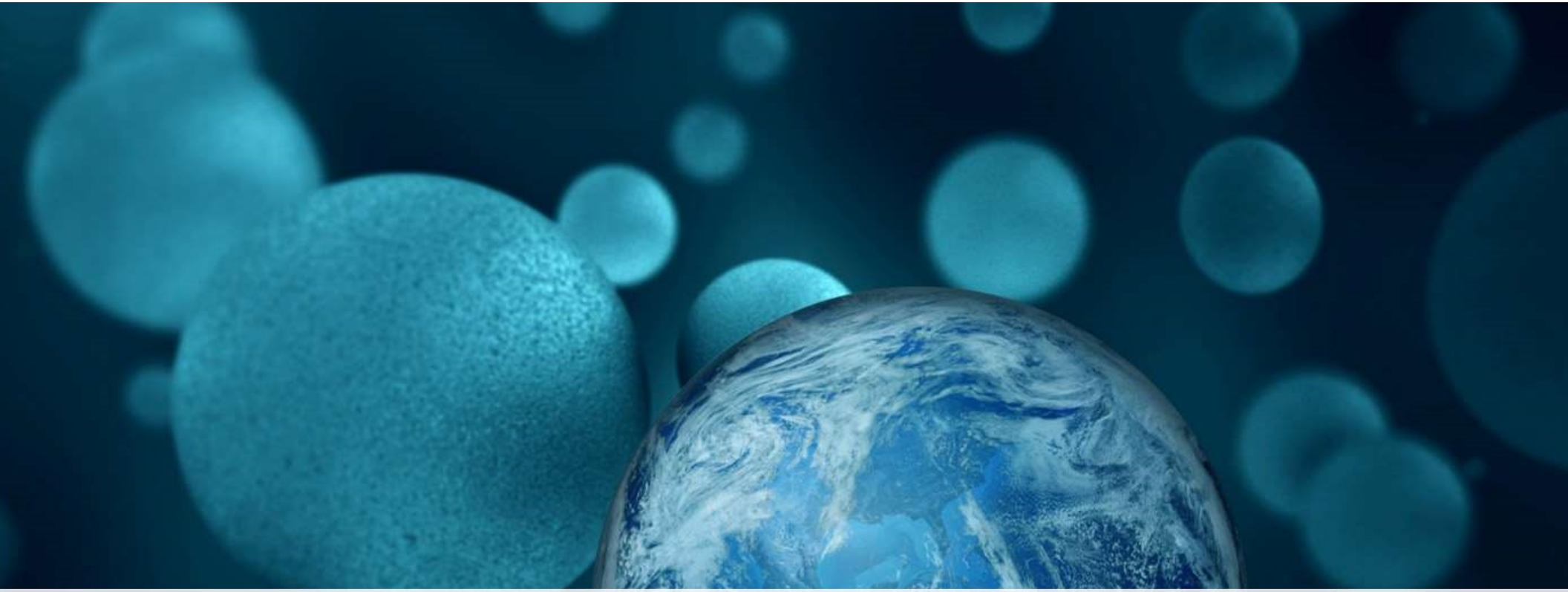

ThermoFisher SCIENTIFIC

KaryoStat+ Report

Client Name: Nationwide
Quote No: D4697021
Date: 17-May-2022
Prepared by: Kevin Velez

Summary of services

Project Summary:

- Nationwide is interested in services provided by the Life Technologies Corporation in the analysis client-provided samples using the KaryoStat+ assay.

Service Description:

- The KaryoStat+ assay allows for digital visualization of chromosome aberrations with a resolution similar to g-banding karyotyping. The size of structural aberration that can be detected is > 1 Mb for chromosomal gains and > 1 Mb for chromosomal losses (the resolution depends on the location of the aberration in the chromosome. Due to a lower probe density on the telomere ends and centromeres, the resolution in those locations may be closer to 5Mb). The KaryoStat+ array is optimized for balanced whole-genome coverage with a high resolution DNA copy number analysis. The assay enables the detection of aneuploidies, submicroscopic aberrations, and mosaic events.

Materials & Methods:

Genomic DNA purification

Cells were prepared according to the Genomic DNA Purification Kit (Catalog #: K0512) and quantified using the NanoDrop One C (Catalog #: ND-ONEC-W).

GeneChip® Preparation

100 ng total gDNA was used to prepare the Cytoscan HT-CMA 96 array for KaryoStat+ according to the manual, and is an array that looks for copy number variants and single nucleotide polymorphisms across the genome.

KaryoStat+ Results: Sample information

#	Sample ID	Status
KS-11646	NCH5	Complete

Table 1. Customer-provided sample information

KaryoStat+ Results: KS-11646

1. KaryoStat+ analysis of KS-11646 revealed the sample originated from a male individual
2. No chromosomal aberrations were found when comparing against the reference dataset (Figure 1)

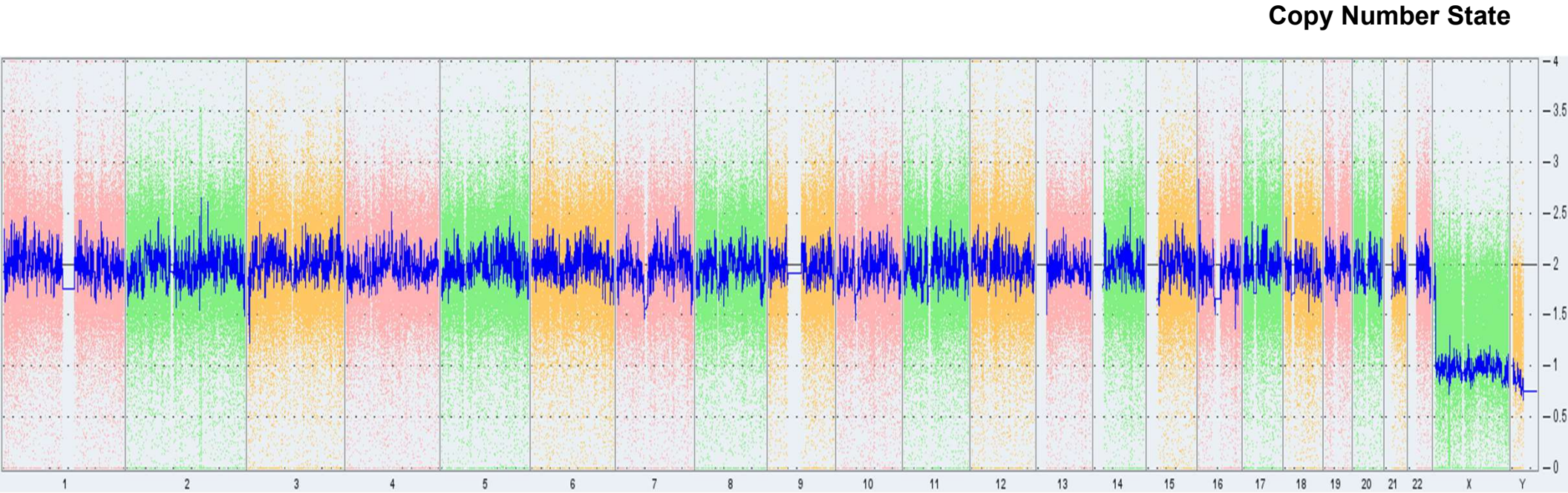

Figure 1: Whole genome view. The whole genome view displays all somatic and sex chromosomes in one frame with high level copy number. The smooth signal plot (right y-axis) is the smoothing of the log2 ratios which depict the signal intensities of probes on the microarray. A value of 2 represents a normal copy number state (CN = 2). A value of 3 represents chromosomal gain (CN = 3). A value of 1 represents a chromosomal loss (CN = 1). The pink, green and yellow colors indicate the raw signal for each individual chromosome probe, while the blue signal represents the normalized probe signal which is used to identify copy number and aberrations (if any).*

Disclaimer: This assay was conducted solely for the listed investigator/institution. The results of this assay are for research use only.