Cardiology
Pediatric Cardiology
Cardiovascular Surgery
STAFF & SERVICES DIRECTORY
ROCHESTER, MINNESOTA

Charanjit S. Rihal MD MBA, Chair, Department of Cardiovascular Diseases
Joseph A. Dearani MD, Chair, Department of Cardiovascular Surgery
Frank Cetta MD, Chair, Division of Pediatric Cardiology
David J. Cook MD, Director, Division of Cardiovascular and Thoracic Anesthesia

Mayo Clinic in Minnesota welcomes inquiries and referrals, and a request to a specific physician is not required.

CIRCULATORY FAILURE PROGRAM
Margaret M. Redfield MD, Director

Cardiac Amyloid Clinic
Evaluates patients with all types of proven or suspected cardiac amyloidosis, most commonly AL, wild-type TTR (senile systemic amyloidosis) or familial TTR amyloidosis.

Martha Grogan MD, Director
Omar F. Abou Ezzeddine, MD, MS
Barry A. Boilson MD
Daniel D. Borgeson MD
Alfredo L. Clavell MD
Barry L. Karon MD
Kyle W. Klarich MD
Grace Lin MD
Wayne L. Miller MD PhD
Margaret M. Redfield MD
Richard J. Rodeheffer MD

Heart Failure Clinic
Specializes in diagnosis and chronic management of heart failure patients with reduced or preserved ejection fraction, eligibility for cardiac replacement or mechanical circulatory support, or novel therapeutics for heart failure.

Grace Lin MD, Director
Omar F. Abou Ezzeddine, MD, MS
Barry A. Boilson MD
Daniel D. Borgeson MD
Barry A. Borlaug MD
Horng H. Chen MD
Alfredo L. Clavell MD
Shannon M. Dunlay MD
Brooks S. Edwards MD
Robert P. Frantz MD
Martha Grogan MD
Barry L. Karon MD
Sudhir S. Kushwaha MD
Paul M. McKenzie MD
Wayne L. Miller MD PhD
Lyle J. Olson MD
Naveen L. Pereira MD
Margaret M. Redfield MD
Richard J. Rodeheffer MD
John A. Schirger MD
Farris K. Timimi MD
Janell Grazzini Frantz APRN CNP MSN
Jean A. Wagner APRN CNP

Heart Transplant Clinic
Assesses patients and offers specialized care post-transplantation.

Sudhir S. Kushwaha MD, Director
Atta Behfar MD PhD
Barry A. Boilson MD
Alfredo L. Clavell MD
Shannon M. Dunlay MD
Brooks S. Edwards MD
Robert P. Frantz MD
Naveen L. Pereira MD
Richard J. Rodeheffer MD
John A. Schirger MD
Jean A. Wagner APRN CNP

Left Ventricular Assist Device Clinic
Assesses and evaluates patients for mechanical circulatory support, either as bridge to transplant or destination therapy, with subsequent follow-up of the patient post implantation.

Cardiology
Sudhir S. Kushwaha MD, Director
Atta Behfar MD PhD
Barry A. Boilson MD
Alfredo L. Clavell MD
Shannon M. Dunlay MD
Brooks S. Edwards MD
Robert P. Frantz MD
Naveen L. Pereira MD
Richard J. Rodeheffer MD
John A. Schirger MD
Jean A. Wagner APRN CNP

Cardiovascular Surgery
Simon Maltais MD PhD, Surgical Director
Richard C. Daly MD
John M. Stulak MD

Pulmonary Hypertension Clinic
Provides skilled diagnosis, individual treatment plans and thorough follow-up care in patients with pulmonary arterial hypertension.

Robert P. Frantz MD, Director

Cardiology
Garvan C. Kane MD PhD
Sudhir S. Kushwaha MD
Robert B. McCully MD
Joseph G. Murphy MD
Sara B. Severson APRN CNP

Pulmonology
Michael J. Krowka MD

Unexplained Dyspnea Clinic
Evaluates patients with not-otherwise-specified shortness of breath, edema, right heart failure, exercise intolerance, or deconditioning.

Robert P. Frantz MD, Director
Daniel D. Borgeson MD
Barry A. Borlaug MD
Garvan C. Kane MD PhD
Barry L. Karon MD
Michael J. Krowka MD
Sudhir S. Kushwaha MD
Grace Lin MD

HEART RHYTHM SERVICES
Thomas Munger, MD, Director

Heart Rhythm Clinic
Specializes in treatment of arrhythmias and congenital heart disease, new generation drugs and devices for prevention of stroke, including intracardiac and epicardial left atrial appendage occlusion, and remote monitoring of arrhythmias.

Thomas M. Munger MD, Director
Samuel J. Asirvatham MD
David J. Bradley MD PhD
Peter A. Brady MD
Yong-Mei Cha MD

Referrals & Consultations in Minnesota
Cardiovascular Diseases: 800-471-1727 Fax: 507-266-5278
Cardiovascular Surgery: 866-827-8810 Fax: 507-255-7378
Pediatric Cardiology: 507-284-9969 Fax: 507-538-5817

ROCHESTER, MINNESOTA

Charanjit S. Rihal MD MBA, Chair, Department of Cardiovascular Diseases
Joseph A. Dearani MD, Chair, Department of Cardiovascular Surgery
Frank Cetta MD, Chair, Division of Pediatric Cardiology
David J. Cook MD, Director, Division of Cardiovascular and Thoracic Anesthesia

Mayo Clinic in Minnesota welcomes inquiries and referrals, and a request to a specific physician is not required.

CIRCULATORY FAILURE PROGRAM
Margaret M. Redfield MD, Director

Cardiac Amyloid Clinic
Evaluates patients with all types of proven or suspected cardiac amyloidosis, most commonly AL, wild-type TTR (senile systemic amyloidosis) or familial TTR amyloidosis.

Martha Grogan MD, Director
Omar F. Abou Ezzeddine, MD, MS
Barry A. Boilson MD
Daniel D. Borgeson MD
Alfredo L. Clavell MD
Barry L. Karon MD
Kyle W. Klarich MD
Grace Lin MD
Wayne L. Miller MD PhD
Margaret M. Redfield MD
Richard J. Rodeheffer MD

Heart Failure Clinic
Specializes in diagnosis and chronic management of heart failure patients with reduced or preserved ejection fraction, eligibility for cardiac replacement or mechanical circulatory support, or novel therapeutics for heart failure.

Grace Lin MD, Director
Omar F. Abou Ezzeddine, MD, MS
Barry A. Boilson MD
Daniel D. Borgeson MD
Barry A. Borlaug MD
Horng H. Chen MD
Alfredo L. Clavell MD
Shannon M. Dunlay MD
Brooks S. Edwards MD
Robert P. Frantz MD
Martha Grogan MD
Barry L. Karon MD
Sudhir S. Kushwaha MD
Paul M. McKenzie MD
Wayne L. Miller MD PhD
Lyle J. Olson MD
Naveen L. Pereira MD
Margaret M. Redfield MD
Richard J. Rodeheffer MD
John A. Schirger MD
Farris K. Timimi MD
Janell Grazzini Frantz APRN CNP MSN
Jean A. Wagner APRN CNP

Heart Transplant Clinic
Assesses patients and offers specialized care post-transplantation.

Sudhir S. Kushwaha MD, Director
Atta Behfar MD PhD
Barry A. Boilson MD
Alfredo L. Clavell MD
Shannon M. Dunlay MD
Brooks S. Edwards MD
Robert P. Frantz MD
Naveen L. Pereira MD
Richard J. Rodeheffer MD
John A. Schirger MD
Jean A. Wagner APRN CNP

Left Ventricular Assist Device Clinic
Assesses and evaluates patients for mechanical circulatory support, either as bridge to transplant or destination therapy, with subsequent follow-up of the patient post implantation.

Cardiology
Sudhir S. Kushwaha MD, Director
Atta Behfar MD PhD
Barry A. Boilson MD
Alfredo L. Clavell MD
Shannon M. Dunlay MD
Brooks S. Edwards MD
Robert P. Frantz MD
Naveen L. Pereira MD
Richard J. Rodeheffer MD
John A. Schirger MD
Jean A. Wagner APRN CNP

Cardiovascular Surgery
Simon Maltais MD PhD, Surgical Director
Richard C. Daly MD
John M. Stulak MD

Pulmonary Hypertension Clinic
Provides skilled diagnosis, individual treatment plans and thorough follow-up care in patients with pulmonary arterial hypertension.

Robert P. Frantz MD, Director

Cardiology
Garvan C. Kane MD PhD
Sudhir S. Kushwaha MD
Robert B. McCully MD
Joseph G. Murphy MD
Sara B. Severson APRN CNP

Pulmonology
Michael J. Krowka MD

Unexplained Dyspnea Clinic
Evaluates patients with not-otherwise-specified shortness of breath, edema, right heart failure, exercise intolerance, or deconditioning.

Robert P. Frantz MD, Director
Daniel D. Borgeson MD
Barry A. Borlaug MD
Garvan C. Kane MD PhD
Barry L. Karon MD
Michael J. Krowka MD
Sudhir S. Kushwaha MD
Grace Lin MD

HEART RHYTHM SERVICES
Thomas Munger, MD, Director

Heart Rhythm Clinic
Specializes in treatment of arrhythmias and congenital heart disease, new generation drugs and devices for prevention of stroke, including intracardiac and epicardial left atrial appendage occlusion, and remote monitoring of arrhythmias.

Thomas M. Munger MD, Director
Samuel J. Asirvatham MD
David J. Bradley MD PhD
Peter A. Brady MD
Yong-Mei Cha MD
Abhishek J. Deshmukh, MBBS
Raul E. Espinosa MD
Paul A. Friedman MD
Bernard J. Gersh MB ChB DPhil
Suraj Kapa MD
Hon-Chi Lee MD
Margaret A. Lloyd MD MBA
Malini Madhavan MBBS
Christopher J. McLeod MB ChB PhD
Siva K. Mulpuru MD
Peter A. Noseworthy MD
Michael J. Osborn MD
Douglas L. Packer MD
Robert F. Rea MD
Sarah M. Benak MSN RN CNP
Monika M. Duitch APRN CNP MSN
Randall A. Hirn PA-C
Jill M. Olmscheid APRN CNP

Long QT Syndrome/Genetic Heart Disorders Clinic
Offers diagnosis and treatment of Long QT Syndrome and other genetic heart disorders, as well as genetic testing, education and counseling for patients and family members.

Michael J. Ackerman MD PhD, Director

Electrophysiology Laboratory
Thomas Munger, MD, Director
Samuel J. Asirvatham MD
David J. Bradley MD PhD
Peter A. Brady MD
Yong-Mei Cha MD
Freddy Del-Carpio Munoz MD*
Abhishek J. Deshmukh, MBBS
Paul A. Friedman MD
Suraj Kapa MD
Malini Madhavan MBBS
Christopher J. McLeod MB ChB PhD
Siva K. Mulpuru MD
Thomas M. Munger MD
Peter A. Noseworthy MD
Robert F. Rea MD
Arturo M. Valverde MD*

Implantable Device Laboratory
Yong-Mei Cha MD, Director
Samuel J. Asirvatham MD
David J. Bradley MD PhD
Peter A. Brady MD
Raul E. Espinosa MD
Paul A. Friedman MD
Hon-Chi Lee MD
Siva K. Mulpuru MD
Michael J. Osborn MD
Robert F. Rea MD

Pediatric Electrophysiology Laboratory/Device Implant Laboratory
Bryan C. Cannon MD, Director
Philip L. Wackel MD

Heart Rhythm and Physiological Monitoring Laboratory
Peter A. Brady MD, Director

Adult
Crystal R. Bonnichsen MD
Titus C. Evans Jr MD
Joerg Herrmann MD
Allan S. Jaffe MD
Grace Lin MD
Wayne L. Miller MD PhD
Michael J. Osborn MD
Farris K. Timimi MD
R. Scott Wright MD

Pediatric
Allison Cabalka MD
Bryan C. Cannon MD
Frank Cetta MD
David J. Driscoll MD
Ben W. Eidem MD
Jonathan N. Johnson MD
Patrick W. O’Leary MD
Nathan W. Taggart MD

ISCHEMIC HEART DISEASE PROGRAM
Malcolm R. Bell MD, Director

Chest Pain and Coronary Physiology Clinic
Treats patients with challenging chest pain syndromes, including undiagnosed, complex, or unresolved conditions, including patients with angina who cannot be treated with standard approaches.

Amir Lerman MD, Director
Gregory W. Barsness MD
Patricia J. M. Best MD
Rajiv Gulati MD PhD
Joerg Herrmann MD
David R. Holmes Jr MD
Andre C. Lapeyre III MD
Amir Lerman MD
Vergez Mathieu MD
Abhiram Prasad, MD
Guy S. Reeder MD
Guo S. Sandhu MD PhD
R. Thomas Tilbury MD
William A. Schnell Jr PA-C

Implantable Device Laboratory
Yong-Mei Cha MD, Director
Samuel J. Asirvatham MD
David J. Bradley MD PhD
Peter A. Brady MD
Raul E. Espinosa MD
Paul A. Friedman MD
Hon-Chi Lee MD
Siva K. Mulpuru MD
Michael J. Osborn MD
Robert F. Rea MD

Coronary Artery Disease Clinic
Provides rapid access for patients needing cardiac catheterization and improves continuity of care.

John F. Bresnahan MD, Director
Gregory W. Barsness MD
Atta Behfar MD PhD
Malcolm R. Bell MD
Patricia J. M. Best MD
Barry A. Borlaug MD
Robert P. Frazier MD
Rajiv Gulati MD PhD
Joerg Herrmann MD
David R. Holmes Jr MD
Andre C. Lapeyre III MD
Amir Lerman MD
Vergez Mathieu MD
Abhiram Prasad, MD
Guy S. Reeder MD
Guo S. Sandhu MD PhD
Mandeep Singh MD MPH
R. Thomas Tilbury MD

Structural Interventional Cardiology
Malcolm R. Bell MD
Patricia J. M. Best MD
John F. Bresnahan MD

*Mayo Clinic Health System

Visit mayoclinic.org/medicalprofs for more information | The medical professionals page offers physician-specific information including open clinical trials, upcoming CME’s, and e-newsletters covering the latest in diagnosis and treatments
Mackram F. Eleid MD
Rajiv Gulati MD PhD
David R. Holmes Jr MD
Verghese Mathew MD
Guy S. Reeder MD
Charanjit S. Rihal MD MBA
Gurpreet S. Sandhu MD PhD
Mandeep Singh MD

**Invasive Hemodynamics and Physiology**
Atta Behfar MD PhD
Barry A. Borlaug MD
Mackram F. Eleid MD
Robert P. Frantz MD
Joerg Herrmann MD
Andre C. Lapeyre III MD
Amir Lerman MD
Rick A. Nishimura MD

**Intracoronary Imaging and Physiology**
Gregory W. Barsness MD
Malcolm R. Bell MD
Patricia J. M. Best MD
John F. Bresnahan MD
Rajiv Gulati MD PhD
Gurpreet S. Sandhu MD PhD
Mandeep Singh MD MPH

**Endovascular Interventional Cardiology**
Gregory W. Barsness MD
John F. Bresnahan MD
Rajiv Gulati MD PhD
David R. Holmes Jr MD
Verghese Mathew MD

**Congenital Interventional Cardiology**
Allison K. Cabalka MD
Frank Cetta MD
Donald J. Hagler MD
Nathaniel W. Taggart MD

**Cardiac Intensive Care Unit**
Gregory W. Barsness MD, *Director*
Nandan S. Anavekar MB BCH
Malcolm R. Bell MD
Patricia J. M. Best MD
Bernard J. Gersh MB ChB DPhil
Joerg Herrmann MD
Allan S. Jaffe MD
Jacob C. Jentzer MD
Andre C. Lapeyre III MD
Sunil V. Mankad MD
Joseph G. Murphy MD
Jae K. Oh MD
Guy S. Reeder MD
Lawrence J. Sinak MD
R. Thomas Tilbury MD
Brandon M. Wiley MD
R. Scott Wright MD

**PREVENTIVE CARDIOLOGY PROGRAM**
Francisco Lopez-Jimenez MD, *Director*

**Cardiovascular Health Clinic**
*Offers both risk assessment and risk reduction services for patients of all ages at risk for heart disease or those who have already developed heart disease.*
Francisco Lopez-Jimenez MD, *Director*
Thomas G. Allison PhD MPH
Adelaide M. Arruda-Olson MD PhD
Frank V. Brozovich MD PhD
LaPrincess C. Brewer MD MPH
Thomas C. Gerber MD PhD
Bruce D. Johnson MD
Birgit Kantor MD
Stephen L. Kopecky MD
Iftikhar J. Kullo MD
Thomas P. Olson PhD
Virend Somers MD PhD
Ray W. Squires PhD
Carmen M. Terzic MD PhD
Randal J. Thomas MD
Hector R. Villarraga MD

**Cardiac Rehabilitation Program**
*Offers a multidisciplinary, individualized treatment program designed to help patients recover from heart disease.*
Randal J. Thomas MD, *Director*
Carmen M. Terzic MD PhD, *Associate Director*
Ray W. Squires PhD, *Program Director*
Francisco Lopez-Jimenez MD
Stephen L. Kopecky MD

**Cardio-Oncology Clinic**
*Specializes in integrative management for cancer patients with cardiovascular risks or injury.*
Joerg Herrmann MD, *Director*
Amir Lerman MD
Grace Lin MD
Hector Villarraga MD

**Cardio-Rheumatology Clinic**
*Addresses the needs of high-risk patients with rheumatic conditions such as lupus and rheumatoid arthritis whom have increased risk of cardiovascular disease and cardiovascular mortality.*
Rekha Mankad MD, *Director*
Patricia J. M. Best MD
Lori A. Blauwet MD
Sharonne N. Hayes MD
Sharon L. Mulvagh MD

**Early Atherosclerosis Clinic**
*Provides comprehensive diagnoses and treatment for patients at risk of early atherosclerosis, asymptomatic patients who have a family history of early atherosclerosis, and for patients with abnormal levels of novel risk factors.*
Iftikhar J. Kullo MD, *Director*
Stephen L. Kopecky MD
Francisco Lopez-Jimenez MD
Robert D. McBane MD
Randal J. Thomas MD

**Sports Cardiology Clinic**
*Specializes in advising high-performance athletes on safe training and exercise programs, and for patients who have cardiac symptoms during exercise or known cardiac diagnosis who wish to safely exercise.*
Thomas G. Allison PhD MPH, *Program Director*
Todd D. Miller MD, *Medical Director*
Michael J. Ackerman MD PhD
Alfredo L. Clavell MD
Bernard J. Gersh MB ChB DPhil
George M. Gura MD
Kyle W. Klarich MD
Sudhir S. Kushwaha MD
Wayne L. Miller MD PhD
Steve R. Ommen MD
Peter A. Noseworthy MD
Robert F. Rea MD

**Statin Intolerance Service**
*Provides expert diagnoses, risk stratification, and treatment of patients with statin-associated side effects.*
Stephen L. Kopecky MD, *Director*
Thomas G. Allison PhD MPH
Frank V. Brozovich MD PhD
Bruce D. Johnson PhD
Birgit Kantor MD
Iftikhar J. Kullo MD
Francisco Lopez-Jimenez MD
Thomas P. Olson PhD
Virend Somers MD PhD
Ray W. Squires PhD
Carmen M. Terzic MD PhD
Randal J. Thomas MD
Hector R. Villarraga MD

**Women’s Heart Clinic**
*Offers risk assessment, heart evaluation and comprehensive treatment to meet the unique needs of women at risk for or diagnosed with cardiovascular disease.*
Patricia J. M. Best MD
Lori A. Blauwet MD
Sharonne N. Hayes MD
Birgit Kantor MD
Rekha Mankad MD
Marysia S. Tweet MD
Kari A. Carter APRN CNP

*Mayo Clinic Health System*
STRUCTURAL HEART DISEASE PROGRAM
Rick A. Nishimura MD, Director

Adult Congenital Heart Disease Clinic
Specializes in diagnosis, treatment, and continuity of care throughout a congenital heart patient’s lifespan, including expert diagnoses and treatment plans, from pregnancy to heart surgery.

Adult Cardiology
Heidi M. Connolly MD, Director
Naser M. Ammash MD
Crystal R. Bonnichsen MD
Alexander C. Egbe MBBS
Martha Grogan MD
Carole A. Warnes MD

Pediatric Cardiology
Frank Cetta MD

Cardiovascular Surgery
Joseph A. Dearani MD
M. Sertac Cicek MD
Alberto Pochettino MD
Sameh M. Said MD
Hartzell V. Schaff MD

Heart Brain Clinic
Evaluates and manages patients with patent foramen ovale or atrial fibrillation, and who have had a stroke or transient ischemic attack.

Naser M. Ammash MD, Director, Cardiology
Robert D. Brown Jr MD MPH, Director, Neurology

Cardiology
Naser M. Ammash MD
Samuel J. Asirvatham MD
Paul A. Friedman MD
David R. Holmes Jr MD
Thomas M. Munger MD
Guy S. Reeder MD

Pediatric Cardiology
Michael J. Ackerman MD PhD
Bryan C. Cannon MD
Frank Cetta MD
Patrick W. O’Leary MD

Cardiovascular Surgery
Joseph A. Dearani MD
Sameh M. Said MD
Hartzell V. Schaff MD

Marfan Syndrome and Thoracic Aorta Clinic
Offers an integrated medical, genetic, and surgical team approach with specialized testing for diagnosis and medical/surgical treatment of Marfan syndrome and associated symptoms.

Juan M. Bowen MD, Medical Director
Alberto Pochettino MD, Surgical Director

Adult Cardiology
Naser M. Ammash MD
Nandan S. Anavekar MB BCh
Crystal R. Bonnichsen MD
Heidi M. Connolly MD
Raul E. Espinosa MD
Iftikhar J. Kullo MD
Andrew G. Moore MD*

Pediatric Cardiology
Michael J. Ackerman MD PhD
Frank Cetta MD
Patrick W. O’Leary MD

Pericardial Disease Clinic
Evaluates and manages treatment for various conditions related to the pericardium, including recurrent pericarditis, pericardial effusion, constrictive pericarditis and asymptomatic pericardial cysts.

Jae K. Oh MD, Director
Kevin L. Greason MD, Codirector

Cardiology
Nandan S. Anavekar MB BCh
Barry A. Borlaug MD
Raul E. Espinosa MD
Sharonne N. Hayes MD
Garvan C. Kane MD PhD
Rowlens M. Melduni MD

Valvular Heart Disease Clinic
Addresses native and prosthetic valve diseases, employing advanced diagnostic testing, offers unique surgical therapies such as robotic mitral valve repair and catheter-based therapies, including transcatheter heart valves and periprosthetic leak closure devices with unparalleled results.

Vuyisile T. Nkomo MD, Director
Mackram F. Eleid MD
Raul E. Espinosa MD
Titus C. Evans Jr MD
David A. Foley MD
Jeffrey B. Geske MD
Bernard J. Gersh MB ChB DPhil
Sushil (Allen) A. Luis MBBS
Joseph F. Maalouf MD
Rekha Mankad MD
Sunil V. Mankad MD
Hector I. Michelena MD
Joseph G. Murphy MD
Rick A. Nishimura MD
Jae K. Oh MD
Sorin V. Pislaru MD
Guy S. Reeder MD
R. Scott Wright MD
Courtney S. Swenson APRN CNP
Pamela S. Zimbeck APRN

GONDA VASCULAR CENTER
Haraldur Bjarnason MD, Director

Noninvasive Vascular Lab
Paul W. Wennberg MD, Director
Ana I. Casanegra MD
Kevin P. Cohoon DO MS
Iftikhar J. Kullo MD

*Mayo Clinic Health System

Visit mayoclinic.org/medicalprofs for more information | The medical professionals page offers physician-specific information including open clinical trials, upcoming CME’s, and e-newsletters covering the latest in diagnosis and treatments
Thrombophilia Clinic

Provides treatment of acute thrombosis, peri-procedure management of chronically anticoagulated patients, assessment and recommendations for patients at high risk for postoperative VTE, and suspected familial or acquired thrombophilia, as well as chronic anticoagulation care.

Waldemar E. Wysokinski MD PhD, Director

Aneel A. Ashrani MD
Lori A. Blauwet MD
Ana I. Casanegra MD
Kevin P. Cohoon DO MS
Mark G. Costopoulos MD
Paul R. Daniels MD
David A. Froehling MD
Iftikhar J. Kullo MD
Scott C. Litin MD
Robert D. McBane MD
David H. Pfizenmaier II MD DPM
Thom W. Rooke MD
Roger F. Shepherd MB BCh
Raymond C. Shields MD
Paul W. Wennberg MD

Vascular Ulcer/Wound Healing Clinic

Treats patients with vascular wounds, addresses the underlying disease process, and provides management directives to optimize wound healing.

Karen L. Andrews MD, Director
William G. Buchta MD
Ana I. Casanegra MD
Kevin P. Cohoon DO MS
Paul L. Claus MD
Martha P. Millman MD
David H. Pfizenmaier II MD DPM
Raymond C. Shields MD
Lawrence W. Steinkraus MD
Carol J. Bohanon APRN CNP DNP
Dalene M. Boll-Kitslar APRN CNP
Lea B. Jennings APRN CNP
Shelly R. Keller APRN CNP
Lester J. Kiemele PA-C
Alice J. Malecha APRN CNP MSN
Teresa R. Ransone PA-C

Vascular Surgery

Thomas C. Bower MD, Chair
Randall R. De Martino MD
Audra A. Duncan MD
Mark D. Fleming MD
Peter Gloviczki MD
Manju Kalra MD
Gustavo S. Oderich MD

Vein Clinic

Specializes in the treatment of venous diseases such as spider veins, varicose veins, and treatment of non-healing ulcers and blood clots. Interventional treatment options include sclerotherapy, phlebectomy, radiofrequency endovenous laser ablation, and laser pulsed-light treatment.

Thom W. Rooke MD, Director
Haraldur Bjarnason MD
Thomas C. Bower MD
Jerry D. Brewer MD
Kevin P. Cohoon DO MS
Audra A. Duncan MD
Mark D. Fleming MD
Jeremy L. Friese MD
Peter Gloviczki MD
Manju Kalra MBBS
Ian R. McPhail MD
Gustavo S. Oderich MD
Clark C. Otley MD
David H. Pfizenmaier II MD DPM

Cardiopulmonary Stress Laboratory

Francisco Lopez-Jimenez MD, Director
Thomas G. Allison PhD MD
Adelaide M. Arruda-Olson MD PhD
Frank V. Brozovich MD PhD
Bruce D. Johnson PhD
Birgit Kantor MD
Stephen L. Kopecky MD
Iftikhar J. Kullo MD
Thomas P. Olson PhD
Virend Somers MD PhD
Ray W. Squires PhD
Randal J. Thomas MD
Hector R. Villarraga MD

Nuclear Cardiology Laboratory

Panithaya Chareonthaitawee MD, Director
Omar F. Abou Ezzeddine MD MS
Nandan S. Anavekar MD
J. Wells Askew III MD
Raymond J. Gibbons MD
John H. Haley MD*
Todd D. Miller MD
Martin G. Rodriguez-Porcel MD

Stress Echocardiography

Robert B. McCully MD, Director
Naser M. Ammash MD
Nandan S. Anavekar MB BCh
Adelaide M. Arruda-Olson MD PhD
J. Wells Askew III MD
Sandra K. Birchem DO*
Lori A. Blauwet MD
Roger L. Click MD PhD
Michael W. Cullen MD
Raul E. Espinosa MD
Monique A. Freund MD*
George M. Gura MD
John H. Haley MD*
Robert J. Houlihan MD*
Garvan C. Kane MD PhD
Kyle W. Klarich MD
Joseph F. Maalouf MD
Sunil V. Mankad MD
Rowens M. Melduni MD
Hector I. Michelena MD
Fletcher A. Miller Jr MD
Andrew G. Moore MD*
Vuyisile T. Nkomo MD
Jae K. Oh MD
Steve R. Ommen MD
Patricia K. Pellikka MD
Tyler J. Peterson MD*
Sorin V. Pislaru MD PhD
Lawrence J. Sinak MD
Peter C. Spittell MD
Tahir Tak MD PhD*
Hector R. Villarraga MD
Benjamin F. Wong MD*

CARDIAC STRESS AND IMAGING

J. Wells Askew III MD, Director
Mechanical Circulatory Support
Richard C. Daly MD
David L. Joyce MD
Lyle D. Joyce MD PhD
Simon Maltais MD PhD
John M. Stulak MD

PEDIATRIC CARDIOLOGY
Offers a full range of cardiology services for infants, children and adolescents, including evaluation and treatment of all forms of congenital heart disease, heart rhythm disorders, cardiomyopathy, heart failure, and genetic heart conditions.

Frank Cetta MD, Chair
Michael J. Ackerman MD PhD
Samuel J. Asirvatham MD
Allison K. Cabalka MD
Bryan C. Cannon MD
David J. Driscoll MD
Ben W. Eidem MD
Donald J. Hagler MD
Justin M. Horner MD
Jonathan N. Johnson MD
Timothy J. Nelson MD PhD
Patrick W. O'Leary MD
Timothy M. Olson MD
Muhammad (Yasir) Y. Qureshi MBBS
Nathaniel W. Taggart MD
Philip L. Wackel MD
Carole A. Warnes MD
Sonja H. Dahl APRN CNP DNP

WILLIAM J. VON LIEBIG CENTER FOR TRANSPLANTATION AND CLINICAL REGENERATION
Brooks S. Edwards MD, Director

Cardiology
Sudhir S. Kushwaha MD, Medical Director Transplantation and VAD Program
Atta Behfar MD PhD
Barry A. Boisdon MD
Alfredo L. Clavell MD
Shannon M. Dunlay MD
Brooks S. Edwards MD
Robert P. Frantz MD
Naveen L. Pereira MD
Richard J. Rodeheffer MD
John A. Schirger MD
Jean A. Wagner APRN CNP

Cardiovascular and Thoracic Surgery
Richard C. Daly MD, Surgical Director Heart and Lung Transplantation
Joseph A. Dearani MD
Stephen D. Cassivi MD
David L. Joyce MD
Lyle D. Joyce MD PhD
Simon Maltais MD PhD
Alberto Pochettino MD
Sameh M. Said MD
John M. Stulak MD
PEDIATRIC CARDIOLOGY

Pediatric Cardiology
David J. Driscoll MD
Jonathan N. Johnson MD
Patrick W. O'Leary MD
Sameh M. Said MD

Pulmonology
J. P. Scott MD, Medical Director Lung Transplantation
Cassie C. Kennedy MD
Steve G. Peters MD
Hiroshi Sekiguchi MD
Mark E. Wylan MD

COMMUNITY AND COMPREHENSIVE CARDIOLOGY
Provides cardiology on-site visits throughout the midwest, televisits for subspecialty cardiology problems, and non-invasive imaging services.

David A. Foley MD, Director

Community Cardiology
J. Wells Askew III MD
Sandra K. Birchem DO*
Crystal I. Bonnichsen MD
David J. Bradley MD PhD
Peter A. Brady MB ChB MD
Jorge A. Brenes-Salazar, MD
LaPrincess C. Brewer, MD, MPH
Alfredo L. Clavell MD
Roger L. Click MD PhD
David A. Foley MD
Robert P. Frantz MD
Rajiv Gulati MD PhD
Sharonee N. Hayes MD
Suraj Kapa MD
Stephen L. Kopecky MD
Rekha Mankad MD
Verghese Mathew MD
Robert D. McCane MD
Robert B. McCullay MD
Paul M. McKenzie MD
Hector I. Michena MD
Todd D. Miller MD
Fletcher A. Miller Jr MD
Wayne L. Miller MD PhD
Vuyisile T. Nkomo MD
Steve R. Ommen MD
Michael J. Osborn MD
Sorin V. Pislaru MD PhD
Clarence Shub MD
Peter C. Spittell MD
R. Thomas Tilbury MD
Farris K. Timimi MD
R. Scott Wright MD
Paul W. Wennberg MD
Waldemar E. Wysokinski MD PhD
Jane A. Linderbaum APRN CNP

Comprehensive Cardiology
Jorge A. Brenes-Salazar, MD
Maurice E. Sarano MD
Titus C. Evans Jr MD
Robert L. Frye MD
Thomas C. Gerber MD
George M. Gura MD
Douglas L. Wood MD
MAYO CLINIC HEALTH SYSTEM
David A. Foley MD, Director

Albert Lea, Minn
Appointments: 507-379-2151
Fax: 507-377-6833
Sandra K. Birchem DO
Darrell (Brian) B. Newman, MD

Austin, Minn
Appointments: 507-434-1262
Lawrence R. Keenan MD
Andrew G. Moore MD

Mankato, Minn
Appointments: 877-720-5412
After Hours: 507-385-5777

Cardiology
John H. Haley MD, Chair
Kevin T. Cragun MD
Robert J. Houlihan MD
James J. Milavetz MD
Arashk Motiei MD
Krishna M. Pamulapati MD
Ripudamanjit Singh MD
Benjamin F. Wong MD

Interventional Cardiology
Arashk Motiei MD
Krishna M. Pamulapati MD
Ripudamanjit M. Singh MD
Owatonna, Minn
Appointments: 507-446-5102
Michael W. Cullen MD
Red Wing, Minn
Appointments: 651-267-5621
Tyler J. Peterson MD
Jeremy J. Thaden MD

Eau Claire, Wis
Appointments: 715-838-6320
After Hours: 715-838-3311
Fax: 715-838-6273

Cardiology
D. Fearghas O’Cochlain MD MB BCh, Chair
Michel K. Barsoum MD
Andrew D. Calvin MD
Regis I. Fernandes MD
Richard D. Hanna MD
Daniel T. Kincaid MD
Vien Le MD
Shoaib A. Naseem MD
Vishnu R. Patiolla MD
Thomas Roy MD
Steven W. Schreiter MD
Arturo M. Valverde MD
Melanie Butak CNP
Kathleen A. Kuznar CNP
Kirk J. Herzog PA-C
Gloria R. Krueger PA-C
Shaun T. Marczak PA-C
Mark A. Twesme PA-C

La Crosse, Wis
Appointments: 608-785-0940

Cardiology
Charles R. Cagin DO, Chair
Malik A. Al-Omari MD
Freddy Del Carpio Muñoz MD
Monique A. Freund MD
S. Michael Gharacholou MD
Michael S. Meyers MD
Tahir Tak MD PhD

Electrophysiology
Freddy Del Carpio Muñoz MD

Interventional Cardiology
Malik A. Al-Omari MD
Charles R. Cagin DO
S. Michael Gharacholou MD

Visit mayoclinic.org/medicalprofs for more information | The medical professionals page offers physician-specific information including open clinical trials, upcoming CME’s, and e-newsletters covering the latest in diagnosis and treatments
CIRCUIT FAILURE
Mohamad H. Yamani MD, Director
Leslie T. Cooper Jr MD
Thomas R. Flipse MD
Carolyn K. Landolfo MD
Keith R. Oken MD
J. Norman Patton MD
Jorge F. Trejo-Gutierrez MD MHS
Steven Ung MD

HEART RHYTHM SERVICES
Fred Kusumoto MD, Director
Thomas R. Flipse MD
Kalpathi L. Venkatachalam MD

HYPERTROPHIC CARDIOMYOPATHY
Joseph L. Blackshear MD
Brian P. Shapiro MD

PULMONARY HYPERTENSION
CARDIOLOGY
Brian P. Shapiro MD

SPORTS CARDIOLOGY
Joseph L. Blackshear MD
Thomas R. Flipse MD
Brian P. Shapiro MD

VALVULAR HEART DISEASE
Joseph L. Blackshear MD, Director
Charles J. Bruce MD
Thomas R. Flipse MD
Carolyn K. Landolfo MD
Gary E. Lane MD
Keith R. Oken MD
J. Norman Patton MD
Brian P. Shapiro MD
Steven Ung MD

VASCULAR MEDICINE
Leslie T. Cooper Jr MD
Women’s Heart Disease
Carolyn K. Landolfo MD, Director
Amy W. Pollak MD

CARDIOVASCULAR IMAGING
(CT, MRI, Nuclear Cardiology)
Brian P. Shapiro MD, Director
Pragnesh P. Parikh MD
Amy W. Pollak MD

ECHOCARDIOGRAPHY LABORATORY
Carolyn K. Landolfo MD, Director
Joseph L. Blackshear MD
Charles J. Bruce MD
Keith R. Oken MD
Pragnesh P. Parikh MD
J. Norman Patton MD
Amy W. Pollak MD
Robert E. Safford MD PhD
Brian P. Shapiro MD
Steven Ung MD

INTERVENTIONAL CARDIOLOGY
Shahyar M. Gharacholou MD
Gary E. Lane MD
Dilip P. Pillai MBBS
Peter M. Pollak MD
CARDIOVASCULAR AND THORACIC SURGERY
Octavio E. Pajaro MD PhD, Chair
Patrick A. DeValeria MD
Dawn E. Jaroszewski MD
Louis A. Lanza MD

Heart Transplant and Mechanical Circulatory Support
Surgical
Octavio E. Pajaro MD PhD, Surgical Director
Patrick A. DeValeria MD
Louis A. Lanza MD

Medical
D. Eric Steidley MD, Medical Director
Brian W. Hardaway MD
Lisa M. LeMond MD
Julie L. Rosenthal MD
Robert L. Scott MD

CARDIOVASCULAR DISEASES
Adult Congenital Heart Disease
Craig R. Cohen MD
Barbara S. Novais CNP MSN RN

Advanced Heart Failure and Pulmonary Hypertension
D. Eric Steidley MD, Director
Robert L. Scott MD, Director-Pulmonary HTN
Brian W. Hardaway MD
Lisa M. LeMond MD
Julie L. Rosenthal MD
Anne Marie Wenzel CNP

Arrhythmia Surgery
Dawn F. Jaroszewski MD

Cardiac Rehabilitation
John J. Lynch MD, Director
Regis I. Fernandes MD

Cardiovascular Oncology
Howard R. Lee MD PhD
Farouk Mookadam MD MB ChB

Clinical Cardiology
Kelley Kennedy MD
Howard R. Lee MD PhD
Russel S. Ruzich MD
Fadi E. Shamoun MD
David Simper MD

Heart Health and Performance
R. Todd Hurst MD, Medical Director
Robert Scales PhD, Program Director
Regis I. Fernandes MD
Susan M. Halli-Demeter CNP DNP RN

Heart Rhythm Services
Komandoor Srivathasan MD, Director
John F. Beshai MD
Dan Sorajja MD
Win-Kuang Shen MD
Susan E. Hendrik PA-C
Siva K. Mulpuru MD

Hypertrophic Cardiomyopathy
Christopher P. Appleton MD
Steven J. Lester MD
Susan Wilansky MD

Pericardial Disease
Christopher P. Appleton MD
Farouk Mookadam MD MB ChB

CARDIOVASCULAR LABORATORIES
Echocardiography Laboratory
Tasneem Z. Naqvi MD, Director
Christopher P. Appleton MD
Reza Arsanjani MD
Hari P. Chaliki MD
Regis I. Fernandes MD
William K. Freeman MD
R. Todd Hurst MD
Steven J. Lester MD
John J. Lynch MD
Farouk Mookadam MD MB ChB
Samuel Unzek MD
Susan Wilansky MD

Interventional Cardiology Laboratory
Eric H. Yang MD, Director
F. David Fortuin MD
Richard W. Lee MD
John P. Sweeney MD

Nuclear Cardiology
Samuel Unzek MD, Director
Fadi E. Shamoun MD

Translational Ultrasound Research Laboratory
Marek Belohlavek MD PhD, Director

Vascular Disease
Medical
Fadi E. Shamoun MD

Surgical
Richard J. Fowl MD
Samuel R. Money MD
William M. Stone MD

Referrals & Consultations in Arizona
Appointments: 480-301-6539 (Local)
866-629-6362 (National)
Fax: 480-301-4071
Toll-free from Mexico: 001-800-010-1390

Mayo Clinic in Arizona welcomes inquiries and referrals, and a request to a specific physician is not required.

Visit mayoclinic.org/medicalprofs for more information | The medical professionals page offers physician-specific information including open clinical trials, upcoming CME’s, and e-newsletters covering the latest in diagnosis and treatments
ROCHESTER, MINNESOTA

Mayo Clinic in Minnesota welcomes inquiries and referrals, and a request to a specific physician is not required.

Referrals & Consultations in Minnesota
Cardiovascular Diseases: 800-471-1727 Fax: 507-266-5278
Cardiovascular Surgery: 866-827-8810 Fax: 507-255-7378
Pediatric Cardiology: 507-284-9969 Fax: 507-538-5817

JACKSONVILLE, FLORIDA

Mayo Clinic in Florida welcomes inquiries and referrals, and a request to a specific physician is not required.

Referrals & Consultations in Florida
Appointments: 904-953-2934 (Local)
800-634-1417 (National)
After Hours: 904-953-2000
Fax: 904-953-0759

PHOENIX & SCOTTSDALE, ARIZONA

Mayo Clinic in Arizona welcomes inquiries and referrals, and a request to a specific physician is not required.

Referrals & Consultations in Arizona
Appointments: 480-301-6539 (Local)
866-629-6362 (National)
Fax: 480-301-4071
Toll-free from Mexico: 001-800-010-1390