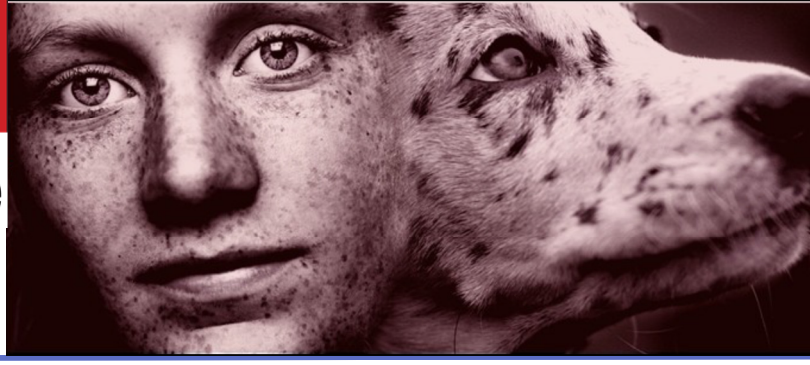
NC STATE UNIVERSITY

Comparative Medicine Institute



Teng Su

Postdoctoral Research Associate

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Microfabricated Biomaterials for Tissue Regeneration

Research emphasis:

Dr. Su's research focuses on the design and microfabrication of biofunctional materials for regenerative medicine. His current specific areas of interest include the microfabrication of hydrogel biomimetic microvessels using microfluidic technique, engineering vascularized tissue constructs for cardiac tissue regeneration, and stimuli-responsive therapeutic cargo delivery system.

Applications:

- Tissue regeneration
- Bioscaffolds
- Stem cell therapy
- Drug delivery

Research Strengths:

- Microfluidic fabrication
- Polymer synthesis and characterization
- Nanoparticle synthesis and modification
- Cell biology
- Enzyme chemistry

Selected publications:

Su, T.; Tang, Z.; He, H. J.; Li, W. J.; Wang, X.; Liao, C. A.; Sun, Y.; Wang, Q. G. Glucose oxidase triggers gelation of *N*-hydroxyimide-heparin conjugates to form enzyme-responsive hydrogels for cell-specific drug delivery. *Chemical Science*, 2014, 5, 4204-4209.

Mao, Y.; **Su, T.***; Wu, Q.; Liao, C. A.; Wang, Q. G*. Dual enzymatic formation of hybrid hydrogels with supramolecular-polymeric networks. *Chemical Communications*, 2014, 50, 14429–14432.

Su, T.; Wang, Q. G.; Tang, Z.; Li, W. J.; He, H. J. Glucose oxidase-mediated radical initiation system for preparing hydrogels. China Patent *CN 104418971 B*, 2016.

Su, T.; Zhang, D.; Tang, Z.; Wu, Q.; Wang, Q. G. HRP-mediated polymerization forms tough nanocomposite hydrogels with high biocatalytic performance. *Chemical Communications*, 2013, 49, 8033–8035.