Somatic mutation-induced clonal hematopoiesis: a new driver of atherosclerotic cardiovascular disease

Aging is associated with an increased frequency of somatic mutations in the human hematopoietic system, which provide a competitive growth advantage to the mutant cell and allow its clonal expansion (i.e. somatic mutation-driven clonal hematopoiesis). The presence of these age-related mutations is associated with a higher incidence of coronary heart disease and stroke. Preclinical studies in our laboratory have provided the first experimental evidence supporting the notion that age-related somatic mutations in blood cells are a new direct contributor to atherosclerosis (Fuster et al, Science 2017).