Invention Summary: Scientists at Rutgers have designed a way to simultaneously quantitate target biomarkers and discriminate these biomarkers from closely related molecular entities. By making use of the thermodynamics of competitive differential hybridization, Tunable Quantitation Assays (TQAs) quantify target concentrations and substantially reduce the occurrence of false positives. This technology allows the target binding affinity to be rationally modulated to create useful signal ranges optimized for a given diagnostic platform. TQA technology is applicable to a wide variety of previously developed biosensor and diagnostic platforms.

Advantages:
- Reduces false positives in existing technologies
- Works for both DNA-meter and Apta-meter (protein, small molecules, etc.) diagnostics
- Complementary to fluorescence technologies

Intellectual Property & Development Status:
Patent pending. Available for licensing and/or research collaboration.

Select Publications