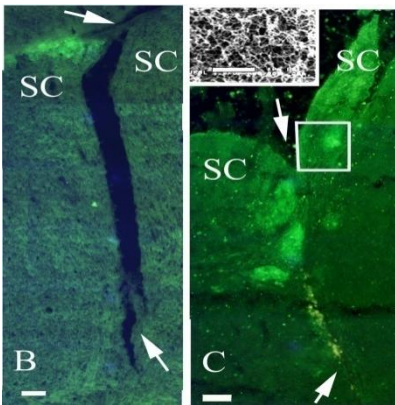


Translational Nanomedicine:

Central Nervous System Regeneration

Visual System Restoration

Nano Neuro Knitting: using nanotechnology to repair the optic nerve and reverse blindness.



“Ellis-Behnke and co-workers have combined nanotechnology and biomedicine to stimulate axonal regeneration...”

-Nature Reviews Neuroscience (2006) May; 7(5): 333

B: Saline control injection

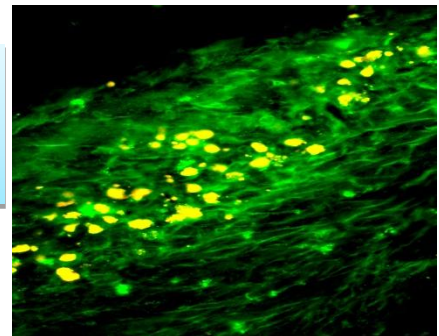
C: Repair of CNS lesion with self-assembling nanofiber scaffold (SAPNS) material

Scale bars=500 μm

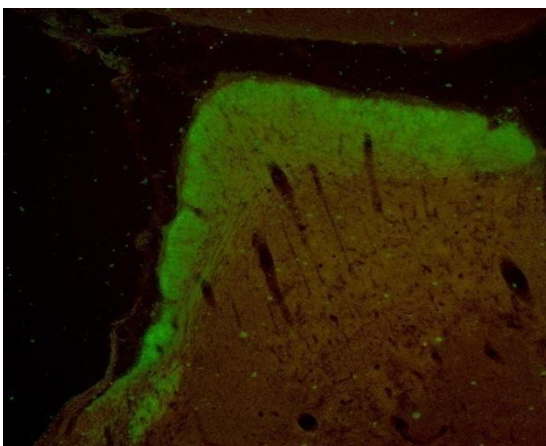
“Healing Power Found in “Nano Knitting.” -

Journal of the American Medical Association (2007)

Jan.; 297(1): 31



Regenerated axons in the middle of the lesion site



“Closing the CNS gap... this groundbreaking work launches a new method to treat CNS trauma.”

-ACS Chemical Biology (2006) May; 1(3): 116

Reinnervation of the Superior Colliculus (SC)
by axons from retina

Ellis-Behnke, R.G., Liang, Y.-X., You, S.-W., Tay, D.K.C., Zhang, S., So, K.-F. and Schneider, G. E. Nano neuro knitting: peptide nanofiber scaffold for brain repair and axon regeneration with functional return of vision, *Proc Nat Acad Sci USA* 103: 5054-5059 (2006).