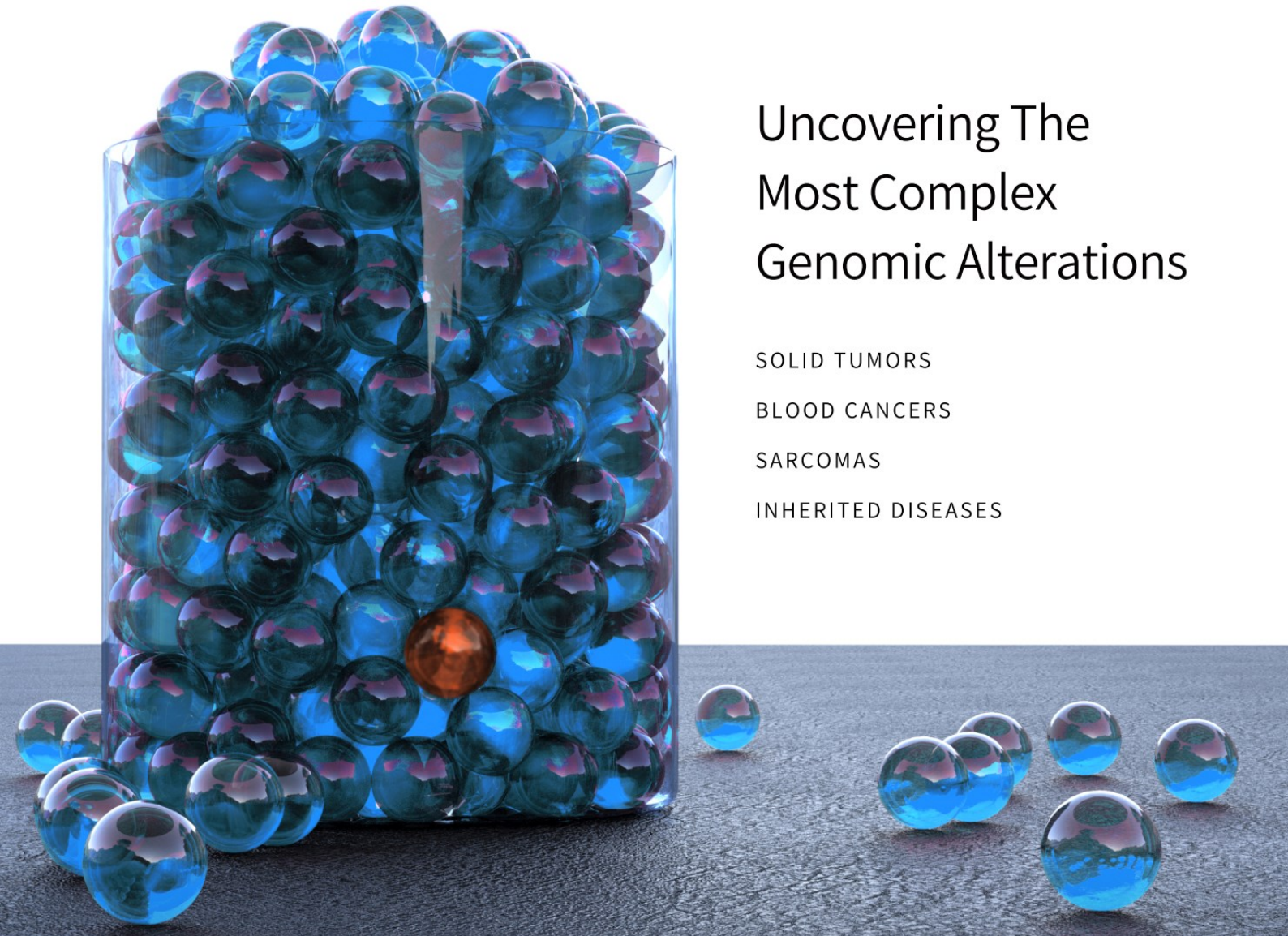
ARCHER®



Uncovering The Most Complex Genomic Alterations

SOLID TUMORS

BLOOD CANCERS

SARCOMAS

INHERITED DISEASES

FUSIONPlex®
RNA-BASED FUSION, EXPRESSION AND VARIANT DETECTION

VARIANTPlex®
DNA-BASED VARIANT AND CNV DETECTION

LIQUIDPlex™
VARIANT DETECTION FROM LIQUID BIOPSIES

ImmunoVerse™
RNA-BASED IMMUNE REPERTOIRE ANALYSIS

RUO For Research Use Only. Not for use in diagnostic procedures.

A single platform for reliable genomic profiling.

ANCHORED MULTIPLEX PCR (AMP™)

AMP is a robust technology for DNA and RNA sequencing that enables sensitive and specific detection of multiple mutation types.

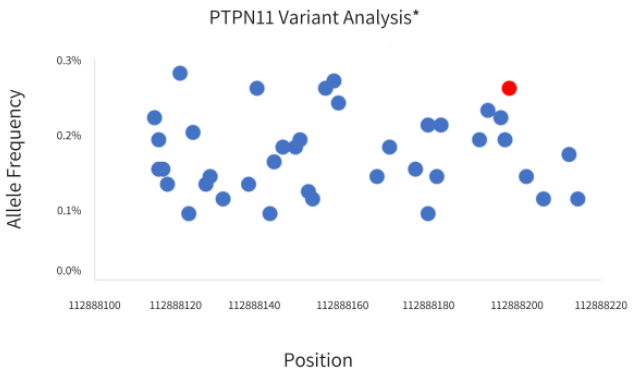
BUILT FOR MAXIMUM GENE FUSION DETECTION

STANDARD NGS	ARCHER®
Liquid workflows can be complex and require master mixes	Simple, lyophilized reagents reduce the risk of contamination and save time
Can miss rare or unknown fusions	Detects fusions regardless of partner
Cannot discern starting molecule from PCR duplicates	Uniquely tracks starting molecules prior to amplification
PCR duplicates introduce errors, inflate true coverage and mask library complexity	PCR duplicates are utilized for error correction to increase sensitivity and specificity

Better Detection of Low Allele Frequency Mutations vs Standard NGS

STANDARD NGS

PCR duplicates contribute to noise in data



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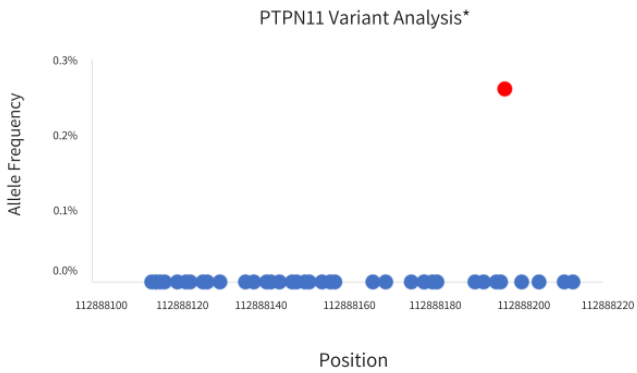
The same mutations are readily apparent due to error correction



*Data on file

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Simplified workflow for reliable and fast genomic profiling.

~1 week

Turn around

CONSISTENT AND FAST WORKFLOWS

- SIMILAR WORKFLOW ACROSS ALL PRODUCT LINES
- 2.5 HOURS HANDS-ON TIME
- SINGLE DAY LIBRARY PREPARATION*

Lyophilized reagents ensure consistent results

SINGLE-USE, LYOPHILIZED REAGENTS

- NO MASTER MIXES
- MINIMIZED USER ERROR AND CONTAMINATION
- LONGER HALF-LIFE VS. LIQUID REAGENTS

x 8

8-tube strip format for run size flexibility

FLEXIBLE

- VARIABLE INPUT AMOUNTS STARTING FROM 10ng
- FFPE OPTIMIZED
- COMPATIBLE WITH AUTOMATION
- 8-TUBE STRIP FORMAT

*RNA panels up to 1.5 days

ROBUST DETECTION CAPABILITIES FOR ALL MUTATION TYPES

FUSIONS | SPLICING | SNVs | InDELs | CNVs | EXPRESSION

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Sensitive fusion detection without prior knowledge of fusion partners.

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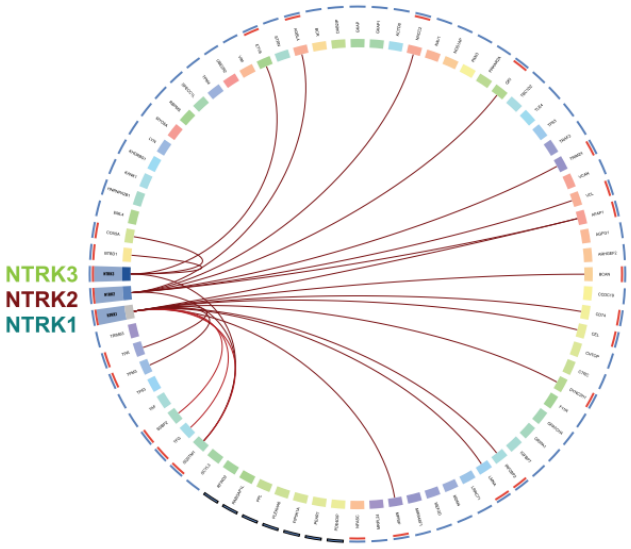
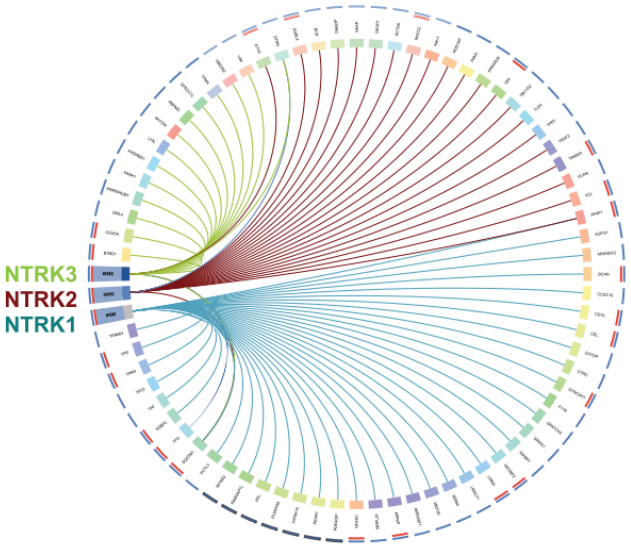
Standard NGS assays detect a limited number of NTRK1/2/3 fusion partners



Archer AMP™ chemistry can dectect all NTRK1/2/3 fusion partners



Wheels show known NTRK1/2/3 fusion partners

*Data on file

NCCN Clinical Practice Guidelines In Oncology (NCCN Guidelines®) for Non-Small Cell Lung Cancer recommend RNA-based NGS to maximize fusion detection

1

"It is recommended that testing be performed via a broad, panel-based approach, most typically performed by NGS. For patients who, in broad panel testing don't have identifiable driver oncogenes, **consider RNA-based NGS if not already performed, to maximize detection of fusion events."**[i†]

2

"Various methodologies can be used to detect NTRK gene fusions, including: FISH, IHC, PCR, and NGS; false negatives may occur. IHC methods are complicated by baseline expression in some tissues. FISH testing may require at least 3 probe sets for full analysis. **NGS testing can detect a broad range of alterations. DNA-based NGS may under-detect NTRK1 and NTRK3 fusions."**[i†]

[†]The NCCN Guidelines for NSCLC provide recommendations for individual biomarkers that should be tested and recommend testing techniques but do not endorse any specific commercially available biomarker assays.

[†]Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Non-Small Cell Lung Cancer V.2.2020. © National Comprehensive Cancer Network, Inc. 2019. All rights reserved. Accessed January 27, 2020. To view the most recent and complete version of the guideline, go online to NCCN.org. NCCN makes no warranties of any kind whatsoever regarding their content, use or application and disclaims any responsibility for their application or use in any way.

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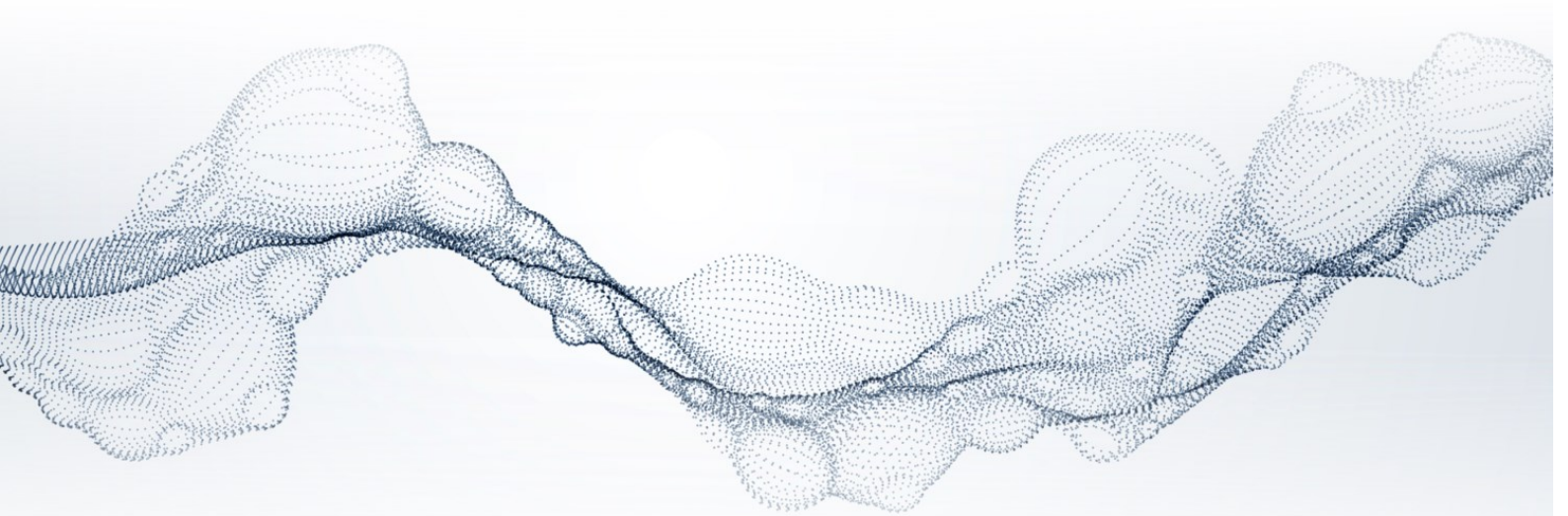
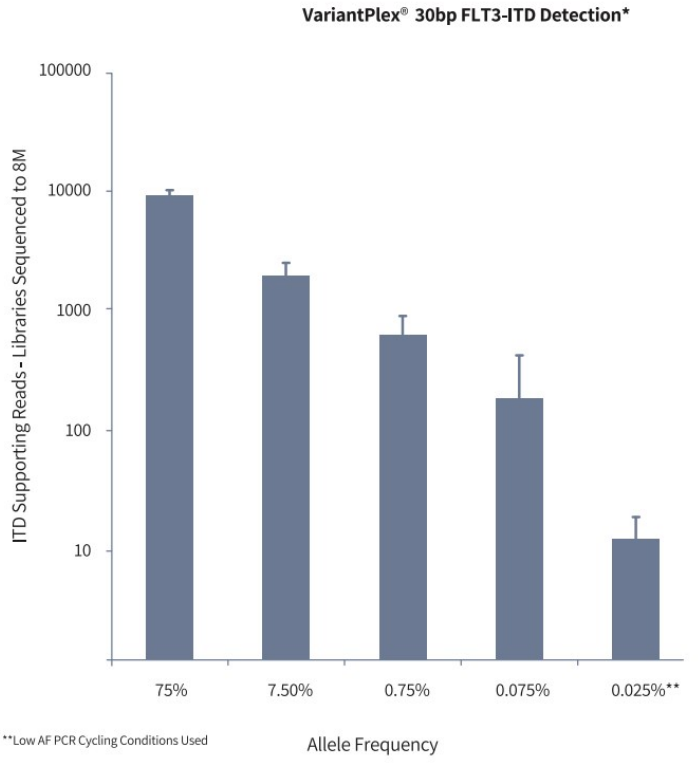
Not all NGS assays detect FLT3-ITDs the same.

- Internal tandem duplications (ITDs) in FLT3 are actionable mutations but challenging to identify
- Archer® Blood Cancer NGS panels combine AMP™ chemistry with powerful bioinformatics to detect FLT3-ITDs
- Detect ITDs across a wide range of sizes and insertion points with Archer assays



Detect FLT3-ITDs with AMP Technology

- Archer assays can detect ITDs ranging in size from **3bp to 300bp+** at low allele frequencies
- Can readily customize to meet your needs without sacrificing performance
- Compatible with blood, bone marrow, PBL and FFPE sample types



**Low AF PCR Cycling Conditions Used

*Data on file

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ARCHER® Analysis

ARCHER™ Analysis Unlimited

Archer Analysis provides deep analytical metrics in an easy to interpret interface.

Powerful Bioinformatics

Ultimate Adaptability

User-Friendly Analysis

Secure Platform

Available for ***local*** or private ***cloud-based*** installation

Analyze

- Simple, Intuitive Web-Based Interface
- Integrate LIMS Data
- Automate Sample Processing
- Customize Outputs

Interpret

- Comprehensive Sample and Fusion QC Metrics
- Visualize Fusions, Variants, Expression
- Dynamic Post-Processing Filtering Sets
- Third-Party or Locally Curated Annotations

Report

- Assignment and Tracking
- Customize PDF Reports
- Automate With Third-Party Software
- Easy to Interpret Reporting

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ARCHER®

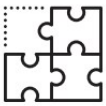
ArcherDX is Your Comprehensive Genomic Sequencing Partner

ONE SOURCE

Comprehensive suite of assays across a broad range of disease states

PRECISE

Proven accuracy in detecting existing and novel fusions through enhanced technology



SIMPLIFIED WORKFLOW

Simplified workflow using lyophilized reagents, ensuring minimal errors

FAST

Fast turn-around time (~1 week)

USER-FRIENDLY

Integrated analytics in an easy to interpret, actionable report

FLEXIBLE

Easily create custom assays from scratch or modify an existing panel

To learn more about ArcherDX, go to:
www.archerdx.com

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