Electrospinning for Tissue Engineering and Regeneration

Electrospinning is a versatile technology that has attracted researchers’ interest due to its great diversity of fabrication capabilities featuring a high aspect ratio, large specific surface area, flexibility, structural abundance, and surface functionality. Electrospinning allows the fabrication of successive micro- and nanofibers with various materials at a low spinning cost under controlled parameters. Functional electrospun fibers have found applications in tissue engineering and regeneration, biomedicine, masks, sensors, filtration devices, etc.

This presentation will feature an overview of the electrospinning technique and the strategies involved in developing functional scaffolds for tissue engineering. We shall discuss the potential and effect of the porous electrospun fibers in wound healing and cardiac tissue engineering. Further, we shall observe the applications of these fabricated electrospun fibers in wound healing and cardiac tissue engineering.