
TIMOTHY LU

CV

PARTICIPANT AT:

SYNTHETIC BIOLOGY. FROM STANDARD BIOLOGICAL PARTS TO ARTIFICIAL LIFE

**September, 17th-18th, 2015, Barcelona****Timothy Lu**, Associate Professor, MIT, Cambridge, MA, USA

Timothy Lu, M.D., Ph.D. is an Associate Professor leading the Synthetic Biology Group in Research Laboratory of Electronics, Department of Electrical Engineering and Computer Science and the Department of Biological Engineering at MIT. He is a core member of the MIT Synthetic Biology Center and a co-founder of Sample6 Inc., Synlogic Inc, and Eligo Biosciences. **Tim's** research at MIT focuses on engineering computing and memory circuits in living cells, applying synthetic biology to tackle important medical and industrial problems, and building living biomaterials that integrate biotic and abiotic functionalities. He is a recipient of the NIH New Innovator Award, the Presidential Early Career Award for Scientists and Engineers, and the Ellison Medical Foundation New Scholar in Aging Award, among others.

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ABSTRACT

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SYNTHETIC BIOLOGY. FROM STANDARD BIOLOGICAL PARTS TO ARTIFICIAL LIFE

**September, 17th-18th, 2015, Barcelona****Timothy Lu**, Associate Professor, MIT, Cambridge, MA, USA**Synthetic Biology for Human Health Applications**

Synthetic biology is an emerging discipline for engineering biological systems. Exponential increases in our ability to read and write DNA are significantly accelerating our ability to reprogram biology for real-world applications. The ambitions of the field are to revolutionize the ways we study, diagnose, and treat a wide range of problems in biomedicine, environmental science, biotechnology, and other areas. Although synthetic biology is still at an early-stage of development that can be likened to the early days in the semiconductor industry just after the creation of the transistor, exciting academic and commercial applications are already being pursued. We have built foundational toolkits to make the engineering of biological systems more reliable, powerful, and rapid. In addition, we have invented technologies to tackle several real-world applications and have had the opportunity to translate these academic inventions into commercial ventures in diagnostics and therapeutics.

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