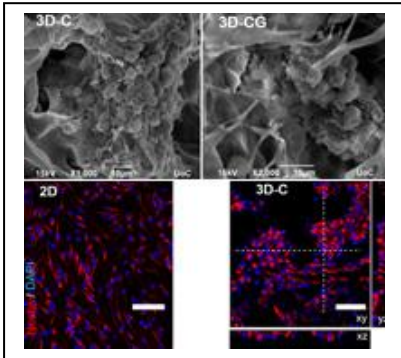




Heraklion 16/6/2020

## PRESS RELEASE

### Neuroimplants to treat spinal cord injuries



A pioneering research study by researchers at the Institute of Molecular Biology & Biotechnology of FORTH and the University of Crete suggests the development of neuroimplants for the regeneration of nerve tissue in cases of spinal cord injury. The materials and cells used are non-toxic for humans, and approved from FDA for their immediate translation in humans.

This study demonstrates for the first time that neuroimplants based on well-characterized porous collagen scaffolds, similar to FDA-approved ones used in human regenerative medicine, can prepare for culture, transfer and protect embryonic neural stem cells, transplanted to spinal cord injury areas, leading to an almost complete recovery of movement and sensation in an experimental model of spinal cord injury in the mouse, so that the ability of the animals to move 12 weeks after their injury and transplantation is no different from the control healthy animals with no injuries.

The study, published in *Nature Regenerative Medicine*, was performed in the Pharmacology Laboratory of the Medical School of the University of Crete and the Laboratory of Neural Tissue Bioengineering of the Institute of Molecular Biology & Biotechnology of FORTH, headed by Professor Achilleas Gravanis and Associate Professor Ioannis Charalampopoulos. Three young researchers, Alexandra Kourgiantaki, Dimitris Tzeranis and Kanelina Karali, share first authorship, while the postgraduate student of the University of Crete, Konstantina Georgelou, also made an important contribution.

The publication in “*Nature Regenerative Medicine*”:

<https://www.nature.com/articles/s41536-020-0097-0>

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