Protocol for collecting and banking DNA to determine genetic basis for Kawasaki Disease and Treatment Response

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Synopsis:

The Specific aims of this study are to determine frequency of polymorphisms in genes encoding FCR molecules among KD patients and the subset who display diminished responsiveness to IVIG and to bank blood and establish multicenter infrastructure for future determination of genetic variations in KD and response to trea

KD has surpassed Rheumatic Fever as the most frequent cause of acquired heart disease in children. Despite substantial research in the field, there has been no major shift in the treatment paradigm for acute Kawasaki Disease, since the introduction and refinement of IVIG therapy in the 1980s. The vast majority of the research in this area focuses on epidemiology, refinement of current therapy such as the addition of corticosteroids, and the identification and treatment of long term sequelae. Recent epidemiological studies continue to report the incidence of coronary artery involvement in the 10-15% range and as high as 30% in non-responders to IVIG. This growing affected population will age, and the impact of coronary artery lesions attained in childhood may be immense. Recent reports from Japan indicate that the mortality rate in males with coronary artery lesions is more than twice expected.