

Hackathon It takes a dedicated chunk of time to agree on a system for making sense of everybody's fruit fly brain images.

Mark Longair

University of Edinburgh,
Scotland

A neuroinformaticist, Longair develops tools to extract neural connectivity information from stacks of three-dimensional images of the fly brain produced by confocal microscopy.

Stephan Saalfeld

Max Planck Institute,
Dresden, Germany

A computer science student with expertise in image processing, visualization, and the creation of Web applications, Saalfeld is currently interested in aligning consecutive microscopy slices in three dimensions.

Stephan Preibisch

Max Planck Institute,
Dresden, Germany

Preibisch is a computer scientist focused on image processing, statistics, and pattern recognition. He says a personal highlight from the workshop was "the completion of my fast 2-D and 3-D stitching algorithm."

Arnim Jenett

Janelia Farm Research
Campus, Ashburn, Virginia

Jenett is a neurobiologist interested in understanding "where functions are located in the *Drosophila* brain" and how it processes information. He is constructing an atlas of the fly brain correlating function and anatomy.



Paul Fetters

LOCK THEM IN A ROOM, GIVE THEM PLENTY OF CAFFEINE, and let them have at it. Well, it wasn't that draconian, but an international group of "hackers"—so named for their ability to find their way through a morass of code—did put in an energetic two weeks this summer at Janelia Farm Research Campus to hash out a way to compare anatomic images of the *Drosophila* brain. It sounds simple enough, but considering the variety of microscopes in use, each run by its own particular software,

and the variety of scientific approaches, each covering different degrees of detail, the prospect was fairly daunting. Yet, the group devised the basis for a file-sharing system for importing and exporting digital images across microscope platforms. Ultimately, the goal is a "brain morphing" software program that lets researchers orient themselves within the fly brain and reliably compare measurements. Plans for Hackathon II are in the works. ■

Benjamin Schmid
Wuerzburg, Germany
A bioinformatician interested in all fields that bring together mathematics, computers, and biology, Schmid currently focuses on three-dimensional visualization and alignment of *Drosophila* neuroanatomy.

Albert Cardona
University of California, Los Angeles
Cardona is a biologist studying how the brain works. Most recently, he is focused on the microarchitecture of the *Drosophila* brain.

Yuriy Mishchenko
Janelia Farm Research Campus, Ashburn, Virginia
Mishchenko is a computation biologist with an interest in image processing. He is an associate in the lab of Janelia group leader Dmitri Chklovskii, where the goal is to understand brain function at the level of neuronal circuits.

Participants not pictured:
Julie Simpson, Janelia Farm;
Wayne Rasband, National Institutes of Health, Bethesda;
Greg Jefferis, Cambridge University, England; Torsten Rohlfsing, Stanford University; Hanchuan Peng, Janelia Farm; Johannes Schindelin, University of St Andrews, Scotland.

