

switchSENSE®

## DRX<sup>2</sup> Analyzer

Multi-parameter biophysical analysis  
of molecular interactions

$k_{ON}$  |  $k_{OFF}$  |  $K_D$  |  $IC_{50}$  |  $D_H$  |  $\Delta D_H$  |  $T_M$  |  $\Delta G$  |  $\Delta H$  |  $\Delta S$  |  $k_{CAT}$  |  $K_M$  |  $U$



### BIOSENSING WITH ELECTRO-SWITCHABLE DNA BIOSURFACES

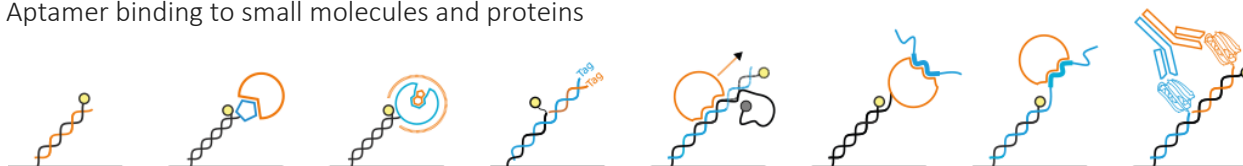
You are cordially invited to a scientific seminar presenting **dynamic**BIOSENSORS' novel **switchSENSE®** measurement technology

**WHEN: Wednesday April 17th, 2019 at 1:00PM – 2:00PM**

**WHERE: Boardroom, 9800 Medical Center Drive Bldg B, NIH-NCATS (Rockville, 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 **switchSENSE®** technology, including:

- Stokes radius and conformational changes
- Interaction kinetics and affinity / avidity
- Mono- and bi-specific antibody binding kinetics
- DNA and RNA-binding proteins
- Aptamer binding to small molecules and proteins



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 proFIRE® system for the purification of DNA-protein conjugates.**

#### About the **switchSENSE®** technology

**switchSENSE®** 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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