AURORA CARDIOVASCULAR SERVICES welcomes new president, recognizes former president

Soon after joining Aurora Cardiovascular Services, A. Jamil Tajik, MD, accepted the appointment of president, succeeding Masood Akhtar, MD, who led the group through its continuous growth since 1998. The former medical collegemates were honored during a reception attended by more than 100 people at Aurora St. Luke’s Medical Center in Milwaukee. The reception marked Dr. Tajik’s official welcome to the group and appointment as president, and recognized Dr. Akhtar for his leadership and years of service.

Each physician was effusive with his praise of the other. Dr. Tajik commended Dr. Akhtar for bringing together the pieces of a premier, comprehensive cardiology department, including electrophysiology, interventional cardiology, advanced noninvasive imaging, vascular medicine, transplant cardiology/heart failure and surgery, during his 13 years at the helm. Dr. Akhtar extolled the accomplishments and reputation of Dr. Tajik, who plans to further complete the group’s vision by expanding into subspecialty centers, cardiovascular genomics and regenerative cardiology, translational research, cardiovascular gerontology and preventative cardiology.

Masood Akhtar, MD

Dr. Akhtar, who received his medical degree from King Edward Medical College, Lahore, Pakistan, in 1966, was appointed director of electrocardiography and clinical cardiac electrophysiology at Mt. Sinai Medical Center (now Aurora Sinai Medical Center), Milwaukee, in 1977.

In 1982, he earned full professorship from the University of Wisconsin School of Medicine and Public Health. He created one of the first Accreditation Council for Graduate Medical Education-accredited electrophysiology fellowship programs. More than 100 electrophysiologists throughout the world have been trained through the program. He also helped develop the largest cardiology fellowship program in Wisconsin.

Dr. A. Jamil Tajik speaks to more than 100 attendees at a reception marking his official welcome as the new president of Aurora Cardiovascular Services.

Dr. Akhtar’s scholarly activities have earned him international renown as one of the first American Board of Internal Medicine examiners for clinical electrophysiology boards; and he received the Master Teacher’s Award from the American College of Physicians, the Pioneer of the Year Award from the Heart Rhythm Society and Researcher of the Year Award from the American Heart Association-Wisconsin affiliate. In 1983, he was invited to be a member of the American Society of Clinical Investigation, a rare honor.
Aurora Health Care welcomes
RENOWNED CLINICAL RESEARCHER AND TEAM

As part of its ongoing efforts to advance research and promote wellness, Aurora Health Care welcomed Arshad Jahangir, MD, and his Center for Integrative Research on Cardiovascular Aging (CIRCA) in November 2011.

The focus of CIRCA’s current research studies, which are supported by the National Institutes of Health, is to clarify molecular mechanisms that lead to cardiovascular disease in the elderly and develop interventions to reduce such susceptibilities.

“With the changing demographics and aging of the population, it is critical that we understand the process and biology of aging” said Dr. Jahangir, director of CIRCA and a professor of medicine with the Aurora University of Wisconsin Medical Group.

“The paradigm shift that we are seeing now is not to treat diseases but how to prevent diseases and intervene much earlier.”

Before joining Aurora Health Care, Dr. Jahangir was director of the CardioGerontology Research Laboratory at Mayo Clinic, where he worked for the past 21 years.

By exploring the effect of aging on mitochondria, the powerhouse of the cell, the team seeks to develop novel, evidence-based strategies to improve functional capacity, delay aging-associated diseases and prevent disability – enabling medical providers to prevent, avert or treat abnormalities before diseases such as arrhythmias or heart failure appear.

For more information, please call the Center for Integrative Research on Cardiovascular Aging at 414-649-5818 or email cardiovascular@aurora.org.

The Center for Integrative Research on Cardiovascular Aging team: (from left) Maheen Mirza, MD, Ekhtson Holmuhamedov, PhD, Razieh Hadian Jazi, MD, Kevin Bree, BS, Larisa Emelyanova, PhD, Arshad Jahangir, MD, and Lynn Erickson, MS.

Transplant Cardiology/Heart Failure SPOTLIGHT

The Aurora St. Luke’s Medical Center transplant program is in the top 10 percent in the country. The program celebrated a milestone in 2011 with its 700th heart transplant since the program’s inception in 1984.

The Aurora Health Care Mechanical Circulatory Support Program is one of the largest in the nation. In the past two years, Aurora physicians implanted 117 ventricular assist devices (VADs).

Andrew Boyle, MD
Medical Director of Heart Failure, Cardiac Transplantation and Mechanical Circulatory Support

Frank Downey, MD
Surgical Director of Cardiac Transplantation and Mechanical Circulatory Support

2010 & 2011 Heart Failure and Transplant
Aurora St. Luke’s Medical Center Volumes

117 ventricular assist devices
98 heart transplants
First transcatheter aortic valve replacement in Wisconsin is performed at Aurora St. Luke’s Medical Center

Aurora team successfully performs 30 implants by end of 2011

Since successfully performing the first transcatheter aortic valve implantation in Wisconsin at Aurora St. Luke’s Medical Center this past June, Tanvir Bajwa, MD, Daniel O’Hair, MD, and their multidisciplinary teams performed 29 more by the end of 2011. Aurora St. Luke’s Medical Center was selected as one of 40 sites in the nation for the Medtronic CoreValve clinical trial to test the procedure, an alternative to open heart surgical aortic valve replacement to treat severe aortic stenosis. Aurora St. Luke’s is the only center in Wisconsin offering the procedure.

“There are a large number of aortic valve patients we want to help but who do not qualify for open heart surgery,” Dr. Bajwa said. “Through rigorous research, we will examine whether this alternative procedure is safe and effective.”

During transcatheter aortic valve implantation, an artificial aortic heart valve is attached to a wire frame and guided by catheter to the heart. Once in the proper position in the heart, the wire frame expands, allowing the new aortic valve to open and begin to pump blood.

Aurora utilizes a multidisciplinary approach, including evaluation by renowned echocardiographers in the valvular heart disease cardiac specialty center and collaboration among eminent interventionalists, surgeons and anesthesiologists regarding treatment options.

About Severe Aortic Stenosis

About 100,000 older Americans are diagnosed with severe aortic stenosis a year. Without effective treatment, as many as 50 percent of patients with aortic stenosis and severe symptoms die within one year. Common signs are fatigue, dizziness, chest pain or pressure, heart murmur, shortness of breath during activity, heart palpitations and fainting.

The CoreValve clinical trial will involve more than 1,300 patients nationwide. Aurora St. Luke’s high volume of patients, excellent patient outcomes, expertise and integrated, multispecialty care contributed to its selection as a site for this study.

MULTIDISCIPLINARY TEAM

Tanvir Bajwa, MD
Medical Director of the Cardiac/Peripheral Intervention Program, Director of the Interventional Fellowship Program and 24/7 Program

Daniel O’Hair, MD
President of Aurora Medical Group Cardiovascular and Thoracic Surgery, Director of Surgical Robotics and Interventional Cardiac Surgery

Bijoy K. Khandheria, MD
Medical Director of the Echocardiography Laboratory

Jonathan Kay, MD
Cardiovascular Anesthesiologist, Quality Officer

During transcatheter aortic valve implantation, an artificial aortic heart valve attached to a wire frame is guided by catheter to the heart.
Aurora’s Electrophysiology FIRSTS

Aurora Health Care cardiac physicians have established at least 25 firsts at international, national and state levels. These different landmark procedures and/or treatment methods include:

- In 1977, Aurora’s cardiac electrophysiology department was one of the first programs in the U.S. to treat patients with heart rhythm disorders.
- First atrial defibrillator implantation in the U.S. and the first ventricular defibrillator implantation in Southeast Asia, both to prevent sudden death.
- First epicardial atrial fibrillation ablation in the U.S. and the first catheter ablation for atrial fibrillation in Wisconsin.
- Nation’s first atrial fibrillation ablation combining arrhythmia mapping and ultrafast computed tomography (CT) imaging technology.
- First health system in Wisconsin to implant a magnetic resonance imaging (MRI)-safe pacemaker in a patient.

Staying at the forefront of burgeoning technologies is an important part of leading progress in the field of cardiac electrophysiology (EP).

One of these advancements utilized by Aurora Health Care is a three-dimensional (3D) electroanatomical navigation system called CARTO 3, which provides physicians unparalleled views of the electrical activity of the heart through real-time data displayed on color-coded 3D cardiac maps.

Designed to minimize unnecessary radiation exposure and procedure times, this new mapping system improves site-targeting results for radiofrequency ablation while maintaining excellent patient safety. It also ensures precise real-time tracking of catheter location, allowing for safe and accurate diagnosis.

Atul Bhatia, MD, electrophysiologist, praised CARTO 3: “It is very precise; we can tag the so-called lesions, the burn marks, and go back through the same spot with absolute precision. To delineate those scars can be very challenging without the use of this kind of system, so it’s a great innovation.”

2010 Cardiac Electrophysiology and Pacing

Aurora Health Care Systemwide Volumes

1,213 electrophysiology studies
1,096 atrial cardioversions
982 percutaneous cardiac ablations
924 implantable cardioverter-defibrillators (including cardiac resynchronization therapy devices)
885 pacemaker implants (initial and replacement)
871 cardiac maps
646 tilt tests
120 biventricular pacemakers (initial and replacement)
71 lead extractions (performed in the operating room)

Aid to Treatment

CARTO 3 analyzes a swath of the heart in three different vectors, allowing the physician to track the movement of the energy-delivering catheter tip in three different planes. Using these maps greatly increases precision of radiofrequency ablation targets.

A 3D mapping system proves even more useful in procedures involving patients who had prior heart surgery and subsequently developed arrhythmias, such as atrial flutter, atrial fibrillation or ventricular tachycardia.

According to Dr. Bhatia, the number of complex ablation procedures has increased as more patients are survivors of open heart surgery, a treatment now entering its fifth decade of existence.

“You’re not going to get patients who can be treated with simple procedures anymore,” he said. “We see patients who have suffered previous heart attacks, and large scars are already present.”
Aurora St. Luke’s Medical Center
24/7 STEMI program
REDUCES DOOR-TO-BALLOON TIMES

Aurora in Action
The electrophysiologists at Aurora are internationally known for their experience in treatment of a variety of cardiac arrhythmias. They offer comprehensive diagnosis and the very latest treatment options, including medical therapy, cardioversion, ablation, implantable cardioverter-defibrillator or permanent pacemaker implantation, and cardiac resynchronization therapy.

Aurora’s EP program is a high-volume program with excellent procedural outcomes. It is a comprehensive clinical and teaching program with active clinical and translational research. Patients from across the country and overseas seek Aurora’s EP program for treatment. The program offers acclaimed educational seminars for physicians from around the world.

The CARTO 3 electroanatomical navigation system provides views of the electrical activity of the heart through real-time data displayed on color-coded 3D cardiac maps.

To schedule an appointment, please call 800-649-1989 or 414-649-3390, fax 414-649-5769 or email cardiovascular@aurora.org.

More than 2,000 patients treated via the program

Suhail Allaqaband, MD
Director of Clinical Cardiovascular Research, Associate Director of the Interventional Fellowship Program

Anjan Gupta, MD
Director of the Cardiac Catheterization Laboratory and the Cardiovascular Disease Fellowship Program

Tanvir Bajwa, MD
Medical Director of the Cardiac/Peripheral Intervention Program, Director of the Interventional Fellowship Program and 24/7 Program

Since inception of the Aurora St. Luke’s Medical Center 24/7 STEMI program in 2004, 2,015 patients with ST-segment elevation myocardial infarction (STEMI) have undergone immediate percutaneous coronary intervention.

Aurora St. Luke’s Medical Center launched the pioneering program to treat acute myocardial infarction and enhance the care of such patients in the Greater Milwaukee area. Under the program, the Cardiac Catheterization Laboratory is staffed 24 hours a day, seven days a week. An Interventional cardiologist is in-house 24/7.

This innovative and futuristic program was an independent initiative of interventional cardiology faculty to improve hospital performance of door-to-balloon (D2B) times, the most important metric by which care of STEMI patients is measured in contemporary cardiology.

Of the STEMI patients treated via the program since 2004, 985 were admitted directly from the emergency department and 1,030 were transferred from Aurora’s clinics. This program has dramatically increased the percentage of patients reperfused within 90 minutes (90%), and has consistently exceeded the American College of Cardiology Door-to-Balloon Alliance benchmark (75% achieve D2B in ≤ 90 minutes). During the past two years, 96 percent of patients were reperfused within 90 minutes of hospital arrival (national average 50-75 percent). Of those patients, 66 percent were treated in less than 60 minutes, a paradigm shift in modern interventional cardiology.

The Aurora 24/7 STEMI program, the first in the nation, is an important demonstration of system improvement for care of patients with STEMI. The early experiences with this program have been published in major interventional cardiology journals and presented consistently at national meetings.
CLINICAL TRIAL | Team recognized as top enroller for TRANSLATE study

Aurora St. Luke’s Medical Center’s research team of Anjan Gupta, MD, Jennifer Cooper, RN, CCRC, and Valerie Zindars, RN, recently won recognition as the top enrolling site for the TRANSLATE-ACS clinical research trial.

Aurora St. Luke’s Medical Center enrolled about 320 patients in the study by the end of 2011.

The goals of the study are to examine in-hospital and longitudinal outcomes of patients who have acute coronary syndrome and are treated with percutaneous coronary intervention (PCI), and to assess postdischarge care patterns and treatment adherence.

TRANSLATE-ACS principal investigators intend to enroll about 17,000 patients with and without ST-elevation myocardial infarction who are treated with PCI and discharged on an adenosine diphosphate (ADP)-receptor inhibitor (clopidogrel, prasugrel, ticagrelor). After enrollment, these patients will receive telephone follow-up at six weeks and six, 12 and 15 months to assess patterns of treatment and event rates.

The study includes 350 U.S. sites; Aurora BayCare Medical Center also is participating in this study.

AURORA ST. LUKE’S MEDICAL CENTER opens cardiac specialty centers

Expanding its role as a national leader in cardiology, Aurora St. Luke’s Medical Center recently opened four cardiac specialty centers dedicated to patients with complex conditions.

The centers, headed by internationally recognized expert A. Jamil Tajik, MD, will serve patients with:

- Hypertrophic cardiomyopathy
- Adult congenital heart disease
- Marfan syndrome and aortopathies
- Valvular heart disease

“These are complex conditions with serious and sometimes fatal consequences if undiagnosed or not appropriately managed,” Dr. Tajik said.

“Our goal is to improve the patient’s quality of life and longevity through medical management or catheter-based intervention, device implantation or surgical options.”

Dr. Tajik, who also is the president of Aurora Cardiovascular Services and director of Aurora Systemwide Cardiac Services, leads a multidisciplinary team of specialists to coordinate patient care. The team includes interventional cardiologists, nurse practitioners, electrophysiologists, surgeons and geneticists working together to provide best and state-of-the-art cardiac care.

To schedule an appointment, please call 855-229-2400, fax 414-385-2350 or email cardiovascular@aurora.org.

DIAGNOSTIC TESTING

Advanced diagnostic and therapeutic technologies are essential to Aurora’s treatment of complex heart conditions. Diagnostic tests available at its cardiac specialty centers include:

- Advanced echocardiography
- Cardiac magnetic resonance imaging (MRI)
- Computed tomography (CT)
- Nuclear perfusion imaging
- Holter monitor
- Cardiac catheterization
- Positron emission tomography (PET)
- Cardiopulmonary stress test
- Genetic testing and counseling

Mary O’Brien, vice president/chief administrative officer of Aurora St. Luke’s Medical Center, (from left) A. Jamil Tajik, MD, nurse practitioners Rachel Loborg and Michelle Bush, and senior administrative assistant Jacqueline Acosta celebrate the opening of the four cardiac specialty centers at Aurora St. Luke’s Medical Center in June. (Back row) Cardiologist James B. Seward, MD, John M. Nessel Professor Emeritus, Mayo Clinic, Rochester, Minnesota, and Julie Humphries, MD, visiting cardiologist from Brisbane, Australia, also attended the event.
President continued from front cover

Since stepping down as president of Aurora Cardiovascular Services, Dr. Akhtar has concentrated on electrophysiology research and teaching as a clinical professor of medicine for the University of Wisconsin School of Medicine and Public Health at Aurora Sinai and Aurora St. Luke’s Medical Centers.

A. Jamil Tajik, MD

Dr. Tajik, who also is the Thomas J. Watson Jr. Professor Emeritus and Chairman Emeritus of Zayed Cardiovascular Center, Mayo Clinic Rochester, Minnesota, received his medical degree from King Edward Medical College, Lahore, Pakistan, in 1965. In 1972, he was appointed as a consultant in cardiovascular diseases at Mayo Clinic Rochester. There, he was director of the Echocardiography Laboratory from 1980-92 and chairman of the Cardiovascular Division from 1993-2002.

A highly decorated member of several professional societies, Dr. Tajik was named the Distinguished Fellow of the American College of Cardiology in 2003. He was awarded the prestigious Ellis Island Medal of Honor in 2005. Dr. Tajik was the first recipient of the Lifetime Achievement Award bestowed by the American Society of Echocardiography in 2009.

He was a named Teacher of the Year on several occasions while at Mayo Clinic, and received the Melvin L. Marcus Memorial Award for distinguished teaching contribution in 2000. He received the Mayo Clinic Department of Medicine Outstanding Mentorship Award in 2005.

His major areas of patient care, teaching and research include imaging, adult congenital heart disease, aortopathies, cardiomyopathies, valvular heart disease, pericardial diseases and diastolic heart failure. His bibliography to date includes more than 580 articles and book chapters. He also has co-authored seven books.

Since joining Aurora Cardiovascular Services in 2010, Dr. Tajik has established four multispecialty cardiac specialty centers at Aurora St. Luke’s Medical Center. (See story, page 6.)

Nick Turkal, MD
President and Chief Executive Officer of Aurora Health Care

“I have had the privilege of working with Dr. Masood Akhtar for 20 years. During that time, I’ve worked with him in academics, research, direct clinical care and administrative roles. In each area, Masood has been a true leader, shaping health care not only in Milwaukee but nationally. He has, directly and indirectly, enhanced the lives of many thousands of patients and clinicians. My thanks to him.”

Jeffrey Bailey, MD
Senior Vice President of Aurora Health Care,
President of Aurora Medical Group

“Dr. Tajik’s contributions and accomplishments are tremendous. His knowledge and expertise have brought effective management of complex cardiovascular conditions to the forefront of medicine.”

MEDICAL EDUCATION EVENTS

Aurora Cardiovascular Services

To request additional information or to register for any of the following events, please call 414-219-7689.

FEBRUARY 18, 2012 | MILWAUKEE, WI
8th Preventive Cardiology Conference:
Diabetes and Cardiovascular Disease

SPRING 2012 | MILWAUKEE, WI
Care of Patients With Arrhythmias:
From Bedside to Clinic

MAY 24-27, 2012 | NEW YORK, NY
Sights and Sounds of Echocardiography:
In the Heart of the Big Apple

MAY 31, 2012 | MILWAUKEE, WI
Patient Education Day

AUGUST 18, 2012 | MILWAUKEE, WI
Echo Milwaukee

OCTOBER 4-6, 2012 | LAKE GENEVA, WI
Cardiology Update:
A Weekend Review at Lake Geneva

DECEMBER 2012 | CHICAGO, IL
AF/VT/VF Summit

JANUARY 2013 | TBD
22nd Annual New Developments In Cardiology

Sneak PEEK

The Vascular Clinic at Aurora St. Luke’s Medical Center – the first in Wisconsin – offers a multidisciplinary team approach for vascular services, including treatment of peripheral vascular disease and other vascular ailments.

Check out the next Issue for a review of Abdominal Aortic Aneurysm: The Next Generation of Endograft Devices as explained by Mark Mewissen, MD, of Aurora Cardiovascular Services. In 1996, Dr. Mewissen helped perform the first endovascular treatment of abdominal aortic aneurysms in Wisconsin under a Food and Drug Administration-approved prospective trial. Endovascular treatment is used as an alternative to major open surgery. In 1991, Dr. Mewissen’s invention to dissolve clots in diseased arteries and veins, the “Mewissen Infusion Catheter,” was distributed worldwide by Boston Scientific.
Advanced medical services are available at Aurora's 15 hospitals and 155 clinics located throughout Eastern Wisconsin.