

# KromaTiD

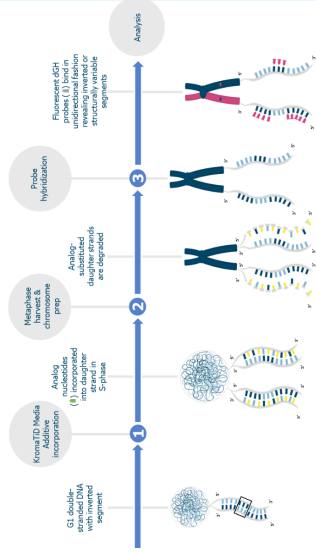
Direct, Definitive Genomics

## Authors

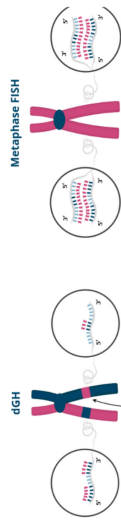
Matthew McGowan, Scientist R&PD  
Erin Cross, VP Research  
Christopher Tompkins, CTO

## What is dGH?

directional Genomic Hybridization



## Beyond Metaphase FISH!



Inversion visualized as a result of unidirectional dGH probe binding

Inversion cannot be visualized in standard metaphase FISH spread

Learn More Here!



## Acknowledgements

KromaTiD gratefully acknowledges Michael Cornforth UTMB, Steven Kunkel UTMB for providing the cell line, NIH NHGRI for generously supporting the development of dGH SCREEN™

## Characterizing Genotoxic Variants Both Big and Small

Whole Genome? Think dGH SCREEN

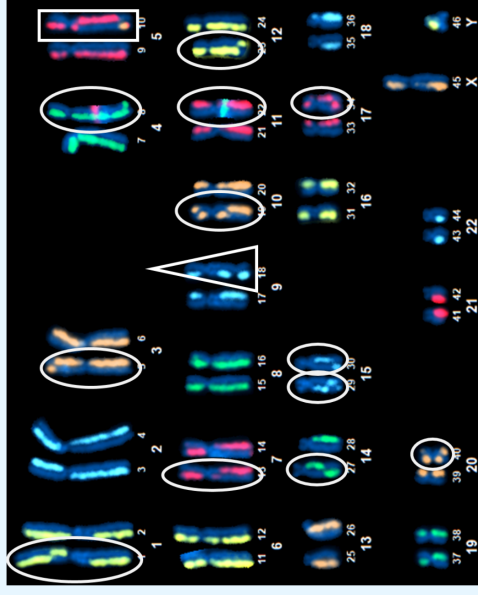
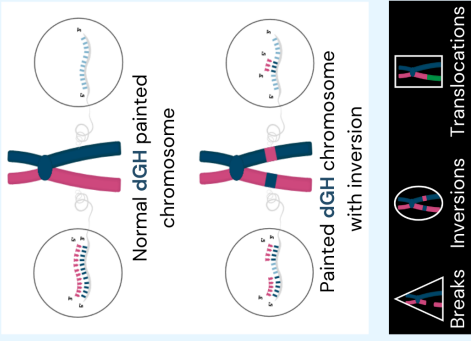


Figure 1: Multiple large variants in a dGH SCREEN Karyogram



Small Target? Think dGH In-Site

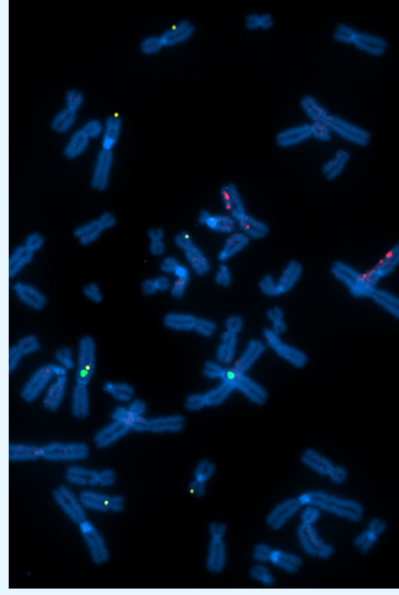
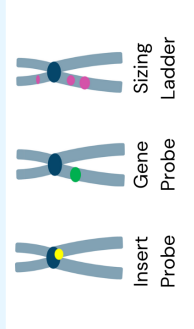


Figure 2: Random insertions of a 10 Kb dGH In-Site insert probe

Labeling Random and Targeted Insertions



Quantifying rare genotoxic variants? Think dGH AI

Detecting rare variants at 0.1% prevalence

With 2,000 metaphase cells

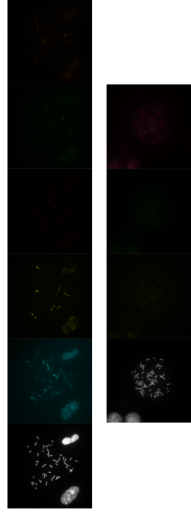


Figure 3: Raw 5- and 3-color dGH metaphase spreads

With 92,000 chromosome tiles

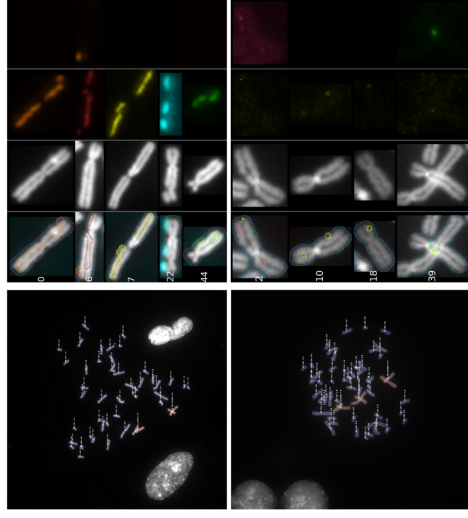


Figure 4: Spreads segmented into chromosome tiles

With >3.5 million datapoints

- Chromosome morphology
- Spot/Signal statistics
- Custom ML/AI models