

## Arrhythmia Research Center

The goal of the new Arrhythmia Research Center at Northwestern Medicine is to dramatically improve diagnosis, treatment, and prognosis for patients with heart rhythm disorders including atrial fibrillation (AF). Currently, 6 million Americans live with AF, a complex condition that involves irregular rhythm (arrhythmia) in the top chambers of the heart (atria). This reduced blood flow can lead to blood clots in the atria that can travel from the heart to other organs, including the brain, and lead to stroke, heart failure, dementia, and death.

Northwestern Medicine is poised to lead advancements in clinical care for patients with arrhythmias, given its extensive expertise and a cardiology program ranked No. 7 in the nation by *U.S. News & World Report*. Our specialists in arrhythmias, clinical research, basic science, imaging, engineering, and epidemiology are developing approaches that will leverage existing technologies and new paradigms to improve diagnosis and therapy for arrhythmias. Rod Passman, MD, MSCE, has assembled a multidisciplinary team ready to foster new ideas and collaborations across the academic health system to make these important goals a reality.

### Philanthropic Opportunities for a Northwestern Arrhythmia Research Center

To date, we have reached 93 percent of our \$10 million endowment goal and are actively fundraising for gifts to support our endowed research and innovation fund. This support will equip the Arrhythmia Research Center with the necessary resources to make breakthrough discoveries and transform patient care.



### Did you Know?

- Atrial fibrillation (AF) is the most common sustained cardiac arrhythmia and affects an estimated 6 million individuals in the United States. It is responsible for about a quarter of all strokes and also increases the risk of heart failure, dementia, and death.
- The aging U.S. population and the rising prevalence of comorbidities such as obesity, diabetes, and hypertension are contributing to an “epidemic” of AF that may affect as many as 16 million Americans by the year 2050.
- For an otherwise healthy 40-year-old male or female, the lifetime risk of developing AF is estimated to be 1 in 4.
- The American Heart Association selected Northwestern Medicine to join a prestigious national network dedicated to studying AF. The Northwestern Medicine team is investigating how AF develops and how it causes stroke, the leading cause of serious, long-term disability in the United States.

# Rod S. Passman, MD, MSCE, FACC, FHRS

Jules J. Reingold Professor of Electrophysiology

Professor of Medicine in the Division of Cardiology

Dr. Passman is a highly regarded cardiac electrophysiologist, a clinician specializing in heart rhythm disorders. He earned his undergraduate degree in biology from the University of Pennsylvania and completed his medical degree, residency, and postdoctoral fellowship at Albert Einstein College of Medicine. Afterward, he returned to the University of Pennsylvania for additional training in cardiology, and earned a master's degree in clinical epidemiology and biostatistics. Dr. Passman joined Northwestern University Feinberg School of Medicine in 1998 as an assistant professor, was awarded the title of full professor in 2013, and became the Jules J. Reingold Professor of Electrophysiology in 2018.



A true innovator in his field, Dr. Passman is internationally recognized as a leader in arrhythmia research. As one of the first cardiac electrophysiologists to be formally trained as a clinical scientist, he has had an important role in his research focused on atrial fibrillation. He pioneered the use of implantable cardiac monitors to search for atrial fibrillation in stroke patients, a strategy that is now part of standard practice around the world. As the principle investigator of Northwestern's AHA Strategically Focused Research Network grant on AF, Dr. Passman is working with colleagues in radiology, basic science, and epidemiology to find new ways of predicting stroke in AF patients and new targets for ablation therapy. Dr. Passman is leading the use of digital technologies for AF management, including the novel use of AF-sensing smartwatches to guide the use of anticoagulants. His work in this field represents a paradigm shift in the way atrial fibrillation is managed and has the potential to forever change a critical aspect of atrial fibrillation therapy.

In addition to his clinical and research endeavors, Dr. Passman has mentored more than 75 individuals throughout his career, including undergraduates, medical students, cardiology and electrophysiology fellows, and early-stage faculty. Because of the fulfilling professional relationships that Dr. Passman has developed at Northwestern and the impact that his work has had on his patients and future generations of physicians, Dr. Passman cites his career as one of his greatest joys.

## Arrhythmia Research Center Faculty

Rishi Arora, MD

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Bradley Knight, MD

Donald Lloyd-Jones, MD, ScM

Michael Markl, PhD

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To make a gift online to the Division of Cardiology, please visit:

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To learn more about supporting the Arrhythmia Research Center, please contact:

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