

Short Sharp Science

Cutting-edge science, cut up

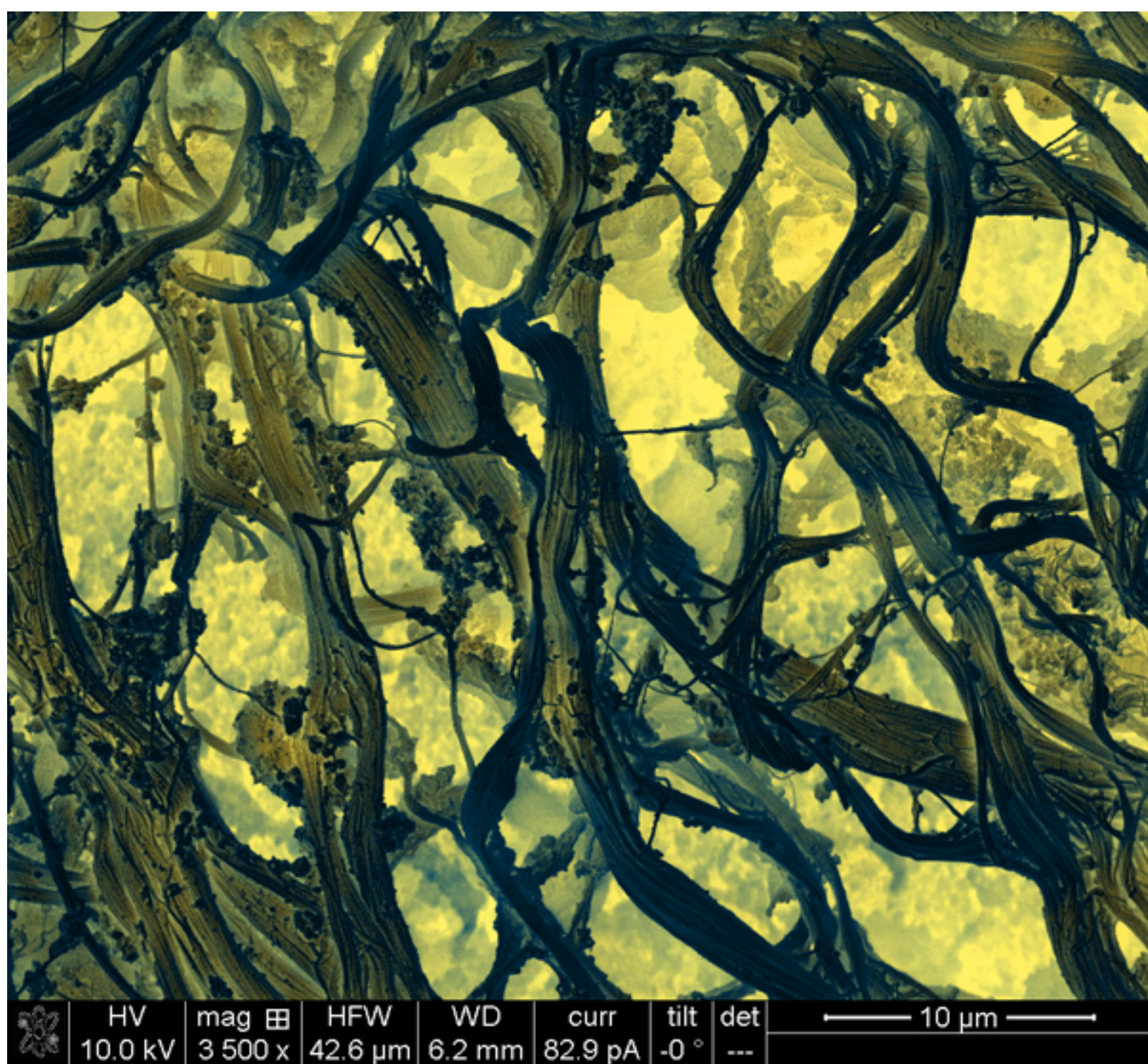


Neuron forest grows out of brain trauma experiment

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Picture of the Day

Will Ferguson, reporter



(Image: Badar Rashid, UCD)

You can't visit this tropical jungle. It's a forest of neurons snaking through a pig's brain. The brain cells, enlarged and coloured here, are being investigated to give scientists a clearer view of the mechanics of brain matter when it is hit hard.

Michel Destrade, an applied mathematician at the National University of Ireland, Galway, and colleagues obtained samples of pig brains from a local slaughterhouse to study the mechanics of brain matter undergoing rapid impacts. With the aim of improving the treatment of traumatic head injuries, they used the samples to create computer models of electrical signals inside the brain.

But during the course of the experiment, Destrade's student Badar Rashid decided to find out what white and grey matter inside a brain look like. He started with an image of neuron bundles taken using scanning electron microscopy, and blew it up to 4,000 times its actual size. He then added colour to the black and white result according to his own aesthetic.

The image appears in *Physics Today* ([DOI:10.1063/PT.3.1651](https://doi.org/10.1063/PT.3.1651)).