New Cardiovascular Division Chief Named

Sumanth D. Prabhu, MD, an internationally recognized expert in how immunity and inflammation contribute to heart failure, has been named the new Chief of the Cardiovascular Division in the Department of Medicine at Washington University School of Medicine. Upon joining our division on September 1, 2021, Dr. Prabhu also will serve as the Tobi- as and Hortense Lewin Distinguished Professor of Cardiovascular Diseases at the School of Medicine and cardiologist-in-chief at Barnes-Jewish Hospital.

Dr. Prabhu currently is the director of the Division of Cardiovascular Disease and the Mary G. Waters Chair of Cardiovascular Medicine at the University of Alabama at Birmingham.

“I am honored to lead the Cardiovascular Division at Washington University, and build on the outstanding work of past and current faculty to grow the clinical, research, and educational programs in cardiology," said Dr. Prabhu. "I am looking forward to working with institutional leaders, faculty, and staff to maintain and raise Washington University’s national status as an elite academic cardiovascular program.”

The School of Medicine conducted an extensive search for a new division chief after Douglas L. Mann, MD, a renowned heart failure expert, stepped down in 2019 after leading the division for 10 years. In the interim, Gregory A. Ewald, MD, Chief of Clinical Cardiology and Director of the Section of Heart Failure and Cardiac Transplantation, has led the division.

“The faculty are excited that Dr. Prabhu will be joining us as the next Division Chief," said Dr. Ewald. "He brings a wealth of leadership experience and research interests that align very well with our current faculty. I look forward to working with him to further expand our outstanding clinical programs.”

Dr. Prabhu’s research focuses on understanding the role that the immune system plays in both acute and chronic heart failure. He has made seminal contributions to the field of inflammation and immune mediated heart disease through basic, clinical and translational research and has identified key components of the immune mediated drivers of cardiac remodeling in chronic heart failure, and the effects of innate and adaptive immunomodulation on cardiac outcomes and remodeling in heart failure. He currently is investigating how disruptions in the day-night circadian rhythms of macrophages promote inflammation in heart failure, and how such immune cells might be used in the development of new therapies for various types of heart failure. Dr. Prabhu also collaborates with colleagues regarding treatment protocols for patients with heart failure.
We are delighted to welcome Sumath Prabhu, MD, as the new Chief of the Cardiovascular Division at Washington University School of Medicine. He joins the division amid an amazing era of outstanding research by our faculty members who truly advance both the understanding and treatment of cardiovascular disease.

From examining the relationship between COVID-19 and heart problems, to evaluating new devices for valve repair, and guiding the development of innovative cardiac MR technology, we are committed to supporting and encouraging novel investigations, clinical trials, and new ideas that ultimately will improve the outcomes of patients with varying cardiac issues. Earlier this year, we were leaders in the launch of a new international research network to study the biological processes that trigger inflammation after heart attacks. This consortium, called the Inflammatory-Fibrosis Axis in Ischemic Heart Failure: translating mechanisms into new diagnostics and therapeutics network (IMMUNO-FIB HF), involves both European and North American scientists. The North American research effort is led by Washington University radiologist Robert Gropler, MD, along with co-principal investigators Kory J. Lavine, MD, PhD, one of our cardiovascular researchers, and radiologist Yongjian Liu, PhD. Lavine leads the team’s effort to identify immune cell types and molecules that mediate harmful inflammatory responses.

As we look ahead to Dr. Prabhu joining us, I humbly say that it has been a privilege and an honor to have served as the interim chief of this division since 2019. I’m proud of all that we have accomplished — even through the COVID-19 pandemic — and am excited to have had a part in expanding our division’s faculty as well as in enhancing our patient care, research and education activities.

Dr. Prabhu is board certified in internal medicine, cardiovascular disease, and advanced heart failure and transplant cardiology. He completed a cardiology fellowship at the University of Texas Health Science Center in San Antonio, where he later joined the faculty. Before being recruited to the University of Alabama at Birmingham, he also served on the faculty of the University of Louisville.

He is a member of the American Society for Clinical Investigation, the American Clinical and Climatological Association, and the Association of University Cardiologists. He is president of the Southern Society for Clinical Investigation, and he serves on the scientific committee of the Sarnoff Cardiovascular Research Foundation.

“I want to thank Dr. Mann and Dr. Ewald for their past leadership of the division, and Dr. Fraser for her trust in me as the next chief of the storied cardiology program at Washington University,” added Dr. Prabhu. “I am excited to steward the program during its next phase of growth.”

If you are interested in making a donation to the Cardiovascular Division, please contact Rachel A. Hartmann in the Washington University Medical Alumni and Development office at: 314-935-9715 or rachel_hartmann@wustl.edu

Washington University in St. Louis
Office of Medical Alumni and Development
Attn: Rachel A. Hartman
Campus Box 1247
7425 Forsyth Blvd.
St. Louis, MO 63105

An international team of researchers, including scientists at Washington University School of Medicine, has formed a network to study the role of inflammation in heart disease, with a goal of finding new therapies to improve recovery after heart attacks. (Image: Yongjian Liu, Robert Gropler and Kory Lavine)

Innovative 3D Tissue Models for Cardiovascular Research

We now have small 3D tissue models for cardiovascular development and disease; metabolic rhythm alterations as a cause for heart disease related to obesity; and integrated cellular and tissue engineering models of heart disease.

Dr. Prabhu is board certified in internal medicine, cardiovascular disease, and advanced heart failure and transplant cardiology. He completed a cardiology fellowship at the University of Texas Health Science Center in San Antonio, where he later joined the faculty. Before being recruited to the University of Alabama at Birmingham, he also served on the faculty of the University of Louisville.

He is a member of the American Society for Clinical Investigation, the American Clinical and Climatological Association, and the Association of University Cardiologists. He is president of the Southern Society for Clinical Investigation, and he serves on the scientific committee of the Sarnoff Cardiovascular Research Foundation.

“I want to thank Dr. Mann and Dr. Ewald for their past leadership of the division, and Dr. Fraser for her trust in me as the next chief of the storied cardiology program at Washington University,” added Dr. Prabhu. “I am excited to steward the program during its next phase of growth.”
Fellowship Program Update
Abhinav Diwan, MD, FACC, FAHA Associate Program Director

For the ninth consecutive year, our Fellowship Training Program has received an NIH-funded T32 “Principles in Cardiovascular Research” Training Grant to support the training and research efforts of outstanding young investigators in our program. This grant, as well as a T32 for “Integrative and System Biology of Cardiovascular Diseases,” have been “jewels in the crown” in our Division, having funded the development of numerous scientists and physician-scientists who have emerged as thought leaders in cardiovascular medicine and who have made discoveries that improved the outcomes of patients with cardiovascular disease. Many have become national and international leaders in academia; several have established their own independent research programs here at the School of Medicine (e.g. Babak Razani, Kory Lavine, Joel Schilling, Ali Javaheri, Sandor Kovacs and Sharon Cresci).

We are amid a wave of success with our latest trainees, with three successfully obtaining NIH Career Development (K) Awards. Four other trainees have their applications under current review and two more are in the process of submitting applications. These awards, which provide both salary and project support, are prestigious and competitive. Our success has been the result of years of dedicated efforts by the Division and Department of Medicine leadership to nurture research programs and academic faculty and establish a supportive environment with state-of-the-art resources. We also have made concerted efforts to expand diversity, with 40 percent of cardiology fellows and 27 percent of T32 trainees being women or individuals from under-represented minorities.

In just the past year, six former trainees have joined our faculty. We believe our success in attracting trainees and faculty to our Division is because of our continuous investment in resources and time to offer the best environment in which to learn, investigate, and practice.

Alumni Update
Sanjiv M. Narayan, MD, PhD
Fellow, Cardiology, 1999; Electrophysiology, 2001

During his fellowship at Washington University School of Medicine, Dr. Narayan received an NIH K23 award and subsequently moved to the University of California to head the Electrophysiology and Arrhythmia Service at the Veterans Affairs San Diego Healthcare System and serve as co-director of the Cardiac Electrophysiology Section at UC San Diego. In 2014, he joined Stanford University and now oversees two very active arrhythmia programs. The Stanford Arrhythmia Center comprises more than 100 faculty from the Schools of Medicine, Engineering and Computer Science who collaborate on investigations related to atrial fibrillation and life-threatening ventricular arrhythmias to enhance the understanding and care of these patients. The Atrial Fibrillation Program performs over 400 AF ablations annually, and conducts several IRB-approved studies. Dr. Narayan also directs the NIH R01-funded Computational Arrhythmia Research Laboratory, using bioengineering and computational approaches to develop novel therapeutic strategies for patients with complex arrhythmias. This follows the trajectory he started at Wash U.

Favorite Fellowship Memories: “I chose WU specifically to do EP and bioengineering research with Michael Cain (also Chief of Division) and Joseph Smith, MD PhD. This has become the backbone of my career. WU was outstanding, with amazing clinical role models such as Marye Cleve, Mitch Faddis, Greg Ewald, Joe Rogers, Ben Barzilai, Victor Davila, Alan Braverman (and more!). My classmates were great, and many remain at WU (Andy Kates, Lisa de Las Fuentes and others). We worked hard and played hard - it was a great social era in St Louis! Pope John Paul II visited in 1999 and Ben Barzilai arranged the schedule so that many of us could see him drive by. We saw Mark McGwire hit the home run record. We ate lots of toasted ravioli and frozen custard, and relaxed in the Central West End and Clayton after call weeks. Some of the best days of my life!”

Favorite Leisure Activities: “I am married to my soulmate (Sujata Narayan, MD, family practitioner) and we have 3 terrific children. We spend time together listening to music, learning to play the piano, swimming, and biking.”

Departing Fellows/Advanced Fellowships
We congratulate the following fellows for completing their training with the Cardiovascular Division and heading to the next phase of their careers:

Ankit Bhatia, MD
The Christ Hospital Cincinnati, OH
Mark Gdowski, MD
St. Luke’s Hospital St. Louis, MO
Rachita Navara, MD
Electrophysiology Fellowship University of California San Francisco, CA

The following fellows move to Advanced Fellowships:

Advanced Heart Failure
Rahul Chhana, MD
Daniel Fox, MD, PhD
Critical Care
Jonathan Wolfe, MD
Electrophysiology
Krasimira (Krissy) Mikhailova, MD
Breck Sandvall, MD

Interventional Cardiology
Samuel Lindner, MD
Christian McNeely, MD

Several fellows also are joining our faculty! See page 4.
The Cardiovascular Division welcomes the following new faculty:

**Rugheed Ghadban, MD**
Washington University School of Medicine
Electrophysiology

**Farhan Katchi, MD**
Allegheny General Hospital
Pittsburgh, PA
General Cardiology, Imaging & Aortic Diseases

**Prashanth Thakker, MD**
Washington University School of Medicine
General Cardiology, Interventional Cardiology & Education

**Erica Young, MD**
Washington University School of Medicine
General Cardiology & Genetics of Cardiovascular Disease

**J. Gmerice Hammond, MD, MPH**
Washington University School of Medicine
General Cardiology, Hypertension and Health Policy & Health Inequities Research in Cardiovascular Disease Quality and Outcomes

**Jesus Jimenez, MD, PhD**
Washington University School of Medicine
Cardio-Oncology & Cardiovascular Toxicities in Cancer Immunotherapy

**Benjamin Kopecky, MD, PhD**
Washington University School of Medicine
Advanced Heart Failure, Cardiac Transplant & Graft Dysfunction & Acute Rejection

Douglas L. Mann, MD, the Tobias and Hortense Lewin Professor of Medicine in the Division of Cardiology, and Professor of Cell Biology & Physiology, has been inducted as a Fellow into the American Association for the Advancement of Science (AAAS). Dr. Mann is the former chief of the Cardiovascular Division and is recognized for his long-standing research into the molecular and cellular basis of heart failure. In welcoming Dr. Mann as a Fellow, the association noted his “distinguished contributions to cardiology, particularly for elucidating the role of cytokine-mediated inflammation in pathogenesis heart failure as well as for developing novel therapeutic approaches and leading clinical trials that targeted inflammation in patients with heart failure.”

Nathan Stitziel, MD, PhD, a WU cardiologist and human geneticist, has been inducted into the American Society for Clinical Investigation (ASCI). Founded in 1908, the ASCI is one of the oldest and most prestigious honor societies of physician-scientists in the country, with members elected based upon their original contributions to the understanding of human disease. Dr. Stitziel, who is a core faculty member in the Division’s Center for Cardiovascular Research, is internationally recognized for his genetic studies into the mechanisms underlying the development of cardiovascular disease. He currently leads a large whole genome sequencing project in Washington University’s McDonnell Genome Institute where he and colleagues have generated data from more than 50,000 multi-ethnic participants to identify novel genes impacting the development of coronary artery disease. He previously received the Young Physician Scientist Award from the ASCI in 2015.
RESEARCH

New Cardio-Oncology Study to Evaluate Advanced Cardiac MR Imaging to Detect Cardiac Damage

An estimated 20 percent of oncology patients will develop heart complications after treatment. Now, a study with Washington University cardiologists and cardio-oncologists will determine if an advanced cardiac MR technology is able to detect cardiotoxicity in its early stages.

“It’s known that cancer treatments such as chemotherapy, radiation and immunotherapies can cause significant damage to heart function months or even years after treatment has ended,” said Daniel Lenihan MD, Director of the Cardio-Oncology Center of Excellence in the Cardiovascular Division. “These complications include arrhythmias, arterial and venous thrombosis, myocardial infarction, myocarditis, valvular heart disease and heart failure.”

Lenihan and cardiovascular imaging specialist Gregory Lanza, MD, PhD, Director of the Consortium for Translational Research in Advanced Imaging and Nanomedicine (CTRAIN), are leading the “PROactive evaluation of function to Avoid CardioToxicity (PROACT) study to evaluate the effectiveness of MyoStrain®,” a higher resolution cardiac MR, in detecting subclinical cardiac damage earlier than standard cardiac imaging. Approximately 100 patients at high risk for cardiac damage will be enrolled in the two-year study.

“Current practices are to use blood tests to check for troponin levels, which can indicate heart damage,” said Dr. Lanza. “Cardiologists also use standard cardiac ultrasound to check cardiac function as measured by the Ejection Fraction (EF) level, which is one view of heart muscle function. These standard tests can show heart damage, but usually late in the process. We want to catch it earlier.”

Cardiac MRI is not a common diagnostic tool for patients being treated for cancer. In fact, the first such cardiac MR imaging technology in the United States debuted in Lanza’s lab about 25 years ago. Since then, Lanza, with his team including Mary Watkins, BS, RT (MR), MRSO, has focused on the development of nanotechnologies for biomedical molecular imaging and the design and development of new imaging technologies such as MyoStrain. Together with Dr. Lenihan, they are working with manufacturers to evaluate the accuracy of the technology, with a goal of enhancing automated software development and standardizing guidelines for its use.

“We know it works to give us highly accurate live imaging of cardiac function,” said Dr. Lanza. “As we further evaluate and determine its effectiveness for early detection of heart failure, I do anticipate that it will become a standard tool for use during cancer treatments.”

Adds Lenihan, “Oncologists and cardiologists need to be full collaborators. By increasing awareness of the need for cardiac monitoring throughout cancer treatment, we can minimize the risk for heart complications for oncology patients.”

New Advanced Fellowship Pathway

Aortopathy and Master Clinician Fellowship Established

A new fellowship training pathway focused on aortopathy and the mastery of clinical cardiology skills has been established in the Division. Called the Noemi and Michael Neidorff Aortopathy and Master Clinician Fellowship, the new pathway is overseen by Alan Braverman, MD, FACC, the Alumni Endowed Professor of Cardiovascular Diseases and Director of the Marfan Syndrome Clinic and the Center for Thoracic Aortic Disease. It is named to honor Michael Neidorff, chairman and chief executive officer of Centene Corporation, and his wife, who are long-time friends of Dr. Braverman and generously funded the creation of the fellowship.

“Our Marfan and Aortopathy Center serves as a major referral center and provides care for patients with conditions including Marfan syndrome, Loeys-Dietz syndrome, vascular Ehlers-Danlos syndrome, nonsyndromic heritable thoracic aortic disease, bicuspid aortic valve aortopathy, aortic dissection and unexplained aneurysm conditions,” said Dr. Braverman. “These conditions are uncommon and require a nuanced management and multidisciplinary approach. We have been a leader in the evaluation and management of these conditions for over 25 years and have the expertise to educate the next generation of leaders interested in advancing the knowledge and care of patients with these conditions.”

Andrew Lai, MD, who recently completed his residency in internal medicine at Barnes-Jewish Hospital, is the first Aortopathy and Master Clinician fellow. Said Dr. Braverman, “Our team (Cheryl Marshall, Leslie Boyer, Dana Gima, RN, and Barb Stehman, RN) and I are very excited to welcome Andrew Lai to the fellowship!”
Celebrating Retirement!

After more than four decades working together, Alan Weiss, MD, FACC, and Scott Nordlicht, MD, FACC, opened new chapters in their lives following their retirement this year from the Cardiovascular Division.

“How the time sped by,” said Dr. Nordlicht. “Even with such a short time after retirement, what I miss more than anything are my office staff, my patients, and the opportunity to help out in any way possible.”

The two physicians were beloved by their patients. “We’ve had a wonderful association together and our total focus was taking excellent care of our patients,” said Dr. Weiss.

Dr. Weiss came to Barnes-Jewish Hospital as a resident for one year after he completed service at the National Heart Institute. He then trained at the Cardiovascular Institute at the University of California in San Francisco before returning to Barnes as the last chief resident under chief Carl Moore, MD. He joined the faculty in 1973. In 2013, received the American Board of Cardiology’s Laureate Award of Excellence. He was also awarded the Outstanding Teacher in Medicine Award in 1975-1976. “I don’t think I would have accomplished this without the unwavering support of my nurse of 40 years and secretary of 30 years,” said Weiss.

Dr. Nordlicht came to St. Louis as a postdoctoral clinical cardiology fellow as a member of the first class recruited by Burton Sobel, MD. He joined the faculty in 1978. “I was the first in the Division to maintain outreach cardiology clinics in Breese and Salem, IL,” he said. “It was there that I learned about patient advocacy and the meaning of trust between patient and physician. This became my clinical focus throughout my career.” He is a multi-year honoree of the Patients’ Choice Award from the American Registry and was among the Top 10% of all medical faculty at Washington University School of Medicine for overall patient satisfaction. He also received the Sydney S. Pearl Award for Inspirational Teaching from WU School of Medicine.

Both physicians tease about working on some projects with a medical nature in retirement and want to travel and spend time with extended family. “We want to travel to see all the kids,” said Dr. Weiss. “I’ve got three children, 16 grandchildren and six great grandsons.”

On his lifelong career, Dr. Nordlicht noted, “We owe a tremendous debt of gratitude to our patients. They taught me about my profession and life itself, selflessly sharing their wisdom and patience. To have had their confidence and unmitigated trust all these years is truly humbling.”

Scott Nordlicht, MD (left) and Alan Weiss, MD, worked together for 40+ years before retiring earlier this year.