Supporting Information for

Electrospun Regenerated *Antheraea pernyi* Silk Fibroin Scaffolds with Improved Pore Size, Mechanical Properties and Cytocompatibility Using Mesh Collectors

Shengzhi Zou^a, ‡, Xinru Wang^{a,b}, ‡, Suna Fan^a, Xiang Yao^a, *, Yaopeng Zhang^a, Huili

Shao^a

^a State Key Laboratory for Modification of Chemical Fibers and Polymer Materials, Shanghai Engineering Research Center of Nano-Biomaterials and Regenerative Medicine, College of Materials Science and Engineering, Donghua University, Shanghai 201620, People's Republic of China

^b Jiangsu Provincial Engineering Research Center for Biomedical Materials and Advanced Medical Devices, Faculty of Mechanical & Materials Engineering, Huaiyin Institute of Technology, Huai'an, 223003, People's Republic of China

* Corresponding author

E-mail: yaoxiang@dhu.edu.cn (X. Yao)

‡ Co-first author: Shengzhi Zou and Xinru Wang contributed equally to this work.



Fig. S1 Schematic representation of mesh collectors with varied gap sizes. (A) 2 mm, (B) 4 mm,

(C) 7 mm, (D) 10 mm and (E) 12 mm.



Fig. S2 Schematic representation of the cutting strategies for typical rectangular piece specimens from corresponding RASF scaffolds. The dashed lines only represent the relative cutting positions compare to the underneath meshes (solid lines).



Fig. S3 Statistical results of the pore size in indicated regions of the as-electrospun RASF scaffolds.



Fig. S4 Schematic representation of the electrospinning device, charge distribution on traditional intact plate collector and corresponding configuration of initial electrospun RASF fibers.

Samples —	Percentage of living cells / %	
	2 days	6 days
RASF-C	92.1	91.9
RASF-2mmG	91.0	90.3
RASF-4mmG	93.3	93.4
RASF-7mmG	96.2	94.7

 Table S1 Percentage of living cells (P) on electrospun RASF scaffolds after 2 and 6 days of culture.