

Engineer, physicist to turn the inner workings of living cells into 'molecular movies'

February 15 2015, by Pam Frost Gorder

What happens when a chemical engineer and a physicist walk into a bar? They forge a collaboration that could change biological imaging.

That's what happened to Jessica Winter, associate professor of chemical and [biomolecular engineering](#) and biomedical engineering at The Ohio State University, and Peter Kner, assistant professor of engineering at the University of Georgia.

The two will present back-to-back talks at the American Association for the Advancement of Science meeting, where they will describe how a chance meeting over lunch at an imaging workshop lead to QSTORM, a research project that aims to visualize the inner workings of cells in a new way.

The "Q" in the name comes from "quantum dots"—a product of Winter's lab—and "STORM" from stochastic optical reconstruction microscopy—Kner's specialty. Their goal is to use blinking quantum dots to enhance the resolution of microscopy for sub-cellular imaging inside living organisms.

At the meeting, the Winter and Kner will describe the early results in their effort to image [muscle contraction](#) on the nanometer scale. In essence, they hope to make "molecular movies" of the inner working of [muscle cells](#).

More information: "A Chem Engineer and a Physicist Walk Into a Bar: Adventures in Advanced Bio-Imaging" is part of the session "When Experts Collide: Driving Cross-Cutting Innovation in Biological Imaging and Informatics," and will take place Sunday, February 15, 2015 from 8:30 a.m.-11:30 a.m. in room LL21B of San Jose Convention Center.

Provided by The Ohio State University

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