

## Matrix Metalloproteinases in Coronary Artery Disease: A Review

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**ABSTRACT** Atherosclerosis plays an important role in coronary artery disease (CAD). The atherosclerotic plaque progression occurs through structural changes of the myocardium leading to accumulation of smooth muscle cells, lipids, extra cellular matrix (ECM) proteins etc. in the intima of the coronary artery. Several proteinases are implicated in ECM degradation among which matrix metalloproteinases (MMPs) form the most important enzymes, which are regulated by a variety of physiological signals like growth factors, cytokines etc. These are multi-domain proteins and are regulated by TIMPs. This review focuses on the members of MMP family and their genetic variants in relation to the pathology of CAD. Functional polymorphisms in the MMP genes (MMP-1, MMP-3 and MMP-9) contribute to the interindividual differences in susceptibility and /or progression of CAD.