Patient Stem Cells Point to Causes, Treatments of Congenital Heart Disease

A family with a desire to help others is giving University of Arizona Sarver Heart Center physicians and scientists an opportunity to learn more about the genetics of bicuspid aortic valve (BAV) disease. The research team is searching for genetic themes among these family members who share a high prevalence of BAV disease. "The big challenge for congenital cardiologists is to determine the right time and the right therapy to intervene," Scott Klewer, MD, said. "Personalized medicine may help us predict who will respond to a specific therapy."

Jared Churko, PhD, and his research team in the UA iPSC Core is creating valve cells from induced pluripotent stem cells to model the disease in a dish and try drug therapies to see if disease processes can be altered.
Minimally Invasive TAVR Procedure FDA Approved for Most Patients

Chip Rock (seated), the first "low-risk" TAVR patient at Banner - University Medical Center Tucson, came in for a follow-up appointment 11 days after the procedure and played golf on day 12, following the minimally invasive heart-valve replacement procedure. TAVR team members from left: Erin Scala, RN, BSN, Keng Pineda, MD, PhD, Kapil Lotun, MD, Toshinobu Kazui, MD, PhD, and Devan Lodge, RN, MSc, CCRN.

Most patients with heart valve disease now may be candidates for the transcatheter aortic valve replacement (TAVR) procedure as an alternative to open-heart surgery. In August 2019, the Food and Drug Administration expanded the eligibility criteria to patients who are at low risk for major complications associated with open-heart surgery. Previously the FDA approved TAVR devices only for patients evaluated as medium or high risk for surgery. "The technology for transcatheter valve replacement continues to advance, allowing more and more valves to be replaced less invasively," said Kapil Lotun, MD, professor of medicine and director of the Structural Heart Disease Program at UA Sarver Heart Center.

Welcome New Cardiologists
Amitoj Singh, MD, joined the UA Sarver Heart Center as a clinical assistant professor in the University of Arizona College of Medicine-Tucson, Division of Cardiology, a member of the UA Sarver Heart Center, and Banner - University Medical Center Tucson. He is a practicing cardiologist with an expertise in cardiovascular imaging. Dr. Singh is board certified in cardiovascular diseases, nuclear cardiology, and internal medicine. After obtaining his medical degree in India, he completed his residency in internal medicine at Saint Peters University Hospital in New Brunswick, NJ, a Mini-MBA fellowship at Rutgers University NJ, and a Clinical Research Organization Management Program at Drexel University. Dr. Singh then completed his cardiovascular disease fellowship at Temple-Saint Luke's University Hospital, Bethlehem, Penn., and an advanced cardiovascular imaging fellowship at the Brigham and Women's Hospital, Harvard Medical School in Boston.

Aaron M. Wolfson, MD, MS, joined the UA Sarver Heart Center as an assistant professor and cardiologist with the Advanced Heart Failure, Mechanical Circulatory Support and Transplant Cardiology Team at Banner - University Medical Center Tucson. Dr. Wolfson is board certified in internal medicine and cardiovascular diseases. He obtained BS and MS degrees in biomedical engineering at Boston University before completing medical school there. He completed his residency in internal medicine at University of Chicago. Dr. Wolfson's fellowship training was completed at University of Southern California for general cardiology and Cedars-Sinai Medical Center in Los Angeles for advanced heart failure and transplant cardiology.

Echocardiography Labs Reaccredited
The Intersocietal Accreditation Commission (IAC) fully re-accredited the Banner - University Medical Center Echocardiography Laboratory for five types of heart ultrasound, or echocardiograms. "This is an important achievement that we can all be proud of. Currently there are just a handful of centers in Tucson that are IAC accredited in echocardiography. As far as I know, Banner - University Medical Center Tucson is the only facility in Tucson accredited in all possible heart ultrasound modalities," said Raj Janardhanan, MD, interim director of the Echo Lab.

The Diabetes/Heart Disease Connection: Lunch & Learn Highlights

More than 140 people attended the Diabetes/Heart Disease Connection Lunch & Learn Program, presented by the UA Sarver Heart Center Women's Heart Health Education Committee. The program, featuring diabetes experts...
Help Beat Heart Disease!

Have you ever wondered what you can do, personally, to beat heart disease? Consider becoming part of the UA Sarver Heart Center Biorepository. Our clinical research team will warmly welcome you to participate whether or not you have heart disease or a known risk factor. Enrollment means completing a questionnaire, signing an informed consent form that allows researchers to view your electronic medical record and donating about three tablespoons of blood. These blood samples will help scientists better understand heart disease to improve care and treatment now and in the future. Click on the Cardiology Research Registry link to get started.

Support Sarver Heart Center's Mission

We are grateful for your support as we work to improve heart health in Arizona and around the world. Your gifts help us achieve our mission of innovating life-saving patient care for generations to come. If you would like information on establishing a legacy gift, please contact Manon L. O’Connor at 520-626-4518. We invite you to be
Support Sarver Heart Center is a part of our mission!