

# Chetan Hans

**University of Missouri researcher  
Dr. Chetan Hans works at the  
forefront of medical discovery.**

Hans has expertise in abdominal aortic aneurysm (AAA), a vascular disorder that causes 15,000 deaths annually. He was the first scientist to report on a cell communication process, called Notch1 signaling, which causes inflammation and may progress to AAA. His research has opened up new avenues for therapy and led him to receive a patent.

Additionally, Hans has conducted extensive studies of the development of harmful plaque in cardiac arteries. He discovered that an enzyme called PARP-1 is an important component in the death of cells, contributing to plaque development — a discovery that led to a second patent and new treatments for patients with arterial plaque buildup as well as those with asthma.

Hans also explores the role of magnesium in diabetes. He discovered that magnesium deficiency is associated with oxidative stress — an excess of harmful free radicals in the body — which in turn causes complications in diabetes. Hans' studies were widely acclaimed by nutritionists, leading to new recommendations for diabetics to take magnesium supplements.

Hans is a member of the American Heart Association. In 2011, he received a Young Investigator Award in AAA Epidemiology, Genetics and Pathophysiology.

Dr. Chetan Hans is an assistant professor of cardiology in the School of Medicine and an investigator at Dalton Cardiovascular Research Center.

