



Optimized Library Preparation Kit and Workflow for Improving cfDNA Sequencing Sensitivity

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ELBS

General Assembly, November 26-27, 2024



Twist Continues to Support Innovation in Oncology Solutions

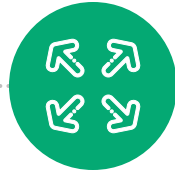
2018-2019



Launched best-in-class target enrichment panel offering – **Human Core Exome**

Expanded offering with robust **Library Prep kits and reagents**

2020



Responded to Global Pandemic – **SARS-CoV-2 Panels Synthetic Controls**

2021



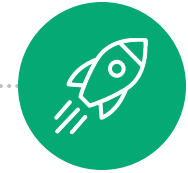
Continued innovation in Exome, Custom offering, Library Prep and **Targeted Methylation**

2022



Continued innovation in the NGS Toolset: **cfDNA Reference Standards and UMI Adapter System**

2023-2024



MRD, Liquid Biopsy:

cfDNA Library Prep and Enrichment

**RNA Library Prep and
RNA Exome Panel
RNA Fusion Panel**

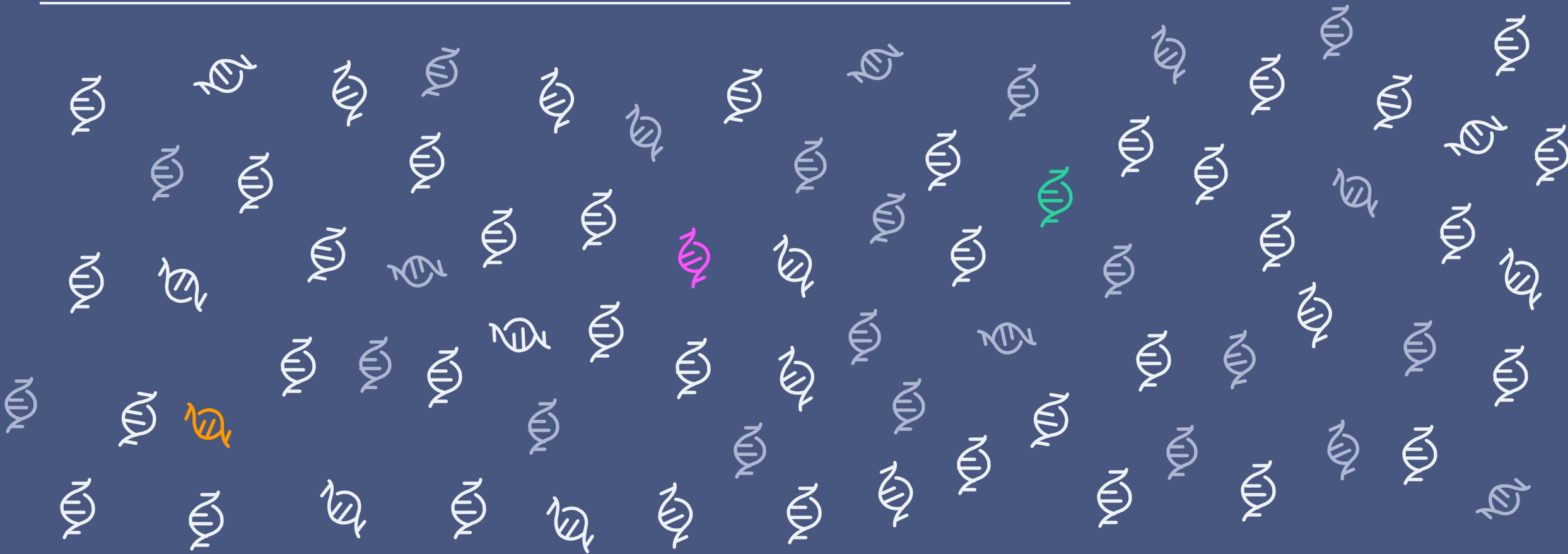


Where does sensitivity of a liquid biopsy research assay start?



Where does sensitivity of a liquid biopsy research assay start?

Before library preparation





Where does sensitivity of a liquid biopsy research assay start?

After library preparation





Sensitivity starts with library preparation

Retain more molecules.
Improve detection of rare variants





Higher yield in library preparation means improved assay sensitivity

You miss molecules

You miss variants

YOU MISS RESULTS



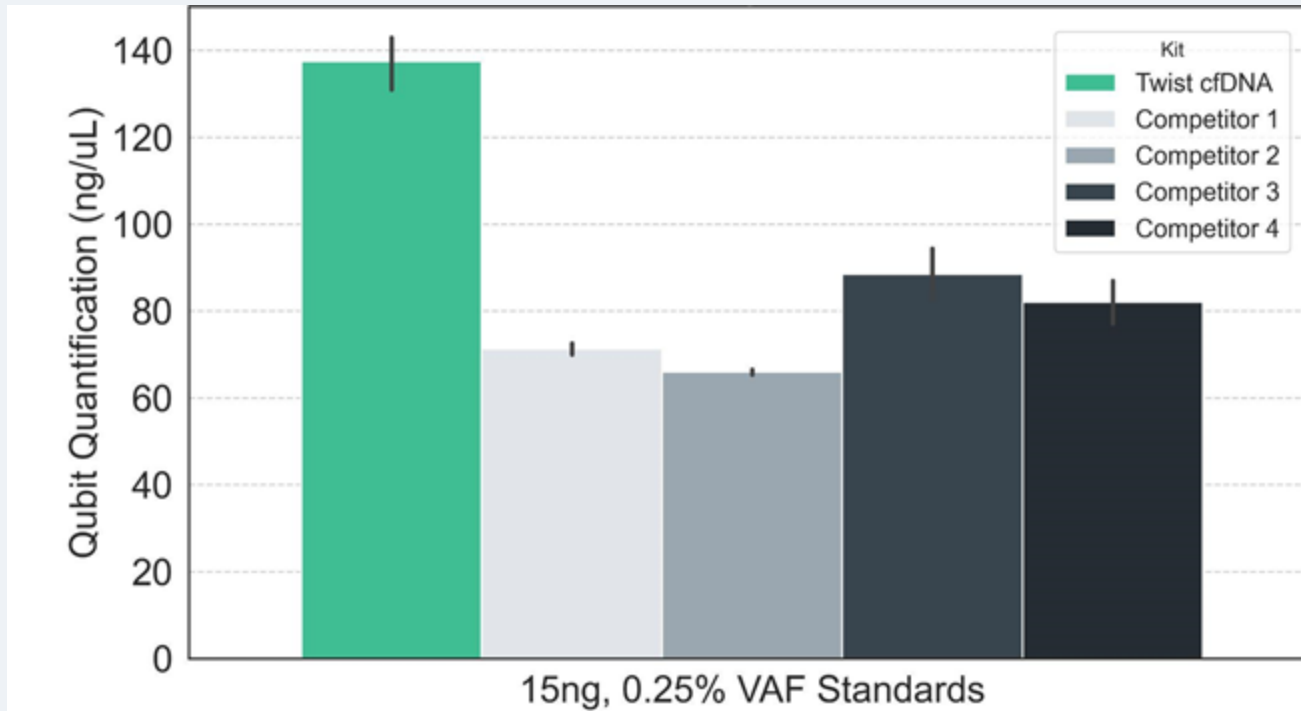
Twist cfDNA Library Prep

Engineered for next generation performance & efficiency





2x Improvement of Conversion Efficiency for the Highest Yield



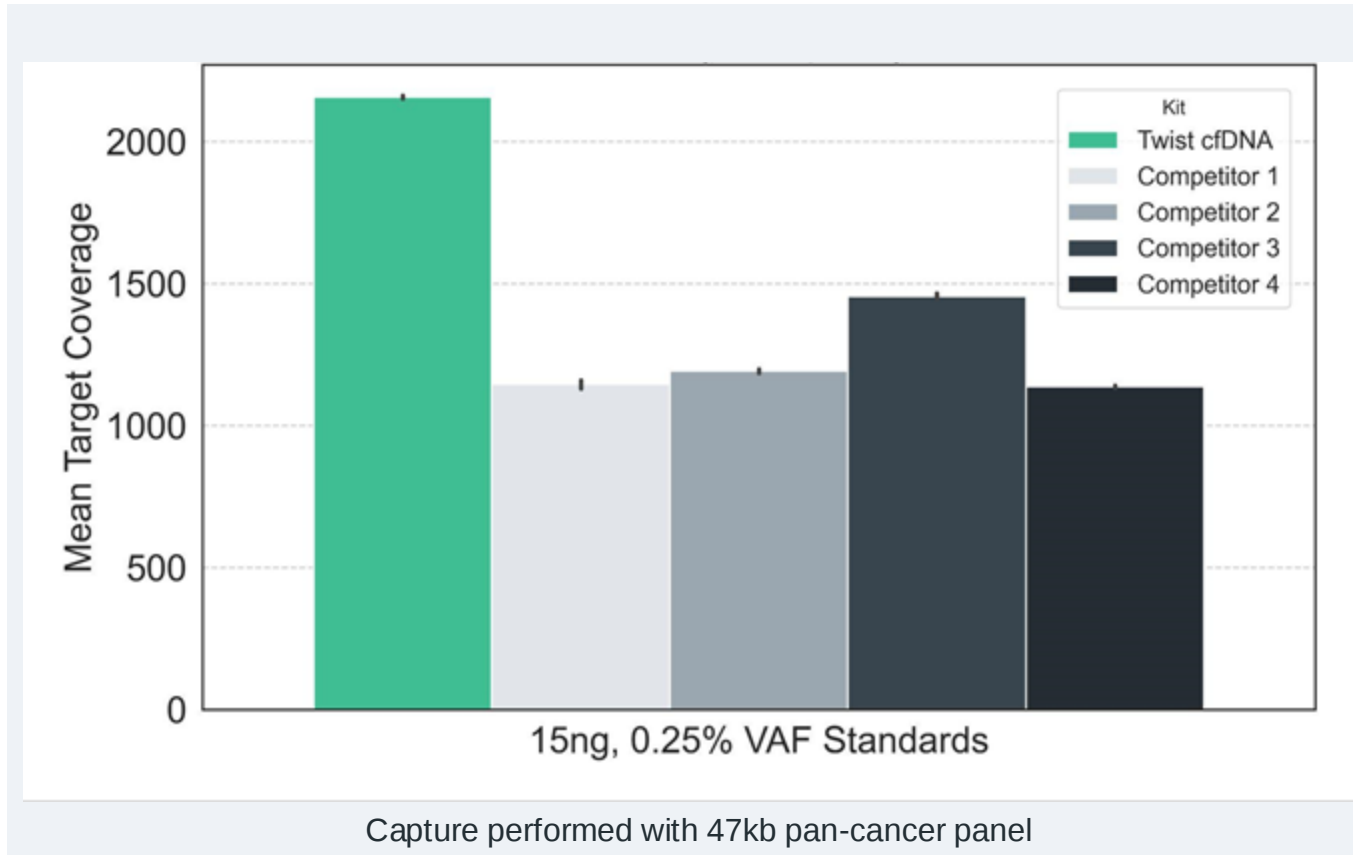
More efficient conversion of starting molecules into sequenceable libraries leads to better data

Potentially **double library prep yield**, relative to similar on-market low input kits

Bringing **Twist's scientific innovation** to each element, from enzymes and buffers to workflow



Carry Library Prep Yield Gain Through Target Enrichment



Improved conversion rate leads to **higher mean target coverage**

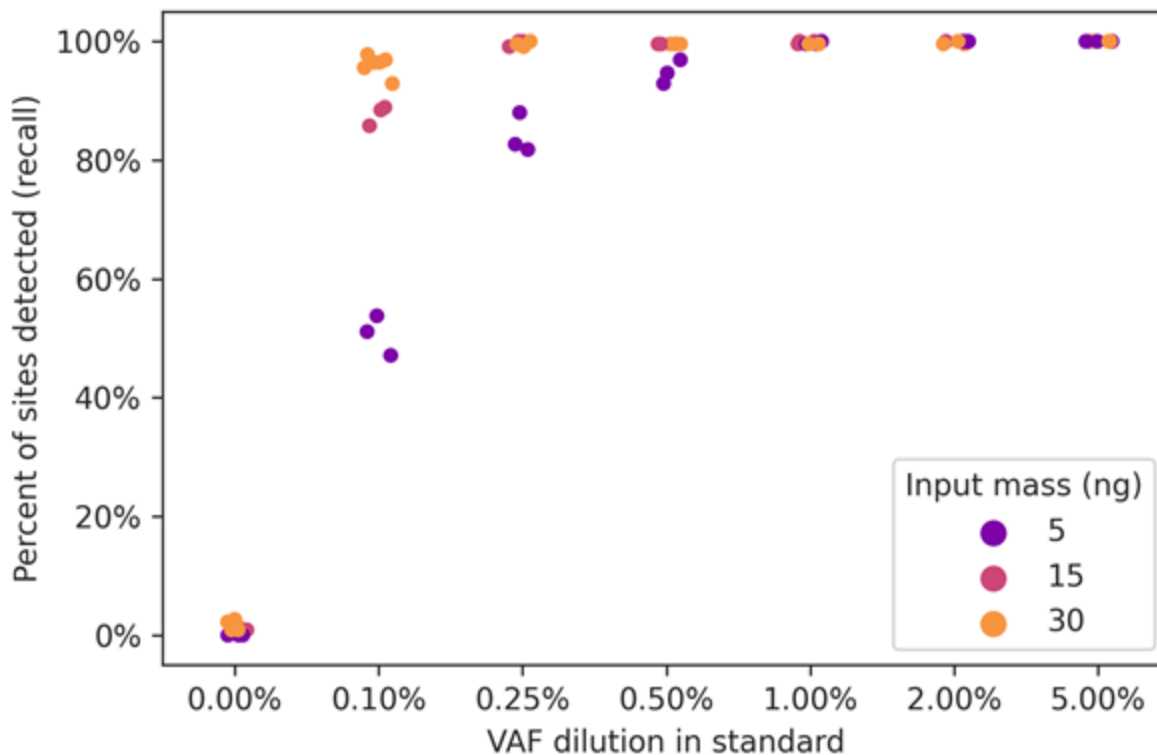
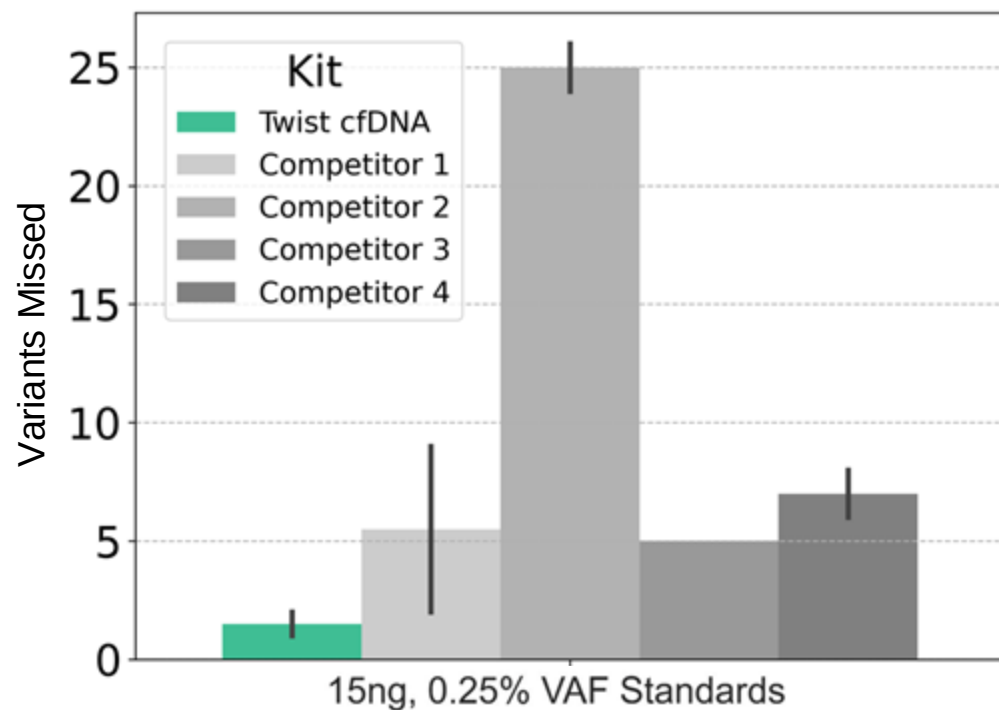
Higher complexity enables **improved sensitivity**

Increased coverage means **greater confidence in variant calling**

Re-optimizing Twist's tried and true capture systems to **ensure the gains in library prep are maintained after enrichment**



Resulting in Maximum Sensitivity and Insight into Variants



Capture performed with 47kb pan-cancer panel using Twist cfDNA reference standards and Twist UMI Adapter System

Higher Sensitivity

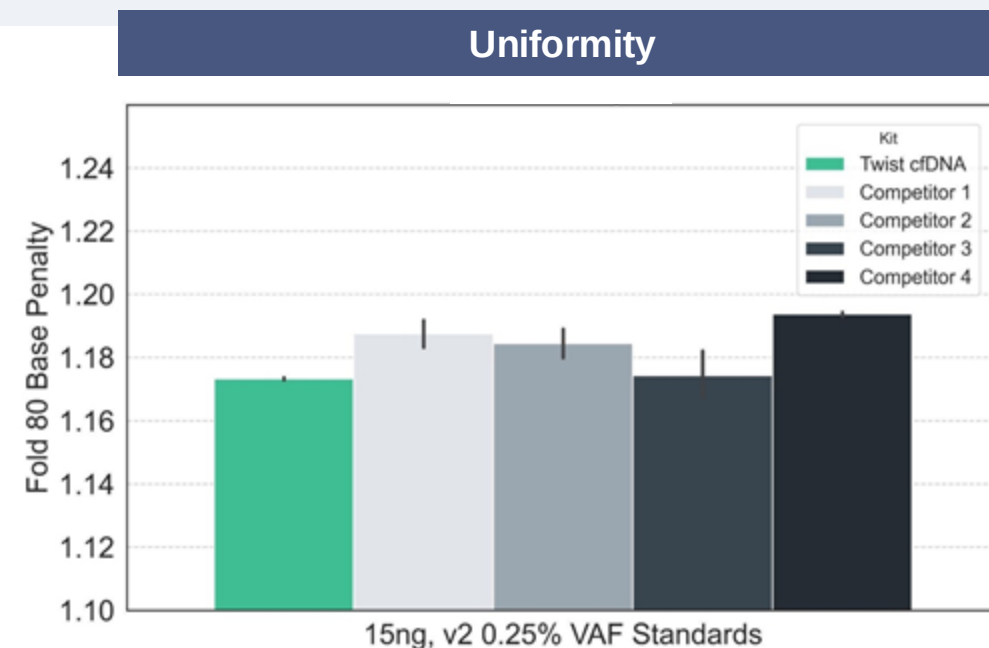
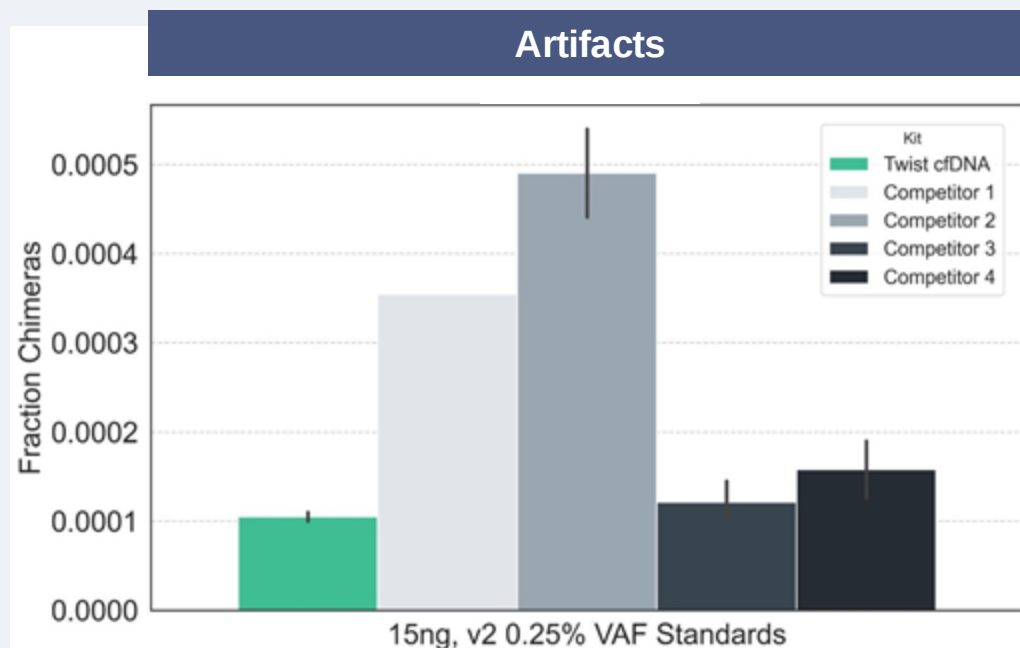
Twist's higher coverage leads to lower variants missed

Higher Detection

Even low VAF and variable input mass



Raising the Bar on Performance with No Tradeoffs



Capture performed with 47kb pan-cancer panel using Twist cfDNA reference standards and Twist UMI Adapter System

Minimal molecular artifacts for libraries where every read matters

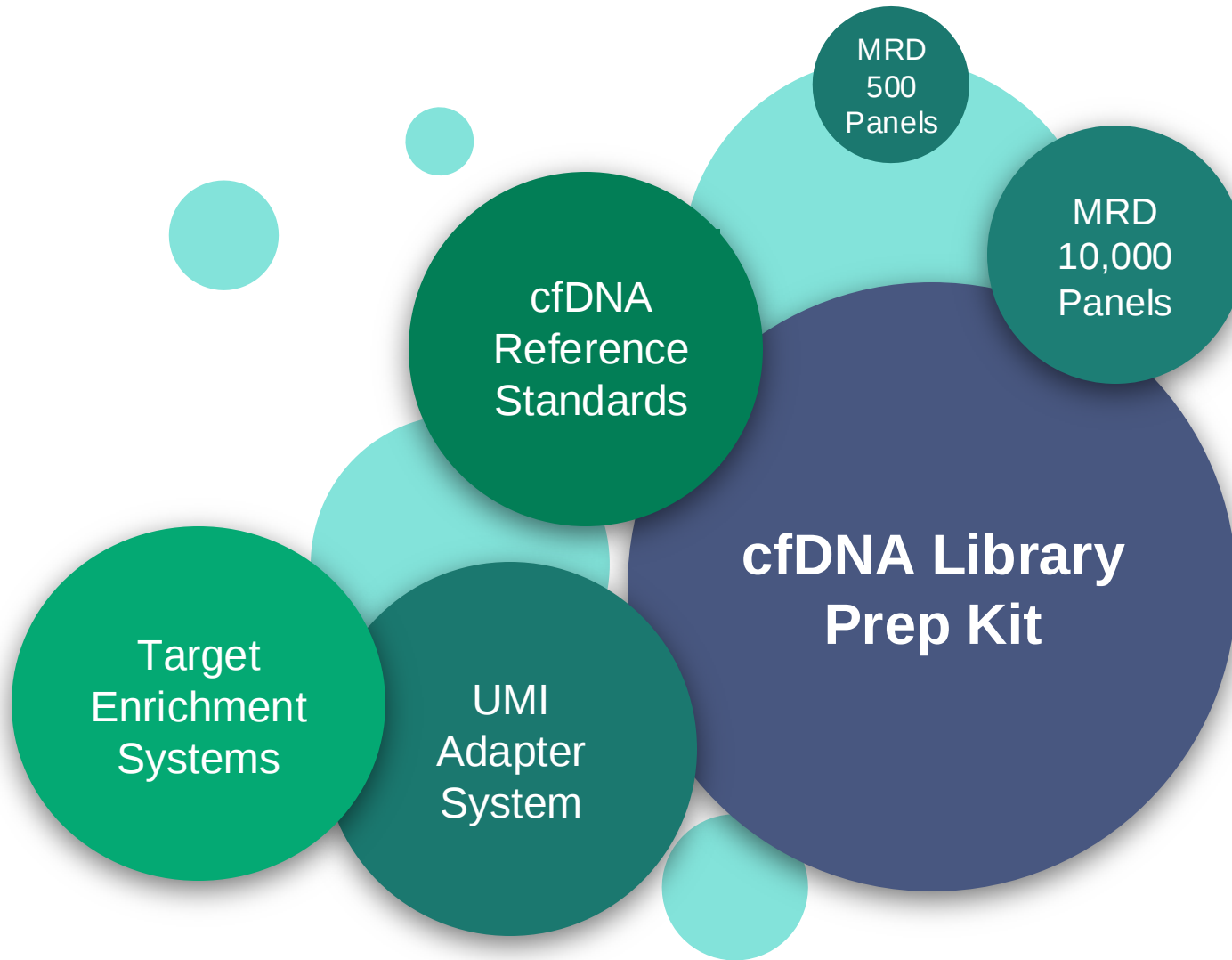
Higher yield ensures optimal data fidelity

No loss in sequencing efficiency when it matters

High-quality probes, high-quality enrichment system, and optimized conditions maintain leading uniformity



Optimized End-to-End Liquid Biopsy Ecosystem



- **Fragmentomics**
- **RNA sequencing**
- **Methylation**
- **Long-read sequencing**



We are platform agnostic. We serve the community.

PacBio

E Element
Biosciences

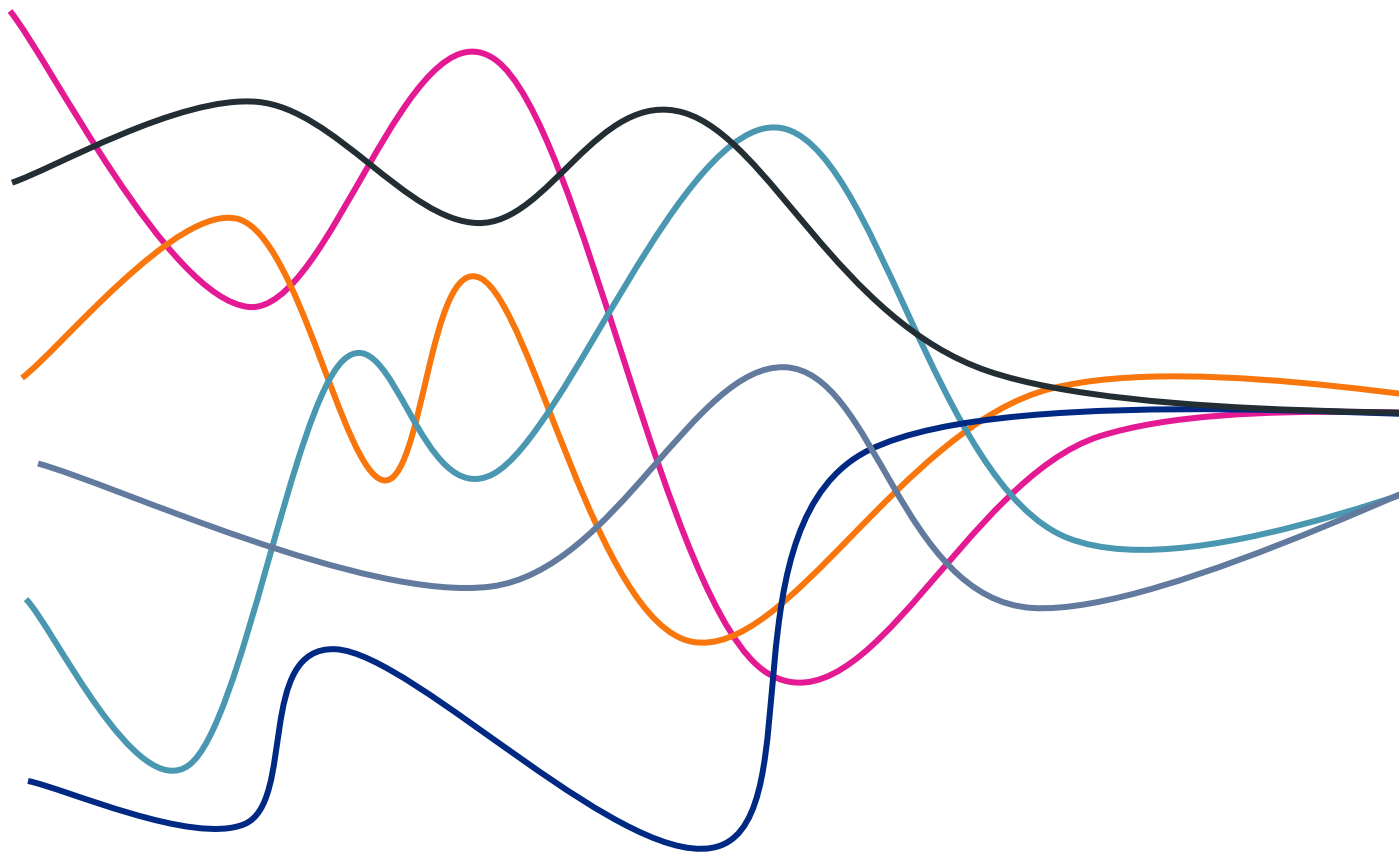
illumina

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UG

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T W I S T
BIOSCIENCE

ALL sequencers perform, powered by Twist



THANK YOU !

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