

Department of Pathology

Welcome New Hires!



Sunati Sahoo, MD, joins the Department as Attending Pathologist, as well as our **Director of Surgical Pathology, Co-Director of Breast Pathology, and Director, Specimen Biobank**. Dr. Sahoo comes to BIDMC from UT Southwestern Medical Center where she was a Professor of Pathology. She led the breast pathology service and previously served as Director of Surgical Pathology at William P. Clements Jr. University Hospital. She earned her medical degree in India and completed postgraduate pathology training at the All India Institute of Medical Sciences in New Delhi, followed by residency training at New York-Presbyterian/Weill Cornell Medical Center. Dr. Sahoo's research has focused on neoadjuvant systemic therapy in breast cancer, prognostic and predictive biomarkers, and quality and outcomes research in breast disease management. Her arrival further strengthens BIDMC/HMFP Pathology's commitment to excellence in breast pathology, academic medicine, and multidisciplinary oncology care.

Department of Pathology

Welcome New Hires!



Maxwell L. Harsha, PhD, DABCC, joins the Department and the Division of Clinical Laboratory Medicine as **Assistant Director of Clinical Chemistry and Director of Diagnostic Endocrinology**. Dr. Harsha comes to BIDMC from Johns Hopkins University School of Medicine, where he completed fellowship training in Clinical Chemistry and gained extensive experience in laboratory operations, clinical consultation, quality improvement, assay validation, and translational research. He earned his PhD in Environmental Analytical Chemistry from the University of New Orleans and his BS in Biochemistry from Loyola University Chicago. His research has spanned both analytical and clinical chemistry, with interests including diagnostic endocrinology, toxicology, therapeutic drug monitoring, and laboratory utilization. He has authored numerous peer-reviewed publications and presentations and has received several national trainee awards and recognitions.

Department of Pathology

Welcome New Hires!



Mai Elzienny, MD, joins the Department as Staff Pathologist in the Department of Pathology at Mount Auburn Hospital. Dr. Elzienny completed her General Surgical Pathology fellowship at the David Geffen School of Medicine at UCLA and residency training in Anatomic and Clinical Pathology at Corewell Health William Beaumont University Hospital in Michigan. Dr. Elzienny earned her medical degree and Master's degree in Clinical and Chemical Pathology from Ain Shams University Faculty of Medicine in Cairo, Egypt, where she also served as an Assistant Lecturer in Clinical Pathology. Her interests span surgical pathology, pathology education, quality improvement, and diagnostic innovation. She has contributed to a growing body of publications in areas including pathology informatics, artificial intelligence applications in pathology, laboratory medicine, and renal and liver pathology. Dr. Elzienny has also demonstrated a strong commitment to mentorship, diversity and inclusion initiatives, and trainee education throughout her career.

Department of Pathology

Welcome New Hires!



Aishatu I. Ladu, MD, MPH, FCAP joins the Department as a Staff Pathologist in the Department of Pathology at **BID Hospital – Needham**. Dr. Ladu comes to BIDMC from Boston Medical Center and Boston University Chobanian & Avedisian School of Medicine, where she has served as an attending pathologist and Assistant Professor of Pathology & Laboratory Medicine since 2022. She completed her Anatomic and Clinical Pathology residency at Tufts Medical Center, followed by fellowship training in Breast & Gynecologic Pathology at UMass Medical Center and Cytopathology at Boston Medical Center. Earlier in her career, Dr. Ladu also spent several years at BIDMC as a clinical research coordinator and co-investigator, making this a wonderful return to the BIDMC community. Dr. Ladu brings expertise in **breast and gynecologic pathology and cytopathology**, in addition to her broad experience in surgical pathology. She is also a committed educator with extensive involvement in resident and medical student teaching. We are thrilled to welcome her back to BIDMC and look forward to the clinical, educational, and collaborative contributions she will bring to our team at BID Hospital-Needham.

Department of Pathology

Welcome New Hires!



Kristine Wong, MD, joins the Department as Attending Pathologist in Anatomic Pathology with subspecialty expertise in **Head and Neck Pathology and Cytopathology**. Widely recognized for her research, peer-reviewed publications, and lectures in thyroid pathology, endocrine pathology, head and neck pathology, and cytopathology, she joins us from Brigham and Women's Hospital (BWH) and is an Assistant Professor at Harvard Medical School. She attended Washington University School of Medicine and completed her AP/CP residency and Cytopathology fellowship at BWH. She is the co-author of the "Oncocytic Follicular Neoplasm" chapter of the *Bethesda System for Reporting Thyroid Cytopathology*, 3rd edition.

Department of Pathology

Welcome New Hires!



Marina Vivero, MD, joins the department as Attending Pathologist in **Anatomic Pathology**, with subspecialty expertise in **Thoracic Pathology and Cytopathology**. Dr. Vivero comes to BIDMC from Brigham and Women's Hospital, where she served as an Associate Pathologist since 2015 and as an Assistant Professor of Pathology at Harvard Medical School since 2019. An internationally recognized expert in thoracic disease pathology and cytopathology, Dr. Vivero has made significant contributions to the diagnosis and classification of lung tumors, pulmonary neuroendocrine neoplasms, mesothelioma, and interstitial lung disease. Her research has helped advance the use of cytology specimens for molecular testing in lung cancer and has contributed to national and international diagnostic guidelines, including World Health Organization reporting systems and American Thoracic Society clinical guidance. In addition to her clinical and research accomplishments, Dr. Vivero has a longstanding commitment to education and mentorship.

Department of Pathology

Welcome New Hires!



Dominick R. Guerrero, MD, joins the Department as Attending Pathologist, Anatomic Pathology with subspecialty expertise in **Head & Neck and Cardiothoracic Pathology**. Dr. Guerrero comes to BIDMC from Northwell Health - Lenox Hill Hospital, where he served as Chief of Head and Neck Pathology, System Team Lead for Interstitial Lung Disease, Chest Pathologist for the Western Region of the Northwell Health Lung Institute, and Program Director of the Surgical Pathology Fellowship with a Head and Neck/Endocrine focus. He also was an Assistant Professor at the Donald and Barbara Zucker School of Medicine at Hofstra/Northwell. He completed his pathology residency at Mount Sinai St. Luke's-Roosevelt, where he served as Chief Resident, followed by fellowships in Cytopathology at Montefiore Medical Center and Head and Neck/Endocrine Pathology at Moffitt Cancer Center. Dr. Guerrero brings a strong combination of head and neck/endocrine pathology, thoracic pathology, cytopathology, academic leadership, teaching, and research.

Department of Pathology

Award, Honors, and New Roles



Elena Brachtel, MD, PhD, (left) has been named the department's **Director of Quality and Safety**, with **Yael Heher, MD**, (below, left) serving as **Senior Advisor**.

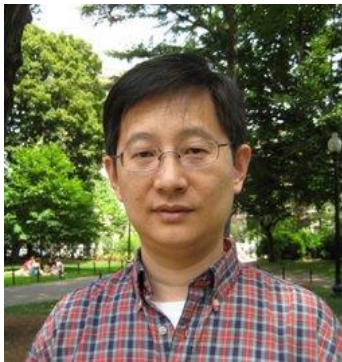
Together, they will provide the leadership and expertise needed to strengthen and advance this essential departmental mission. Thank you to **Michiya Nishino, MD**, (below, right) who has provided leadership in this area, and to Dr. Heher who has helped navigate this transition.



Department of Pathology

Award, Honors, and New Roles

Congratulations to the following faculty members who recently received awards from the Cancer Research Institute, part of the BIDMC Cancer Center. They were honored at a ceremony on Sept. 16. All of the Cancer Center's best papers for 2025 involved labs from the Department of Pathology, a remarkable achievement.



Wenyi Wei, PhD, received **Best Translational Science Paper** for “*Dual membrane receptor degradation via folate receptor targeting chimera.*” It was published in [Nature Communications](#). Learn more about his research: [Harvard Catalyst](#)



Peter Tsvetkov, PhD, received **Best Basic Science Paper**, for “*Deep Mutational Scanning of FDX1 Identifies Key Structural Determinants of Lipoylation and Cuproptosis.*” It was published in [Nature Communications](#). Learn more about his research: [Tsvetkov Lab](#)

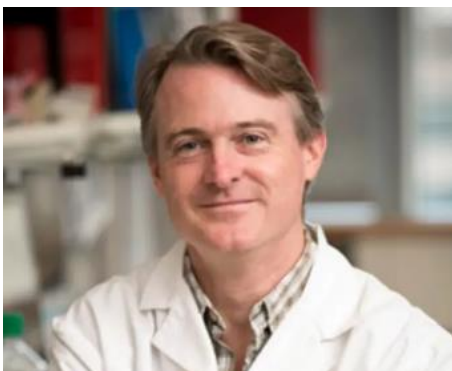
Department of Pathology

Award, Honors, and New Roles

Cancer Research Institute Awards, cont.



Cristiana Pineda, MD, PhD, and Paul VanderLaan, MD, PhD, received **Best Clinical Science Paper** for "*A Comprehensive Mutational and Histopathological Analysis of STK11-Mutant Non-Small Cell Lung Carcinomas.*" It was published in [*Modern Pathology*](#). Learn more about Dr. Pineda's research: [Harvard Catalyst](#); Learn more about Dr. VanderLaan's research: [Harvard Catalyst](#)



Frank Slack, PhD, and Taru Muranen, PhD, (Medicine) received **Best Collaborative Paper** for "*EGFR-induced lncRNA TRIDENT promotes drug resistance in non-small cell lung cancer via phospho-TRIM28-mediated DNA damage repair.*" It was published in [PNAS Journal](#). Learn more about Dr. Slack's research: [Slack Lab](#)

Department of Pathology

Award, Honors, and New Roles

Congratulations to Jan Heng, PhD, and James Kirby, MD: Frontiers Award

We are very proud to announce that **Jan Heng, PhD**, and **James Kirby, MD**, have both received Frontiers Program awards from the Massachusetts Life Sciences Center (MLSC). The MLSC is investing more than \$1.1 million through the Frontiers Program to support six bold, early-stage translational research projects addressing diseases and conditions that have historically received insufficient investment relative to their burden on patients.

- **James Kirby, MD**, received the award for "Advancing Combination Therapies for Nontuberculous Mycobacterial Lung Infection."
- **Jan Heng, PhD**, received the award for "Feminizing Hormone Therapy and BRCA2-Related Cancer Risks."

In a statement of support, **Gyongyi Szabo, MD, PhD**, Chief Academic Officer, BILH and BIDMC said, "We are grateful for the support of the Massachusetts Life Sciences Center to advance important research efforts across Beth Israel Lahey Health. Together, we will continue to drive innovation, deliver cutting-edge science, and accelerate treatments for patients."

Learn more about the MLSC and all supported projects [here](#).

Beth Israel Lahey Health 

Beth Israel Deaconess Medical Center



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Department of Pathology

Laboratory Updates



Pictured (l-r): Brenda O'Brien, Anna Kielasinski, and Ree Kidd in front of the new Sebia Capillaries 3 Octa.

Hemoglobin Electrophoresis Go-Live

The Hematology laboratory is excited to announce the addition of the Capillaries 3 Octa to our instrument lineup. This updated automated capillary electrophoresis platform uses eight capillaries and can run up to 120 samples per run. With direct sampling of the primary tubes, automatic mixing and cap piercing for whole blood samples, RFID identification for all reagents and advanced software, this new instrument offers increased efficiency and standardization. The Capillaries 3 Octa has the ability to perform seven separate capillary electrophoresis-based techniques including SPEP and UPEP testing. The staff is pleased to use this new technology to perform hemoglobin electrophoresis testing for our patients.

Department of Pathology

Laboratory Updates

A Momentous Milestone: First Radioactive Seed Case Successfully Completed

BIDMC recently achieved an important milestone with its first radioactive seed case, marking a significant event for the Pathology Department, BIDMC, and for the Dana-Farber Beth Israel Deaconess Cancer Collaboration. This technology allows surgeons to more precisely locate and remove targeted tissue, supporting a more streamlined surgical experience for patients. The Pathology Department's role included ensuring safe, efficient handling of a specimen that contains radioactive material.

After months of working alongside surgical and perioperative counterparts developing the new workflow for radioactive seeds in breast specimens, **Kacie Fraser**, along with the help of the Cutting Room PAs **Taylor St Jacques**, **Alice Sedlak**, and **Zekiel Wicks** completed the first radioactive seed removal at BIDMC expertly and flawlessly.

Thank you to all who contributed to making this moment possible and for adopting this new workflow and continuously working hard to meet the demands of our exceptional growth. These efforts have helped establish a new capability that will benefit our patients and further advance the care we provide.



Photo above (l-r): Alice Sedlak, Taylor St Jacques, Zekiel Wicks (seated at back of room), Jordan Karnyski, and Kacie Fraser.

Department of Pathology

Laboratory Updates

A Major Milestone for Digital Pathology at BIDMC

We are excited to share that the first fleet of whole slide scanners for the BIDMC Digital Pathology transformation has officially arrived! This initial deployment includes four Hamamatsu S540 scanners, marking an important milestone in our journey toward digital pathology. More scanner purchases are in progress. The implementation team is now busy with scanner installation, cybersecurity and firewall configuration, and system integration. Once these steps are complete, the formal validation process will begin in preparation for clinical deployment.

This is an exciting moment for our department and a significant step toward a modern, fully digital pathology workflow. We look forward to sharing more updates as the project progresses.



Department of Pathology

Laboratory Updates

First Dana-Farber Pathology Service Transition Began Sept. 1

On Sept. 1, BIDMC Pathology achieved a significant milestone in its highly anticipated collaboration with Dana-Farber Cancer Institute (DFCI) with the successful go-live transition of all outside consultation cases for breast oncology transfer of care.

As part of the Dana-Farber Beth Israel Deaconess Cancer Collaboration, this accomplishment follows months of planning and preparation, including the renovation of a dedicated workspace at DFCI Smith 2, located just steps from Dana-Farber's Central Pathology Processing team. The transition also required extensive collaboration among technical, operational, planning, and administrative teams across both institutions, as well as the recruitment and onboarding of three new Consultation Coordinator positions to support the growing service.

Since launch, the team has already processed dozens of consultations while implementing enhanced administrative workflows designed to facilitate efficient pathologist review and sign-out. This success and efficiency represents major advances in the ultimate goal of providing excellent patient care and experience.

Special thanks to the Breast Pathologist team for their outstanding responsiveness and rapid turnaround times, and to the Consultation Coordinators whose flexibility, dedication, and hard work have been instrumental as they adapted to new workflows and processes. Their collective efforts have laid a strong foundation for the continued success of this important partnership and future efforts between BIDMC Pathology and DFCI.

Department of Pathology

Laboratory Updates

Beyond the Lab Door: Microbiology

Medical microbiology is a branch of medicine focusing on the study, diagnosis, treatment, and prevention of infectious diseases caused by bacteria, viruses, fungi, and parasites. Microbiologists analyze patient samples (blood, swabs, urine) in hospital labs to determine the best antimicrobial therapies and manage infection control, playing a crucial role in combating antibiotic resistance.

With the seemingly endless growth of superbugs and other antibiotic-resistant bacteria, the analytical and inquisitive minds of medical microbiologists are vital in healthcare today – both for treating infections and for fighting the spread of disease.

Microbes fun facts! They outnumber your own cells, existed billions of years before humans, and can survive in extreme environments like boiling water.



Department of Pathology

Laboratory Updates

Beyond the Lab Door: Lab Control Sendouts

Central Processing function includes receiving specimens, centrifuging, labeling and aliquoting to appropriate tubes, and organizing specimens for appropriate areas, including sendout testing.

A laboratory sendout center manages the logistical process of sending specialized, uncommon, or high-complexity lab tests to external reference laboratories. These departments ensure correct patient identification, proper specimen collection, and accurate referral testing to prevent diagnostic delays.

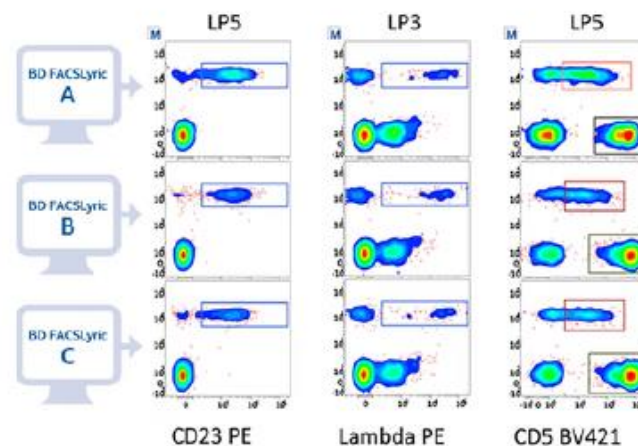
Department of Pathology

Laboratory Updates

Beyond the Lab Door: Flow Cytometry

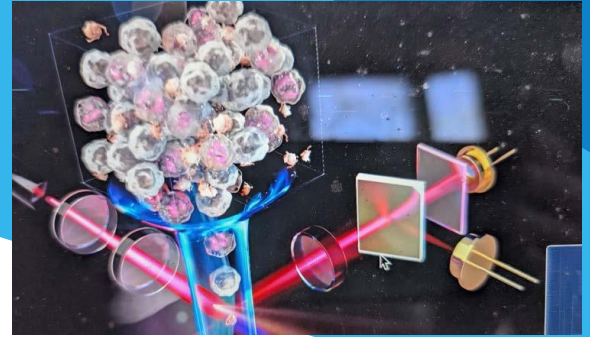
Flow cytometry is a high-throughput, laser-based technology that analyzes the physical and chemical characteristics (size, complexity, fluorescence) of individual cells or particles while they flow in a liquid stream. It enables rapid, quantitative, multiparameter analysis of thousands of cells per second, widely used for immune profiling, cancer diagnosis, and cell sorting.

Flow Cytometry is used for diagnosing and monitoring leukemia, lymphoma, and hematologic disorders. The lab offers rapid, on-site testing utilizing FACS Lyric instruments for enhanced patient management and minimal residual disease detection.



Department of Pathology

Laboratory Updates



Beyond the Lab Door: Hematology

The Hematology Lab specializes in diagnosing and treating blood disorders, such as anemia, clotting issues, and blood cancers, by analyzing blood cell morphology (shape), count, and function. Common tests include the Complete Blood Count (CBC) with differential, peripheral smear reviews, and coagulation studies (PT, PTT). They also perform the complete analysis of urine with microscopic and fluid analysis.

The Latest and Greatest!

Hematology has a new automated analyzer. Sysmex XN: A fully automated analyzer that uses core detection technology and fluorescent flow cytometry for a complete blood count.

- Advanced clinical parameters: Leukopoietic indicators—Immature granulocytes with every differential
- Erythropoietic indicators—Nucleated RBC with every CBC, reticulocyte hemoglobin (RET-He) and immature reticulocyte fraction (IRF)
- Thrombopoietic indicators—Immature platelet fraction (IPF) and a fluorescent platelet count (PLT-F) designed for very low platelet counts

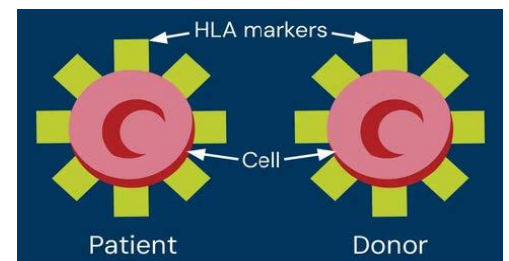
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Laboratory Updates

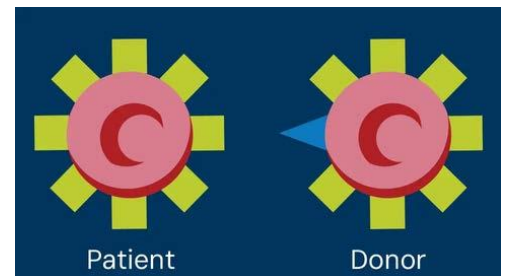
Beyond the Lab Door: Human Leukocyte Antigens (HLA)

Human leukocyte antigens (HLA) are proteins found on the surface of most cells in the body, encoded by genes on chromosome 6 (the major histocompatibility complex). They are essential for the immune system to distinguish between "self" and foreign substances. HLA typing is used in organ and stem cell transplantation to match donors and recipients, minimizing graft rejection.

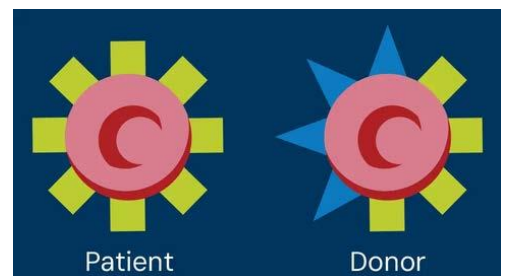
When a patient and donor share all the same HLA markers, it is considered a full match.



In a partial match type, the donor matches most, but not all of the recipient's HLA.



For other patients, a haploidentical (haplo) match is the best option. A haplo match is when a patient and donor share half of the same HLA.



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Beth Israel Lahey Health 

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Department of Pathology

Publications

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