

## Supporting Information

### Synergistic effects of dual-presenting VEGF- and BDNF-mimetic peptide epitopes from self-assembling peptide hydrogels on peripheral nerve regeneration

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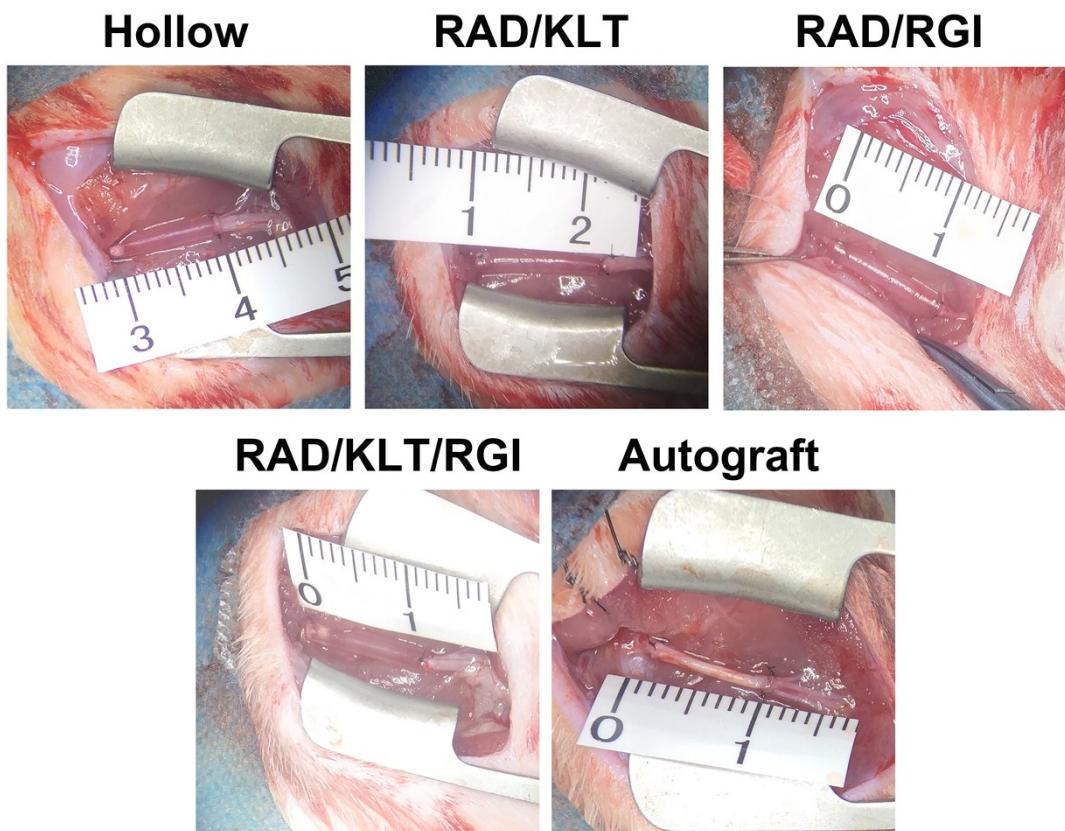
**Table S1** Primer sequences used for qRT-PCR

Gene	Primer sequence
NCAM	5' -TTCAGTGACGACAGTTGGAGC- 3' 5' -TGCAGAACCTTGAGGTGGAT- 3'
NGF	5' -TGATCGGCGTACAGGCAGA- 3' 5' -GAGGGCTGTGTCAAGGGAAT- 3'
BDNF	5' -TCTACGAGACCAAGTGTAAATCCA- 3' 5' -CTTATGAACCGCCAGCCAAT- 3'
PMP22	5' -TGTACCACATCCGCCTTGG- 3' 5' -GAGCTGGCAGAAGAACAGGAAC- 3'
S100	5' -GTTGCCCTCATGATGTCT- 3' 5' -CTGCTCTTGATTCCCTCC- 3'
NRP2	5' -CTTGCTCCCTCTTGCTG- 3' 5' -TTCCTTGTGGTGTCTTCTG- 3'
GADPH	5' -TGGTAAGGTGGTGTGAAC- 3' 5' -TTCCCATTCTCAGCCTTGAC- 3'

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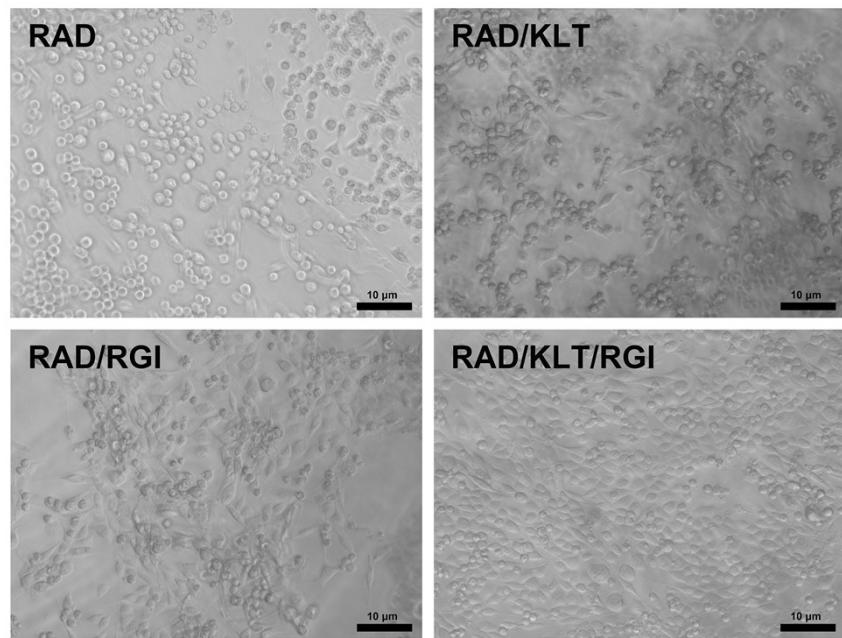
**Table S2** Detailed contents of secondary structures in RAD, RAD/KLT, RAD/RGI and RAD/KLT/RGI peptides calculated by DichroWeb

Peptides	$\alpha$ -helix	$\beta$ -sheet	$\beta$ -turn	Random coil
RAD	4.2%	45.2%	19.9%	30.6%
RAD/KLT	3.7%	44.7%	20.4%	31.1%
RAD/RGI	4.8%	43.1%	20.4%	31.8%
RAD/KLT/RGI	4.0%	44.8%	20.5%	30.8%

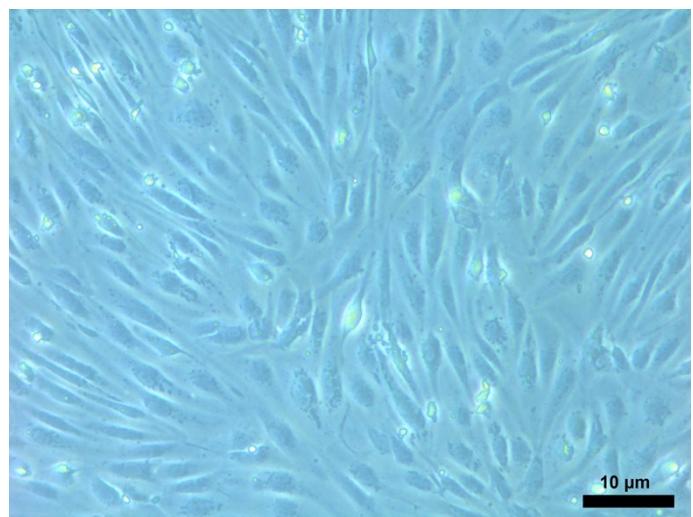


**Fig. S1.** Implantation of the nerve grafts of different groups. Surgical implantation of nerve grafts of each group in 10-mm rat sciatic nerve defects.

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**Fig. S2.** The morphology of RSCs after 7-day culture with different SAP hydrogels.



**Fig. S3.** The morphology of HUVECs after 5-day culture on the surface of TCP.