

## Genetic Male Infertility

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### Abstract

Infertility is defined as a failure to conceive in a couple trying to reproduce for a period of two years without contraception (WHO, 2004). Approximately 15% of couples are infertile, and among these cases, male factor infertility accounts for approximately 50% of cases (Ombelet et al., 2008). Male infertility is a multifactorial syndrome with a wide variety of disorders. In more than half of infertile men, the cause of their infertility is unknown (idiopathic) and could be genetical or acquired (Poongothai et al., 2009).

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Genetic male infertility is a situation where men are infertile as a result of gene defect or chromosomal abnormalities. While about 30% of men seeking help in fertility clinics are found to have oligozoospermia or azoospermia of unknown etiology, the causes of infertility in men are known in less than 50% of the cases, out of which genetic or inherited diseases are major factors (Poongothai et al., 2009).

About 10-20% of males without sperm in their ejaculate carry a deletion of the Y chromosome (Y chromosome micro-deletion). This deleted region includes the Azoospermia Factor (AZF) locus, located in the Yq11 region, which is divided into three recurrently deleted non-overlapping sub regions-designated as AZFa, AZFb and AZFc (Chandley, 1998). About 30% of azoospermic men, 1-7% of severely oligozoospermia men, 5% of men with severe primary testicular failure and with a sperm density of less than 5 x10<sup>6</sup>/ml showed Y chromosome micro-deletion (McLachlan et al., 1998). It is believed that these micro-deletions actually cause the azoospermia or oligospermia phenotypes observed, and they can be passed on to the sons of these infertile men if Intracytoplasmic sperm injection treatment is carried out (Chandley and Hargreave, 1996).

### Biography:

An accomplished Embryologist, Geneticist and mentor, Joseph has spent the last 8 years mastering skills in the field of embryology driven by the need to deliver quality services. Having consistently attained professional distinction and proficiency in this field he is inclined to mentor and offer opportunities for growth and development to upcoming embryologist. He is specialized in Advance Micromanipulation, Embryo Biopsy, Cryopreservation and Thawing. Joseph studied at the prestigious University of Lagos, where he received his BSc. and MSc. Degrees in Cell Biology and Genetics. Other courses include Leadership and Management in Health, Project Management in Health both from University of Washington. Joseph is currently managing the Pre-implantation Genetic Testing (PGT) unit and Transport IVF unit in Bridge Clinic, Nigeria. He is; Member European Society of Human Reproduction and Embryology (ESHRE), Member Association for Fertility and Reproductive Health (AFRH) and Member Clinical Embryologist Association of Nigeria (CEAN).

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