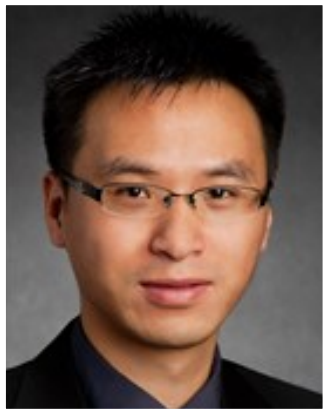


UNIVERSITY *of* DELAWARE  
BIOMEDICAL ENGINEERING  
SEMINAR

MAY 8, 2015

**Ting Lu, Ph.D.**

ASSISTANT PROFESSOR

BIOENGINEERING &amp; INSTITUTE FOR GENOMIC BIOLOGY

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

***“Understanding and Programming Bacterial  
Functionality via Engineered Gene Networks”***

**G**ene regulatory networks are one of the major cellular infrastructures that confer defined biological functions. My research focuses on synthetic biology—the analysis, construction, and exploitation of these networks for programming cellular functionalities, particularly those relating to probiotic bacteria and microbial community. Towards probiotic bacteria, I will report a recently developed pathway engineering platform for lactic acid bacteria, and illustrate its applications such as bacteriocin overproduction. Due to the dominant presence of microbes in the form of complex community, we are also equally interested in understanding and engineering bacterial collective behaviors implemented by natural and synthetic gene networks. Examples will be discussed to illustrate our efforts.

9:30am in 322 ISE Lab. *Refreshments served at 9:15am.*