

Australian scientists find gene affecting male fertility

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Singapore: A team of cancer scientists from The University of Western Australia (UWA) have found that the gene known to affect the hormonal action in breast and prostate cancer cells also has an impact on male fertility. This study has brought them one more step closer to working out one of the causes of male infertility.

The team has developed on the work done by the UWA affiliated Western Australian Institute for Medical Research (WAIMR) that had originally discovered the SLIRP gene. This recent study has provided a much deeper understanding of the gene's role which could have ramifications for couples experiencing infertility.

The team headed by UWA Winthrop Professor Peter Leedman (also head of WAIMR's Laboratory for Cancer Medicine) has explained the study and its basis. Professor Leedman said that his research team found that mice without the SLIRP gene: a so-called 'knock-out' gene - had one third fewer offspring than normal mice and produced significantly fewer sperm which could be described as 'good swimmers.'

Researchers further crossed normal females with SLIRP knock-out males and found the litter size was reduced by 30 percent. "Electron microscopy of the sperm without the SLIRP gene found a disruption in the middle section of their structure, which was associated with the sperm swimming more slowly," researchers explained in the study.

With further studies in humans, if reduced SLIRP production turns out to be an important cause of infertility, assessment of SLIRP gene levels in male sperm could help explain why some couples are unable to have a baby, they added.

"This discovery may eventually have practical ramifications for couples who are not having any luck conceiving naturally. For example, if our studies in men with infertility demonstrate a key role for SLIRP, then it is feasible that SLIRP testing could help streamline treatment options - example going more directly to IVF (in vitro fertilization) treatment rather than continuing to try conceiving without medical intervention for another six to 12 months," Mr Leedman said. The study was first published in the journal Plos One.