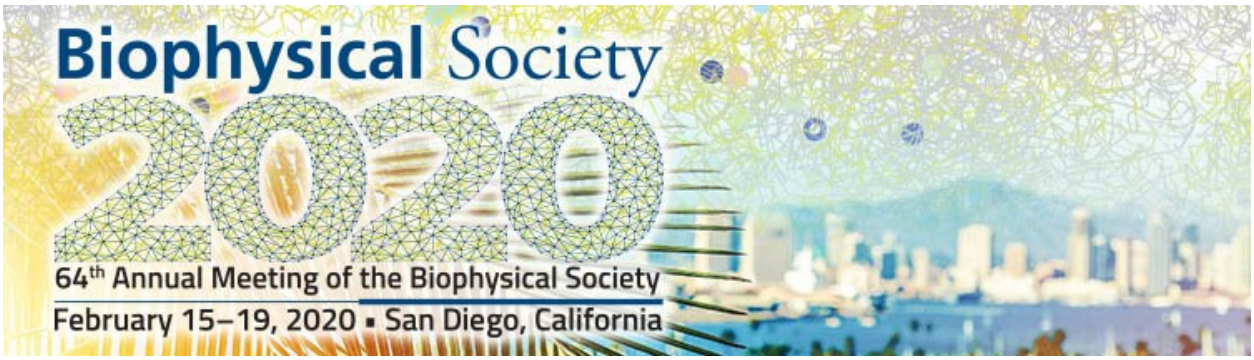

Sunday, February 16
3:30 PM – 5:00 PM
Room 33A
Bruker Corporation

Multiplexed Imaging and Superresolution Microscopy Using the Vutara 352 Microscope with Integrated Fluidics System

The Vutara 352 super resolution microscope has been designed for single molecule localization microscopy in multiple types of biological samples. However, most current methods for super resolution microscopy are limited to three- to four-targets due to the limited number of dyes compatible with quality super resolution techniques. This talk presents a method for multiplexing single molecule localization microscopy imaging within a biological sample through the use of an integrated automated microfluidics system. Probe multiplexing allows for the imaging of greater than four different targets within a cell. Using the Vutara 352 and integrated fluidics unit we will show the three-dimensional oligoSTORM imaging of a multiplexed oligoPAINT labeled chromosome in individual human fibroblast cells along with 3D multi probe DNA-PAINT based single molecule localization data for antibody labeled targets in cell culture and tissue slices. The Vutara 352 with integrated fluidics and SRX software provides a powerful suite of tools for simultaneous imaging, localization, visualization and statistical analysis of multiplexed single molecule super resolution data.

Speaker

Robert Hobson, Applications Scientist, Bruker Corporation