Suppressor TXNIP](#). Zhou Q, Nguyen TTT, Mun JY, **Siegelin MD**, **Greene LA**. Cells. 2024 Jun 12;13(12):1025. doi:10.3390/cells13121025. PMID: 38920655
- [Reverse engineering neuron type-specific and type-orthogonal splicing-regulatory networks using single-cell transcriptomes](#). Moakley DF, Campbell M, Anglada-Girotto M, Feng H, Califano A, **Au E**, Zhang C. bioRxiv [Preprint]. 2024 Jun 15:2024.06.13.597128. doi: 10.1101/2024.06.13.597128. PMID: 38915499

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RESEARCH

Recent Grants

Source: CUIMC Update



Jaewon Min, PhD, assistant professor of pathology & cell Biology (in the Institute for Cancer Genetics), was awarded a grant from NIH/NIGMS, R35GM155138, for the period 09/01/2024-06/30/2029, for “Mechanisms and Genetic Consequences of Break-induced Replication”.



Peter Canoll, MD, PhD, professor of pathology & cell Biology at CUMC, won a sub-award from the National Institute of Neurological Disorders and Stroke for “Fatty acid metabolic regulation of anti-tumor immunity against irradiated glioblastoma.”



Kevin Gardner, MD, PhD, Chair, received a grant from the American Cancer Society for “Integrity: Integrating Transdisciplinary Research and Training to Eliminate Cancer Health Disparities,” the department’s newest post-baccalaureate fellowship program. [Learn more about the INTEGRITY program.](#)

Recent Publications (con’t)

- [Dual spatio-temporal regulation of axon growth and microtubule dynamics by RhoA signaling pathways.](#) Wojnacki J, Quassollo G, Bordenave MD, Unsain N, Martínez GF, Szalai AM, Pertz O, **Gundersen GG**, **Bartolini F**, Stefani FD, Cáceres A, Bisbal M.J. *Cell Sci.* 2024 Jun 24;jcs.261970. doi: 10.1242/jcs.261970. Online ahead of print.PMID: 38910449
- [Clinicopathologic Characteristics of Crystalglobulin-Induced Nephropathy: A Case Series.](#) Nasr SH, **Kudose S**, Valeri AM, Kashkouli A, Said SM, **Santoriello D**, **Markowitz GS**, Bu L, Cornell LD, Samad A, Ahmed J, Sethi S, Leung N, **D’Agati VD**. *Am J Kidney Dis.* 2024 Jun 20:S0272-6386(24)00837-0. doi: 10.1053/j.ajkd.2024.04.019. Online ahead of print.PMID: 38908425
- [MFN2 coordinates mitochondria motility with \$\alpha\$ -tubulin acetylation and this regulation is disrupted in CMT2A.](#) Kumar A, Larrea D, Pero ME, Infante P, Conenna M, Shin GJ, Van Elias V, Grueber WB, Di Marcotullio L, Area-Gomez E, **Bartolini F**. *iScience.* 2024 May 15;27(6):109994. doi: 10.1016/j.isci.2024.109994. eCollection 2024 Jun 21.PMID: 38883841
- [Extrachromosomal telomere DNA derived from excessive strand displacements.](#) Lee J, Lee J, Sohn EJ, Taglialatela A, O’Sullivan RJ, Ciccio A, and **Min J**. (2024) *Proc Natl Acad Sci U S A.* 2024 May 7;121(19):e2318438121 PMID: 38696464

“[Multi-omic Analysis of Huntington’s Disease Reveals a Compensatory Astrocyte State.](#)” Huntington’s disease (HD) is a progressive, incurable neurodegenerative disorder characterized by selective and regional neurodegeneration. Led by [Dr. Osama Al-Dalahmah](#) and Dr. Vilas Menon (Columbia Neurology), the team used single-nucleus RNA sequencing, lipidomics, and neuropathology to gain new insights into the underlying biology of HD. Their results showed that astrocytes, the primary glial cells in the brain that maintain homeostasis, can display diverse states that correlate with selective regional vulnerability in HD. They discovered a protective astrocyte state that increases viability in patient-derived neurons. This collaborative effort included contributions from [Dr. James Goldman](#) (Columbia Pathology and Cell Biology) and collaborators at Washington University in St. Louis, MIT, Northwestern University, and the NY Genome Center. Dr. Al-Dalahmah also presented these findings at the Milton Wexler Biennial Symposium organized by the Hereditary Disease Foundation in Boston on August 8th.

EDUCATION: RESIDENCY AND FELLOWSHIP

Recent Resident Publications

- [Prevalence of and gene regulatory constraints on transcriptional adaptation in single cells](#). **Ian A. Mellis**, Nicholas Bodkin, Madeline E. Melzer, Yogesh Goyal bioRxiv doi: <https://doi.org/10.1101/2023.08.14.553318>
- [XBB.1.5 monovalent mRNA vaccine booster elicits robust neutralizing antibodies against emerging SARS-CoV-2 variants](#). Wang, Q.*, **Guo, Y.***, Bowen, A.*, **Mellis, I.A.***, Valdez, R., Gherasim, C., Gordon, A., Liu, L., Ho, D.D., 2023. Cell Host & Microbe 32, no. 3 (2024): 315-321.
- [Histological characterisation of pulmonary monkeypox virus infection in a patient with AIDS](#). **Tepp JA**, Remotti F, Szabolcs MJ, Saqi A. Histopathology. Published online February 29, 2024. doi:10.1111/his.15164
- [Cellular Cutaneous Epithelioid Hemangioma Harboring the Rare GATA6::FOXO1 Gene Fusion](#). **Tepp JA**, Agaram NP, Chang JC, Linos K. Am J Dermatopathol. Published online March 8, 2024. doi:10.1097/DAD.0000000000002647

Welcome to Our 2024-2025 Pathology Fellows

New York Presbyterian Hospital – Columbia University Irving Medical Center
Department of Pathology and Cell Biology Fellows 2024-2025



Laura Warren, MD
Surgical Pathology



Sepideh Besharati, MD
GI/Liver Pathology



Siarhei Dzedzik, MD
Renal Pathology



Michael Daniel, MD/PhD
Hematopathology



Jeffrey Thomas, DO
Hematopathology



Satia Shivani, MD
Medical Microbiology



Mine Yilmaz, MD
Molecular Genetic
Pathology



Sidra Zaheer, MD
Molecular Genetic
Pathology



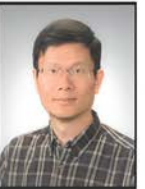
Ian Mellis, MD/PhD
Transfusion Medicine



Evan Waldron, MD/PhD
Transfusion Medicine



Tian Yu, PhD
Laboratory
Genetics and
Genomics 1



Xinming Zhuo, PhD
Laboratory
Genetics and
Genomics 2

ANNUAL LECTURESHIP: To recognize Dr. Marboe's long and distinguished career in the department, we have established an annual lectureship in his honor. The annual Dr. Charles Marboe Lecture will continue Dr. Marboe's history of sharing his expertise in cardiovascular pathology, cardiology, and heart transplantation. This endowed lecture will ensure quality education within the department by supporting Columbia's most important assets: its accomplished educators and faculty members who shape the future leaders in the field.

SUPPORT EDUCATION! To make a tax-deductible gift to the lectureship, [click here](#).

EDUCATION: RESIDENCY AND FELLOWSHIP

Residency Graduation 2024

By: Carlos A. Pagán, MD



With the passing of every academic year, we celebrate the graduation of our trainees at NYP-Columbia University Irving Medical Center. We marked the culmination of intense study, rigorous training, and countless hours in the many labs that make up our department. The event occurred in the rooftop space at the

Columbia School of Nursing. Trainees, faculty, and family members all gathered to mark the occasion. During the ceremony, the residency program director, Dr. Carlos Pagán, thanked the graduates, adorned with sashes, for their significant contributions to the program. One by one, each graduate faced the crowd while hearing heartfelt anecdotes and thanks for all their efforts throughout training from their respective program directors.

“Graduation is an incredible milestone. It marks a transition from trainee to faculty with all the solemn responsibility that comes with rendering a final diagnosis

(Top) From left to right: Dr. Michael Daniel, Dr. Jeffrey Thomas, Dr. Sepideh Besharati, Dr. Carlos Pagan, Dr. Ian Mellis, Dr. Jonathan Tepp, Dr. Maelle Saliba

and affirms our commitment to pass on our knowledge to future generations”, says Dr. Pagán. “It is also a reminder that pathology is as much about lifelong learning as anything. We must constantly strive to improve our diagnoses and ourselves to best serve our patients. In this way, if we are so fortunate, we graduate a little every day.”

The graduation was also a time to recognize the value and impact of the remarkable educational skills of our faculty. With an introduction from our own Dr. Glen Markowitz, for the first time in the department teaching award’s 20-year history, there was to be a reset, and all faculty were made eligible to receive these awards. The votes had been tallied, and ultimately, Drs. Bachir Alobeid and Anjali Saqi were presented with the Joseph Fink Clinical Pathology Faculty Teaching Award and the Karl Perzin Anatomic Pathology Faculty Teaching Award, respectively.

The evening concluded with a reception where trainees, graduates, faculty, family, mentors, and mentees shared stories and laughter. It was a fitting stage for the graduates to embark on the next step of their promising careers. One more time, we extend our deepest congratulations to our graduates!

(Left) Residency graduation guests mill about socializing with graduates and faculty.



International Education



This summer, [Columbia ICEP \(International Collaboration and Exchange Program\)](#) welcomed Professor Naoki Ikegami, an expert in aging health policy, from Keio University in Tokyo, Japan. He met with our international ICEP student cohort for an office hour chat with Q+A (see photo).

We also welcomed over 30 ICEP student visitors from around the globe on campus! ICEP profoundly thanks Professors [Carol Troy](#), [Ulrich Hengst](#), [Markus Siegelin](#), and Kizil Caghan for hosting ICEP students from the cohort 2023/24 in their labs. If other Pathology and Cell Biology faculty would like to

host an ICEP student for the 2025 cohort, [please sign up here!](#)

EDUCATION: PATHWAY PROGRAMS

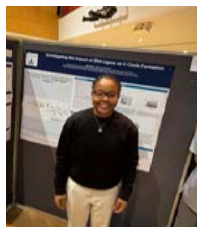
Six EE Just@Columbia Scholars Present Their Research at CUPP

We are thrilled to highlight the recent achievements of our EE Just @Columbia Scholars. On Tuesday, July 23, six of our talented scholars presented their innovative research at the CUPP (Columbia University Pathways Programs) Symposium, showcasing the exceptional quality and depth of their work. The symposium was a valuable opportunity for these scholars to engage with peers, academics, and industry professionals, furthering their academic and professional development. Their presentations not only illustrated their individual research contributions but also reinforced the excellence of the [EE Just @Columbia program](#).

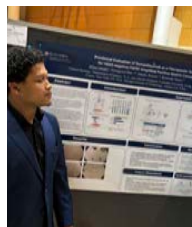


EE Just Scholars @ CUPPS

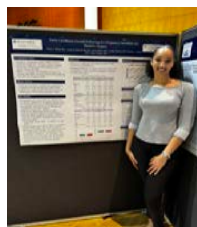
Please join us in congratulating the scholars for their impressive presentations:



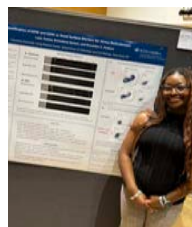
Kay-La Blair (Howard University)
- *Investigating the Impact of DNA Ligase on C-Circle Formation*



Miles Joseph (Georgia Institute of Technology) - *Preclinical Evaluation of Bemaritizumab as a Therapeutic Target for HER2-negative FGFR2 Amplified Positive Gastric Cancer*



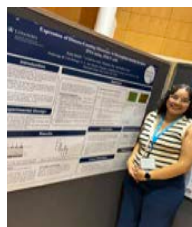
Maya-Jean Hilaire (Columbia University)
- *Early Childhood Growth After Pre-Pregnancy Metabolic and Bariatric surgery Formation*



Layla Seaton (Case Western) - *Identification of CD36 and CD44 as Novel Surface Markers for Stress Reticulocytes*



Jordan Jackson (Morehouse School of Medicine) - *Adhesion G Protein-coupled Receptor Latrophilin-3 (ADGRL3) Modulation of Dopaminergic Neurotransmission*



Kiara Smith (Barnard College of Columbia University) - *Expression of Disease-Causing Mutations in Drosophila Insulin Receptor DNA using 293FT cells*



In addition, we celebrated the conclusion of our program with the Annual EE Just Capstone Closing Dinner at Red Rooster on Monday, July 29. The dinner provided a platform for the scholars to present their elevator pitches and reflect on their experiences and learnings over the past few weeks.

Capstone Dinner at Red Rooster-Harlem (From Left-Back) Jordan Jackson, Kiara Smith, Destinee Williams, Tyla McAffity, Dr. Kevin Gardner; (From Left-Front) Dr. Nicole Perry-Hauser, Maya-Jean Hilaire, Miles Joseph, Kay-La Blair, Layla Seaton, Greet Thomas

We extend our heartfelt congratulations to all the scholars and thank their mentors for their dedication and hard work. Their accomplishments highlight the strength of our program and the bright future that lies ahead for each of them. Learn more about the [Pathway Programs at Pathology and Cell Biology](#).

EDUCATION

Graduate Program: New PhDs!



Between July 2023 and September 2024, nine students in the Pathobiology and Mechanisms of Disease Graduate Program will have successfully defended their PhD thesis:

- **Qi Jin**, laboratory of Dr. Howard Worman
- **Patrick Dummer**, laboratory of Dr. Edmund Au
- **Ester Calvo Fernandez**, laboratory of Dr. Andrea Califano
- **Samantha Tener**, laboratory of Dr. Michelle Shirasu-Hiza
- **Ryan Hobson**, laboratory of Dr. Wasim Elyaman
- **Kelsey Heavener**, laboratory of Dr. Elizabeth Bradshaw
- **Caroline Connors**, laboratory of Dr. Julie Canman
- **JoonHyung Park**, laboratory of Dr. George Mentis
- **Nora Lam**, laboratory of Dr. Donna Farber

In May, the Vagelos Education Center held a hooding ceremony for the new PhD students. Congratulations to all the new PhDs!

(Above) Five newly hooded graduates and the graduate director, Dr. Ron Liem, are shown above. From left: Ryan Hobson, Kelsey Heavener, Nora Lam, Ron Liem, Caroline Connors, and Samantha Tener.

Recent/Upcoming Thesis Defended

Joonhyung Park, Mentis Lab, August 5, 2024

"Molecular mechanisms in motor unit dysfunction in an ALS mouse model"

Nora Lam, Farber Lab, August 20, 2024

"Memory T cell homeostasis in human tissues over age"

Useful Information

Update faculty profile/web pages – Regularly updating your faculty profile is strongly encouraged. To request faculty profile updates or to update incorrect or missing content anywhere on the [department website](#), please complete the [Pathology Web Request Form](#).

Post content on digital monitors – Submit interesting content (research, events, people, celebrations, etc.) to post on our digital monitors - contact the Path Communication team at PathNews@cumc.columbia.edu.

Reserve a conference room – To reserve a department conference room, please contact the Path Facilities team at pathfacilities@cumc.columbia.edu.

STAFF SPOTLIGHT

New Staff

Eileen Fuentes, *Director of Human Resources and Faculty Affairs*



On July 1, Eileen Fuentes joined the department as our Director of Human Resources and Faculty Affairs. Eileen returns to CUIMC, previously serving in HR roles in the Department of Medicine/Cardiology and the Herbert Irving Comprehensive Cancer Center. Most recently, she served as Interim Director of Human Resources Operations, supporting and guiding the PAGNY/Physicians Affiliate Group of New York. In her capacity at PAGNY, she oversaw HR operations for New York's Correctional Health Services and Public Hospital Sites (the largest public hospital system in the United States).

Eileen is a committed, thoughtful, and strategic HR practitioner who focuses on enhancing the lifecycle of an employee's experience. She is an active member of the Health Equity Collective and a Community Advocate at SWOG Cancer Research Network. She has a Master of Arts from Teachers College, Columbia University. Eileen aims to approach her work and life through her core values: honesty, growth, and kindness. During her off time, she enjoys cooking homemade meals for her family and friends, traveling, and spending time outdoors. Welcome, Eileen!

Taehee Gong, *Grants Manager*



Please welcome Taehee Gong to the Department of Pathology and Cell Biology. Taehee will work on the Research Administration team under the direction of Renee Peele. Taehee is internal to Columbia, having worked VP&S for Research for 3 years. She previously held roles on the Pre & Post Award Team and brings experience in pre-award management to the team. She has a bachelor's degree from Hanyang University in Korea and enjoys practicing yoga and calligraphy in her free time. Welcome, Taehee!

Continuing Ed



Our IT Director **Eric Steinhardt** completed an MIT-sponsored online certificate course entitled "Artificial Intelligence in Health Care." The AI in Health Care course focused on determining the viability of applying AI in a healthcare setting and the many moving parts that go into that analysis. The course was attended by a diverse cohort of people, including clinicians, researchers, and IT professionals worldwide. Eric believes the course will enhance his ability to help the Department progress with AI projects. Congratulations on this achievement, Eric!

Milestones



Melanie Rodriguez is an Administrative Aide in the Finance Office. On the Procurement Team, she analyzes, processes, and resolves daily all accounts payable and procurement-related transactions from initiation to completion for clinical and research laboratories. And this November 3rd, Melanie will run the **2024 TCS New York City Marathon** to raise money for the *Team for Kids* charitable organization.

Why Melanie is Running

"I gained the courage to run this marathon as part of my self-reflection and self-growth journey. I have a bad habit of second-guessing and always doubting myself

as a perfectionist. So, running this marathon is a way to prove to myself that 'your mind is your strongest muscle.'" Melanie also used to run for her high school cross-country and track and field team where her coach pushed her to her limits and always believed in her as a runner. That beloved coach passed away last month, "so this is also a full circle moment for me where I will be running in her honor."

If you'd like to support Melanie in this important personal goal, please visit her [profile page](#) or scan the QR Code below.





Velocity at CUIMC

Join us on **Sunday, October 6th**, for Ride Day at [The Velocity Day Festival!](#) There will be lots to enjoy, including a beer garden (for those 21 and up), music, food, family activities, and more!



The Department of Pathology and Cell Biology will participate in Velocity: Columbia's Ride to End Cancer on October 6th, and **we want you on our team, [Path to a Cure!](#)**

You can choose to join us in person on one of three cycling routes: 15K (9mi), 50K (31mi),

or 100K (62.5mi). Alternatively, you can join us remotely as a "[Your Way Participant](#)" by completing any activity you choose from anywhere and anytime on or before Velocity Day.

How Can You Get Involved?

There are many ways you can get involved. Whether

you're an experienced cyclist or just learned how to ride a bike, you can be a part of Velocity and join Columbia's movement to solve cancer!

Velocity Your Way

If you're not a cyclist or can't join us on October 8th, don't worry! You can still participate remotely as a "Your Way Participant." Simply choose an activity and complete it on or before October 8th. [Learn More about being a Your Way Participant.](#)

Become a Volunteer

Velocity couldn't happen without passionate volunteers helping to make Velocity Day a success. There are ample opportunities to help out on Ride Day. If you're interested in volunteering, you can learn more about it on the Velocity website. [Learn More about Being a Velocity Volunteer.](#)

Lastly, you can support our team by fundraising or [donating directly to our Team page.](#) No matter how you choose to join us, you'll be helping the Columbia Cancer Center and our mission to find a cure for cancer. [Learn more](#) today!

WE'RE HIRING!

Refer your network.

Pathology and Cell Biology is hiring!

Grants Analyst -- Application Support Specialist -- Technician -- Research Assistant --
Clinical Laboratory Technologist -- H.R. Generalist -- Digital Image Specialist

The department of Pathology and Cell Biology is looking for passionate, qualified, high-performing candidates to join us in our mission of providing global leadership in scientific research, patient care, and health and medical education. The Employee Referral Program Pilot is intended to increase recruitment success by widening applicant pools beyond current search measures (Indeed posting, Zip Recruiter, LinkedIn, and University Applicant Tracking System applications), engaging current employees in the recruitment process, and providing a reward structure for employees who refer candidates into the pool who can be converted into successful new hires.

[See All Non-Academic Job Opportunities at Pathology](#)

Click link or
Scan QR code



STAFF SPOTLIGHT: APPRECIATION

A Special Thanks: Congratulations to the Finance Team!

I would like to extend my sincere congratulations and gratitude to our finance team for a successful fiscal year close. FY24 was a challenging year, but thanks to you all, the department navigated those challenges successfully. Special thanks to the Budget and Finance team, headed by Jose Nunez; the Revenue Cycle team, headed by Melissa Carter; the Research Administration team, headed by Renee Peele and the Procurement team, headed by Jeanette Rodriguez. Please join me in giving them a round of applause for a job well done, as we look forward to continuing this success in FY25.

Yasmeen Majoka, MBA
Executive Director, Finance and Business Operations

Let's Get Together! A Central Pathology Admin Appreciation Event

On Tuesday, August 13, the central administration teams of the department gathered to say a fond "farewell" to FY24 and a bold "hello!" to FY25. The event, organized by the wonderful Joann Li, our DA, and Yasmeen Majoka, our Executive Director of Finance and Business Operations, was a great, big "thank you!" to the many people who made another successful fiscal year close possible. Represented by Pathology Billing, Communications, Finance, Grants, HR, IT, and Shared Services (Facilities).

In addition to the great food and company, attendees enjoyed a rousing game of "Pathology Bingo," competing to win prizes for correctly answering the most questions about the department. The winners demonstrated an understanding of the department, as well as an admirable ability to ask their fellow colleagues for help! Congratulations to our bingo winners: Courtney Sinn, Eric Steinhardt, Courtney Tulli, and Milan Fredricks. The group also enjoyed delicious cake pops (@sweetdelightsbyj) hand-made and hand-designed by our very own Jeanette Rodriguez, Procurement Manager. Thanks, Jeanette! And thanks again to Joann and Yasmeen for organizing this and always showing appreciation!



(far left) Cake Pop on Broadway!



(left) Will Estrada (Financial Coordinator) looking super "excited" to play Pathology bingo! Also pictured (in background) is Eric Steinhardt (IT Director) and Geoffrey Longmore (Revenue Cycle Quality Analyst)



(above) Joann Li (DA) happily biting into the sweet treat



(above) Ramonita Ferreira (Residency/Fellowship Program Coordinator) and Milan Fredricks (Strategic Communications Manager) smile for a spontaneous selfie.

(below) Behold...the glorious cake pops!



STAFF SPOTLIGHT: ANNIVERSARIES

As of August 2024

1 Year

Hugo P. Adamo
Sai Tun Hein Aung
Kalif Billet
Sandye Chauncey
Helen S. Ellsworth
Samir Hasan
Yao Heng Huang
Victoria J. Iannarone
Sana Jadallah
Mihyeon Jeong
Abdullah Kilic
Kang Kim
Shane M Kirk
Alexey Koshkin
Sophia L Martin
Albertine Neal
Kazunari Nohara
Fernando Alekos
Ocampo Gonzalez
Barbara W. Pelham-Webb
Sophie Ross
Eugene Son

5 Years

Dora Amoateng
Ester Calvo Fernandez
Adela Cimic
Caroline Connors
Chantalle Durr
Alan Engler
Krystalyn Hudson
Amy Ku
Ping Li
Tian Li
Ady Lugo
Chinwe Madubata
Yasmeen Majoka
Cynthia Nevins
Junhee Park
Lara Pliml
Annie Qiu
Megan Soucy
Yu Sun
Martir Ventura
Qing Yu
Lucie Zhu

10 Years

Swarnali Acharyya
Ibrahim Batal
Ladan Fazlollahi
Mythily Ganapathi
Gunnar Hargus
Beatrice Ruiz
Dominick Santoriello

15 Years

Edward L Kritchevski
Yang Lu
Shijun Mi
Yueqing Peng
Alex Rai
Anette Wu

20 Years

Claudia Doege
Liang Lei
Leniza A. Munoz
Elizabeth Stone

25 Years

Larisa Debelenko

30+ Years

Ottavio Arancio
Riccardo Dalla-Favera
Wei Gu
Mahesh Mansukhani
Carol Mason
Ali Naini
Moises Olivares
Sean S. Reilly
Wanda Setlik

**THANK
YOU!**

 **COLUMBIA**
DEPARTMENT OF PATHOLOGY
AND CELL BIOLOGY

BASIC SCIENCE SEMINAR SERIES

MONDAYS*
AT 12:30PM

VIRTUAL & IN-PERSON SEMINARS

Scan for
Events
Calendar



***STARTING
FALL 2024**

