You care for many patients with heart disease: the newborn with congenital heart disease, the child with an arrhythmia, to the adolescent athlete whose uncle died from sudden cardiac death. Do you wonder—is the disease genetic? Do they need to see the geneticist?

Cardiovascular diseases including congenital heart defects, arrhythmias, cardiomyopathies, heart failure and hyperlipidemias are serious medical conditions with significant morbidity and mortality. Hundreds of genes that cause these diseases have been identified. New genes are being discovered. Determining the genetic diagnosis can result in better medical management for pediatric patients with cardiovascular disease. For several conditions, physicians and health care providers may use this information to prevent the devastating consequences of the disease for the patient and asymptomatic at-risk family members.

Medical genetics evaluation by a clinical geneticist and a genetic counselor can result in improved care for patients and their families with cardiovascular disease. The medical geneticist works with the cardiologist to determine the hereditary nature of the condition (familial versus sporadic) and whether the cardiac disease is “isolated” or “syndromic,” i.e. part of a genetic syndrome. Syndromic forms of cardiovascular disease include metabolic conditions, chromosome abnormalities and microdeletion syndromes, neuromuscular diseases and single-gene disorders. A medical genetics evaluation includes detailed review of the medical history, physical and dysmorphology examination, and comprehensive family history and pedigree analysis. The geneticist will recommend and coordinate appropriate genetic testing including genetic counseling in the patient and at-risk family members. Follow-up care, education and informational resources about the condition will be provided to the family.

Geneticists at UCI can assist you in the care of your patients with cardiovascular disease. For questions and for more information, contact Dr. Zaragoza at 949-824-8813 or by e-mail (mzaragoz@uci.edu).

**Dr. Michael Zaragoza** is a board-certified clinical geneticist at UCIMC and Miller Childrens Hospital in Long Beach. He is an NIH-funded research scientist at the UCI Center for Molecular and Mitochondrial Medicine and Genetics (MAMMAG). His clinical and research interests are in the genetic causes of congenital heart disease, cardiomyopathy and dysrhythmia. His outpatient clinics specialize in the evaluation, diagnosis and care of children and adults with cardiovascular conditions including congenital heart disease, arrhythmia, heart failure and cardiomyopathies. His research program focuses on examining the etiology of cardiac malformations and heart dysfunction in animal models and in patients. Dr. Zaragoza’s goals are to learn more about the genetic factors and to improve the medical care of families with these conditions.