

Figure 2.1 The “dynamic reciprocity” (Nelson and Bissell 2005, 2006) of the healing process. The three major mediators of the healing process are the cellular inhabitants of the tissue, the extracellular matrix (ECM) molecules present in the wound and its surrounding tissue, and the bioactive molecules necessary to modulate regeneration. The overlapping areas in the schematic represent interactions among the components, resulting in dynamic reciprocity. It is important to take all of these interactions into account to construct a successful tissue-engineered construct (TEC).

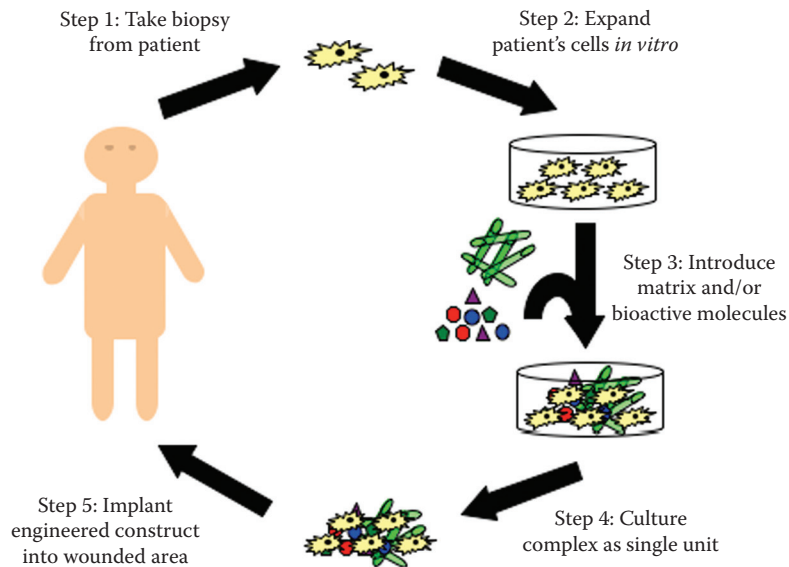


Figure 2.2 A schematic of one approach to tissue engineering of the skin.

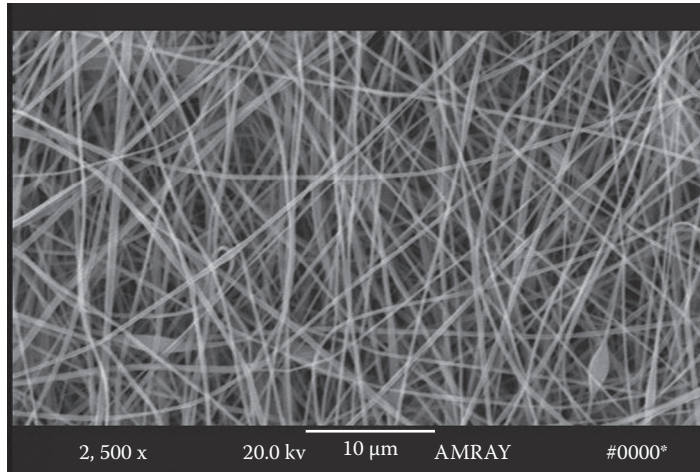


Figure 2.3 Scanning electron micrograph of electrospun, fibro-porous mat made of a biocompatible, degradable, tyrosine-derived polycarbonate.