Abstract

Current status of repairing damaged hearts: new stem cell sources and new strategies

Myocardial infarction remains a leading cause of morbidity and mortality worldwide; however, conventional treatment of heart injury cannot replace lost cardiomyocytes with new cardiomyocytes. Various types of cells including adult stem cells, induced pluripotent stem cells, and cardiomyocytes reprogrammed from cardiac fibroblasts are receiving attention from basic scientists and clinicians as they hold great promise for myocardial regeneration. This talk includes 1) the research progress in the application of various types of stem cells and cardiomyocyte reprogramming in repairing damaged hearts and 2) future potential direction in this research field.