



HHMI's new research campus is located on a 689-acre tract in northern Virginia. Photo by Paul Fetters.

more crazy ideas, he says, is to try to simulate the behavior of the *C. elegans* worm from its wiring diagram. He's organizing one of the first onsite scientific meetings at Janelia Farm to discuss this challenge.

Although only eight of what will eventually be 24 Janelia Farm group leaders have been picked so far, Eddy's already collaborating with most of them. That's exactly

important than the 1200 CPUs and the 10,000 mouse-cage vivarium, Peterson says, are the large round tables in the dining room, the housing for visiting scientists, and the pub, where "productive collisions" between researchers are sure to occur.

Eddy is counting on at least one of those productive collisions happening to him. "From osmosis, from hang-

Researchers at Janelia Farm will self-assemble into novel, cross-disciplinary collaborations to work on long-term, unwieldy scientific problems difficult to tackle in a single laboratory.

what Rubin hoped would happen. Whatever their current expertise, all of the group leaders are extremely creative thinkers. Most have heavily quantitative backgrounds in areas such as computer science, physics, or mathematics. And most make a habit of inventing things—physical tools, gene lines, or analysis techniques.

Even the director of information technology at Janelia Farm, **Marshall Peterson**, who worked as vice president of IT at Celera Genomics, will invent tools to help the researchers as they need them. Peterson says that the goal for IT at Janelia Farm "is to build a very flexible shared computing environment that we can scale and adapt as needed when people come to us with computational challenges." He is starting off with 1200 CPUs and 150 terabytes of storage and leaving room for whatever else they might need. "The trick is to not paint yourself into a corner," he says.

Other tools at Janelia Farm include equipment for electron microscopy, light microscopy, genomic sequencing, instrument fabrication, transgenic animal studies, and more. Peterson emphasizes, however, that at Janelia Farm, "it's not all about tools. It is about people getting together, talking, interacting, exploring, giving full reign to their imaginations." Almost more

ing out with all of these neurobiologists," he says, "I'm hoping to eventually have a smart idea." If Janelia Farm works the way it has been designed to work, Eddy and his colleagues will have many. □

JANELIA FARM QUICK FACTS

WHAT: Howard Hughes Medical Institute's first freestanding research institute

WHERE: Ashburn, Virginia—roughly 30 miles northwest of Washington D.C.

STAFF: Will have up to 300 resident research staff (including group leaders, postdocs, and graduate students) and 80 support staff, plus up to 100 visiting scientists

FACILITY: \$500 million research campus (including a 900-foot-long laboratory building, conference facilities and hotel, and visiting scientist housing) designed by Rafael Viñoly to foster collaborative science and adapt to changing needs

FUNDING SOURCE: Howard Hughes Medical Institute

HISTORICAL MODELS: Medical Research Council Laboratory of Molecular Biology (MRC LMB) in Cambridge, England, and AT&T's Bell Laboratories in New Jersey

SCIENTIFIC CONFERENCES: Will host at least twelve per year

WEB PAGE: <http://www.hhmi.org/janelia/>