

Appendix

The Players

“Technology is always evolving, and companies...can't be afraid to take advantage of change.”

- Dr Eric Schmidt, Google Corporation CEO and Chairman

“Change is inevitable - except from a vending machine.”

- Robert C. Gallagher, Chairman Associated Banc-Corp.

XV. THE NEOCARDIOGENESIS COMPANIES

Almost every major biopharmaceutical company is vested in angiogenesis / regenerative / restorative medicine, either directly, or through its subsidiaries or its collaborators. Cardiovascular diseases and cancers are major focus of regenerative medicine investigators. Since the discovery of self-renewing qualities of human heart, therapeutic paradigm has shifted towards treatment strategies that induce angiogenesis and cardiomyogenesis to help the heart cure itself.

In the context of regenerative cardiology there are two broad approaches, which divide the regenerative cardiology industry:

- i) The companies that deploy in-vivo regeneration approaches, such as inducing the growth of the cardiac tissue by administering a therapeutic agent, which is either a protein, gene or a cell; and,
- ii) The companies that deploy ex-vivo regeneration approaches, such as engineering the tissue by growing a vessel from stem cells in a laboratory and then using it to graft it in a surgical procedure.

The later approach to regenerating cardiac tissue was not covered in this research, because: firstly, the ex-vivo approaches are still mostly in pre-clinical development; and secondly, much of the tissue growth, morphing and remodeling occur outside the patient's body, giving rise to a