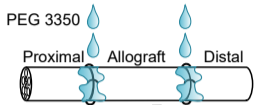
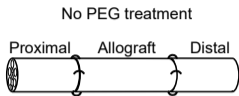


PEG-fused sciatic allograft ("PEG" group)



Negative control sciatic allograft ("NC" group)



No PEG treatment

Total RNA

Library preparation
(TruSeq Stranded mRNA kit)

Sequence with Illumina HiSeq 3000

- 20 million reads/sample
- 75bp paired-end reads

Analysis

1. Quality control: **FastQC**
2. Mapping to rat genome Rnor_6.0: **Tophat2**
3. Read counts: **HTSeq-count**
4. Differential expression: **DESeq2**
5. Gene ontology/pathway analysis: **BiNGO, DAVID**
6. Protein-protein interaction networks: **STRING + Cytoscape**

Validation of RNAseq results

RT-qPCR

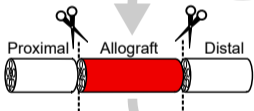
Immunohistochemistry

RNA extraction
(TRIzol + RNeasy Mini kit)

Unoperated nerve (n=2)



14d PO recovery



PEG (n=3)

NC (n=3)