Medical Laboratory Professionals Week is observed nationally this week. Originating in 1975 under the auspices of the American Society for Medical Technology, now called the American Society of Clinical Laboratory Science (ASCLS), this event recognizes the contributions of the scientific and technical personnel in medical/clinical laboratories.

The Department of Pathology & Immunology would like to take this opportunity to recognize the efforts and dedication of all individuals who contribute to the success of the Department’s missions. It is the combination of outstanding basic research with exceptional clinical care supported by a committed administrative staff that makes the Department so successful.

From individuals who are new to the team to those who have been with us for more than 50 years, the Department boasts an amazing group of people. Thank you!
The Department of Pathology & Immunology is comprised of a dynamic group of administrators, clinical laboratories and research laboratories that support the overall missions of the Department.

**BUSINESS OFFICE**

**Executive Director:** Judy Elleson, MBA

The Business Office is organized to provide comprehensive administrative services to faculty, staff, and trainees in the department.

The staff of the Business Office work closely with each of the division’s faculty directors supporting the department’s missions. They provide financial oversight, HR services, grants and contracts administrative services, IT/computing services, and revenue cycle management.

In addition, the directors of these services provide strategic planning support to the Chair and Vice Chair for Clinical Affairs.

**ADMINISTRATION**

**Supervisor:** Lisa Taylor-Reinwald, MBA

The Administrative Support staff works tirelessly to provide high quality administrative assistance to our faculty in order to support the medical school’s research, educational, and clinical missions.

Whether it’s submitting expense reports, assisting with travel arrangements, preparing clinical cases for conference, or completing any other administrative task, our support staff strives to ease the administrative burden on faculty and provide a link to the business office with one overarching goal: providing excellent service.

**ADMINISTRATION LIFE**

Bridget Franklin and Mary Beth Mobley of Immunobiology Administration

Kelly Antolik and Jennifer Schwierjohn of Immunobiology Administration
AMP CORE LABORATORY

**Director:** Erica Crouch, MD, PhD

**Lab Manager:** Tom Fitzgerald, MS

AMP Core Laboratory is a full-service, CAP/CLIA certified, pathology laboratory that supports testing for the Department’s clinical consult service and a variety of clinical outreach activities. It also provides laboratory support for selected clinical trials and translational research projects.

The Lab performs grossing, tissue processing and embedding, and has a large menu of histochemical stains and FDA-approved immunohistochemical tests. It also supports coring of paraffin blocks or micro-dissection of unstained slides to isolate cells for molecular analysis. Testing is supported by WU anatomic pathologists, technicians, and administrative staff.

All specimens are accessioned in Cerner CoPath Plus, and all blocks and slides are bar coded and labeled using the Ventana Vantage work flow solution, which is driven by the CoPath LMS. Routine histochemical staining and cover-slipping are automated. Immunohistochemical testing uses the Ventana Benchmark Ultra platform. The Lab supports intra-operative diagnosis via telepathology with whole slide imaging using the Ventana iScan Coreo digital slide scanning system. Volume, turnaround time, and quality metrics can be tracked in real time using Microsoft PowerBI.

CLINICAL CONSULT OFFICE

**Director:** John Pfeifer, MD

**Supervisor:** Jeannie Doerr

The Clinical Consult Office was created in 2012 to increase consult growth and establish WashU as a reference lab for BJH affiliates as well as outside providers and health systems.

Led by supervisor Jeannie Doerr, the CS Office is the gateway to Washington University Diagnostic Laboratory Services. CS Office staff receive pathology cases and specimens from outside institutions and distribute them to our clinical laboratories for testing and to our pathologists for

CLINICAL LAB LIFE

Tom Fitzgerald of AMP Core Labs

Kristin Kintz of AMP Core Labs
consultation and diagnosis. In addition, the CS Office is the primary customer service contact for WU Diagnostic Laboratory Services, providing support and service to outside clients and ensuring excellent patient care. Jeannie and her team work closely with Lab Managers, Medical Directors, and Department Administration to ensure all of the administrative and front office functions of the laboratories are handled properly, including patient registration, insurance precertification, specimen accessioning, and specimen distribution.

CLINICAL & TRANSLATIONAL GENOMICS LABORATORY (CaTG)

Director: Jon Heusel, MD, PhD

The CaTG represents a proactive integration of two formerly independent clinical laboratories performing high-complexity testing in the dynamic field of clinical genomics—the Cytogenetics & Molecular Pathology Laboratory, and Genomics and Pathology Services (GPS).

Supporting the Department’s clinical mission, the CaTG allows for a new way to manage the avenue toward Precision Medicine, seeking to maximize economics, expertise and innovation.

The CaTG will also become an important translational research unit, collaborating with existing, well established partners in human genomics, as well as emerging groups in informatics, genetics, and functional genomics at this institution. The lab will partner with institutional efforts to bring forward highly curated genomics knowledge bases and the clinical decision support mechanisms needed to realize the potential of healthcare informed by large data sets and tailored to the unique needs of the individual patient.

(FORMER) CYTOGENETICS & MOLECULAR PATHOLOGY

Associate Directors: Ina Amarillo, PhD and Yoshiko Mito, PhD

Lab Manager: Jane Bauer

Cytogenetics & Molecular Pathology is a CAP/CLIA certified laboratory that provides quality care with expert genomic services from “chromosome to base pair”. The lab’s professional team is fully equipped with a state-of-the-art facility to fully assist with prenatal, constitutional and cancer.

The lab is supported by over 30 highly trained individuals and includes Washington University faculty, cytogenetic technologists, medical secretaries, laboratory assistants and administrative staff.

Beyond traditional clinical services, the team is a major collaborator of international, multi-center clinical trials such as those with the Childhood Oncology Group, Cancer and Leukemia Group B, Genetic Testing Reference Material Program at the Center for Disease Control and Prevention, Clinical and Laboratory Standards Institute and DECIPHER (Database of Chromosomal Imbalance and Phenotype in Humans using Ensembl Resources).
(FORMER) GENOMICS AND PATHOLOGY SERVICES (GPS)

CMO: Jon Heusel, MD, PhD
GPS provides physicians with clinically validated next-generation sequencing for cancer, somatic overgrowth and a variety of constitutional diseases. Due to extensive technological capabilities the lab also offers customized tests for clinical trials and clinical research.

GPS’ clinical genomic tests improve patient care by enabling a personalized approach to medicine. Next-generation sequencing tests return actionable genomic intelligence across multiple key disease-relevant genes.

Sequencing results are interpreted by board-certified pathologists and clinical geneticists. Variants are categorized by medical significance in a concise clinical report. These results help ordering physicians stratify disease subtypes and identify optimal patient treatment strategies.

DERMATOPATHOLOGY CENTER

Director: Ilana Rosman, MD
Lab Manager: Amanda Kelley

The Dermatopathology Center is a collaboration between the Department of Pathology & Immunology and the Department of Medicine, Dermatology Division.

The lab is committed to expert interpretation of routine and complex skin, hair and nail biopsy specimens. The physicians at the Dermatopathology Center deliver patient-focused care by providing timely and definitive diagnoses.

The comprehensive array of diagnostic services performed in-house include primary diagnosis, molecular diagnostics, BRAF testing for melanoma, ELISA testing for bullous pemphigoid and pemphigus, direct immunofluorescence (DIF) for blistering, vasculitic and connective tissue diseases and staged excisions (“slow Mohs”).

ELECTRON MICROSCOPY FACILITY

Director: Robert Schmidt, MD, PhD
Lab Manager: Karen Green

The CAP/CLIA certified Electron Microscopy Facility provides a variety of electron microscopy services for clinical and research use. These include tissue processing and embedding, preparation of one micron thick toluidine blue stained sections and routine transmission electron microscopy for cell culture and tissue specimens.

Both the JEOL 1200EX and JEOL JEM1400 electron microscopes in the facility have high resolution CCD based cameras for high quality digital imaging. The clinical digital images of renal biopsies are collected and uploaded into password protected on line clinical reports. Research images will be available for downloading by individual investigators as part of a password protected on line system.
DIGITAL IMAGING CENTER

The Digital Imaging Center is a joint resource of the Department of Pathology & Immunology and BJH. This Center specializes in digital imaging for clinical, teaching and research applications and is keeping up with advances in this fast moving area.

In addition to resources for traditional and digital photography, poster and other image printing, the Digital Imaging Center currently provides resources for high quality whole slide scanning including for teaching, archival, or deidentified sharing off site. We are also in the process of acquiring and utilizing image analysis software for use with scanned slides.

FACS FACILITY

Director: Marina Cella, MD
Lab Manager: Erica Lantelme, PhD

The FACS Facility provides investigators with instrumentation and support for cell sorting as well as acquisition and analysis of flow cytometry data.

Specific services include high speed cell sorting, assistance with experimental design, instruction and training on the instruments and consultations on sample preparation and data analysis.

HYBRIDOMA CENTER

Director: Kathleen Sheehan, PhD

The Hybridoma Center provides monoclonal antibody technology to the University research community. With over 35 years of experience, the Hybridoma Center assists investigators in the generation of custom monoclonal antibody-producing B cell hybridomas.

The lab also provides custom monoclonal antibody development for parties outside of the university.

TRANSGENIC MOUSE CORE

Director: J. Mike White

The Transgenic, Knockout and Micro-Injection Core offers a wide array of mouse embryo

Both from the Colonna Lab, Hanna Miller (sitting) works on the role of dendritic cell subsets in allergic skin inflammation and Luisa Cervantes Barragan, PhD (standing) studies intestinal intra-epithelial T cells and their interaction with the microbiome.
manipulation techniques. The lab provides investigators resources to generate mutant mouse models through a variety of techniques, cryopreserve mouse lines, cryopreservation/storage of mouse sperm, perform embryo rederivation, thaw embryos and perform IVF. C57BL/6 inbred is the standard strain for both pronuclear and ES micro-injection, but Albino B6 host embryos for injection of B6 ES cell lines such as those from KOMP, EUCOMM TIGM and other cell suppliers are also available. Hybrids and additional inbred strains may be used for transgenic production.
Stephen Ferris of the Unanue Lab
Danielle Lussier of the Schreiber Lab
Heather Kohlmiller, Daniele Runci and Elise Alspach of the Schreiber Lab
Xiaoxiao Wan of the Unanue Lab
Javier Carrero of the Unanue Lab
Parmeshwar Amatya, Wenjie Wang and Britney Johnson of the Amarasinghe Lab
Sarah Pyrorm and Jackie Payton of the Payton Lab
Caitlyn Purman and two students from the Oltz Lab
Arijita Jash of the Bhattacharya Lab
Javier Carrero of the Unanue Lab
Taylor of the Virgin Lab
Colleen Newhouse and Laura Garvey of Anatomic and Molecular Pathology

Ken Murphy is so committed to his work, he NEVER leaves the office
The Burnham Lab is a group of microbiologists that studies the transmission and epidemiology of multi-drug resistant pathogens, especially bacteria that cause infections in the hospital setting such as Clostridium difficile and Staphylococcus aureus. We utilize a variety of methods, including conventional culture, MALDI-TOF MS, and molecular methods. In addition, we develop and evaluate new diagnostic methods to detect microbes causing infection in clinical samples. We evaluate the microbiome of various body compartments, and evaluate the role of microbes in health and disease.

**CONRAD LAB**

The Conrad lab is a diverse blend of scientists from different disciplines and geographic origins. Our mission is to make fundamental contributions to all steps of the translational cycle of human genetics: discovery of genetic variation, functional characterization of this variation, diagnosis and therapy. Our focus is reproductive disorders and neuropsychiatric disease. We are scientists that write computer programs and analyze data, scientists that create beautiful and informative images using microscopy, scientists who breed and characterize mice, scientists who talk to patients and physicians to accelerate the use of genetics in medicine. We come from across the globe: China, Estonia, Portugal, Germany, South Korea, India, the United
States, and we are extremely happy to call Washington University our scientific home.

**CORBO LAB**

The Corbo Lab works at the interface of neurobiology and genomics to understand the mysteries of the brain and retina. Research in the lab has three main goals: 1) To elucidate the cis-regulatory architecture of the retina and utilize this knowledge to treat blindness, 2) to understand the molecular and genetic basis of color vision, focusing on how animals both see and produce colors, and 3) to decipher the role of cis-regulatory variation in the human cognition and neuropsychiatric disease.

**PAYTON LAB**

The Payton lab focuses on the role of aberrant epigenomic patterns in cancer-specific gene dysregulation. We take an integrative approach to understanding the complex interplay of genomic and epigenomic mutations and their impact on gene regulation, employing translational, bioinformatic, and basic biological approaches to understand the progression of hematopoietic cells from healthy to malignant.

**CYTOGENETICS & MOLECULAR PATHOLOGY**

With access to state-of-the-art technologies for chromosome analysis, karyotyping, chromosomal microarray analysis, and FISH testing, the Cytogenetics & Molecular Pathology Lab offers full laboratory services for prenatal, POC, constitutional and cancer testing. The lab is supported by a dynamic group of over 30 highly trained individuals including faculty, cytogenetic technologists, medical secretaries, laboratory assistants and administrative staff.

**DANTAS LAB**

The Dantas lab applies cutting-edge metagenomic analyses to track the dynamics and spread of antibiotic resistance in human- and environmentally-associated microbial communities. We also harness the outstanding and under explored genetic material in these communities to accelerate microbial synthetic biology for medical and industrial applications.

**STAPENBECK LAB**

The Stappenbeck lab studies how the cells that form mucosal surfaces of the intestine and lung function during health and disease. We are particularly interested in how these cells interact with bacteria (or the products bacteria produce) to alter disease and wound repair processes. Lab members use a wide variety of techniques and model systems in their research. Some specialize in growing mouse or human mucosal cells or culturing bacteria; others specialize in modeling host-bacteria interactions in mice or analyzing human tissue samples. All of us are very thankful for our lab manager, Nikki, who specializes in keeping our lab running smoothly! Despite a wide range of scientific interests, the Stappenbeck lab members are focused on working as a team to tackle complex scientific questions.
RECOGNIZING OUR FACULTY AND STAFF

**P&I STAFF**

40+ years
Karen Green
Jessie Hardges

35-39 years
Byron Henderson

30-34 years
Orlando Crisp
David Donermeyer
Susan Johnson
Jennifer Lackner

25-29 years
Jennifer Adams
Jataun Albery
Corazon Arthur
Katherine Frederick
Karl Hock
Vivian Hogan
Michael Isaacs
Jean Loehr
Debra Weber

20-24 years
Stephen Horvath
Darren Kreamalmeyer
Rhonda Porche-Sorbet
Lisa Snipes
Donna Thompson
James White

5-9 years
Xiaopei Zhu

15-19 years
Patricia Alldredge
Edward Anderson III
Sharon Austin
Jane Bauer
Jonathan Bihr
Tara Bradstreet
Matthew Breuer
David Britton
Bonita Brooks
Monica Carrillo
Jiye Cheng
Sandra Crocker
Adish Dani
Su Deng
Michaela Dino
Andrew Drury
Dijana Durakovic
Michael Evenson
Angela Felton
Tonya Fields
Barbara Fowler
Erika Fuess
Bijoy George
Kimberly Green
Jennifer Greenbaum-DiRuscio
Snehil Gupta
Janaki Guruge
Julie Gutierrez
Janis Hardin
Jessica Hotsington-Lopez
Lynda Imber
Benjamin Joseph

**JOHN KISSANE, MD | FACULTY IN AMP | 63 YEARS**

John Kissane, MD has been instrumental in the training and mentoring of pediatric pathologists throughout his tenure with the Department of Pathology & Immunology. John Kissane graduated cum laude from WUSM in 1952. The following two years were spent as a resident in pathology at Barnes Hospital and as a research fellow. After the completion of a two-year tour in the United States Army, he returned to St Louis and joined the pathology faculty in 1958 as an assistant professor.

Dr. Kissane has fulfilled many roles within the Department of Pathology & Immunology, and has established himself as a preeminent clinician and researcher. He has served as director of the autopsy service at a time when 600 to 700 autopsies per year were performed in the department. Dr. Kissane also was responsible for the pediatric and adult renal biopsies which came through surgical pathology. He was actively involved in the second-year pathology course as a lecturer in a number of organ systems, in addition to his supervisory role in the student laboratories.

Dr. Kissane is a pioneer in the field of pediatric pathology; his interest in pediatric pathology emerged while he was a resident and was on exhibit in his first published paper on the topic of maturation of neuroblastic tumors, which he coauthored with Lauren V. Ackerman in 1955. Throughout his active years, Dr. Kissane continued his interest and developed his insights into various aspects of renal diseases in children with studies on cystic disease and hereditary nephropathies. Dr. Kissane also was involved in a number of studies on various aspects of childhood neoplasia, including Ewing sarcoma, renal tumors, small cell osteosarcoma, pancreatic tumors, rhabdomyosarcoma, and histiocytic disorders.

THANK YOU for your service and commitment to the Department!
Steven L. Teitelbaum, MD is the Division Chief of Anatomic and Molecular Pathology and is renowned as one of the world's leading experts in bone metabolism. Dr. Teitelbaum received his bachelor's degree from Columbia College in 1960 and his medical degree from Washington University in 1964. After residency, Dr. Teitelbaum returned to Washington University in 1968 as a clinical fellow in pathology. He served as chair of the Department of Pathology of the Jewish Hospital from 1987 to 1996 and of that institution's institutional review board from 1977 to 1997.

The WUMC Alumni Association named a scholarship to honor him as a distinguished alumnus in 1997. He is currently the Wilma and Roswell Messing Professor of Pathology and Immunology. Dr. Teitelbaum's pioneering research focuses on bone cell biology for the purpose of developing new treatments for the prevention and cure of diseases such as osteoporosis. He has published over 300 papers in his career.

He has held leadership positions in many national organizations, including serving as President of the Federation of American Societies for Experimental Biology and of the American Society for Bone and Mineral Research. Among his honors are the William F. Newman Award of the American Society for Bone and Mineral Research, Washington University’s Second Century Award, the Rous-Whipple Award from the American Society for Investigative Pathology, the Carl and Gerty Cori Faculty Achievement Award, the Peter H. Raven Lifetime Achievement Award from St. Louis Academy of Science, and the Pieter Gaillard Founders Award from the International Bone and Mineral Society.

In addition to his academic pursuits, Dr. Teitelbaum enjoys spending time with his wife Marilyn and doting on his grandchildren.

THANK YOU for your service and commitment to the Department!
Karen Green

Karen Green is the technical director of the Electron Microscopy Facility and has been with the Department of Pathology & Immunology since 1973. When she arrived here, there was a flower shop where the Metrolink is now, Euclid was a real street, and the McDonnell Science Building was a new WUMS edifice.

Karen has been tireless in the pursuit of excellence in the varied jobs she has been called upon to master. She has mentored a large number of graduate students, residents, fellows (and even principal investigators and professors) during her 43 years, most of it spent in the practice of electron microscopy, an old technique now new again. She has never rested on her laurels or feared a challenge, adapting to a rapidly changing clinical and research environment.

Bob Schmidt, MD, PhD, Director of the EM facility says “I couldn’t ask for a better employee, colleague and friend”.

THANK YOU for your service and commitment to the Department!
THANK YOU TO ALL!

FITBIT RAFFLE WINNERS

John Ball | Clinical support specialist, Clinical consult office
Dijana Durakovic | Senior lab technician, AMP core lab
Maria Karlsson | Research lab manager, Gordon lab
Sanket Patel | Research technician, Dantas lab
Lori Scantlan | Administrative coordinator, LGM

Congratulations and THANK YOU for all that you do!

Jessie Hardges is our Autopsy Supervisor and has been with the Department of Pathology & Immunology since 1973. Jessie serves as supervisor and mentor to the autopsy staff, provides expert technical assistance during the autopsy exam, and is a resource to students, trainees, faculty, and staff. During his 43+ years of service Jessie has assisted with the training of over 400 residents, including several of our current faculty members. Jessie has also been instrumental in implementing several autopsy techniques that have been adopted by other autopsy departments around the country.

Growing up Jessie was a talented athlete and played basketball for Mississippi Valley State University. When he isn’t busy assisting our faculty, staff, and trainees, Jessie spends time teaching anatomy to high school students. Jessie has been married to his wife Linda for 38 years and has three children.

THANK YOU for your service and commitment to the Department!