

Abstract

Transcription factor hypoxia inducible factor-1 α (HIF-1 α) is a key regulator of physiological and cellular mechanisms to adapt to deficiency of oxygen. In hypoxia (or ischemia) HIF-1 α level increases as HIF-1 α -degrading enzymes prolyl hydroxylases are inactive due to low oxygen level. HIF-1 α plays also essential role in triggering cellular protection and metabolic alteration during pathophysiological conditions in the heart. It has been suggested that stabilization of HIF-1 α in myocardium may prevent deleterious remodelling induced by various forms of chronic heart failure (CHF). The project aims to outline current knowledge about the role of HIF-1 α in the progression of CHF.