

IMPACT REPORT

Winter 2023

Joseph F. Novogratz Family Heart Rhythm Center Established with Transformational Gift

Joseph Novogratz and his family are making a transformational gift to the Minneapolis Heart Institute Foundation to accelerate and advance care for people living with heart rhythm conditions, for generations to come. The \$5 million charitable gift matches two other transformational gifts received by the Minneapolis Heart Institute Foundation (MHIF) and will establish the Joseph F. Novogratz Family Heart Rhythm Center with a mission to discover new ways to help patients with heart rhythm disorders live longer and better lives around the world.

"I've been through a lot and had the privilege of receiving great care, which led me to want to support this important research for the benefit of my family and so many other families into the future," said Joseph Novogratz a long-time supporter of MHIF. "If I can support research that continues to help doctors understand heart rhythm conditions, then this gift will make a difference in the lives of other people. I'm looking forward seeing continued innovation in my lifetime because of the amazing pace of advancing research."

"I'm grateful to Joe for allowing me to be his doctor and to care for him in an environment that allows for continued advances in how we treat heart rhythm disorders that are so prevalent," said William Katsiyannis, MD, cardiologist and researcher, Minneapolis Heart Institute Foundation and president, Allina Health Minneapolis Heart Institute®. "Every time the research team answers a question and publishes the research, it will honor this critical and transformative level of support for this important area of research."

"Patients in Minnesota and around the country will benefit from this tomorrow and for years to come and we're so grateful to the Novogratz family for this opportunity," said Dr. Jay Sengupta, MD, cardiologist and director of the MHIF Joseph F. Novogratz Family Heart Rhythm Center.

Mr. Novogratz has been a long-time supporter of the MHIF mission and received care for his own journey with atrial fibrillation, including treatments that have advanced in the last several years because of research. He is the president of Minneapolis-based IDI Distributors, a family-owned and operated company he founded in 1979 with a special



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Joseph Novogratz
(above, right) with Dr. William Katsiyannis

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Joseph F. Novogratz Family Heart Rhythm Center

Continued from front cover

mission: build an insulation distribution company that would supply the market with a wide selection of quality insulation.

Over its 40-year history, MHIF has led groundbreaking research and education across a wide spectrum of heart rhythm disorders. This new center includes MHIF's established work in the Genetic Arrhythmia Center that was created to think big about how to treat individuals of all ages – young and old – with rare genetic heart conditions that put them at risk of sudden death. Publications in leading cardiovascular journals has shared the life-saving findings with physicians around the world to advance care for all families facing genetic arrhythmias.

The Joseph F. Novogratz Family Heart Rhythm Center will accelerate innovative research in three areas:

- **Sudden cardiac death** - a leading cause of death in the U.S. typically associated with dangerous heart rhythms; the objective is to identify genetic risk factors to prevent this from happening in the future
- **Atrial fibrillation** - the most common arrhythmia as people age; there is a need for ongoing research of new technologies and approaches to treat and cure this arrhythmia
- **Cardiac implantable devices** like pacemakers and defibrillators are lifesaving technologies; MHIF researchers have expertise in understanding patient safety with these devices and participate in research to advance the technologies and procedures

Sens Family Making Life-Saving Research Happen

Drs. Don and Mary Ann Sens are brilliant doctors and researchers who understand that world-class medical research requires a significant investment. They experienced the benefit of lifesaving advances for chronic total occlusions (CTOs), the most complicated of complete blockages in the vessels of the heart, following Dr. Don Sens own procedure in early 2020 that allowed him to continue living life to the fullest. After his own journey of care for his heart, he found himself at his cardiologist's office in North Dakota and the news was not good. He had a complete CTO blocking an entire side of his heart.

"[My cardiologist] met with me and said, 'There's only one person I know of that can help you. That is Dr. Brilakis at the Minnesota Heart Institute,' said Dr. Don Sens."

Dr. Emmanouil Brilakis leads the MHIF Center for Coronary Artery Disease and is a recognized international leader publishing in leading cardiovascular journals and textbooks, presenting at international conferences and sharing case studies through his own YouTube channel that he set up as a way to help colleagues around the world help patients facing complex blockages in the heart. This connection to care from Dr. Brilakis inspired the Sens to take action to support and accelerate research that has been so critical to their family.

The Sens' support started in 2021, with a gift to support an International Scholar, which brought a practicing MD from around the world to MHIF to support Dr. Brilakis and his world-class CTO research at the MHIF Center for Coronary Artery Disease. In 2022, the Sens family committed to funding a total of eight international scholars carrying this important work forward through 2029.

In addition, the Sens decided in early 2022 to expand their charitable giving to include a significant estate commitment estimated at \$8 million. This gift will ensure that innovation and advancing outcomes for patients and families like them will continue for generations to come.

"We are grateful to the Sens family for their gift and confidence in the research we are doing to accelerate innovation for future generations – their gift makes this work possible," said Dr. Brilakis. "Being part of research opens your horizons to see things differently. Through research

and our commitment to finding answers, we are always advancing care for patients and making sure that what we see tomorrow is going to be different than what we see today."

For more details about ways to give, please visit the MHIF website – mplsheart.org/ways-give.



Drs. Don and Mary Ann Sens with Dr. Emmanouil Brilakis

PATIENT STORY: Jim Lamont

Builder, husband, father, cyclist, outdoors enthusiast, and heart research participant

You know that feeling when you've finished a big project and you're ready to enjoy a little relaxation? Jim Lamont was almost there. He had just completed a good stretch of work as a home builder in Clear Lake, IA and was ready to settle into a well-deserved vacation when he suffered a heart attack that required bypass surgery.

Originally from Minneapolis, he was familiar with Abbott Northwestern Hospital, but it was because of the strong urging of his daughter, a nurse, that he was flown by helicopter to Minneapolis for the procedure.

And he's very happy that he was introduced to "the best doctors" he's known. His connection to Allina Health Minneapolis Heart Institute® started him down a path of greater health and recovery thanks in part to his willingness to take an important next step: participate in heart research studies.

Jim had always lived a life of energy and vitality. He was willing to do whatever it took to regain those hallmarks of his pre-heart attack life, so he eagerly enrolled in a stem-cell study before finding out he was also a candidate to participate in a research study to receive the AccuCinch Ventricular Restoration System.

Allina Health Minneapolis Heart Institute® has been implanting the AccuCinch since October of 2018. It is intended to treat patients experiencing symptoms of heart failure due to an enlarged left ventricle (the heart chamber that pumps blood). Patients enrolled in studies for AccuCinch commit to a minimally invasive procedure and regular post-procedure check-ins. Jim received care from Dr. Eckman, cardiologist and principal investigator in the study, who has expertise in heart failure and has been involved with the AccuCinch studies for several years.

"The AccuCinch device trial is an exciting option for many patients with heart failure and preliminary results suggest improvements in the size of the left ventricle and patient quality of life," said Dr. Eckman. "Participation in a research study can be a great option for patients with heart disease who have not been satisfied with current care options. We are proud to partner with interested patients to help advance our understanding of how we can best treat heart and vascular disease."

"We are proud to partner with interested patients to help advance our understanding of how we can best treat heart and vascular disease." Dr. Eckman, cardiologist and principal investigator

Impressed, Grateful, and Very Pleased

Commuting to the study from Clear Lake, IA, Jim was at first a little concerned about finding the time to participate but he was impressed with the follow-up he received after his procedure and found each session was amazingly efficient.

"The doctors, nurses, and technicians have the process down to a science. I'm never waiting," said Jim.

It's willing research patients that make a major difference in finding cures for the next generation. As Dr. Eckman said, "I am grateful for MHIF to help ensure that we have the ability to offer so many research studies, allowing our patients have access to as many options for their care as possible."

Best of all, Jim is back in the saddle. As a longtime outdoorsman and cyclist, he was missing some of his favorite pastimes. Prior to the implant, he would get on his bike, but lose energy after just a few blocks. Now, he's back to biking and even purchased a new pedal kayak – something he would not have done prior to the study. He's feeling much better and spending time with family, in his local lumberyard, and on the trout streams.

Simply stated said Jim, "I'm just very pleased."



Summer 2022 Clinical Research Internship

In 2022, we celebrated the 20th year anniversary of MHIF's Clinical Research Internship Program and welcomed 11 undergraduate students. We're proud and privileged to have continued to select from a very strong pool of candidates who are pre-med or planning a career in medicine. Interns have the opportunity to engage in a vast array of clinical research and educational experiences, and are matched with a Minneapolis Heart Institute physician mentor, who guides them through a clinical research project throughout the summer.

During the past 20 years, 215 clinical research interns have contributed to 143 posters and presentations at national scientific sessions, 168 publications in peer-reviewed journals, and 55% of former interns are now practicing physicians. An additional 21% are in medical school, 10% in pre-med studies and 13% in healthcare.

This cutting-edge educational experience is made possible by the generous contributions of individual donors, local foundations and industry organizations who support developing and empowering the next generation of cardiovascular health professionals through a robust research experience.

Perspectives shared by the 2022 interns:

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– It was a meaningfully oriented and motivated summer that created a sense of purpose in every intern, and I know will be an experience that we all take with us for the rest of our careers.

– This internship was truly special. I have been able to learn so much about myself and future goals. This has solidified my interests, aligned my values, and empowered me to continue in research and my interests. I also have been impressed with my fellow interns and how they have helped me grow. This wasn't on my expectations from what I knew about the internship beforehand, but being in such a talented and dedicated cohort has even furthered my growth this summer.

– Extremely grateful for everything this internship had to offer, it was truly incredible how much was accomplished this summer and it couldn't have been done without the MHI staff.

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The 2022 class of research interns and their research projects

Thomas Basala, Lead Intern Project: Role of CV Risk Factors and Major Adverse Cardiac Events in COVID-19 Mortality in the Allina Health System Metropolitan Hospitals in 2021 v 2020

Drew Adamek, Richard Kantrud Intern Project: Effects of Optimization on Mechanical Dyssynchrony in Cardiac Resynchronization Therapy (CRT) Nonresponders

Giselle Fisher, Discovery Intern Project: Why do patients with microvascular obstruction (MVO) die?

Anna Gan, Dubes Family Intern Project: The 4th Trimester: Impacting long term cardiovascular outcomes

Erica Kwok, Rose Peterson Memorial Intern Project: Initial diuretic dosing in patients hospitalized for acute decompensated heart failure

Elizabeth Page, Leonardus Loos and Shelley Holzemer Intern Project: Impact of COVID-19 pandemic on weight, physical activity, blood pressure and diabetes control and the impact of vaccine status

Maya Palmer, Pete Pierce Intern Project: Comparing Leadless Pacemaker (Micra) to Left Bundle Branch/His Pacing

Erick Rocher, Leonardus Loos and Shelley Holzemer Intern Project: Predicting prosthesis size in patients undergoing surgical aortic valve replacement for bicuspid aortic valve disease

Beatrice Rynders, Cline and Dianne Hickok Intern Project: Indications and findings of coronary angiogram in the first month following coronary artery bypass graft surgery

Johanna Theeler, Daniel J. Spiegel Family Foundation Intern Project: Renal artery disorder

Anne Wong, Heart Rhythm Intern Project: Clinical outcomes of 3830 4Fr pac

For more information about how to support the MHIF Clinical Research Internship Program, please contact Nancy Meyer Wilson, nmeyerwilson@mhif.org or 763-990-3831.

MHIF Global Outreach Updates – Dr. Kshetry

Dr. Vibhu R. Kshetry has volunteered to provide cardiovascular surgery and care, training and resources to Ethiopia and Tanzania for more than 25 years. He founded the program that became the MHIF Global Outreach Program. In addition to Dr. Kshetry's volunteer heart surgeries, his efforts are focused on ensuring that the cardiac treatment programs will be long-term and sustainable. "This has been a personal calling for me since childhood. Give life to others, care for others, care for your family. More importantly, care for strangers. To the world you may be one person, to the one person, you may be the world," said Dr. Vibhu R. Kshetry, Cardiac Surgeon, MHIF Global Outreach Medical Director.



Highlights from a few of the recent Global Outreach Program in 2022:

Tanzania: Kilimanjaro Christian Medical Center (KCMC) in 2022

- Four nurses completed 2-year Critical Care/ICU training
- A new echocardiography machine was donated to support patient care and the rheumatic heart disease (RHD) research study
- Telehealth-education support provided for health professionals
- RHD Research Study to identify prevalence of RHD among school-aged children in Tanzania's Northern Zone; once study is complete and data analyzed, results will be submitted to Tanzania Ministry of Health to improve care
- Four Physicians started training in India (as of July): 2 Cardiologists, 1 Cardiac Surgeon, 1 Cardiac Anesthesiologist
- Three additional nurses start 2 years of Critical Care/ICU training (as of October)
- Participated and consulted on design of Cardiac Center meant to serve a population of 15 million in Northern Tanzania; construction will start January 2023 and once completed, MHIF will provide ongoing technical and surgical support
- First physician starts training in Pediatric Cardiology in India January 2023
- Dr. Kshetry interviewed physicians and technicians interested in advanced training in cardiac surgery, pediatric cardiology, and cardiovascular perfusion

Ethiopia in 2022:

- Supported donation of cardiac surgery consumables for the Ethiopian team
- Facilitated 100 mitral valvuloplasty procedures in children and young adults
- Ongoing mentorship and support for the Cardiac Team trained by MHIF
- Improved training of cardiology fellows from the University of Addis Ababa
- Continuing support of the RHD Training Center established in 2018

Training Hub for Africa:

- Dr. Kshetry visited in Nov. 2022
- Development of Cardiac Training Hub for Africa
- Establishing multiple sites to train cardiac teams of physicians, nurses, and technicians

Announcing the 2022 Women's Health Equity Fellow at the Penny Anderson Women's Cardiovascular Center

The Penny Anderson Women's Cardiovascular Center at the Minneapolis Heart Institute Foundation® (MHIF) is committed to addressing the research and health-equity gaps that exist in women's heart health. As part of the educational aim for the center, a one-year Women's Health-Equity Fellowship has been created and **Delaine Teabout Thomas, MPH** was selected to serve as its first-ever fellow.



Delaine comes with previous MHIF experience, having worked as the Population Health Intern in 2021, where she was instrumental in helping to building community partnerships and host community conversations and events.

Delaine's passion for women's health equity was sparked by personal experiences navigating the health care system and her own wellness journey. To better understand how to serve community, Delaine earned her Bachelor of Science in Public Health from The Ohio State University with a dual focus on Policy and Maternal Child Health. This May, Delaine completed her Master of Public Health in Administration & Policy, with her primary research examining health-related organizations in Minnesota.



The Van Tassel Innovation Center – Creating lifesaving solutions in cardiology

To honor the legacy and vision of Dr. Robert Van Tassel, one of the original founders of MHIF, in 2022, the Van Tassel Innovation Center was officially named.

MHIF research physicians focus on compelling frontiers of treatment and clinical areas of urgent patient need. Every day in their clinical practice with patients, MHIF's cardiologist and vascular specialists who partner in research continually unearth challenges that need research to improve care.

The Van Tassel Innovation Center will provide the resources necessary for independent research designed and led by a dedicated team of MHIF research physicians and staff to answer critical heart and vascular health questions, share the findings with professionals worldwide, and ultimately improve the quality and length of patients' lives.

The Van Tassel Endowment

An endowment makes it possible for MHIF to plan more accurately for the future. The Van Tassel Endowment will help ensure MHIF's long-term financial stability and allow researchers to continue groundbreaking, innovative research across a continuum of cardiovascular care — from prevention to diagnosis and treatment.

Through the endowment, your original gift helping to form the fund's capital is kept intact over time; only the income from the fund is used for ongoing programs and services. Thus, your endowment gift is the gift that keeps on giving, as it will continue to provide financial support to the Van Tassel Innovation Center for many future generations to come.

For more information about how to support the Van Tassel Innovation Center and Endowment, please contact Nancy Meyer Wilson, nmeyerwilson@mhif.org or 763-990-3831

RESEARCH HIGHLIGHTS

MHIF Research at Transcatheter Therapeutics (TCT) 2022

In 2022 MHIF shared the learnings from research through 250+ abstracts, invited talks and presentations at leading international conferences. MHIF research was also highlighted through more than 260

publications in leading cardiovascular journals. TCT is the annual scientific meeting of the Cardiovascular Research Foundation (CRF) and the world's premier meeting for interventional cardiovascular medicine. The 2022 conference was in Boston.



MHIF was represented in 36 scientific sessions:

- 21 Live presentations as lecturer, moderator or discussant
- 12 moderated poster presentations
- 3 Live Cases
- 1 Challenging case presentation

The Robert G. Hauser Leadership Award & The Ray Bentdahl Distinguished Service Award

The Minneapolis Heart Institute Foundation (MHIF) is pleased to announce the 2022 recipients of two annual physician awards:

The Robert G. Hauser Leadership Award recognizes an individual who promotes visionary leadership. Innovation in clinical practice and research requires champions who take risks to identify necessary changes and create innovative solutions to set those improvements in motion. The award is given to an individual who is active in cardiovascular disease prevention or treatment, advocates for patients and the profession, demonstrates visionary leadership and a strong commitment to excellence, and provides leadership to MHI®, MHIF and other organizations.

Congratulations to Dr. Mosi Bennett!

2022 recipient of the Robert G. Hauser Leadership Award

"The Robert G. Hauser award was established by the Minneapolis Heart Institute Foundation in 2015 to honor an individual whose accomplishments embody the spirit of visionary leadership and innovation," said Scott Sharkey, MD, president and chief medical officer, MHIF.

The Ray Bentdahl Distinguished Service Award recognizes an individual's contributions to MHIF and accomplishments as an outstanding leader, mentor, philanthropist, educator or researcher. This award specifically honors an individual whose achievements embody the qualities of an outstanding leader, recognizing exceptional service to the foundation that is reflected in the organization delivering exemplary service to its valued constituents.

Congratulations to Dr. Charles Gornick!

2022 recipient of the Ray Bentdahl Distinguished Service Award

"The individuals who receive this award have really put in time and energy and given so much of themselves. They want better care tomorrow, and they want the community to understand the value of doing it the right way and doing it the better way," said Kristine Fortman, PhD, MHIF CEO.