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(54) SEQUENCE-BASED KARYOTYPING

(76) Inventors: Richard A. Shimkets, Guilford, CT (US); Michael S. Braverman, New Haven, CT (US)

> Correspondence Address: MINTZ LEVIN COHN FERRIS GLOVSKY & **POPEO** 666 THIRD AVENUE **NEW YORK, NY 10017 (US)**

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ABSTRACT (57)

A new method for genomic analysis, termed "Sequence-Based Karyotyping," is described. Sequence-Based Karyotyping methods for the detection of genomic abnormalities, for diagnosis of hereditary disease, or for diagnosis of spontaneous genomic mutations are also described.



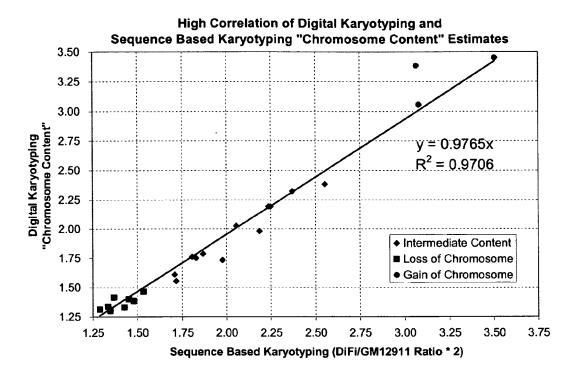


Figure 1

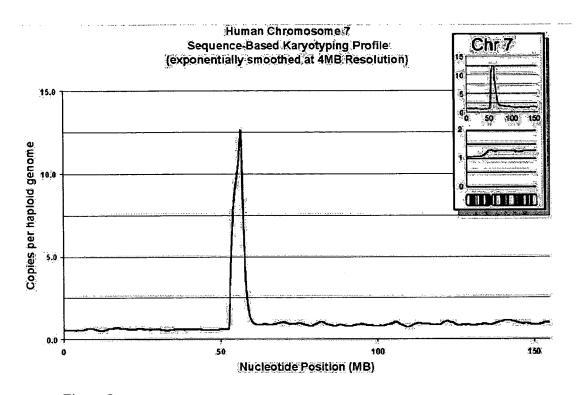


Figure 2

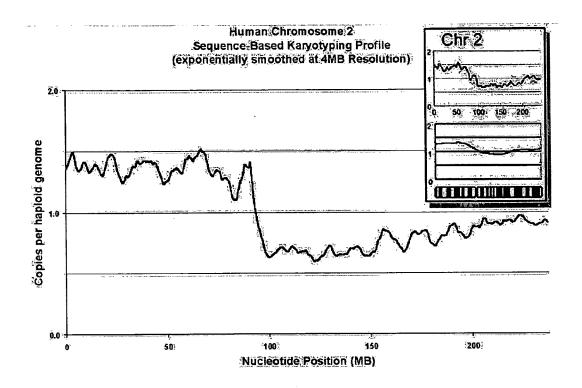


Figure 3

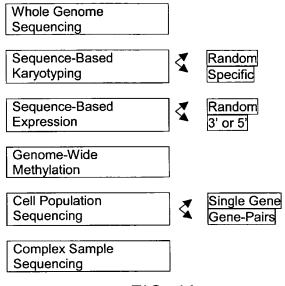


FIG. 4A

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| INFECTIOUS DISEASE | ONCOLOGY | INFLAMMATION | DIAGNOSTICS |
|-----------------------|-------------------------------|-------------------------------|-------------------------------|
| Whole-Genome | Genome-Wide | | Complex Sample Sequencing |
| Sequencing | Methylation | | Sequencing |
| | Sequence-Based Karyotyping | | Sequence-Based Karyotyping |
| | Sequence-Based | Sequence-Based | |
| | Expression | Expression | |
| | Cell Population Sequencing | Cell Population Sequencing | |

FIG. 4B

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