

Supplementary Materials

Injectable Fiber-Hydrogel Hybrid Scaffolds for Localized Growth Factor Delivery and Modulation of Vascular and Neuronal Cell Responses

Li Ruan ¹, Kaiqin Mo ¹, Wenzhe Du ¹, Kang Huo ², Jianfeng Han ², Jichuan Qiu ³, Feng Tian ^{1,*}, and Jiajia Xue ^{1,*}

¹ State Key Laboratory of Organic-Inorganic Composites, Beijing Laboratory of Biomedical Materials, Beijing University of Chemical Technology, Beijing 100029, China

² Department of Neurology, The First Affiliated Hospital of Xi'an Jiaotong University, Xi'an 710061, China

³ State Key Laboratory of Crystal Materials, Shandong University, Jinan 250100, China

* Correspondence: fengtian@buct.edu.cn (F.T.); jiajiaxue@mail.buct.edu.cn (J.X.)

Received: 3 July 2026; Revised: 23 September 2026; Accepted: 28 September 2026; Published: 30 September 2026

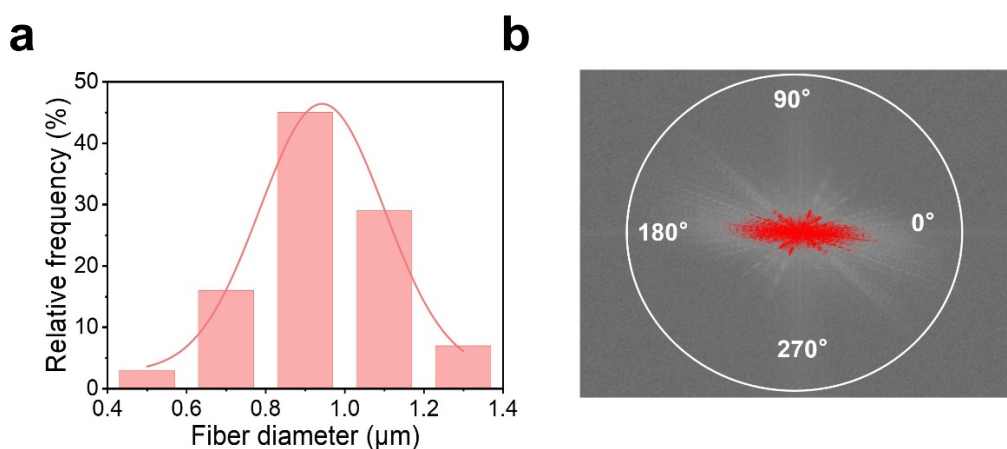


Figure S1. (a) Diameter distribution of GelMA@PCL core-shell nanofibers obtained from SEM images and (b) fiber orientation distribution determined by fast Fourier transform-based analysis of SEM images.

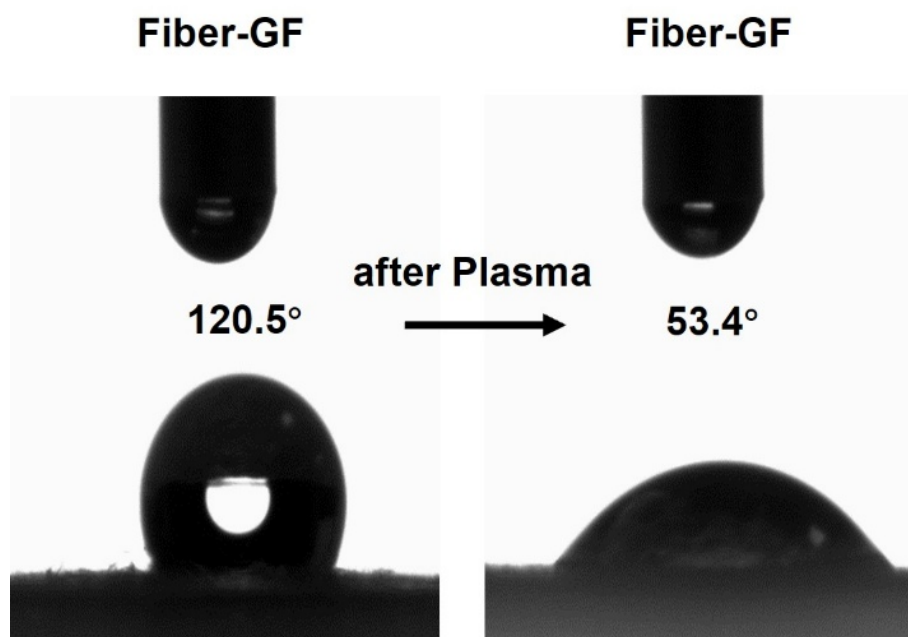


Figure S2. Water contact angle measurements of Fiber-GF before and after plasma treatment.



Copyright: © 2026 by the authors. This is an open access article under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Publisher's Note: Scilight stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.

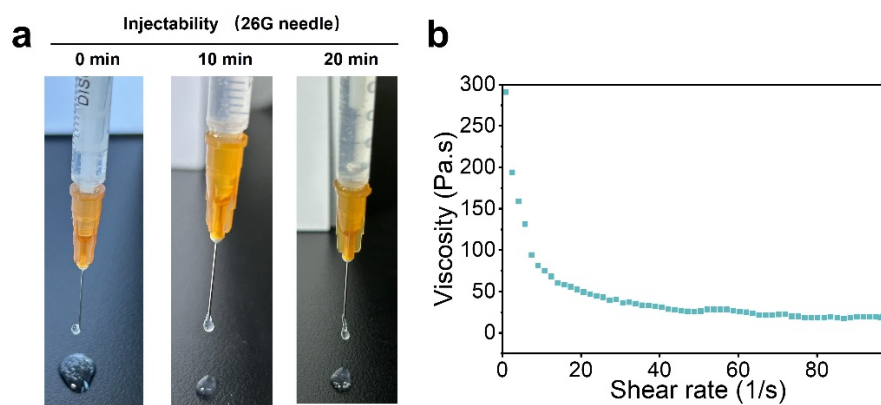


Figure S3. Injectability of the hybrid scaffold. **(a)** Representative images showing extrusion through a 26 G needle at 0, 10, and 20 min after precursor mixing. **(b)** Shear-thinning behavior of the hybrid hydrogel after gelation at 37 °C for 20 min.