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August 2021 Newsletter

Featured Research

Toward Large-Scale Connectome Reconstructions

Stephen M Plaza, Louis K Scheffer, Dmitri B Chklovskii

In recent years, the neural connections of species such as *C. elegans* and *Drosophila* have been mapped in connectomes. The article argues that such reconstructions require tedious effort, and may not work for larger models. In order to generate more complex connectomes, several alterations are proposed for the future.

Measuring and Modeling Whole-Brain Neural Dynamics in *C. elegans*

Francesco Randi, Andrew M Leifer

It is possible to record detailed whole-brain activity from this nematode species while it moves unrestrained, providing insights into the neural dynamics of locomotion, internal states, and sensory signals. Recording of all neurons opens a valuable opportunity for enhanced understanding.

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Mind Uploading Media

Carboncopies Foundation Workshop
June 2021 C. ELEGANS
The first emulation?



C. ELEGANS: The First Emulation?

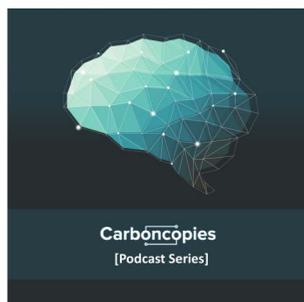
A Carboncopies Foundation Workshop Event

Why is there no whole brain emulation of *C. elegans*, even with a fully mapped connectome? This workshop highlighted research on a model organism for neuroscience in the context of whole brain emulation. If you missed the event, you can watch the recording on our YouTube channel.

Can You Upload Your Mind & Live Forever?

Kurzgesagt – In a Nutshell

This video explains the concept of mind uploading and its future implications. By emulating a person's brain on a computer, their consciousness, memories, and personality would be transferred to an artificial substrate. Current neuroscience theories say that every aspect of the mind can be emulated accurately and computationally.



Carboncopies Podcast

Listen now!

You can access our workshops and the continuing conversation on whole brain emulation on the platforms *Stitcher* and *Castbox*. The most recent episode features a presentation by Dr. Shawn Mikula, who describes slicing and imaging a rodent brain.

