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### (54) SEQUENCE-BASED KARYOTYPING

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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.



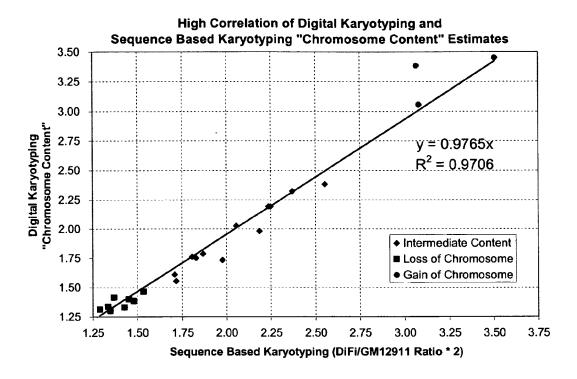


Figure 1

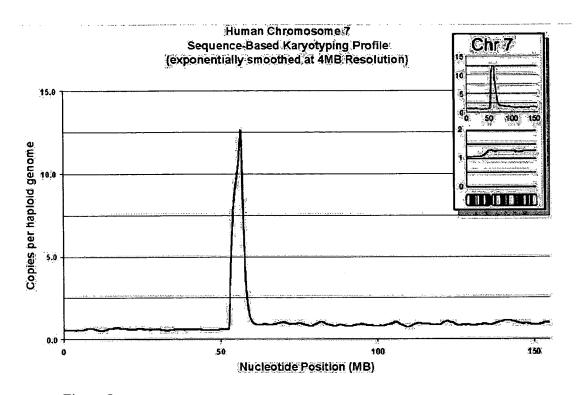


Figure 2

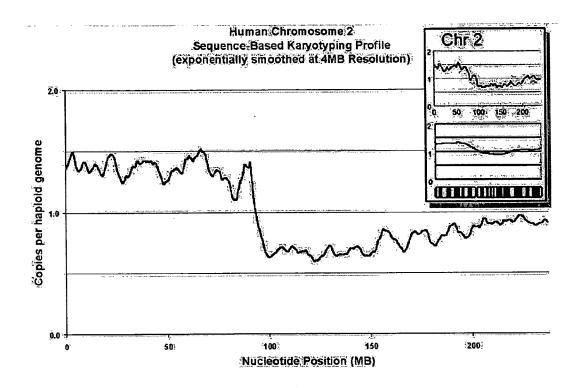


Figure 3

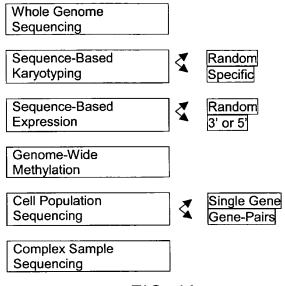


FIG. 4A

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

FIG. 4B

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