

BIOMEDICAL PATCHES WITH SPATIALLY ARRANGED FIBERS**Abstract**

A system and methods for producing a structure including a plurality of fibers is provided. The system includes a polymer collector having a predefined pattern, wherein the collector is charged at a first polarity, and a spinneret configured to dispense a polymer, wherein the spinneret is charged at a second polarity substantially opposite the first polarity such that polymer dispensed from the spinneret forms a plurality of fibers on the predefined pattern of the fiber collector.

Figure 1.