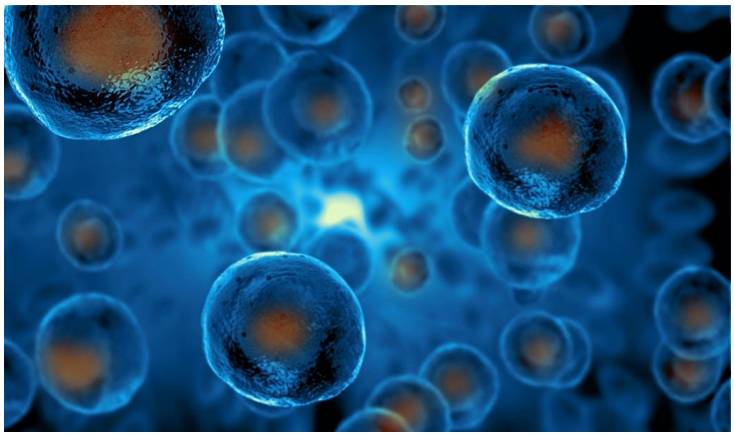
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US scientists create biodegradable scaffold to transplant stem cells

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These nano-size scaffolds hold promise for advanced stem cell transplantation and neural tissue engineering.



A group of scientists from Rutgers University-New Brunswick Rutgers has created a tiny, biodegradable scaffold to transplant stem cells and deliver drugs, which may help treat Alzheimer's and Parkinson's diseases, aging brain degeneration, spinal cord injuries and traumatic brain injuries.

The scientists have designed bio-scaffolds that mimic natural tissue and got good results in test tubes and mice. These nano-size scaffolds hold promise for advanced stem cell transplantation and neural tissue engineering. Stem cell therapy leads to stem cells becoming neurons and can restore neural circuits.

The scientists, in cooperation with neuroscientists and clinicians, plan to test the nano-scaffolds in larger animals and eventually move to clinical trials for treating spinal cord injury. The scaffold-based technology also shows promise for regenerative medicine.