

**FOR IMMEDIATE RELEASE****MEDICAL GENETICIST AT CEDARS-SINAI AWARDED \$8.5 MILLION NIH RESEARCH GRANT TO IDENTIFY GENES THAT CONTRIBUTE TO HEART DISEASE IN U.S. ETHNIC POPULATIONS**

LOS ANGELES, August 18, 2003 – Medical geneticist and scientist, Jerome I. Rotter, M.D., has received an \$8.5 million grant to further his search for the genes that contribute to heart disease in Mexican-American, African American, and Chinese populations within the U.S. Heart disease is the leading cause of death worldwide and the largest killer in the United States.

Dr. Rotter, Director of the Division of Medical Genetics and Director of the Common Disease Genetics Program at Cedars-Sinai, and his colleagues Drs. Leslie Raffel, Kent Taylor, and Xiuging Guo will receive about \$1.7 million annually over a five-year period from the National Institutes of Health (NIH). The study will take place at 11 centers throughout the country.

The NIH grant will provide funding for the “MESA Family Study,” an ancillary study to the Multi-Ethnic Study of Atherosclerosis, or MESA study (CSMC IRB No. 4174-01). MESA itself is a 10-year study of 6,800 people in four major U.S. ethnic groups to evaluate the origins of heart disease and to identify risk factors in multi-ethnic populations. The MESA Family study, under Dr. Rotter’s leadership, builds on the existing MESA research by determining how genes contribute to coronary calcium in African-American and Hispanic American families and in Chinese Americans. Coronary calcium is a marker of the fatty plaque deposits that build-up in the arteries and can block blood-flow to the heart. Because coronary calcium builds up over time, symptoms do not usually appear until a person experiences chest pain or has a heart attack.

“In essence, our study serves as the genetic arm of the MESA study, as MESA evaluates the early natural history of coronary artery disease, while in the MESA Family study we aim to find the genes that contribute to this coronary artery disease,” commented Dr. Rotter. “What we learn will eventually help us to identify people at the highest risk of developing heart disease so that we can ultimately prevent cardiac events such as heart attack and stroke from occurring.”

While the parent MESA Study includes Caucasian, African-American, Hispanic American, and Chinese American subjects, the MESA Family Study was chosen by the NIH to emphasize non-majority populations in large part because much less is known regarding the genetics of coronary artery disease and its history in these ethnic groups.

Dr. Rotter and his research team have a long history of studying the genetic causes of common complex diseases, including heart disease, diabetes, and Crohn’s Disease, an inflammatory disease affecting the

gastrointestinal tract. Specifically, Dr. Rotter and his colleagues' research has resulted in identifying some of the genetic factors predisposing individuals to high blood pressure, high lipids and adult onset diabetes, all of which are major risk factors for developing heart disease. Further, Dr. Rotter's group identified a major genetic marker associated with Crohn's Disease in people of Ashkenazi Jewish descent.

In the MESA Family Study, the researchers will evaluate 1,800 siblings from 900 index individuals with coronary calcium as identified in the existing MESA study. The researchers will then determine the extent that genes contribute to the variation in coronary calcium between the two groups by utilizing highly specialized gene mapping techniques. The study will be conducted at various centers throughout the country that are designated to collect and analyze data, including laboratories at Cedars-Sinai Medical Center. In addition to Cedars-Sinai Medical Center, centers involved in the MESA Family Study are: Wake Forest University School of Medicine; Columbia University; Johns Hopkins University; University of Minnesota; Northwestern University Medical School; the University of Vermont; New England Medical Center, Harbor-UCLA Medical Center; the UCLA School of Medicine; and the University of Washington.

“Identifying the genes predisposing to coronary artery disease, will allow us to target screening and therapeutic interventions for patients who could benefit from specific prevention approaches,” said David L. Rimoin, M.D., Chairman, Department of Pediatrics and the Director of the Medical Genetics-Birth Defects Center at Cedars-Sinai.

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