## **Supporting informations**

## Effect of different fabrication methods on the chemo-physical properties of silk fibroin films and on their interaction with neural cells.

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**Figure S1:** Deconvolution of FT-IR spectra (Amide I and Amide II bands) of different SF films: SF-DC (A), SF-DO (B), SF-DC/MeOH (C) and SF-VD (D) films.

Centroid, cm <sup>-1</sup>	Area (SF-DC)	Area (SF-DO)	Area (SF-DC/MeOH)	Area (SF-VD)	Assignment
1515	0.49	5.60	18.13	18.92	β-structures
1538	10.34	60.89	9.13	83.35	α-helix
1544	-	-	45.75	-	α-helix
1628	-	-	8.58	59.37	β-structures
1654	22.39	25.73	101.19	98.81	α-helix
1657	-	48.04	-	-	α-helix
1700	-	-	8.58	28.03	β-structures

Table S1: Quantification of the secondary structure elements.



Figure S2: Optical micrographs of SF-DC (A), SF-VD (B), SF-DO (C) and SF-DC/MeOH (D) flms.



**Figure S3. Contact angle measurements of SF films.** Shapes of a DMEM medium droplet (1 µL) on the surface of SF films prepared on glass substrate by different methods: A) SF-DC, B) SF-DO, C) SF-DC/MeOH and D) SF-VD.