**THE WAR ON HEART FAILURE**

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Heart failure (HF) is a global problem with an estimated prevalence of 38 million patients worldwide, a number that is increasing with the ageing of the population. Despite some progress, the prognosis of HF is still worse than that of most cancers. Because of the seriousness of the condition, a declaration of war on HF is proposed on five fronts: 1) Efforts to treat HF by enhancing myofilament sensitivity to Ca²+; 2) Several abnormal Ca2+-handling proteins in the failing heart are candidates for gene therapy; 3) Short, non-coding RNAs—ie, microRNAs, block gene expression and protein translation. Their actions can be blocked by a new class of drugs, antagomirs, some of which have been shown to improve cardiac function in animal models of HF; 4) Cell therapy, with autologous bone marrow derived mononuclear cells, or autogenous mesenchymal cells, which can be administered as cryopreserved off the shelf products, are promising in both preclinical and early clinical HF trials; 5) Fibrosis is prominent in HF and antifibrotic drugs are promising. The approaches to the treatment of HF described, when used alone or in combination, could become important weapons in the war against HF.