

Scientist spin human brain cell silicone

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British scientists say they have succeeded in spinning fine threads of biocompatible silicone that contain viable living human brain cells.

"This has far-reaching implications and will enable significant advances to be made in technologies ranging from tissue engineering to regenerative medicine," said Suwan Jayasinghe, Andrea Townsend-Nicholson and colleagues at University College London.

"The ability to electrospin biologically active threads and scaffolds of living organisms will be tremendously useful for the development of a whole host of novel bioengineering and medical applications," the researchers said.

The scientists used an electrospinning approach in which a concentrated suspension of living cells flowed through a tiny inner needle, while thick polydimethylsiloxane flowed from an outer needle. The silicone material formed a fiber around the cells. Now the scientists say one of the next steps will be to determine how the process affects the biological properties of the cells in the long term.

The research appeared in the Nov. 13 issue of the journal *Biomacromolecules*.

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