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## Nanofibers Based Tubes for Medical Applications

Muhammad Qamar Khan\*, Davood Kharaghani and Ick Soo Kim  
Shinshu University, Japan

In this report, nanofibers based tubes as scaffolds for potential neuroscience application in axon, were fabricated with Polyvinylpyrrolidone incorporated with gold nanoparticle (PVP/Au) in five different diameters via electrospinning. The objective of the study was to analyze the capacity of nanofibers based tubes for potential voltage and ability to form the tubes of 0.2 mm, 0.5 mm, 1.0 mm, 1.5 mm and 2.00 mm diameters as scaffold. The capacity for potential voltage showed that PVP/Au is a good blended material for suitable potential voltage. There also we done the fabrication of tissue engineered blood vessel synthetic scaffolds remain an ongoing challenge for cardiovascular tissue engineering. Full biocompatibility, proper physiological and immediate availability have emerged as central issues. To address these issues, the dual network composite scaffolds were fabricated by coating the electrospun nanofibres tubes from PVA hydrogel, which increased the cell viability and showed the potential for controlling the composition, structure and mechanical properties of scaffolds. Herein, the tubular scaffolds having inner diameter of 2 mm, were composed of poly (1, 4 cyclohexane dimethylene isosorbide trephthalate)/PVA. On the basis of characterizations results, it was concluded that resultant scaffolds would be addressed to fulfill the requirements such as biocompatibility, dimensional stability, adequate elongation, breaking strength, immediate availability and proper for physiologically.

### Biography:

Muhammad Qamar Khan is a PhD scholar in Shinshu University Ueda campus Nagano Japan. Muhammad major research area is biomedical science. Until now Muhammad published 8 impact factor articles in international journals and has 4 years experience as a University teacher in Pakistan.