

## SEMINAR - BIOSENSING WITH ELECTRO-SWITCHABLE DNA BIOSURFACES

**dynamic**BIOSENSORS' will be hosting a scientific seminar about the novel **switch**SENSE\* measurement technology, the first sensor technology platform employing electro-switchable DNA biosurfaces for the in-depth analysis of molecular interactions and biophysical parameters.

WHEN: Tuesday, April 16th, 2019 at 12:00PM - 2:00PM

WHERE: FDA White Oak Campus, WO-Bldg. 52 - 4200 (Silver Spring, MD)

The seminar will explore the versatility of DNA functionalization that enables a wide array of biomolecules to be surface immobilized, with high spatial resolution and tunable surface density. Using our numerous DNA nanolever configurations, we will highlight the broad range of applications of the **switch**SENSE® technology, including:

- Interaction binding kinetics
- Affinity / avidity for mono- and bi-specific antibody formats
- Dual antigen immobilization for bispecific antibodies
- DNA and RNA-binding proteins
- Aptamer binding to small molecules and proteins
- Stokes radius and conformational change measurements

















The label-free solution-based nature of this method facilitates the higher throughput and content typical for secondary screening techniques. **dynamic**BIOSENSORS' technologies also support the coupling of protein and small molecule targets to single-stranded DNA, including **our recently-launched pro**FIRE® **system for the purification of DNA-protein conjugates.** 

## About the switch SENSE technology

**switch**SENSE® is an automated, fluorescence-based biosensor chip technology that employs electrically actuated DNA nanolevers for the real-time measurement of binding kinetics ( $k_{ON}$ ,  $k_{OFF}$ ) and affinities (with  $K_D$  values down to the fM range). The platform offers an automated ligand density control, which allows to conveniently discriminate between affinity and avidity in one single assay. Interactions between proteins, DNA/RNA, and small molecules can be detected with femto-molar sensitivity. At the same time, protein diameters ( $D_H$ ) are analyzed with 0.1 nm accuracy and conformational changes as well as melting transitions ( $T_M$ ) can be measured using minimal amounts of sample.

For details, questions or further information please contact

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