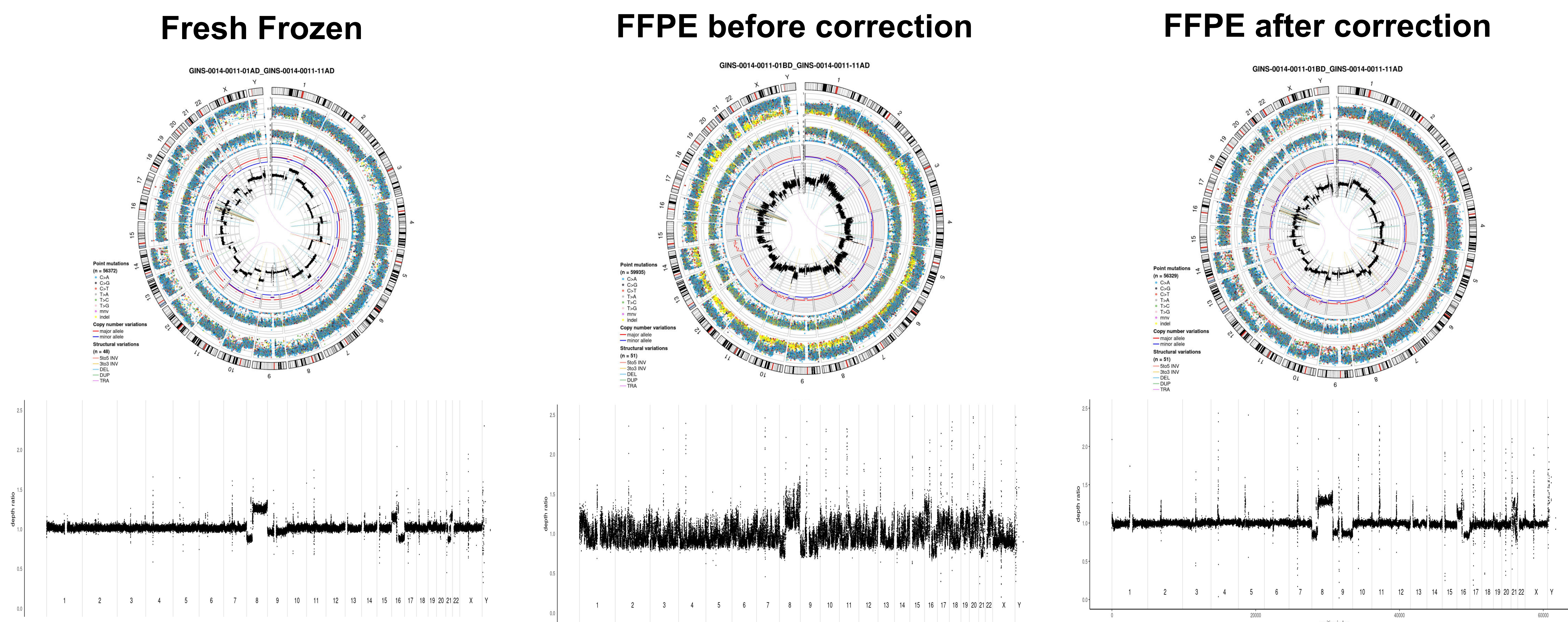


Enhancing FFPE Sequencing: Streamlined Lab and Bioinformatics Solution

Our innovative machine-learning technology for FFPE correction (IP-protected) alongside wet lab expertise ensures quality sample preparation.

Improving FFPE Sequencing Accuracy with Computational Correction



FFPE Bioinformatic Correction: Utilizes advanced computational strategies, including stacking ensemble models, transfer learning, and wavelet transform, to enhance data robustness and analytical accuracy. These innovations improve the reliability of genomic insights from FFPE samples, effectively bridging the gap between archival tissue and high-quality sequencing data.

Optimized Laboratory Workflow for FFPE Sample

The **Watchmaker Genomics DNA Library Preparation Kit** was superior in terms of performance for FFPE samples in whole genome sequencing (WGS) vs. two other tested kits.

Input Mass

- Watchmaker allowed the lowest input mass, starting at just 1 ng, offering flexibility for samples with limited material.

Library Preparation Time

- Kapa and Watchmaker both completed library preparation within 3–4 hours, facilitating integration with other workflow steps to reduce overall assay time.
- In contrast, the TruSeq library preparation required a significantly longer 8-hour process.

Cost Efficiency

- The TruSeq kit is double the price per reaction compared to Kapa and Watchmaker, highlighting a cost advantage for the latter kits.

Fragment Size

- Watchmaker consistently produced library inserts ranging from 330 to 375 base pairs.
- The Kapa library kit yielded smaller fragments, averaging around 310 base pairs.
- TruSeq's library inserts were inconsistent and generally shorter than desired.

| Parameters | Kit Brand | | |
|------------------|------------|-----------|----------------|
| | TruSeq | KAPA | WM |
| gDNA Input Range | 100-1000ng | 10-500ng | 1-500ng |
| # Clean ups | 6 | 2 | 2 |
| Total time | 8 hours | 3-4 hours | 3-4 hours |
| # Plates Needed | 6 | 2 | 2 |
| Customizability | None | Some | All parameters |

| Parameter | WM Savings vs. Ill TruSeq |
|-----------|---------------------------|
| Time | 400 hours/year |
| Plates | 400 plates/year |

