

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TWINSTRAND BIOSCIENCES, INC.
Petitioner,

v.

GUARDANT HEALTH, INC.
Patent Owner.

Case IPR2022-00747
U.S. Patent No. 10,889,858

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 10,889,858**

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	2. “(a) tagging a plurality of double-stranded cfDNA molecules from a population of double-stranded cfDNA molecules from the sample with a set of library adaptors comprising a plurality of molecular barcodes to generate tagged parent polynucleotides, wherein the	

	tagging comprises ligating a plurality of library adaptors from the set of library adaptors to the plurality of double-stranded cfDNA molecules from the population using more than a 10× molar excess of library adaptors as compared to the double-stranded cfDNA molecules of the population...”	26
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5.	“(c) sequencing a plurality of the progeny polynucleotides to produce a set of sequencing reads...”	29
6.	“and (d) determining, based at least on sequence information from the molecular barcodes, individual double-stranded cfDNA molecules from among the tagged parent polynucleotides for which either (1) both a Watson strand and a Crick strand of the individual double-stranded cfDNA molecule are detected or (2) only one of a Watson strand or a Crick strand of the individual double-stranded cfDNA molecule is detected from a plurality of sequencing reads from the set of sequencing reads.”	30
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2.	“(a) tagging a plurality of double-stranded cfDNA molecules from a population of double-stranded cfDNA molecules from the sample with a set of library adaptors comprising a plurality of molecular barcodes to generate tagged parent polynucleotides, wherein the	

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