

## Administration

### **Susan Babunovic, BS, Administrative and Grants Manager**

*Center for Translational Medicine and Pharmacology  
Department of Pharmacological Sciences*



Babunovic earned her BS in biology from The Pennsylvania State University. Following graduation, she took on the role of research/teaching specialist at Rutgers Medical School in Piscataway, New Jersey, where she engaged in X-ray diffraction studies of collagen, exploring structural biology and biomaterials. Babunovic then progressed to research technician positions at New York University School of Medicine and the University of Rochester School of Medicine and Dentistry where she studied neurodegenerative diseases, specifically Alzheimer's and Parkinson's. As lab manager at the New York University School of Medicine, Babunovic oversaw cardiovascular and atherosclerosis research projects. In 2021, Babunovic joined the Zaidi Lab as lab manager, where she focused on the follicle stimulating hormone (FSH) antibody project. She then transitioned to the role of executive assistant and administrative manager, where she is responsible for a broad range of functions, including finance and grants management. She plays a vital role in creating, maintaining, and updating animal and safety protocols, ensuring compliance and fostering a safe research environment. Additionally, Babunovic organizes all aspects of the Maria I. New International Prize for Research.

### **Orly Barak, PhD, Laboratory Director**

*Center for Translational Medicine and Pharmacology  
Department of Pharmacological Sciences*



Orly Barak, PhD, Senior Scientist and Laboratory Manager at the Center for Translational Medicine and Pharmacology, oversees research activities at the center and ensures smooth daily operations. Dr. Barak earned her PhD at Tel Aviv University. Following her doctoral studies, Dr. Barak joined a biotech company focused on developing an algae-based platform designed for oral delivery of high-value products. Dr. Barak transitioned to the Department of Neurology at Icahn Mount Sinai in 2019 as a postdoctoral fellow, studying complex brain functions and diseases. Her postdoctoral work equipped her with valuable experience in cutting-edge research and methodologies. She joined the Zaidi lab in 2022, where she leads the laboratory's daily operations, coordinating experiments, supervising staff, and ensuring compliance with safety regulations.

**Anne Macdonald, BA, Research Manager**  
*Center for Translational Medicine and Pharmacology*  
*Department of Pharmacological Sciences*



Annie Macdonald earned her BA in Semiotics from Brown University in 2013, where she studied intellectual property law and documentary production. She entered academic medical research in 2018, as a research assistant to Maria I. New, MD, a physician scientist known for her pioneering work in adrenal steroid disorders. Macdonald took coursework in the Pre-Medical Post-Baccalaureate Program at Columbia University in psychoneuroendocrinology, exploring the relationships among psychological processes, neurological functions, and endocrine responses. As research manager for pre-clinical Investigational New Drug (IND) enabling studies at the Center for Translational Medicine and Pharmacology, Macdonald has implemented a quality management system. This initiative ensures that early-stage translational research maintains high standards of uniformity, consistency, reliability, reproducibility, quality, and integrity—critical factors for successful drug development. She has co-authored research articles in peer-reviewed publications such as the *Proceedings of the National Academy of Sciences*, *Annals of the New York Academy of Sciences*, *eLife*, and *Molecular Psychiatry*. She also served as an associate editor for the second edition of *Genetics Steroid Disorders*, published by Elsevier. Macdonald aspires to pursue graduate studies that blend medicine, business, and technology with the goal of focusing on translational research in developing innovative therapies for brain and behavior disorders. In her personal time, she enjoys sailing, skiing and mixing aromatic molecules into custom fragrances.

## **Faculty Instructors**

**Ofer Moldavski, PhD, Instructor**  
*Zaidi Lab, Obesity and Metabolism Program*  
*Department of Pharmacological Sciences*



Dr. Moldavski earned a PhD in cell biology at the Weizmann Institute for Science under the mentorship of Maya Schuldiner, PhD, researching how cells can clear neurodegenerative protein aggregates using lipids. He completed a joint postdoctoral fellowship at University of California, Berkeley, and University of California, San Francisco (UCSF), focusing on lipid-induced cell signaling, under the mentorship of Roberto Zoncu, PhD, (Berkeley). He concurrently studied the hormonal regulation of lipid metabolism under the mentorship of Ethan Weiss, MD, (UCSF). After completing his training, Dr. Moldavski joined Mount Sinai to study metabolic diseases, such as obesity, and develop new therapeutics. Outside of medical research, Dr. Moldavski enjoys observing nature, cooking, and playing with his kids.

**Farhath Sultana, PhD, Instructor**

*Zaidi Lab, Therapeutic Antibody Program, Obesity and Metabolism Program  
Department of Pharmacological Sciences*



Dr. Farhath Sultana holds a PhD from Vellore Institute of Technology in immunology. Her background is in preclinical pharmacology, immunology, nanotechnology, and cellular and molecular biology. Her post-doctoral work at the University of Minnesota, University of Colorado, and Ariel University, focused on osteopetrosis and bone metabolism. She has investigated the genetic mechanisms of osteopetrosis, particularly the role of SNX10, FKBP12 and PIKFYVE in bone metabolism, and has also explored the links among cancer, metabolic disorders, and adipose tissue distribution. At Icahn Mount Sinai, Dr. Sultana leads research on the role of dexamethasone in bone remodeling. She also collaborates on projects exploring the effects of FSH monoclonal antibodies in conditions such as Alzheimer's disease, osteoporosis, and obesity. Her technical expertise spans advanced immunological assays, molecular techniques, and *in vitro* and *in vivo* animal models. Outside of the lab, Dr. Sultana enjoys outdoor activities.

**Anisa Gumerova, MD, PhD, Instructor**

*Zaidi Lab, Director of Histology Core and Skeletal and Metabolic Phenotyping Core  
Department of Pharmacological Sciences*



Dr. Anisa Gumerova earned her medical degree (MD) from Kazan Medical University in Russia, followed by a PhD and DSc in histology, cytology, and embryology. In Russia, she served as co-principal investigator on several projects devoted to hepatic progenitor cells. As deputy director at the Institute of Fundamental Medicine and Biology of Kazan Federal University, she gained considerable administrative experience. In 2019 Dr. Gumerova joined the Mount Sinai Bone Program under the leadership of Mone Zaidi, MD, PhD, as an associate researcher. Dr. Gumerova's research focuses on morphological alterations, gene expression, and protein synthesis in various tissues, with a particular emphasis on adipose tissues and bones, under the influence of pituitary hormones such as FSH, luteinizing hormone, thyroid stimulating hormone, and oxytocin. Dr. Gumerova contributes substantially to numerous publications in renowned journals such as *Nature*, *PNAS*, and *eLife*. Dr. Gumerova has introduced innovative methods into the laboratory, including RNA scope *in situ* hybridization, *in vitro* and *in vivo* labeling, and 3D-culture spheroid model. Additionally, she has established an original protocol for isolating single cells from mouse adrenal glands.

## Fellows

### **Guzel Burganova, MD PhD, Post-Doctoral Fellow**

*Zaidi Lab, Obesity and Metabolism Program, Therapeutic Antibody Program  
Department of Pharmacological Sciences*



Guzel Burganova, MD, PhD, is a highly qualified and motivated medical doctor with extensive research experience in histology, cell, and molecular biology. She earned her MD with honors from Kazan State Medical University in Russia. Dr. Burganova completed her PhD at Tel Aviv University, where her research focused on the role of IL-33 in pancreatic beta-cell function and glucose regulation. She has held various academic positions, including Senior Lecturer at Kazan Federal University and Teaching Assistant at Tel Aviv University. Currently, Dr. Burganova is a postdoctoral fellow at Icahn Mount Sinai, where she is engaged in research on metabolic diseases, particularly obesity and bone loss. She has received numerous honors, awards, and international research and clinical fellowships, including programs in Germany, Japan, and Italy.

### **Pingping Xiang, PhD, Postdoctoral Fellow**

*Davies Lab, Thyroid Research Program  
Department of Internal Medicine, Hematology-Oncology*



Pingping, PhD received her degree from Nanjing University of Chinese Medicine, China. During the last year of her doctoral program, she performed advanced research training under the mentorship of Erik K. Alexander, MD, at Brigham and Women's Hospital, Harvard Medical School, where her research focused on thyroid cancer and autoimmune thyroid disease. She has continued to explore autoimmune thyroid disease, with a particular focus on the regulation and signaling mechanisms of the thyroid stimulating hormone receptor (TSHR) in both thyroidal and extra-thyroidal tissues. In her free time, Dr. Pingping enjoys sports, listening to music and spending time with her family and friends.

**Babu Mia, MD, PhD: Postdoctoral Fellow**  
*Hoffman Lab, Hematology Program*  
*Department of Internal Medicine, Hematology-Oncology*



Babu Mia, MD, PhD, is a postdoctoral fellow at Icahn Mount Sinai. Dr. Mia earned his MSc. and PhD in hematology, immunology, and bioinformatics from South Asian University, New Delhi, India, followed by a postdoctoral fellowship at Indiana University. Under the mentorship of Ronald Hoffman, MD, Dr. Mia's research focuses on malignant hematopoiesis, particularly hematologic cancers such as myeloproliferative neoplasms. His work integrates leading-edge wet lab techniques including *in vivo* disease modeling and gene editing with advanced computational methods using Python and R-based machine learning approaches in genomics. Dr. Mia researches therapy resistance in myelofibrosis and identifying novel strategies for targeting malignant hematopoietic stem cells. He develops bioinformatics software for single-cell sequencing (e.g., CellIdentifierDx) and applies machine learning to large-scale medical genomics data analysis. Beyond his scientific pursuits, Dr. Mia is actively engaged in entrepreneurship and enjoys writing poetry.

**Pinanong Na-Phatthalung (Pin), PhD, Postdoctoral Fellow**  
*Ginzburg Lab, Hematology Program*  
*Department of Medicine, Hematology-Oncology*



Na-Phatthalung, PhD received a degree in microbiology from Prince of Songkla University, Thailand in 2017. Her first position as a postdoctoral fellow was at Zhejiang University in China from 2018-2023, where she led a project on the functional study of Slc30a1 transporter in macrophages against Salmonella infection using green fluorescent protein and other transgenic mice models. She began working as a postdoctoral fellow in 2023 under the supervision of Yelena Ginzburg, MD, in the Department of Hematology and Medical Oncology. Her research is focused on the effects of erythroferrone in osteoblasts on bone metabolism and stress erythropoiesis. Additionally, she contributes to the International Society for the Study of Iron in Biology and Medicine meeting as a member of Bio Iron junior board. Outside the lab, she likes being in nature, working out, taking videos/photos of flowers, cooking, watching mukbang videos, and making batik.

**Althea Agdamag, MD, Postdoctoral Fellow**

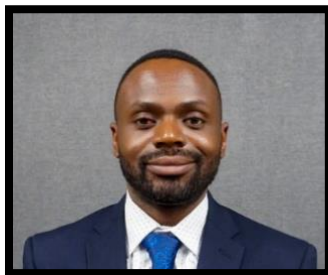
*Glassberg Sickle Cell Center, Hematology Program  
Department of Pediatrics, Hematology-Oncology*



Althea Agdamag, MD is a PGY-5 pediatric hematology and oncology fellow at Mount Sinai Kravis Children's Hospital, working under Huihui Li, PhD. Her current research focuses on the gut microbiome in various hemoglobinopathies, such as sickle cell disease and myeloproliferative neoplasms. Dr. Agdamag graduated from the University of the Philippines College of Medicine before moving to the United States. She completed her pediatric residency at New York-Presbyterian Hospital and pursued further training in pediatric hematology and oncology, with a particular interest in classical hematology. During her free time, she enjoys caring for and propagating her houseplants, attending workout classes, and trying out restaurants around New York City.

**Ubong Ekperikpe, PhD, Postdoctoral Fellow**

*Daehn Lab, Renal Health Group  
Department of Medicine, Nephrology*



Ubong Ekperikpe, PhD, is a pharmacist and pharmacologist with extensive experience researching mechanisms of kidney disease in diabetes and obesity. Dr. Ekperikpe earned his PhD in experimental therapeutics and pharmacology from the University of Mississippi Medical Center, where he investigated the role of insulin resistance and inflammation on the progression of renal injury associated with childhood obesity. He earned his pharmacy and master's degrees in Nigeria from the University of Jos and the University of Benin. Dr. Ekperikpe is currently a postdoctoral fellow in the Division of Nephrology of the Department of Medicine, where he is investigating genetic susceptibility to diabetic kidney disease. His research interests include diabetes and obesity, chronic kidney disease, genetics, oxidative stress, insulin resistance, renal inflammation, and experimental therapeutics.

## Research Staff

### **Georgii Pevnev, MD, Associate Researcher**

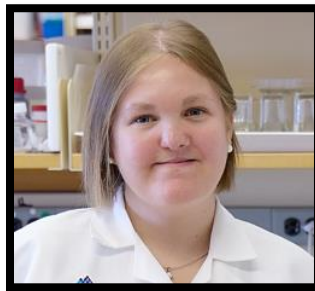
*Zaidi Lab, Histology Core and Skeletal and Metabolic Phenotyping Core  
Department of Pharmacological Sciences*



Georgii Pevnev, MD, is an associate researcher specializing in histology. His responsibilities include tissue processing, sectioning, immunostaining, and laboratory animal handling. He graduated from Kazan State Medical University in 2011 with a medical doctor degree in epidemiology and preventive medicine. Since 2022, Dr. Pevnev has contributed to pharmacological research in Dr. Zaidi's Lab. His focus is on Alzheimer's disease and the role of oxytocin in adrenal steroidogenesis and the stress response. With more than ten years of experience in research and teaching, Dr. Pevnev has co-authored numerous peer-reviewed articles and presented at scientific conferences.

### **Uliana Cheliadinova, MD, Associate Researcher**

*Zaidi Lab, Reproductive Biology Group and Skeletal and Metabolic Phenotyping Core  
Department of Pharmacological Sciences*



Uliana Cheliadinova, MD, is an associate researcher at Mount Sinai, specializing in basic science and translational research. After completing her medical education at Moscow State University, she has focused her career on studying reproductive biology and Alzheimer's disease. Her work involves applying advanced molecular methods, including gene expression analysis and protein signaling, to uncover the underlying mechanisms of disease. Dr. Cheliadinova also works with animal models to translate laboratory findings into potential therapeutic strategies. Outside of the lab, she enjoys hiking and traveling, which fuel her passion for exploring new ideas both in science and in life.



**Judit Gimenez, MS, Associate Researcher**

*Zaidi Lab, Therapeutic Antibody Program, Obesity and Metabolism Program  
Department of Pharmacological Sciences*



Judit Gimenez-Roig studied biotechnology at Autonomous University of Barcelona. During her final year, she studied at the Department of Molecular, Cell and Developmental Biology program at University of California, Los Angeles. She received her Master's degree in science in genetics and genomics from the University of Barcelona, obtaining a specialization in stem cells and development. Meanwhile she completed a research internship under the mentorship of Cristina Fillat at the August Pi i Sunyer Biomedical Research Institute. Her research focused on the effect of codon usage in the efficacy and viral fitness of oncolytic adenoviruses against pancreatic cancer. Gimenez-Roig joined Dr. Zaidi's lab in January 2022 as an associate researcher in the Pharmacological Sciences Department and is responsible for conducting preclinical studies for the prevention of obesity, osteoporosis, and other diseases in rodents. Outside the lab, you might find Gimenez-Roig dancing, scuba diving, binge reading one of her favorite books, or spending time with her friends and family

**Victoria Laurencin, BA, Associate Researcher**

*Zaidi Lab, Zebrafish Modeling Core,  
Department of Pharmacological Sciences*



Victoria Laurencin graduated from Princeton University with a Bachelor of Arts in Molecular Biology and is currently an associate researcher in the Zaidi lab. She is studying the effects of FSH blockade on cognition in Alzheimer's disease and contributing to the development of a zebrafish model to deepen investigations into the disease. In addition, Laurencin is optimizing a transgenic zebrafish model of Type 1 diabetes to study diabetic nephropathy. Laurencin previously worked as a lab technician at Columbia University, where she researched the impact of dietary factors and aerobic exercise on red blood cell lifespan. In the future, Laurencin plans to become a doctor, where she hopes to integrate research with patient care. Outside the lab, Laurencin enjoys volunteering, knitting, and reading. She looks forward to advancing her contributions to science and medicine in the future.



**Darya Vasilyeva, MD, Associate Researcher**

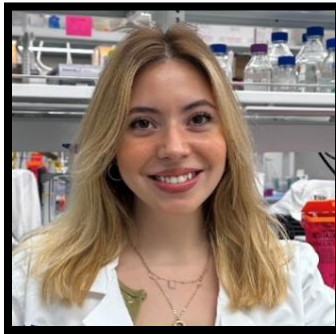
*Zaidi Lab, Therapeutic Antibody Program, Reproductive Biology Program  
Department of Pharmacological Sciences*



Darya Vasilyeva, MD, researches the pharmacology of anesthesia medications and the physiological impacts of hormones. She earned her MD from Gomel State Medical University in Belarus. Then she pursued a residency in anesthesiology and critical care medicine, subsequently working as an attending physician. In 2023, Dr. Vasilyeva joined the Zaidi Lab as an Associate Researcher, where she focuses on FSH antibody production and pre-clinical IND-enabling studies. Dr. Vasilyeva is certified in Good Laboratory Practices and assists in overseeing the Center's GLP platform. Her research delves into brain-specific luteinizing hormone signaling, particularly its influence on cognitive function and neuronal plasticity during menopause, exploring new therapeutic approaches for metabolic and endocrine disorders to treat menopause-related challenges.

**Zehra Berna Tumoglu (Berna), MD, Associate Researcher**

*Zaidi Lab, Obesity and Metabolism Program, Neuro-hormone Program  
Department of Pharmacological Sciences*



Zehra Berna Tumoglu, MD, earned her medical degree from Ankara University School of Medicine in Turkey in 2022. After graduating, she worked as a general practitioner before relocating to the United States to pursue her career as a physician-scientist. She spent a year and a half at Emory University in Atlanta, focusing on basic research in a biochemistry lab with an emphasis on breast cancer. Dr. Tumoglu then moved to Icahn Mount Sinai, where she joined the Zaidi Lab. She oversees the mouse colonies and collaborates with all scientists in the lab. Recently, she has taken on a role in the neuro-hormone program, working primarily with Vitaly Ryu, PhD. Her academic interests primarily revolve around women's health, and she has a strong passion for oncology and immunology.

**Surabhi Parte, BS, Associate Researcher**

*Zaidi Lab, Reproductive Biology Program  
Department of Pharmacological Sciences*



Surabhi Parte obtained her Bachelor of Science degree in biomedical sciences with minors in chemistry and neurobiology from the State University of New York at Plattsburgh and is currently pursuing her Master of Science in Biotechnology/ MBA dual degree from the Johns Hopkins University. During her bachelor's, she worked on a research project that included isolating, amplifying, and analyzing the hypervariable region of ancient mitochondrial DNA. After working as a research technician at the Memorial Sloan Kettering Cancer Center in the Antitumor Core Facility for two years, she joined Mount Sinai in 2024. Parte is currently assisting with projects related to bone health and disease, and reproductive biology in Dr. Zaidi's lab. Her research interests lie in oncology, pharmacology, molecular and cellular biology, and bioinformatics. In addition to her research endeavors, she is passionate about studying health care administration to enhance her impact in the field.

**Susana Munoz-Lara, BS, Associate Researcher**

*Goosens Lab for Biological Systems in Stress and Disease, Neurohormone Program  
Department of Psychiatry*



Susana Munoz-Lara earned a Bachelor of Science in Neuroscience from Duke University in 2023. Currently, she is working in the Goosens Lab during her gap years before attending medical school. Munoz-Lara's research focuses on understanding the neural mechanisms underlying stress and anxiety, with the goal of contributing to advancements in mental health treatment. She is passionate about the intersection of neuroscience and medicine and aims to continue exploring this through a future career in medical research and clinical practice. Outside of the lab, Munoz-Lara is a foodie who loves songwriting, playing soccer, exploring New York City's culinary scene, and playing the violin and guitar.

**Maayan Levy, MS, Associate Researcher**  
*Ginzburg Lab, Hematology Program*  
*Department of Medicine, Hematology-Oncology*



Maayan Levy is an associate researcher in the Ginzburg Lab, where her research focuses on iron metabolism and erythropoiesis. She is particularly enthusiastic about the potential for translating mouse studies to address hematological disorders in human patients. Prior to joining Mount Sinai, Levy conducted research on vascular function at the University of Colorado Boulder, where she earned both her bachelor's and master's degrees. Outside of the lab, Levy enjoys spending time outdoors, exploring new activities like karaoke, and camping in the mountains.

**Zixing (Esther) Huang, MSc, Associate Researcher II**  
*Glassberg Sickle Cell Center, Hematology Program*  
*Department of Emergency Medicine*



Zixing Huang is an associate researcher under the supervision of Huihui Li, PhD, at the emergency department, where she focuses on vaso-occlusion and organ damage of sickle cell anemia. Her research primarily explores antibiotic therapeutics to alleviate complications of sickle cell anemia. She earned her master's degree from Columbia University, where she studied human nutrition. Prior to joining the Li lab, she worked on studying how the brain-gut axis contributes to the intestinal epithelial serotonin as a novel target for disorders of gut-brain interaction and mood. Her research has been published in *Cell Stem Cell*. Outside the lab, she is passionate about exercise and metabolic health.

**Momina Hayat, MSc, Associate Researcher**

*Hoffman Lab, Hematology Program*

*Department of Emergency Medicine*



Momina Hayat joined Mount Sinai Hospital in April 2024 as an associate researcher in the lab of Ronald Hoffman, MD, where she works on drug development for myelofibrosis and myeloproliferative neoplasms. Hailing from Pakistan, Hayat completed her BSc in applied biosciences at the National University of Sciences and Technology. Additionally, she holds an MSc in health science with a concentration in epidemiology and biostatistics from the Technical University of Munich in Germany. She completed her master's thesis assessing the effects of COVID-19 infection on clinical outcomes in patients with hematological malignancies. Hayat's research interests also include studying chronic disease burden in the underprivileged, disparities in cancer care, and socioeconomic factors contributing to disease burden. Before joining Mount Sinai, Hayat worked as a research assistant at the Department of Experimental Hematology at Klinikum rechts der Isar in Munich and as a research scientist at Philips in Germany. Hayat enjoys watching crime thrillers, cooking, and baking in her free time.

**Lijuan Xia, PhD, Senior Associate Researcher**

*Hoffman Lab, Hematology Program*

*Department of Emergency Medicine*



Lijuan Xia, PhD, graduated from the Department of Fundamental Medicine of Beijing Medical College in 1985. Following graduation, she worked in the Institute of Pharmaceutical, Chinese Academy of Medical Sciences, and focused on viral biochemistry and anti-tumor drug development studies. Dr. Xia has more than 30 years of experience in cancer target discovery study. In 2012, she joined the lab of Ronald Hoffman, MD, as a senior associate researcher to participate in research funded by the Leukemia Lymphoma Society, National Institutes of Health grant (MPD Research Consortium, Project 3), the Centers for Disease Control and Prevention, and multiple pharmaceutical grants. Dr. Xia is skilled in the evaluation of targeted therapies using protein and enzyme assays, cell-based assays, molecular profiling, immunoassays, and animal models. As an experienced researcher, she collaborates with investigators in the development of new experiments and research techniques. She also manages and maintains the cell lines and clinical samples and lab supplements.

**Marina Planoutene, MS, Senior Associate Researcher**

*Hoffman Lab, Hematology Program*

*Department of Emergency Medicine*

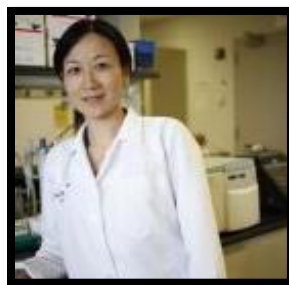


Marina Planoutene received her MS degree with honors in biochemistry from Lomonosov Moscow State University, Moscow. Her first position in the United States was in entomology, where she improved a method of re-mounting tiny parasitic wasps, which resulted in a publication. Later, she had extensive experience in cancer research at the Chao Family Comprehensive Cancer Center, at the University of California, Irvine, and Icahn Mount Sinai under supervision of Randall F. Holcombe, MD, MBA. She has contributed to understanding of the role and mechanisms of Wnt signaling in colorectal cancer development, resistance to chemotherapy, and cancer prevention. She is working to better understand the relationships among erythropoiesis, inflammation, and iron regulation in the lab of Yelena Ginzburg, MD. Her main responsibilities include creating mouse models for different blood disorders to understand mechanisms of disorders and possible treatments. Outside of work, she loves hiking in woods, watching insects and wild flowers, drawing and writing poetry, illustrating children books, knitting sweaters for her large family, collecting and studying antique Japanese enamels, cloisonné, with images of insects and wild flowers.

**Liping Yu, Senior Associate Researcher, Laboratory Manager**

*Daehn Lab, Renal Health Group*

*Department of Medicine, Nephrology*



Liping Yu graduated from Jiangxi Medical College in Chin and then received a diploma in pharmacology from Jiangxi University of Traditional Chinese Medicine. She was a head pharmacist studying herbal medicines in China. In 2001, she became a technician in the lab of Erwin Bottinger, MD, at Albert Einstein College of Medicine. She moved with the lab to Mount Sinai School of Medicine in 2004. Currently she is a senior associate researcher and lab manager, and is involved in projects studying chronic kidney disease biomarkers and podocytes-endothelium crosstalk.