Kinetics of intermolecular binding

\[ k_{on}, k_{off}, K_D, \text{epitope binning} \]

Quantitation of macromolecules and large complexes

proteins, antibodies, viruses, LNPs

Erik S. Levy, M.S., M.S.
elevy@gatorbio.com

April 18, 2023
About Gator Bio

- Founded in 2018 by Hong Tan and Robert Zuk.
  - inventors of Bio-Layer Interferometry (BLI)
  - founders of ForteBio (2001)

- Headquartered in Palo Alto, CA.
  - ~100 employees
  - >200 instrument placements

- Rapid Innovation
  - Gator Prime: 2019
  - Gator Plus: 2021
  - Gator Pro: 2023
  - New Probes continually (SAXT 2023)

- **Mission:**
  Empower researchers by creating a more powerful, productive, and cost-effective BLI system.
What is Biolayer Interferometry (BLI)?

- Proprietary surface chemistry
- Interaction layer results in interference pattern
- Real-time monitoring change of interference pattern
- Signal proportional to number and size of biomolecule
- Move from well to well on microplates
Gator: Biotherapeutics Discovery Tool

Supports every stage of biotherapeutics development

- **Early Discovery**
  - Antibody titer
  - Yes/No binding
  - Isotyping
  - Off-rate ranking

- **Early Development**
  - Lead optimization
  - Epitope binning
  - Affinity maturation

- **Lead Antibody**
  - Binding kinetics
  - Activity assay
  - Stability studies

- **Process Scale-Up**
  - Protein expression optimization
  - Quantitation

- **Manufacturing & QC**
  - Kinetics measurement
  - Activity validation
Why Gator Bio BLI?

✓ Fast—minutes for antibody quantitation in 96 well

✓ High Throughput—8 or 32 reads simultaneously, up to 1152 samples walkaway

✓ Automation friendly

✓ Ease of Use—minimal manual steps, no fluidics

✓ Cost effective

✓ Precise and Accurate