The Heart and Vascular Center

The Future of Cardiac Care in the Heartland

The University of Nebraska Foundation is the designated fundraising organization for Nebraska Medicine. If you wish to no longer be contacted by the University of Nebraska Foundation on behalf of Nebraska Medicine, please call 402-502-4095 or email nebraskamedicineoptout@nufoundation.org.
Every 34 seconds, someone in the United States has a heart attack. Each year, more than 610,000 people in the U.S. lose their lives to heart disease. In Nebraska, heart disease is the leading cause of death in people over the age of 55. In all, cardiovascular heart diseases claim more lives than all forms of cancer combined.

As home to some of the world’s brightest minds and most innovative techniques in cardiovascular treatment and prevention of heart disease, the University of Nebraska Medical Center and Nebraska Medicine play critical roles in bringing these numbers down. UNMC and Nebraska Medicine physicians and scientists are helping to lead the nation at the only comprehensive heart and vascular center and cardiac transplant facility in Nebraska.

UNMC and Nebraska Medicine heart and vascular professionals are transforming treatments through clinical trials of innovative heart procedures, such as artificial heart pumps (LVADs), and promoting cardiac wellness and disease prevention through healing communities. They are changing cardiac care, improving outcomes for people suffering from heart disease and preparing the next generation of cardiovascular physicians and leaders.

ELEVATING THE FUTURE OF CARDIAC MEDICINE IN NEBRASKA

Building on strengths and meeting the region’s cardiovascular needs, UNMC and Nebraska Medicine plan significant investments in this program. But private support is needed in the areas of faculty, research, technology, training and community outreach and wellness to help build upon this momentum and propel the center forward. Your consideration of a gift to help make these advancements a reality is greatly appreciated.
Heart and Vascular Care
Faculty Deliver Patient-Centered, Data-Driven Care and Research

The UNMC and Nebraska Medicine Heart and Vascular Center has long provided the state and region comprehensive and sophisticated cardiac care using the latest therapies and innovations. The abundance of experience and specializations allows its physicians to treat patients with the most complex and rarest forms of heart disease.

Home to more than 80 heart and vascular specialists and researchers, UNMC and Nebraska Medicine are uniting to offer the most innovative procedures, from helping patients lower their cholesterol to using the newest pacemakers without leads.

Specializing in complex procedures, Nebraska Medicine is the only heart transplant center in Nebraska that also offers one of the largest ventricular assist device programs in the nation.

Key to the ongoing success of the center is the recruitment of some of the brightest cardiovascular experts in the field. Under the leadership of Daniel Anderson, MD, PhD, chief of cardiovascular medicine, and Michael Moulton, MD, chief of cardiothoracic surgery, more than 33 new faculty members have been recruited to UNMC. These newly recruited faculty, physicians and scientists, together with institution veterans, collaborate across disciplines to accelerate discovery through research, clinical trials and treatments. This “shoulder-to-shoulder” approach brings great minds together to accomplish extraordinary results.

Section Chiefs

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<tr>
<th>Department</th>
<th>Chief</th>
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<tbody>
<tr>
<td>Cardiac Anesthesia</td>
<td>Tara Brakke, MD</td>
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<tr>
<td>Interventional Cardiology</td>
<td>Yiannis Chatzizisis, MD, PhD</td>
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<td>Structural Heart Disease</td>
<td>Daniel Johnson, MD</td>
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<tr>
<td>Vascular Surgery</td>
<td>Matthew Longo, MD</td>
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<td>Advanced Heart Failure</td>
<td>Brian Lowes, MD</td>
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<td>Transplant</td>
<td>Samer Sayyed, MD</td>
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<td>Cardiac Electrophysiology</td>
<td>Shane Tsai, MD</td>
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COMPLEX PROCEDURES

Structural Heart Disease
- Transcatheter aortic valve replacement
- Watchman
- MitraClip
- High-risk percutaneous coronary intervention

Advanced Ablations
- Regional experts for EP procedures

Advanced Heart Failure and Transplant
- Top 10 heart transplant program
- Top 10 LVAD center
- ECMO (90-100 cases/year)

SUBSPECIALTIES

- General Cardiology
- Cardiac Electrophysiology
- Interventional Cardiology
- Heart Transplantation
- Structural Heart Disease
- Diagnostic Cardiovascular Imaging
- Congenital Heart Disease
- Adult Cardiac Surgery
- Heart Failure and Advanced Therapies
- Vascular Surgery
Heart and Vascular Research

Established in 2019, the Center for Heart and Vascular Research (CHVR) is paving the way in cardiovascular research. Under the direction of Merry Lindsey, PhD, the center brings together multidisciplinary scientists from across the University of Nebraska to collaborate on translational, clinical and population research. Coordinating efforts in one overarching center allows the university to recruit and retain funded heart and vascular research faculty, maintain a critical research mass, promote novel and innovative approaches to cardiac research questions and mentor the next generation of researchers while improving the health of the community.

TRANSLATIONAL RESEARCH

The collaborative bench-to-bedside approach leads to discoveries that change people’s lives. Dedication to this method has established UNMC and Nebraska Medicine as a home to exciting cardiovascular research and clinical trials that will radically transform patient care.

The organizations’ focus on translational, bench-to-bedside research and clinical trials means their findings are directly impacting patients — enhancing the health and well-being for every person who suffers from cardiovascular disease. UNMC and Nebraska Medicine are building upon the strengths of each institution to create a comprehensive translational research center that will bring together multidisciplinary assets that will propel breakthroughs for patients.

As a top program in translational research, the CHVR is dedicated to performing cardiac and vascular research that involves developing multidimensional approaches to examining how the heart and vascular system responds to injury or stress. Researchers then apply that knowledge to develop diagnostic tools, test therapeutic strategies and conduct health services research that prevents, slows or reverses disease progression. The center’s mission includes publishing results and educating the next generation of scientists.

The CHVR CardiOmics Program develops and applies advanced mass spectrometry technologies to enable a deeper understanding of mechanisms of injury and disease, provide better diagnostic and prognostic tools and promote the translation of basic research into improved clinical cardiovascular care. Director of the program, Rebekah Gundry, PhD, received the prestigious R35 Emerging Investigator Award from the National Heart, Lung and Blood Institute (NHLBI).

AREAS OF FOCUS AND GROWTH

Private support to the CHVR is critical for:

- recruiting and developing the faculty and research core team;
- enhancing research core tools and obtaining new equipment;
- increasing the number of consented research subjects to the Nebraska Cardiovascular Biobank;
- securing seed grant funding to increase research studies and help researchers obtain extramural funding; and
- increasing research funding.
Technology, Resident-Fellow Training and Patient Wellness
Tools for Providing Better Heart Health

UNMC and Nebraska Medicine heart and vascular specialists and researchers are promoting better heart health through new and innovative procedures. Private support impacts how UNMC and Nebraska Medicine faculty and physicians help patients lead healthier lifestyles and how they educate the next generation of heart health professionals. It also allows them to utilize the latest technology in both patient care and resident training.

LEADING-EDGE TECHNOLOGY

The critical work accomplished each day in the cardiovascular division could not occur without the proper tools. The ability to access the most current, state-of-the-art technology is essential for UNMC and Nebraska Medicine cardiovascular physicians to provide lifesaving care for the patients who are dependent on them.

It is essential to equip physicians with the tools they need to apply their expertise and to significantly improve the quality of care for patients while elevating the institution’s standing as a leader in cardiovascular care. The acquisition of cutting-edge technology allows UNMC and Nebraska Medicine to train and test new technology to develop better protocols.

RESIDENT TRAINING AND EDUCATION

Nearly half of Nebraska’s cardiologists are expected to retire within the next 10 years. This means that the next generation of heart health researchers, teachers and patient care providers will not only need training in the basic care of patients, but also in methods of patient safety and quality improvement, interprofessional and team-based care, management of aging and increasingly multimorbid patients, and skills for lifelong learning.

UNMC and Nebraska Medicine are committed to ensuring that its residents receive training that produces confident and competent internists and subspecialists, as well as physicians who have the motivation and skills to continue educating themselves and others for the remainder of their careers.

Fellowships provide a well-rounded clinical and research experience while enabling fellows to acquire additional special skills in cardiovascular medicine, cardiothoracic surgery and vascular surgery, electrophysiology, interventional cardiology, echocardiography and congestive heart failure and heart transplant.

WELLNESS AND EDUCATION OUTREACH

UNMC and Nebraska Medicine are improving their ability to reach more patients through outreach programs promoting healthy hearts and vital communities, including:

- risk assessment for adult patients;
- advanced lipid testing;
- vascular screening and calcium scoring;
- 24-hour blood pressure monitoring;
- exercise physiologist consultations;
- a smoking cessation program;
- stress testing (echo and nuclear);
- nutritional evaluations; and
- cardiac rehabilitation.
How You Can Make A Difference
Private Support is Essential to Growing the Program

Your consideration of a gift to the UNMC and Nebraska Medicine Heart and Vascular Center will provide needed support for faculty, research, state-of-the-art technology and resident and fellow training. Assistance is needed to provide seed grant funding, innovative research awards, core research facilities, cutting-edge technology and infrastructure to drive novel ideas. This will impact patients quickly and ultimately save lives. Below are several areas where support is greatly needed. Please consider joining this effort.

- **ENDOWED CHAIRS** will significantly enhance recruitment and retention of the nation’s top clinicians, researchers and educators in cardiovascular disease. Building on the division’s tremendous growth, the opportunity to bestow the honor of a named faculty position is of utmost importance.

- **SEED GRANT FUNDING AND INNOVATIVE RESEARCH AWARDS** will support innovations in cardiovascular research and wellness. They encourage novel thinking that can lead to new treatments, diagnosis and prevention programs. Funds generated from endowments can offer an extremely important source of support, especially in the early stages of research when more traditional sources of funding may not yet be available.

- **RESIDENT AND FELLOWSHIP SUPPORT** will augment resident and fellow development and activities. It will also help UNMC reach a higher level of excellence through general improvements and additions to the residency and fellowship program. Funding will support residents and fellows to attain advanced training, to attend important conferences, to purchase equipment and to invite speakers to campus. They can also take part in educational opportunities presented through roundtables and peer presentations. Fellowships play an important role in advancing the research and workforce development mission at UNMC. Building out and supporting fellowships increases the potential workforce pool for Nebraska by attracting top-quality fellows to UNMC.

- **TECHNOLOGY AND INFRASTRUCTURE SUPPORT** will provide the latest equipment, such as a hybrid operating room that offers the capability to perform minimally invasive surgeries, advanced imaging scanners and an integrated communication system. Gifts will also support optimal coordination across imaging platforms and deliver real-time diagnostic results. Infrastructure support is critical to all research support and is the foundation to success. Statistical support includes tools and technology that enable the effective acquisition of data.

- **COMMUNITY OUTREACH AND WELLNESS SUPPORT** will assist in the creation of outreach programs that promote cardiovascular wellness across Nebraska. These programs will utilize preventive care systems and nutrition counseling to foster active lifestyles that support healthy hearts.
Thank You

Every day, physicians and scientists at UNMC and Nebraska Medicine strive to move one step closer to a world without heart disease. To reach this noble goal, it is essential to continue to invest in advancing research, clinical trials and technology.

Your investment will help transform cardiovascular care in Nebraska by advancing revolutionary research and cardiac care, leading to more effective treatment and, ultimately, moving us closer to the elimination of heart disease as a major threat to a healthy and productive life.

Thank you for your consideration.

Awards and Accreditations

Joint Commission Certification in Heart Failure and Ventricular Assist Device • Centers for Medicare and Medicaid Certification in high-risk Carotid Artery Stents and Heart Transplant • The Intersocietal Accreditation Commission (IAC) in Vascular Lab and Echocardiography Lab • American College of Cardiology Chest Pain Center Accreditation • Adult Congenital Heart Association ACHD Accreditation