This volume explores novel stem cell therapeutic strategies for myriad diseases, including renal failure, retinal disease and myocardial infarction. Stem cells have generated considerable interest recently in the scientific, clinical, and public arenas. The third book in the Stem Cell Repair and Regeneration series offers contributions from numerous areas bridging medicine and the life sciences.

Significant research activities in the tissue engineering or regenerative medicine (the term recently used) field started in the 1970s, and there is currently great excitement over the possibility of replacing damaged body parts through regenerative medicine. Potential strategies to replace, repair and restore the function of damaged tissues or organs include stem cell transplantation, transplantation of tissues engineered in the laboratory, and the induction of regeneration by the body’s own cells. It is believed that novel cellular therapeutics outperform any medical device, recombinant protein or chemical compound.