Speaker Biographies

Celebrating the Scientific Legacy of Dr. Jacob I. Sznajder

Tuesday, September 1, 2026 | Simpson Querrey Auditorium

Susan E. Quaggin, MD, FRCP(C), FASN



Irving S. Cutter Professor of Medicine; Professor of Medicine (Nephrology and Hypertension), Chair, Department of Medicine; Director, Feinberg Cardiovascular and Renal Research Institute, Department of Medicine, Division of Nephrology and Hypertension, Northwestern University Feinberg School of Medicine

Susan E. Quaggin, MD, is an internationally recognized nephrologist and vascular biologist, Dr. Quaggin has made seminal contributions to understanding kidney development, glomerular disease, and the molecular pathways that maintain the specialized blood vessels essential for organ function. Dr. Quaggin earned her medical degree and completed training in internal medicine and nephrology at the University of Toronto. She subsequently pursued postdoctoral training in the molecular biology of kidney development at Yale University and in complex mouse genetics in Janet Rossant's laboratory at the University of Toronto. She joined Northwestern in 2013 and was appointed Chair of Medicine in 2023. Her laboratory investigates vascular signaling in development and disease, with particular emphasis on VEGF and Angiopoietin-Tie2 pathways. Her discoveries have advanced understanding of the glomerular filtration barrier, thrombotic microangiopathy, diabetic vascular complications, preeclampsia, and glaucoma, while identifying pathways with potential for therapeutic translation. Dr. Quaggin is a past president of the American Society of Nephrology and an elected member of the National Academy of Medicine, American Academy of Arts and Sciences, and National Academy of Inventors. Her honors include the American Heart Association Distinguished Scientist Award, the Fondation Lefoulon-Delalande Grand Prix Scientifique, and the 2024 American Society of Nephrology John P. Peters Award, recognizing her sustained contributions to nephrology, research, education, and academic leadership.

G. R. Scott Budinger, MD



Ernest S. Bazley Professor of Airway Diseases; Professor of Medicine (Pulmonary and Critical Care) and Cell and Developmental Biology, Chief, Division of Pulmonary and Critical Care Medicine; Director, Simpson Querrey Lung Institute for Translational Science, Department of Medicine, Division of Pulmonary and Critical Care Medicine, Northwestern University Feinberg School of Medicine

G. R. Scott Budinger, MD, earned his undergraduate degree in chemical engineering from Northwestern University and his medical degree from the University of Illinois Chicago. He completed residency training in internal medicine and fellowship training in pulmonary and critical care medicine at the University of Chicago Hospitals before joining the Northwestern faculty in 2000. An internationally recognized physician-scientist, Dr. Budinger investigates the cellular and molecular mechanisms that determine susceptibility to and recovery from lung injury, with particular emphasis on pneumonia and the biology of the aging lung. His laboratory integrates observations from critically ill patients with cellular and animal models to understand why aging increases vulnerability to severe pneumonia and impairs lung regeneration. His research has helped define roles for mitochondrial signaling, oxidative stress, alveolar macrophages, cellular metabolism, and proteostasis in lung injury and repair. Dr. Budinger was elected to the American Society for Clinical Investigation in recognition of his contributions to biomedical research. He has also held leadership roles in pulmonary scientific publishing, including service as Deputy Editor of the *American Journal of Respiratory and Critical Care Medicine*. In 2024, Northwestern's Medical Faculty Council recognized him as a Faculty Mentor of the Year. As Director of the Simpson Querrey Lung Institute, he leads multidisciplinary efforts to integrate fundamental lung biology, clinical investigation, and patient care to accelerate development of new therapies for lung disease.

Serpil C. Erzurum, MD



Professor of Medicine, Cleveland Clinic Lerner College of Medicine; Alfred Lerner Memorial Chair in Innovative Biomedical Research, Executive Vice President and Chief Research and Academic Officer, Cleveland Clinic

Serpil Erzurum, MD, focuses on strategic growth of enterprise-wide medical and scientific education programs; clinical, basic and translational research; and technology development to deliver the most innovative care to patients. A practicing pulmonologist and active scientist, her scientific contributions and leadership in pulmonary research have led to diagnostic and therapeutic advances in lung diseases and have helped to identify human physiologic adaptive responses to high-altitude hypoxia. She has published more than 350 peer-reviewed articles, is among the top 1% cited researchers in the world and has been the principal investigator on more than 20 federal grants, including multi-investigator program project grants and network trials. She also is a Professor of Medicine at the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University. Dr. Erzurum has earned numerous awards, including the MERIT award from the National Heart, Lung and Blood Institute. She is an elected member of the National Academy of Medicine, American Society for Clinical Investigation, and Association of American Physicians, where she served as president from 2017-2018. She also has served as chair of the Pulmonary Disease Board of the American Board of Internal Medicine. Dr. Erzurum has been honored several times by the American Thoracic Society, receiving the Elizabeth Rich Award for her contributions to mentorship and in advancing the careers of women in medicine and science, and most recently, the Robert F. Grover Award for outstanding contributions to the study of the effects of hypoxia and high altitude on pulmonary circulation. Dr. Erzurum earned her medical degree from Northeastern Ohio Universities College of Medicine and completed residency training in internal medicine at Baylor College of Medicine. She completed fellowship training at the University of Colorado Health Sciences Center and postdoctoral training at the National Heart, Lung and Blood Institute in Bethesda, Maryland.

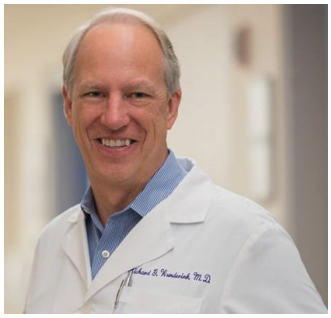
Zaher S. Azzam, MD, FESC



Professor of Medicine, Chair, Department of Internal Medicine; Director, Department of Internal Medicine, Rambam Health Care Campus; Ruth and Bruce Rappaport Faculty of Medicine, Rambam Health Care Campus and Technion-Israel Institute of Technology.

Dr. Zaher S. Azzam earned his MD from the Technion in 1987, completed subspecialty training in internal medicine and cardiology, and a research fellowship at Northwestern University focusing on alveolar epithelial function. Dr. Azzam's research spans basic and clinical science, concentrating on the cellular mechanisms of lung edema clearance, prognostic markers in heart failure (such as BNP), and the degradation of the endothelial glycocalyx (EGx) layer in ischemic heart disease. He has secured competitive grants from bodies like the Israel Science Foundation (ISF), authored over 130 peer-reviewed articles, and mentored dozens of MD, MSc, and PhD students. Beyond his clinical and research duties, Dr. Azzam has held prominent academic and national leadership positions. He served as Vice Dean for Medical Education at the Technion and currently sits on its Senate Academic Promotion Committee. On the national stage, he serves on Ministry of Health committees, including health initiatives for the Arab community, and chairs the subcommittee for Israel's national licensing exam in internal medicine. Internationally, he served on the editorial board of the *American Journal of Respiratory and Critical Care Medicine*. His career achievements have been recognized with 14 Technion teaching excellence awards, the Rotary Paul Harris Fellow award, and the Israeli Medical Association Scientific Council Award for Excellence in Medical Education.

Richard G. Wunderink, MD



Professor of Medicine (Pulmonary and Critical Care), Department of Medicine, Division of Pulmonary and Critical Care Medicine, Northwestern University Feinberg School of Medicine and Northwestern Memorial Hospital

Dr. Wunderink received his M.D. from Indiana University and completed his Pulmonary and Critical Care Medicine fellowship at Henry Ford Hospital in Detroit. He was recruited to Northwestern University in 2003. Dr. Wunderink studies severe pulmonary infections and sepsis, with emphasis on community-acquired and ventilator-associated pneumonia. He is the Principal Investigator of the National Institute of Health supported Super-SCRIPT (Successful Clinical Response In Pneumonia Therapy, SCRIPT^2) Systems Biology Center, which has been instrumental in advancing our understanding of severe pneumonia through an innovative, integrated systems biology approach. By combining cutting-edge multi-omics technologies, clinical phenotyping, and machine learning, SCRIPT^2 explores the complex host/pathogen interactions that influence the clinical course of pneumonia. With a focus on both community-acquired pneumonia (CAP) and hospital-acquired/ventilator-associated pneumonia (HAP/VAP), the center seeks to identify biomarkers and therapeutic targets that can improve patient outcomes and inform clinical decision-making. Dr. Wunderink was named to the 2023 and 2024 "Highly Cited Researchers" list, published by Clarivate Analytics. The annual list identifies investigators who have demonstrated significant influence in their field through the publication of highly cited publications over the preceding eleven years. He recently received the peer-awarded Gary A. Mecklenburg Distinguished Physician Award, one of Northwestern Memorial Hospital's most prestigious honors, presented annually to a physician who exemplifies professionalism, humanism, and a strong commitment to enriching the lives of others through research, teaching, patient care, or community outreach

Istvan Vadasz, MD, PhD



Professor and Vice Chair, Department of Internal Medicine; Professor of Lung Failure, Deputy Director, Department of Internal Medicine; Head, Medical Intensive Care Unit, Department of Internal Medicine II; Universities of Giessen and Marburg Lung Center; Cardio-Pulmonary Institute; German Center for Lung Research, Justus Liebig University Giessen and University Hospital Giessen and Marburg

István Vadász, MD, earned his medical degree from the University of Szeged in Hungary and subsequently pursued clinical and research training in pulmonary and critical care medicine. An important period in his scientific development occurred in 2005, when he trained at Northwestern University under the mentorship of Jacob I. Sznajder, MD. This experience contributed to his longstanding interest in alveolar epithelial biology, ion transport, and the mechanisms by which abnormalities in gas exchange influence lung injury and repair. Dr. Vadász's research focuses on acute respiratory distress syndrome (ARDS), alveolar epithelial dysfunction, pulmonary edema, and the biological consequences of hypercapnia. A major theme of his work has been establishing that elevated carbon dioxide is not simply a physiological consequence of respiratory failure but also a biologically active signal capable of altering cellular function. His studies have defined mechanisms through which hypercapnia disrupts alveolar epithelial ion transport, including effects on Na,K-ATPase trafficking, protein homeostasis, and alveolar fluid clearance. Combining mechanistic investigation with his clinical experience as an intensivist, Dr. Vadász has helped advance understanding of how the cellular response to hypercapnia influences acute lung injury and recovery. His continuing scientific collaborations reflect the lasting influence of his training with Dr. Sznajder and their shared interest in translating fundamental alveolar epithelial biology to critical illness.

Ankit Bharat, MD



Harold L. and Margaret N. Method Professor of Surgery; Professor of Surgery (Thoracic Surgery) and Medicine (Pulmonary and Critical Care), Chief, Division of Thoracic Surgery; Executive Director, Canning Thoracic Institute; Director, Lung Transplant Program, Department of Surgery, Division of Thoracic Surgery, Northwestern University Feinberg School of Medicine and Northwestern Medicine

Ankit Bharat, MD, earned his medical degree from Christian Medical College in Vellore, India, and completed general surgery and cardiothoracic surgery training at Washington University in St. Louis. He joined Northwestern in 2013, where he developed a multidisciplinary clinical and research program spanning advanced lung disease, thoracic oncology, lung transplantation, and respiratory failure. Early in his Northwestern career, Jacob I. Sznajder, MD, served as a mentor on Dr. Bharat's 2014 NIH K08 career development award, helping foster his development as an independent physician-scientist. Their mentorship evolved into a longstanding scientific collaboration connecting pulmonary epithelial biology, lung injury, and thoracic surgery. Dr. Bharat's research focuses on lung preservation, transplant immunology, airway biology, and mechanisms of lung injury and repair. His laboratory has made important contributions to understanding immune mechanisms underlying primary graft dysfunction and chronic lung transplant rejection. During the COVID-19 pandemic, Dr. Bharat pioneered lung transplantation for patients with irreversible COVID-19-associated lung injury, performing the first such transplant in the United States and helping establish transplantation as a treatment for carefully selected patients with otherwise fatal respiratory failure. An elected member of the American Society for Clinical Investigation, Dr. Bharat exemplifies the integration of mechanistic discovery, surgical innovation, and translational medicine.

Arturo Briva, MD, PhD



Professor of Intensive Care Medicine, Dean, Faculty of Medicine, Department of Intensive Care Medicine, Faculty of Medicine, Universidad de la Republica, Montevideo, Uruguay

Arturo Briva, MD, PhD, has built his career at the intersection of critical care medicine, respiratory physiology, and translational research. He entered Udelar's Faculty of Medicine in 1989 and received his MD in 1997. He subsequently completed residency training in intensive care medicine at Hospital Maciel, becoming a certified intensivist in 2002, and earned a PhD in Medical Sciences. Dr. Briva's scientific work focuses on the mechanisms underlying acute lung injury and respiratory failure, particularly ventilator-induced lung injury, hypercapnia, alveolar epithelial dysfunction, pulmonary surfactant biology, and lung-protective mechanical ventilation. His translational research training included three years as a Research Fellow at Northwestern University in Chicago, where his work contributed to studies of alveolar epithelial cell biology and the effects of elevated carbon dioxide on Na,K-ATPase regulation and alveolar function. In addition to his clinical and investigative activities, Dr. Briva has played an important role in developing graduate biomedical research education in Uruguay, including leadership of Udelar's Biomedical Research Program (ProInBio) for master's and doctoral training. He has also served on national scientific and university committees and contributed to Uruguay's Honorary Scientific Advisory Group during the COVID-19 pandemic. In December 2022, he was elected Dean of the Faculty of Medicine, extending a career distinguished by integration of clinical medicine, research, education, and academic leadership.

Laura A. Dada, PhD



Research Professor of Medicine (Pulmonary and Critical Care), Department of Medicine, Division of Pulmonary and Critical Care Medicine, Northwestern University Feinberg School of Medicine

Laura A. Dada, PhD, earned her PhD from the School of Sciences at the University of Buenos Aires in Argentina and has established a distinguished research career focused on the cellular and molecular mechanisms that regulate alveolar epithelial function during acute lung injury and repair. Dr. Dada's research has made important contributions to understanding the mechanisms responsible for alveolar fluid clearance, a critical process for resolving pulmonary edema in patients with acute lung injury and acute respiratory distress syndrome (ARDS). Her work has focused particularly on regulation of the Na,K-ATPase in alveolar epithelial cells and how environmental and metabolic stresses—including hypoxia and elevated carbon dioxide (hypercapnia)—alter epithelial ion transport and lung function. More recently, Dr. Dada has investigated how hypercapnia influences alveolar epithelial repair and regeneration. Her work demonstrated that elevated CO_2 alters stromal Wnt signaling, reduces β-catenin activity, and limits proliferation of alveolar type 2 epithelial cells, providing mechanistic insight into how hypercapnia may adversely affect recovery from severe lung injury. Throughout her career at Northwestern, Dr. Dada has contributed to a highly collaborative program in lung biology, working closely with investigators studying epithelial cell biology, cellular metabolism, acute lung injury, and ARDS.

Paul T. Schumacker, MEng, PhD, ATSF, FERS



Patrick M. Magoon Distinguished Professor in Neonatal Research; Professor of Pediatrics (Neonatology), Cell and Developmental Biology, and Medicine (Pulmonary and Critical Care), Director of Basic and Preclinical Science, Stanley Manne Children's Research Institute, Department of Pediatrics, Division of Neonatology; Departments of Cell and Developmental Biology and Medicine, Northwestern University Feinberg School of Medicine and Ann & Robert H. Lurie Children's Hospital of Chicago

Paul T. Schumacker, PhD, MEng, earned his BS and Master of Engineering in Biomedical Engineering from Rensselaer Polytechnic Institute and his PhD in Physiology from Albany Medical College. He subsequently completed research fellowship training in respiratory physiology at the University of California, San Diego. An internationally recognized investigator in mitochondrial biology and oxygen sensing, Dr. Schumacker has made seminal contributions to understanding how cells detect and respond to changes in oxygen availability. His laboratory helped establish the concept that mitochondria function as cellular oxygen sensors, generating reactive oxygen species during hypoxia that activate signaling pathways controlling transcriptional and physiological responses. This work has provided fundamental insights into hypoxic pulmonary vasoconstriction, pulmonary hypertension, cellular metabolism, and adaptation to low-oxygen environments. His research program extends these principles to developmental biology, neonatal disease, cardiovascular disease, and cancer. Current investigations examine mitochondrial redox signaling in pulmonary vascular remodeling, metabolic regulation of cell proliferation, and mechanisms governing cardiomyocyte regeneration. Through decades of interdisciplinary investigation, mentorship, and scientific leadership, Dr. Schumacker has helped define mitochondrial signaling as a fundamental mechanism linking oxygen availability to cellular function in both normal physiology and disease.

Gokhan M. Mutlu, MD



Professor of Medicine, Chief, Section of Pulmonary and Critical Care Medicine; Director, NIH T32 Research Training in Respiratory Biology, Department of Medicine, Section of Pulmonary and Critical Care Medicine, University of Chicago Pritzker School of Medicine

Gökhan M. Mutlu, MD, earned his medical degree from Istanbul University Cerrahpaşa Faculty of Medicine and completed clinical training in internal medicine, pulmonary disease, and critical care medicine. An important stage of his academic career was spent at Northwestern University Feinberg School of Medicine, where he served on the faculty in Pulmonary and Critical Care Medicine. During his Northwestern tenure, his research examined mechanisms regulating alveolar epithelial sodium transport and fluid clearance, including the role of β-adrenergic receptor signaling in the injured lung. This work helped establish the foundation for his subsequent investigations of acute lung injury and ARDS. Dr. Mutlu's current research program examines the mechanisms governing the development, resolution, and repair of acute lung injury and pulmonary fibrosis, with particular emphasis on macrophage and fibroblast metabolism, mitochondrial function, and cellular responses to environmental injury. His laboratory has also made important contributions to understanding how particulate-matter air pollution induces pulmonary inflammation and contributes to cardiovascular disease. An elected member of the American Society for Clinical Investigation, Dr. Mutlu combines clinical leadership, mechanistic investigation, and mentorship. As Section Chief and T32 Director, he plays an important role in advancing pulmonary and critical care research and developing the next generation of physician-scientists and respiratory biologists.

Jing Liu, PhD



Associate Professor of Surgery, Department of Surgery; Translational Oncology Program, University of Illinois Cancer Center, University of Illinois Chicago College of Medicine

Jing Liu, PhD, investigates the molecular mechanisms regulating inflammation and their contributions to lung disease and cancer, with the goal of identifying pathways that can be translated into novel therapeutic strategies. An important period of Dr. Liu's scientific career was spent at Northwestern University Feinberg School of Medicine, Division of Pulmonary and Critical Care Medicine where she collaborated with Drs. Budinger, Jacob I. Sznajder, and other investigators studying the molecular mechanisms of lung injury, inflammation, and repair. A major focus of Dr. Liu's research is understanding how inflammation resolves. Her laboratory identified the transcriptional regulator Miz1 (Myc-interacting zinc-finger protein) as an important mediator of inflammation resolution through epigenetic regulation of C/EBPδ and NF-κB signaling, with implications for chronic obstructive pulmonary disease, asthma, and acute respiratory distress syndrome. Her group has also identified JNK2 as a critical "fine-tuner" of inflammasome activity. By promoting mitophagy—the selective removal of damaged mitochondria—JNK2 contributes to immune homeostasis and limits excessive inflammatory responses. Dr. Liu has extended these fundamental discoveries into translational oncology, investigating connections between dysregulated inflammation, tumor development, and antitumor immunity in lung and gastrointestinal cancers. She received the Respiratory Health Association Lung Cancer Research Award to investigate whether targeting Miz1 can inhibit lung tumor growth while enhancing immune-cell infiltration. Her research integrates molecular biology, inflammation, mitochondrial homeostasis, and cancer biology to identify new therapeutic opportunities across pulmonary disease and cancer.

Cara J. Gottardi, PhD



Professor of Medicine (Pulmonary and Critical Care), Department of Medicine, Division of Pulmonary and Critical Care Medicine, Department of Cell and Developmental Biology, Northwestern University Feinberg School of Medicine

Cara J. Gottardi, PhD, earned her PhD from Yale University and subsequently conducted research at Memorial Sloan Kettering Cancer Center. A cell biologist with expertise in epithelial biology, Dr. Gottardi studies cell-cell adhesion in health and disease, focusing on how cadherin-catenin complexes integrate mechanical force with cellular signaling and transcription. She was recruited to Northwestern in 2004, where she established a research program investigating how epithelial junctions, cytoskeletal dynamics, and Wnt/β-catenin signaling influence tissue integrity, cell fate, and pulmonary disease. Her laboratory has made important contributions to understanding how catenins coordinate mechanical cell adhesion with Wnt-dependent gene regulation and how disruption of these processes contributes to abnormal tissue repair, fibrosis, asthma, and cancer. In addition to her scientific accomplishments, Dr. Gottardi has a longstanding commitment to graduate education and mentorship. She served as Director of Northwestern's Walter S. and Lucienne Driskill Graduate Program in Life Sciences and has closely mentored eight graduate students, including four PhD and four MD/PhD trainees, as well as a postdoctoral fellow. Most have received competitive fellowships or independent funding, and former postdoctoral trainees have pursued careers in industry and academic clinical investigation. She also has an extensive record of teaching and service to Northwestern graduate students. Dr. Gottardi's contributions to pulmonary cell biology have been recognized by the American Thoracic Society with the Respiratory Cell and Molecular Biology Assembly's Recognition Award for Scientific Accomplishments.

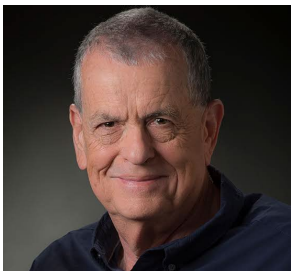
Benjamin D. Singer, MD



Lawrence Hicks Professor of Pulmonary Medicine; Associate Professor of Medicine (Pulmonary and Critical Care) and Biochemistry and Molecular Genetics, Vice Chair for Research, Department of Medicine, Department of Medicine, Division of Pulmonary and Critical Care Medicine; Department of Biochemistry and Molecular Genetics, Northwestern University Feinberg School of Medicine

Benjamin D. Singer, MD, earned his degree from the Feinberg School of Medicine, where he also completed residency and chief residency in internal medicine. He then undertook fellowship training in pulmonary and critical care medicine at the Johns Hopkins University School of Medicine before being recruited by Dr. Sznajder back to Feinberg as a faculty member in the Departments of Medicine & Biochemistry and Molecular Genetics in 2015. Dr. Singer's laboratory asks a key question that took on added importance during the COVID-19 pandemic: *How can we promote resolution of lung inflammation and repair of lung damage?* His research program is thematically centered on how epigenetic and metabolic mechanisms control the immune response to pneumonia-induced lung injury. His work leverages emerging disruptive technologies, including machine learning/AI methodologies, to probe multi-omics data sets. He has found how a subset of T cells known as regulatory T cells orchestrates resolution and repair, discovering epigenetic mechanisms—chiefly those that involve DNA methylation—that govern regulatory T cell identity and function. His studies led to clinical trials for patients with severe pneumonia and other inflammatory disorders, and he has gone on to apply his findings to the fields of aging, metabolism, autoimmunity, immunodeficiency, and cancer. He was elected to the ASCI in 2024 and serves on the ASCI Council.

Aaron Ciechanover, MD, DSc



Distinguished Research Professor; David and Janet Polak Chair in Life Sciences, Founder, Rappaport Technion Integrated Cancer Center, Ruth and Bruce Rappaport Faculty of Medicine and Research Institute; Rappaport Technion Integrated Cancer Center, Technion-Israel Institute of Technology

Aaron Ciechanover, MD, DSc, is Distinguished Research Professor and David and Janet Polak Chair in Life Sciences at the Technion–Israel Institute of Technology and founder of the Rappaport Technion Integrated Cancer Center. He earned his MD from Hebrew University–Hadassah Medical School and his DSc from the Technion, where, as a graduate student with Avram Hershko and in collaboration with Irwin Rose, he helped discover the ubiquitin-mediated pathway for regulated intracellular protein degradation. Their pioneering work established that covalent attachment of ubiquitin marks cellular proteins for degradation and revealed a fundamental mechanism governing protein quality control and cellular homeostasis. For these discoveries, Professors Ciechanover, Hershko, and Rose shared the 2004 Nobel Prize in Chemistry. Dr. Ciechanover's research continues to investigate the ubiquitin-proteasome system and its roles in cancer, neurodegeneration, immune and inflammatory disorders, and therapeutic response. Dr. Ciechanover and Dr. Sznajder are life-long friends and colleagues. Their collaborative research brought together Dr. Ciechanover's expertise in ubiquitin biology and Dr. Sznajder's work in alveolar epithelial physiology, demonstrating how ubiquitination regulates Na,K-ATPase trafficking and degradation during hypoxia and under homeostatic conditions. This collaboration exemplifies their shared commitment to translating fundamental cell biology into understanding of human disease. Dr. Ciechanover's honors include the Albert Lasker Award for Basic Medical Research, Israel Prize in Biology, and EMET Prize. He is an elected foreign associate of the U.S. National Academy of Sciences and a member of numerous international scientific academies.

Michael A. Matthay, MD



Professor, Medicine and Anesthesia, Senior Associate Cardiovascular Research Institute, Associate Director Critical Care Medicine, University of California, San Francisco

Michael A. Matthay, MD, is Professor of Medicine and Anesthesia and Senior Associate in the Cardiovascular Research Institute at the University of California, San Francisco (UCSF). An internationally recognized physician-scientist in pulmonary and critical care medicine, Dr. Matthay has devoted his career to understanding the pathogenesis and treatment of acute lung injury and acute respiratory distress syndrome (ARDS). Dr. Matthay earned his undergraduate degree from Harvard University and his MD from the University of Pennsylvania School of Medicine. He completed internal medicine training at the University of Colorado Medical Center, followed by pulmonary, critical care, and research fellowship training at UCSF and the Cardiovascular Research Institute. Dr. Matthay's research encompasses alveolar epithelial and endothelial transport, pulmonary edema, sepsis-associated lung injury, and mechanisms of lung injury and repair. His laboratory made seminal contributions to understanding alveolar fluid clearance, demonstrating the importance of active epithelial sodium and fluid transport in the resolution of pulmonary edema and recovery from ARDS. His research has also advanced understanding of endothelial and epithelial barrier dysfunction in acute respiratory failure. More recently, his translational program has investigated cell-based therapies, including mesenchymal stromal cells, as potential treatments for ARDS. He has led influential translational studies and clinical trials aimed at improving outcomes in patients with acute respiratory failure. A dedicated mentor, Dr. Matthay has trained generations of pulmonary and critical care investigators. His honors include the American Thoracic Society Scientific Accomplishments Award and Edward Livingston Trudeau Medal, the American Physiological Society Julius H. Comroe Jr. Distinguished Lectureship, and the UCSF Lifetime Achievement in Mentoring Award. He is an elected member of the Association of American Physicians.

Karen M. Ridge, PhD



Ernest S. Bazley Professor of Pulmonary Sciences; Professor of Medicine (Pulmonary and Critical Care) and Cell and Developmental Biology, Division of Pulmonary and Critical Care Medicine; Department of Cell and Developmental Biology, Northwestern University Feinberg School of Medicine

Karen M. Ridge, PhD, earned her doctorate from the University of Illinois Chicago under Jacob I. Sznajder, MD, beginning a scientific collaboration that has continued throughout her career. She completed postdoctoral training with Robert D. Goldman, PhD, in Northwestern's Department of Cell and Molecular Biology before joining the Department of Medicine faculty in 2001. Dr. Ridge's research focuses on the cellular and molecular mechanisms underlying lung recovery and repair after severe viral infection. Her laboratory examines how interactions among alveolar epithelial cells, macrophages, and regulatory T cells determine whether injured lungs successfully regenerate or develop persistent inflammation and maladaptive repair. Her work has identified the intermediate filament vimentin as an important regulator of innate and adaptive immune signaling. She is Principal Investigator of an NHLBI Program Project Grant investigating mechanisms that promote lung repair after severe viral pneumonia. A major focus of Dr. Ridge's career is training the next generation of physician-scientists. As Program Director of the NIH T32 Northwestern University Lung Sciences Training Program, she leads multidisciplinary research training for adult and pediatric pulmonary physician-scientists and basic scientists across Northwestern Medicine and Ann & Robert H. Lurie Children's Hospital of Chicago. She also directs the Kimberly Querrey Summer Research Program, which provides hands-on research training and mentorship for high school and undergraduate students pursuing STEM. Established by Dr. Sznajder approximately 35 years ago, the program reflects their shared commitment to cultivating future scientists.