

# MSE-Colloquium@NTU

13 April 2016, 4.00 pm

Lecture Theatre 3, Nanyang Technological University



## Biomimetic Nanoparticles for Cardiovascular Disease

*Dr C. Shad Thaxton*

*Northwestern University*

*Feinberg School of Medicine*

*Robert H. Lurie Comprehensive Cancer Center*

### About the Talk

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The Thaxton Lab pioneered the synthesis of high-density lipoprotein nanoparticles (HDL NPs) using a gold nanoparticle as a template to control conjugate size, shape, and surface chemistry. Current work centers on understanding the molecular structure of these unique materials, defining and tailoring structure-function properties, and exploring interesting therapeutic opportunities based, mainly, upon the inherent function of the HDL NPs.

### About the Speaker

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Dr. Colby Shad Thaxton graduated from the University of Colorado with a BA in Environmental Biology. He earned his MD and PhD from Northwestern University in 2004 and 2007, respectively. Joining Northwestern as full-time faculty in 2008, Dr. Thaxton's research efforts focus on translational nanotechnology. Nanotechnology is the study of the fabrication, directed self assembly, and characterization of materials that have size dimensions between 1 and 100 nanometers. In the context of biological nanostructures, this is the size regime of the molecular machinery that constitutes, for example, functional viruses, bacteria, and human cells. The challenge of bio-nanotechnology, and the focus of The Thaxton Laboratory, is to control the synthesis of structures that naturally interface with biological systems to develop exquisitely targeted, practical, safe, and effective nanoparticle therapeutics, imaging agents, and biosensors.



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