

# IEM SPECIAL SEMINAR

THURSDAY  
September 14<sup>th</sup>, 2017

## Not What I Thought – Surprising Commercial Applications of Nanotechnology



Institute for  
Engineering in Medicine

UNIVERSITY OF MINNESOTA

Driven to Discover<sup>SM</sup>

**Dr. Steve Oldenburg**

President, nanoComposix, Inc



FREE event, no registration  
required.

Pizza and Beverages will be  
provided from 11:45 am

For additional information on  
Dr. Oldenburg's presentation  
please contact:

[scot0353@umn.edu](mailto:scot0353@umn.edu)

**12:00PM - 1:00PM**

**Mayo Building**

**Room 3-100**

The Institute for Engineering in Medicine (IEM) is pleased to announce a special seminar by Dr. Steve Oldenburg, "Not What I Thought - Surprising Commercial Applications of Nanotechnology".

At nanoComposix we have produced thousands of custom nanomaterials for companies in industries that range from consumer electronics to therapeutics to diagnostics to defense and have seen many successes and failures. The successful commercial ideas meet two important criteria. Firstly, the nanomaterial must impart either an order of magnitude improvement in the speed/sensitivity/performance of the product or it must allow the product to have a characteristic that would simply not be possible without nanotechnology. Secondly, the embedded nanotechnology must meet a cost point that allows for successful commercialization. In this talk, the story behind a wide variety of nanotechnology products will be described that include "magic" socks, one-way illumination, cures for acne, tracers for oil fracking, color changing bandages, and a coming revolution in mobile phone based personal diagnostics. The case studies will illustrate the challenges and pitfalls of bringing early stage technologies to market.

Steve Oldenburg (President, nanoComposix, Inc.) received his Ph.D. in Applied Physics from Rice University where he discovered a method of fabricating gold nanoshells which have unique optical properties and applications that range from photonics to cancer therapeutics. In 2004, Steven founded nanoComposix, a company focused on the commercialization of products that utilize precisely engineered and highly characterized nanoparticles. Leveraging a particle library with more than 500 different sizes, shapes and surfaces, nanoComposix helps companies bring nanotechnology enabled products to market. He is a co-founder of Sienna Biopharmaceuticals (NASDAQ:SNNA), Nanovision, Caleta Labs, and La Jolla Nanomedical and serves on the board of COLR Security. He has over 30 nanotechnology publications and has 10 issued patents.

