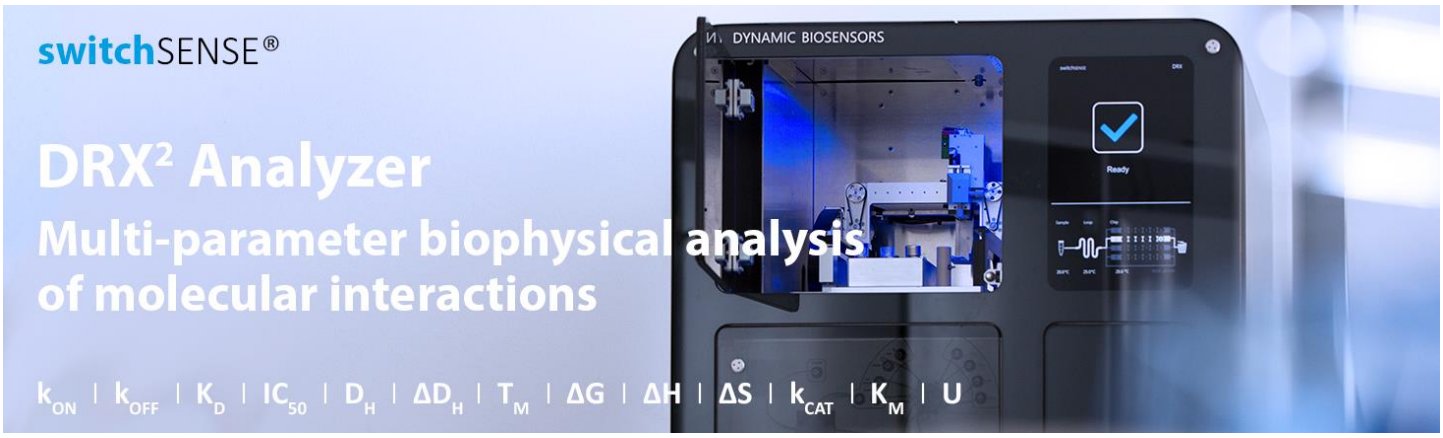


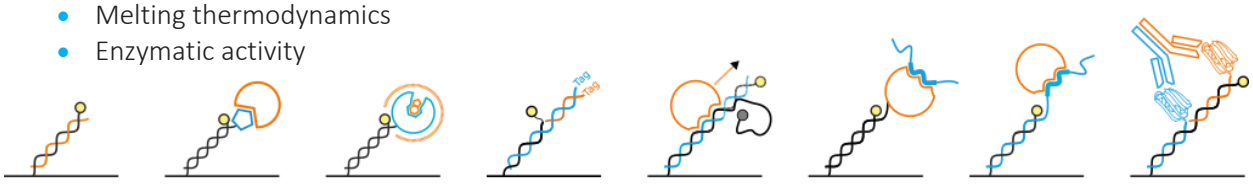
BIOSENSING WITH ELECTRO-SWITCHABLE DNA BIOSURFACES

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

WHEN: Tuesday January 22nd, 2019 at 2:00PM
WHERE: Bldg 72 – 153 Noyes

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:

- Stokes radius and conformational changes
- Interaction kinetics and affinity / avidity
- Melting thermodynamics
- Enzymatic activity



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.

About the speaker

Thomas Weber studied Molecular Medicine at the University of Erlangen, Germany and received his PhD in Biochemistry focusing on Molecular Imaging. Before and after a postdoctoral training at the Sanford Consortium for Regenerative Medicine, San Diego, Thomas worked in the development of therapeutic antibodies at Roche and U3 Pharma. He went on to become an expert in the biophysical characterization of antibody binding properties at Dynamic Biosensors, where he now is the Applications Team Leader for all evaluation and customer projects in the USA.

For details, questions or further information please contact
Paul Rothemund (pwkr@dna.caltech.edu) or **Thomas Weber** (weber@dynamic-biosensors.com).

dynamic BIOSENSORS