

NIH picks Samson, Griffith for innovation grants

Pioneer, T-R01 awards aimed to spur 'out of the box' research

Anne Trafton, MIT News Office
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MIT professor Leona Samson is among 18 scientists nationwide to receive 2009 Pioneer Awards, the annual National Institutes of Health grants designed to encourage scientists to explore high-risk projects with the potential to dramatically transform health research.

Samson, director of MIT's Center for Environmental Health Sciences and professor of toxicology and biological engineering, will receive \$2.5 million over five years. Now in its sixth year, the Pioneer Award program is designed to support individual scientists of exceptional creativity at any career level. This year's grants were announced today.

Samson plans to use the grant to develop novel ways to measure the ability of cells from different people to protect against the toxic effects of DNA damaging agents. Such differences in cell responses can help explain why some people get cancer and others do not, why some suffer neurological disease and others do not, why some people tolerate cancer therapy and others do not, and why some people age faster than others.

This year, the NIH also launched another program to fund highly innovative research, the NIH Director's Transformative R01 (T-R01) Awards.

Linda Griffith, professor of biological and mechanical engineering, will receive one of the 42 awards, which have no budget cap. No preliminary results are required, and scientists are free to propose new, bold ideas that may require significant resources to pursue. They are also given the flexibility to work in large, complex teams if the complexity of the research problem demands it.

Griffith will use the grant to build new tools to probe the molecular communications networks between cells and integrate these tools with computational models of network behavior. Other MIT professors included in the project are Paula Hammond of

chemical engineering, Barbara Imperiali of chemistry, and Douglas Lauffenburger of biological engineering.

"The appeal of the Pioneer, New Innovator, and now the T-R01 programs, is that investigators are encouraged to challenge the status quo with innovative ideas, while being given the necessary resources to test them," said NIH Director Francis S. Collins. "The fact that we continue to receive such strong proposals for funding through the programs reflects the wealth of creative ideas in science today."

Previous Pioneer winners from MIT include Alexander van Oudenaarden of the Department of Biology (2008), Aviv Regev of the Department of Biology (2008), Alice Y. Ting of the Department of Chemistry (2008), Emery Brown of the Harvard-MIT Division of Health Sciences and Technology and the Department of Brain and Cognitive Sciences (2007), and Arup K. Chakraborty of the Departments of Chemical Engineering, Chemistry and Biological Engineering (2006).



Professor Leona Samson



Professor Linda Griffith