

Karyomapping

A new molecular karyotyping method based on mapping crossovers between parental haplotypes for genome wide analysis of inheritance

Genome wide SNP microarrays are being used increasingly for high resolution molecular karyotyping to detect chromosomal aneuploidy including chromosomal mosaicism and uniparental disomy.

SNP genotype analysis of parents and offspring allows the mapping of crossovers between parental haplotypes and the construction of a karyomap using basic Mendelian rules, which, unlike conventional karyotyping, identifies the parental and grandparental origin of chromosomes and chromosome segments in recombinant chromosomes.

Karyomapping enables genome wide linkage analysis of Mendelian traits without mutation analysis, identifies the parental origin of chromosomal imbalance, and the recurrence risk of common multifactorial conditions to be more accurately assessed.

Karyomapping can be used at the single cell level following whole genome amplification and, without any prior development, provides a universal test for preimplantation genetic diagnosis of single gene defects in combination with aneuploidy, readily available worldwide.

For further information:-

Bridge

THE LONDON BRIDGE FERTILITY,
GYNAECOLOGY AND GENETICS CENTRE

+44 20 7403 3363

karyomapping@thebridgecentre.co.uk

Embryo screening: the universal test

