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Mission: Develop technology to fight infertility

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The PPP between the Indian Council of Medical Research and HLL Lifecare will lead to commercialization of quick infertility measuring test kits

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Tripartiteagreementforte

Tripartite agreement for tech transfer of urine based fertility test kit being signed at ICMR headquarters in New Delhi. (From L to R) Dr Mandira Roy, Dr Sanchita Chaudhary, Mr Rahul Bagga, Dr Pooornima Sharma (BCIL), Dr VM Katoch (DG-ICMR), Dr Satyanarayana (Dy DG ICMR), Dr KRS Krishnan (HLL), Dr Sadhana Srivastava (ICMR), Dr Sanjiva D Kholkute (NIRRH), Dr Abi Santhosh Aprem (HLL), Mr VN Babu (HLL) and Dr Ikram Khatkatay (NIRRH).

Conquering infertility will not be expensive, tedious and nerve-wracking anymore. This has been made possible by the complex tests that measure the fertility level and pave way for crucial options like test-tube babies that will be non-invasive and more private than ever before. With over 30 million infertile couples in the country and numbers swelling rapidly, HLL Lifecare is launching the first-of-its-kind simple and cost-effective urine-based fertility measuring kits. The Indian Council of Medical Research (ICMR) recently transferred this technology, developed by the National Institute for Research in Reproductive Health (NIRRH), to HLL Lifecare for validation, commercialization and marketing of the test kits.

This technology was developed by Dr MI Khatkhatay and Dr Meena Desai of the NIRRH, an institution of the ICMR, in a project funded by the Department of Biotechnology (DBT), Government of India, and technology transfer was done by Biotech Consortium India (BCIL), a technical arm of the DBT.

Under the agreement, HLL Lifecare will take up mass production and marketing of the urine-based fertility test kit for measurement of four key reproductive hormones of four principal metabolites. The metabolites in the urine, like estrogen glucuronide, pregnanediol glucuronide, follicle stimulating hormone and luteinizing hormone, can be measured with the kits. Compared to the existing special procedures that are expensive, time-consuming and stressful, the urine-based kit would have four simple and cost-effective, technology-based on enzyme-linked immune-sorbent assay (ELISA). A tripartite technology transfer agreement was signed recently.

â€œIt is essential that fruits of public-funded research should reach the society in an affordable manner. Being a central PSU, under the health ministry, HLL is well-equipped for such a mission. That makes the technology transfer agreement more meaningful,â€? says Dr VM Katoch, secretary, Department of Health Research and director general, ICMR. â€œHLL has always been in the forefront to offer affordable and accessible reproductive healthcare solutions for the people around the globe and urine-based fertility kit is part of our endeavor towards this,â€? says Mr M Ayyappan, chairman and managing director of HLL. â€œI hope that this new discovery will put many people, who are at risk of infertility, at ease.â€?

The way forward

The kits will be commercially available in the market within 24 months. The technology transfer involves global exclusive and perpetuating rights for manufacture, marketing and sale of the kits.

There are around four kits that will be launched to address issues related to fertility and in-vitro fertilization. The first kit can be used to monitor ovulation induction therapy and also for in-vitro fertilization program. The second kit will be for the estimation of the metabolite for detection of occurrence of ovulation. The third kit will be used to measure the evaluation of hypothalamic pituitary gonadal axis, a function of the endocrine organ that is situated deep in the brain and is responsible for the formation of the reproductive hormone. The last kit measures LH assay in conjunction with follicles.