

Community & Commitment



Research

Pathology Faculty Win Big Research Awards

Well-Being

Lab Week 2024 Events
Show Appreciation

Education

Welcome New Residents!



IN THIS ISSUE

- 3 From the Chair
- 4 Faculty: Honors and Awards
- 6 Research: Grant and Publications
- 7 Education: Residents & Fellows at USCAP 2024
- 8 Education: Meet Our New Residents!
- 10 Staff Spotlight: Staff Promotions!
- 11 Lab Week 2024 Events
- 12 Education: Pathology Graduate Alum Visits

Columbia Pathology and Cell Biology Report

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**ON THE COVER:**

Tree hand community illustration by Dreamstime

Community & Commitment



In my more than six years of working in the Department of Pathology and Cell Biology, I have had the pleasure of working with a diverse group of staff members who have established our department as one of the best in the country. We have earned this reputation through hard work and dedication, and despite being only the 25th largest, it has allowed us to rank first nationally in the number of NIH grants and Principal Investigators and in the top ten pathology departments in the country based on 2023 NIH funding.

Our basic science faculty has been a significant factor in our success, driving innovation and discovery in our department. To underscore our commitment to advancing basic science research, training, and innovation, we recently established the Office of Research and Training (ORT). The ORT will play a pivotal role in supporting and advancing basic science research within our department, fostering interdisciplinary collaborations, training opportunities, and support for students, trainees, and faculty at all stages of their research careers. I look forward to the upcoming Department of Cell Biology and Pathology Retreat to be organized by faculty and the ORT to promote increased collaboration with our sister institutes, centers, and other basic and clinical departments within the medical school. We will be soliciting ideas for our retreat, and I encourage you all to contribute.

Our department is committed to the three missions of clinical care, research, and teaching. Education is a significant focus for us, though often unheralded and underappreciated, and we excel at it. Our faculty members commit countless hours to graduate and medical student education as course directors, lecturers, small group leaders, thesis committee members, and mentors. We are proud of our role in preparing the next generation of physicians, scientists, and academic leaders.

Our educational mission isn't limited to Columbia University graduate and medical student teaching. Indeed, our educational boundaries extend well beyond CUIMC. One example of our outreach educational efforts is our participation in the [Columbia International Collaboration Exchange \(ICE\) Program](#) which partners with over 20 universities on four continents to promote the improvement of global healthcare through educational exchange. Similarly, the annual [Columbia Renal Biopsy course](#) has had an enormous global educational impact. This course, designed to assist nephrologists and neuropathologists in diagnosing and managing the most common forms of medical renal disease, has been offered for over 40 years and, in prior years, saw over 250 participants from approximately 30 U.S. states and 30 countries attend.

Additionally, as one of our [Pathways Programs](#), the [Ernest E. Just Biomedical Research Scholars@Columbia](#) is a partnership with UNCF to provide college and graduate students at historically Black colleges, universities, and medical schools (HBCUs) with research opportunities and access to mentors. These efforts, and numerous others, are testaments to the sustained commitment of our faculty and department to our educational mission.

Lastly, as May is National Mental Health Awareness and Employee Wellness Month, I want to acknowledge the heavy mental burden that can come with the important work we do, especially during these difficult times. I encourage anyone who needs help finding their way to use the [campus-wide resources](#) available to staff and students. Despite the challenges we're currently facing, we remain committed to our shared humanity and compassion for one another as a department and community. ♦

Best wishes,

Kevin Gardner

Kevin L. Gardner, MD, PhD
Chair

FACULTY

Honors and Awards

Minah Kim Appointed as a VP&S Paul Marks Scholar



Minah Kim, PhD

[Minah Kim PhD](#), assistant professor of pathology and cell biology, has been appointed one of three Paul Marks Scholars for a three-year term, from July 1, 2024, to June 30, 2027. As a Paul Marks Scholar, Dr. Kim will receive \$125,000 annually to support and enhance her research. Dr. Kim is the first awardee from the Department of Pathology and Cell Biology. We're proud of her remarkable achievement!

The [VP&S Paul Marks Scholar](#) accolade is given to deserving early career scientists in one of VP&S's basic science departments who have distinguished themselves as exceptionally promising in their fields and have demonstrated a capacity to enhance Dr. Marks' legacy of medical innovation. This appointment reflects the significant work being done in the Department of Pathology and Cell Biology and the talent of its faculty and staff.

Adding to her list of accolades, Dr. Kim has been honored with the **Young Investigator Award from the Melanoma Research Alliance (MRA)**. This award aims to attract early-career scientists with novel ideas for melanoma research, supporting the next generation of melanoma researchers. With this award, the Dr. Kim's lab aims to uncover the molecular mechanisms behind vascular abnormalities that lead to immune exclusion in melanoma, utilizing multi-omics approaches. In identifying vascular targets and biomarkers, the proposed study will enhance current immunotherapies by addressing immune exclusion. This award not only recognizes Dr. Kim's exceptional talent but also highlights the research being conducted in the department. Congratulations, Dr. Kim!

Gregory J. Berry Wins PASCV Young Investigator Award



[Gregory J. Berry, PhD, D\(ABMM\)](#), associate professor of pathology and cell biology at CUMC, has been selected to receive the **Pan American Society for Clinical Virology (PASCV) Young Investigator Award**. The award recognizes a scientist who has made significant contributions to the clinical or diagnostic virology field in the early years of their career. The award will be presented on Saturday, May 18, during the 2024 PASCV Annual Meeting in Clearwater Beach, FL.

Steve Spitalnik Presents at the Third Annual Paul M Ness, MD Visiting Professor Lecture at Johns Hopkins



On March 11, [Steven Spitalnik, MD](#), professor of pathology and cell biology, presented a lecture titled "Precision Transfusion Medicine: Past, Present, and Future" at the Third Annual Paul M Ness, MD Visiting Professor Lecture at Johns Hopkins University School of Medicine.

The Paul M. Ness, MD Visiting Professor Lecture is in recognition of esteemed Johns Hopkins University Professor Paul M. Ness, M.D. Over more than four decades, Dr. Ness became a luminary at Johns Hopkins and internationally in the field of Transfusion Medicine. During that time, Dr. Ness has inspired others through his dedication and commitment to excellence in medical education, research, and clinical care.

Alison Taylor Selected as AACR NexGen Star



[Alison Taylor, PhD](#), assistant professor of pathology and cell biology (in the Herbert Irving Comprehensive Cancer Center), was selected as an **AACR NexGen Star**. The NextGen Stars program, sponsored by the **American Association for Cancer Research**, provides an exciting opportunity to increase the visibility of early-career scientists at the AACR Annual Meeting and to support their professional development and advancement. On April 8, at the 2024 AACR annual meeting in San Diego, Dr. Taylor gave her presentation entitled: "**NG03 - Functional and computational approaches to uncover selection advantages of cancer aneuploidy.**"

FACULTY

Honors and Awards

Eunhee Choi Awarded the Irma T. Hirschl Trust Research Award



Eunhee Choi, PhD

[Eunhee Choi, PhD](#), assistant professor of pathology and cell biology, has won the **2024 Hirschl Trust Research Award** from the Irma T. Hirschl Trust Research Scientist Program at the Vagelos College of Physicians and Surgeons (VP&S). Since 1972, the Irma T. Hirschl Trust Research Scientist Program has supported junior biomedical research scientists at Columbia. VP&S is one of six academic medical centers in New York that receive funding from the Irma T. Hirschl Trust, which has supported more than 100 Hirschl Trust Research Scientists at VP&S.

Dr. Choi's laboratory researches receptor tyrosine kinase, focusing on insulin receptor and insulin-like growth factor 1 receptor (IGF1R), a topic with significant physiological and pathophysiological implications. Insulin/IGF signaling alteration has been linked to developmental defects, metabolic disorders, cancers, and aging.

Dr. Choi combines mouse physiology, cell biology, biochemistry, proteomics, AI-based protein design, and cryo-EM to examine how native and de novo proteins activate insulin receptor family proteins and regulate animal physiology. Her team has already designed novel binders for the insulin receptor and IGF1R. With the Hirschl Award, she will study the molecular mechanism and functional consequences of insulin receptor and IGF1R signaling activated by newly designed ligands. This will advance our knowledge of the structure-function relationship of two highly related receptors, which is essential for developing specific agonists and antagonists for therapeutic application. Information obtained from this research will lay the foundation for better treatments for diabetes, severe insulin resistance syndromes, and cancer.

As an extra bonus, Dr. Choi will also receive funding from **The Feldstein Medical Foundation** for her research project titled "Beyond insulin, de novo insulin receptor activators". The Feldstein Medical Foundation (FMF) is a private foundation, created to promote and advance medical research. FMF is particularly focused on funding medical research, including new or innovative areas of research and smaller, seed-type projects. Congratulations, Dr. Choi!



[Anjali Saqi, MD, MBA](#), professor of pathology and cell biology at CUMC, was recently accepted by the [Association of Pathology Chair's \(APC\)](#) Leadership Development & Diversity Committee for their APC Pathology Leadership Fellows Program (APLF) Class of 2024-2025.

The APLF program was launched in 2021 to cultivate leadership potential and opportunities by providing experiences and education that accelerate understanding and competency in the skills required for academic administration.



[Krystalyn Hudson, PhD](#), assistant professor of pathology and cell biology, was invited to speak on March 2, 2024, at the [wAiha Warriors'](#) 2nd Annual Patient Meeting on "AIHA, New Insights from Research", in Nashville, TN.



(Right) Dr. Hudson at the wAiha Warriors' 2nd Annual Patient Meeting

OTHER GRANTS AND AWARDS (SINCE JANUARY 2024)

RESEARCH

Compiled by Renee Peele

PI	Sponsor	Title
Edmund Au, PhD (MPI grant w. Kristin Baldwin)	National Institute of Mental Health	Programs for generating inhibitory interneuron diversity and connectivity
Krystalyn Hudson, PhD	University of Virginia (P01 subaward)	Basic and Translational Mechanisms of Alloimmunization to RBC Transfusion
Markus Siegelin, MD	William Rhodes and Louise Tilzer-Rhodes Center for Glioblastoma (NYPH)	Targeting UBR5 with a Novel PROTAC in Glioblastoma Models
Hynek Wichterle, PhD	Tambourine ALS Breakthrough Research Fund	Modulation of protein surveillance mechanisms in sporadic and familial forms of ALS
Hynek Wichterle, PhD (Stephane Nedelec)	2024 Schaefer Research Scholar (Internal)	N/A

Recent Publications

- [Osama Al-Dalahmah](#), Matti Lam, Julie J. McInvale, Wenhui Qu, Trang Nguyen, Jeong-Yeon Mun, Sam Kwon, Nkechime Ifediora, Aayushi Mahajan, Nelson Humala, Tristan Winters, Ellen Angeles, Kelly A. Jakubiak, Rebekka Kühn, Yoon A. Kim, Maria Caterina De Rosa, [Claudia A. Doege](#), Fahad Paryani, Xena Flower, [Athanasios Dovas](#), Angeliki Mela, Hong Lu, Michael A. DeTure, [Jean Paul Vonsattel](#), Zbigniew K. Wszolek, Dennis W. Dickson, Tanja Kuhlmann, Holm Zaehres, Hans R. Schöler, [Andrew A. Sproul](#), [Markus D. Siegelin](#), Philip L. De Jager, [James E. Goldman](#), Vilas Menon, [Peter Canoll](#), [Gunnar Hargus](#). *Osteopontin drives neuroinflammation and cell loss in MAPT-N279K frontotemporal dementia patient neurons*. Cell Stem Cell, <https://doi.org/10.1016/j.stem.2024.03.013>
- An W.#, Hall C.#, Li J., Hung A. Wu J., Park J., Wang L., Bai XC.*, [Choi E.*](#) (2024) [Activation of the insulin receptor by insulin-like growth factor 2](#). Nature Communications. 15, 2609. (#Co-first, *Corresponding author).



[Jaewon Min, PhD](#), assistant professor of pathology and cell biology (in the Institute for Cancer Genetics), presented at a plenary session addressing replication stress during the AACR Special Conference on DNA Damage Repair.

(2nd from the Right) Dr. Jaewon Min presents at AACR plenary session. (Source: [AACR@Twitter](#))



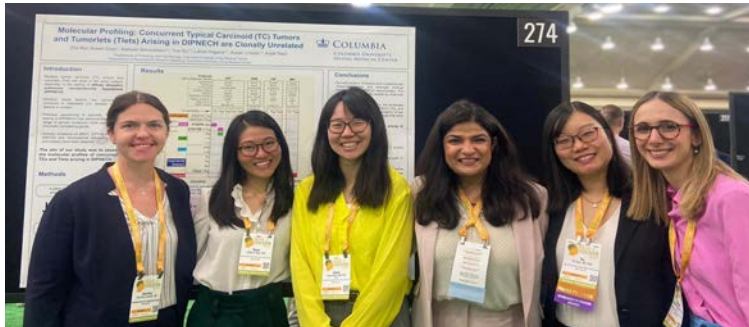
ANNUAL LECTURESHIP: To recognize Dr. Marboe's long and distinguished career in the department, we have established an annual lectureship in his honor. The annual Dr. Charles Marboe Lecture will continue Dr. Marboe's history of sharing his expertise in cardiovascular pathology, cardiology, and heart transplantation. 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! Visit our [gift page](#) to make a tax-deductible gift to the lectureship.

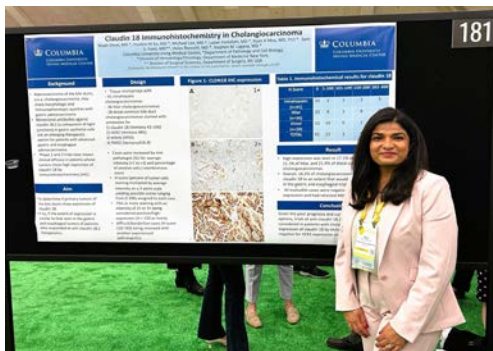
EDUCATION: RESIDENCY/FELLOWSHIP PROGRAM

Pathology and Cell Biology residents and fellows at USCAP 2024

Many of our residents and fellows attended the United States and Canadian Academy of Pathology (USCAP) 113th Annual Meeting in Baltimore, MD, in March 2024.



Pathology residents presenting at USCAP 2024. From left to right: Drs. Courtney Connelly, Diane Chen (assistant professor), Susan Duan, Niyati Desai, Ying Guo, and Michelle Garlin.



Dr. Niyati Desai presenting at USCAP 2024.



Congratulations to Dr. Yin Guo (5th from right with other winners), a PGY-3 resident, who won Pathology-In-Training Travel Award at USCAP 2024.

HONORS AND AWARDS



Ian Mellis, MD, PhD, a PGY3 resident, recently had abstract submissions to ACLPS accepted and won the [Paul E. Strandjord Young Investigator Award](#) for his SARS-CoV-2-related research project [XBB.1.5 monovalent mRNA vaccine booster elicits robust neutralizing antibodies against XBB subvariants and JN.1](#). Dr. Mellis will present at the 2024 Academy of Clinical Laboratory Physicians and Scientists (ACLPS) Conference, hosted by the Columbia University Department of Pathology in June. Per the ACLPS, the award encourages young investigators to consider a career in academic laboratory medicine. Congratulations, Dr. Mellis!

RECENT RESIDENT PUBLICATIONS

- Tepp JA, Remotti F, Szabolcs MJ, Saqi A. Histological characterisation of pulmonary monkeypox virus infection in a patient with AIDS. *Histopathology*. Published online February 29, 2024. doi:10.1111/his.15164
- Tepp JA, Agaram NP, Chang JC, Linos K. Cellular Cutaneous Epithelioid Hemangioma Harboring the Rare GATA6::FOXO1 Gene Fusion. *Am J Dermatopathol*. Published online March 8, 2024. doi:10.1097/DAD.0000000000002647
- Wang, Q.*, Guo, Y.*, Bowen, A.*, Mellis, I.A.*, Valdez, R., Gherasim, C., Gordon, A., Liu, L., Ho, D.D., 2023. XBB.1.5 monovalent mRNA vaccine booster elicits robust neutralizing antibodies against emerging SARS-CoV-2 variants. *Cell Host & Microbe* 32, no. 3 (2024): 315-321.

EDUCATION: RESIDENCY/FELLOWSHIP PROGRAM

Meet our incoming 2024 residents!**Peter Koch, MD, PhD**

AP/NP

Columbia University Vagelos College of Physicians and Surgeons
Harvard University

Peter joined Columbia University under the accelerated PhD to MD program after completing his PhD in Systems Biology at Harvard University. As a medical student, he's worked in Dr. Benjamin Izar's lab and established a protocol for highly multiplexed cyclic immunofluorescence imaging, enabling single-cell imaging to analyze the microenvironment of brain and lung tumors.

**Brandon Litvak, MD**

AP/CP

Sackler School of Medicine

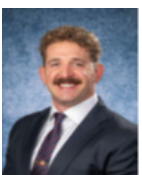
Brandon comes to us from Sackler School of Medicine where he founded and led the Pathology Student Interest Group. He has also worked on the use of Fluorescein Mapping for the identification of residual satellite vulvar Paget's Lesions.

**Jennifer Quinter, MD**

AP/CP

Geisinger Commonwealth School of Medicine

Jennifer founded the Pathology Student Interest Group at Geisinger. She presented her research work on sentinel lymph nodes at USCAP 2023. She also won the ASCP's Medical Student Award in 2022 and was inducted into the ICPI honor society in 2023.

**Luke Dawson, MD**

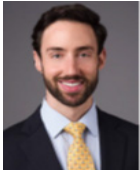
AP/CP

East Tennessee State University James H. Quillen College of Medicine

Before medical school, Luke served as a Linguist for the US Marine Corps. He's also worked as a Medicolegal Death Investigator at the York County Coroner's Office and as a Certified Nurse Aide. In medical school, he was involved in the Pathology Interest Group and community outreach and mentoring.



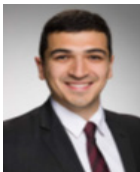
EDUCATION: RESIDENCY/FELLOWSHIP PROGRAM

Meet our new 2024 residents!**Alberto Ardura-Fabregat, MD, PhD**

AP/NP

Universidad de Navarra Facultad de Medicina
 Albert Ludwig University
 Harvard Medical School

Alberto completed his medical training in Spain and a PhD in Neuroimmunology from Germany. His work focused on the peripheral inflammatory signal mediation of Alzheimer's Disease development through microglia. Most recently, he completed a master's in biomedical informatics from Harvard.

**Damon Ceylan, MD**

AP/CP

Rutgers, Robert Wood Johnson Medical School

Damon came to pathology through his work with neuropathologists, working to reprogram fibroblasts into oligodendrocytes for Multiple Sclerosis and identifying the effects of glioblastoma treatment. He's published his work with ATRX loss in IDH1 mutant gliomas and the Mechanisms of engineered Cas9s by single-molecule FRET analysis.

**Kevin Wang, MD PhD**

AP/CP

University of California, Irving School of Medicine

Kevin completed his MD/PhD training at UC Irvine in the Department of Microbiology & Molecular Genetics, where he became an expert in host-pathogen interactions and microbial pathogenesis. He was awarded an NIH predoctoral Microbiology and Infectious Disease Training Grant.

Congratulations to our new chief residents for 2024-2025!

Susan Duan, MD, PhD
AP



Vlad Korobeynikov, MD, PhD
AP/NP



Bobbie Pelham-Webb, MD, PhD
CP

STAFF SPOTLIGHT

Path Billing and Revenue Cycle Staff get Certified!

Congratulations to Taronia Sanders and Kate Stutzel of our Office of Billing and Revenue Cycle, who recently passed the Certified Professional Coder (CPC) certification exam.

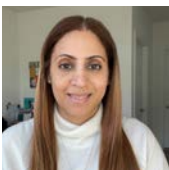
The Certified Professional Coder (CPC) certification is a nationally recognized medical coding certificate from the American Academy of Professional Coders (AAPC). Earning a CPC certification demonstrates medical coding training and experience in the healthcare industry.

Sunny Smiles and Moonlit Minds: Pathology Staff Embrace the Eclipse

Left: (From left) Courtney Sinn, Courtney Tulli, and Milan Fredricks are all smiles as they enjoy the eclipse with others in the Columbia community.

Bottom: A beautiful refraction of the solar eclipse across the Columbia Neurological Institute on Haven Plaza.

On April 8th, a small group of Pathology and Cell Biology staff gathered alongside a spirited crowd of their fellow Columbians assembled on Haven Plaza for a remarkable celestial event. Equipped with eclipse glasses and beaming smiles, Courtney Sinn (Academic Affairs Manager-HR), Courtney Tulli (HR Generalist), and Milan Fredricks (Strategic Communications Manager) joined in a rare moment that achieved the extraordinary—bringing the bustling pace of New Yorkers to a serene pause. As they looked upwards, joining scores of onlookers, witnessing the moon's traversal across the sun, they shared a profound connection. For that brief, magical moment, a sense of quiet reflection and unity linked everyone in a rare and peaceful harmony reminding us how awe-inspiring the natural world can be.

**Staff Promotions****Taisha Lember, Administrative Manager, Research and Training Programs**

We're pleased to announce the well-deserved promotion of Taisha Lember to the position of Administrative Manager of Research and Training Programs within our department. Since joining us in 2018, Taisha has been an invaluable asset, serving as the executive assistant to Dr. Kevin Gardner and playing a key role in advancing our education pathway programs.

Taisha will continue her exceptional work in her new role, now extending her support to the newly established Office of Research and Training. With her leadership, we're confident she will drive our initiatives forward, fostering excellence in our research and training endeavors. Please join us in congratulating Taisha on this significant achievement and wishing her continued success in her new position!

DEPARTMENT EVENTS

Pathology Celebrates Lab Week 2024 (April 14-20)

Gratitude Awards

Thank you for your enthusiastic participation in our second annual Gratitude Awards! Your enthusiasm and contributions helped us surpass last year's record for submissions. These awards have become a heartfelt tradition to acknowledge and celebrate colleagues who make Pathology a great workplace. We're dedicated to fostering an inclusive work environment that includes civility, acceptance, respect, ethical behavior, and support, aligned with CUIMC CARES. Your commitment truly embodies these principles. Thank you for inspiring us!



Ten-Year Service Recognition Breakfast

On April 18th, for the second consecutive year, we had the pleasure of celebrating our staff who reached the remarkable ten-year service milestone at Columbia University. As part of our Lab Week 2024 celebrations, we honored their steadfast dedication and commitment to our community. The celebration occurred at an informal breakfast reception in the King Library, where we enjoyed bagels, pastries, and freshly brewed coffee together. Amidst the friendly chatter, our honorees received their ten-year service certificates and pins, symbolizing our deep appreciation for their exceptional contributions to Columbia University and the Department. We are incredibly proud to have you as part of our department. Congratulations on reaching this significant milestone!



Useful Information

Updating online faculty profiles – Regularly updating your profile is strongly encouraged. Department faculty can request updates their profiles by completing the [Pathology Web Request Form](#).

How to update website content – To update any outdated, incorrect, or missing content on the [department website](#), complete the [Pathology Web Request Form](#).

How to post content on digital monitors – To submit interesting content (research, events, people, celebrations, etc.) to post on our digital screens, please contact PathNews@cumc.columbia.edu.

EDUCATION: GRADUATE PROGRAM

Former Pathology Graduate Student Visits CUIMC



(Above) In a memorable photograph, Dr. Chien is depicted alongside the enthusiastic students and ICEP director [Anette Wu, MD, MPH, PhD](#), associate professor of medical sciences (in medicine), and of pathology and cell biology at CUMC.

Chung-Liang Chien, PhD a distinguished graduate of the [Columbia University Graduate School of Arts and Sciences \(GSAS\)](#) Class of 1995, recently visited the students and host professors of the [International Collaboration and Exchange Program \(ICEP\)](#) – an anatomy course based international student exchange program.

As a testament to his profound academic journey, Dr. Chien has held notable positions, including Deputy Dean of the Medical College at the esteemed National Taiwan University (NTU) in Taipei. He has also served as the Deputy Minister for Science and Technology in Taiwan and held the prestigious role of President of the Anatomical Society in Taiwan. Currently, Dr. Chien serves as a partner faculty member of ICEP. During his visit, Dr. Chien engaged with the vibrant ICEP student cohort at Columbia University and the ICEP student researchers at the Columbia University Irving Medical Center and participated in a stimulating roundtable discussion.



(From left) Dr. Chien and [Ron Liem, PhD](#), professor of pathology and cell biology and vice chair of research and training.



(From left) Dr. Chien and Dr. Anette Wu, ICEP director

Recent Theses Defended

Kelsey Heavener, Bradshaw Lab, April 10, 2024

"Purinergic Receptor Mediated Neuroinflammation in Alzheimer's Disease"

Caroline Connors, [Canman Lab](#), March 22, 2024

"Germ fate determinants protect germ precursor cell division by restricting septin and anillin levels at the division plane"

Ryan Hobson, Elyaman Lab, March 7, 2024

"Identifying the triggers and regulatory mechanisms that control T cell activity in the human degenerating brain"



COLUMBIA

DEPARTMENT OF PATHOLOGY
AND CELL BIOLOGY

BASIC SCIENCE SEMINAR SERIES

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AT 12:30 PM**

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