Second complete map of a fruit fly brain completed

On Friday, researchers announced the completion of a map of every neuron in the brain of a male fruit fly. The “connectome” provides a tool that can accelerate neurobiology research. But it also provides an opportunity to do some science on its own, as the connectome of a female *Drosophila* had been completed earlier this year. The work also provided the team behind it the opportunity to refine tools that are likely to be applied to ever-more complex nervous systems, including (potentially) those of vertebrates.

The new work involved a collaboration between biologists at the Howard Hughes Medical Institute’s Janelia Research Campus and computer scientists at Google—both acknowledge that neither could have done the project without the other. Preparation of an entire brain for imaging at the necessary resolution requires a distinct set of skills, as does interpreting what those images indicate. But building a complete picture of the hundreds of millions of synapses in a brain as small as the fruit fly’s is a task that can’t be achieved by humans in a manageable amount of time.

The people behind the effort expect that in the long term, the effort will be worth it, as the connectome could give neurobiologists a valuable tool for understanding how the brain works.

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