

# Transplanting neural progenitor cells to restore connectivity after spinal cord injury

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**Supplementary Table 1. Clinical trials transplanting NPCs for repair after spinal cord injury.**

Table summarizes key clinical trials that transplanted NPCs and related cells with a goal of repair after human spinal cord injury, with references to the ClinicalTrial registry. Note that there is not presently a standard approved primary outcome measure for clinical trials in spinal cord injury, although there are several peer-reviewed guidelines<sup>224,236,240,241</sup>.

Company/ Institution	Intervention	Inclusion Criteria	Treatment Time	Phase of Study	Outcomes	Duration	Patients treated	Trial Identifier and Clinical Ref.
University of Florida (USA)	Developing Spinal Cord Tissue (6-9 weeks)	>18yrs Post- traumatic syringomyelia, ASIA A-D 7 Thoracic, 1 Cervical	Chronic: ~11-30yrs	Pilot Safety Study	Safety, Graft survival, Motor and Sensory Testing	1997 - 2000	8	<sup>1,2</sup>
Yonsei University (Korea)	Human neural stem/progenitor cells – telencephalon derived (13wk gestation) “hNSPCs”	16-60yrs AIS A-B Cervical	Acute to Chronic: <1wk to >6 months	Phase I/IIa Non- randomized, Open label	Graft survival, ISNCSCI exam, SSEP, MEP	2005 - 2008	19	<a href="#">NCT0000879</a> <sup>3</sup>
Geron (USA)	Oligodendrocyte Precursors “GRNOPC1”	18-65yrs ASIA A-B Thoracic (T3-T11)	Acute: 7-14 days	Phase I Non- randomized, Open label	Safety	2010 - 2011	5	<a href="#">NCT01217008</a> <sup>4-7</sup>
StemCells Inc	Human brain derived neural	18-60yrs ASIA A-C	>12 weeks	Phase I/II Single blind	Safety, Graft survival,	2011 - 2015	12	<a href="#">NCT01321333</a> Follow-up

"Pathway" (USA)	stem cells "HuCNS-SC"	Thoracic (T2-T12)		Randomized	ISNCSCI exam			studies: <a href="#">NCT01725880</a> <a href="#">NCT03069404</a> 8,9
		18-60yrs ASIA B-C Cervical		Phase II Single, Randomized	Safety, Graft survival, ISNCSCI exam	2014 - 2016	31	<a href="#">NCT02163876</a>
NeuralStem [now Seneca Biopharma] (USA)	Human fetal spinal cord derived neural stem cells: NSI-566RSC "NeuroCells"	18-65yrs AIS A Thoracic (T2-T12) & Cervical (C5-C7)	Chronic: 1-2 years	Phase I Open label	Safety, Graft Survival, ISNCSCI exam, Bowel function, Bladder function	2014 - Active	Estimated 8	<a href="#">NCT01772810</a>
Asterias [then BioTime, now Lineage Cell Therapeutics] "SCiStar" (USA)	Oligodendrocyte Precursors "AST-OPC1" (continued from Geron)	18-69yrs ASIA A-B Cervical (C5-C7)	Sub- acute: 14-42 days	Phase I/IIa Open label	Safety, Graft survival, ISNCSCI exam	2015 - 2017	25	<a href="#">NCT02302157</a>
NeuroRegen Scaffold (China)	Scaffold™ Combined With Mesenchymal Stem Cells or Neural Stem Cells	18-65yrs ASIA A cervical and thoracic (C5- T12).	Chronic	Phase I/II	Improvements in ASIA, SSEP, MEP	2016- 2020	30	<a href="#">NCT02688049</a>

Novagenesis Foundation (Russia)	Autologous Neural Stem Cells with 3D matrix	18-50yrs ASIA A Cervical, thoracic, lumbar	Acute, subacute, chronic	Phase I	Safety	2014-2018	30	<a href="#">NCT02326662</a>
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