

Pushing the envelope for healthy babies

June is World Infertility Month

BY NAOMI ULICI IRVINE WORLD NEWS

You could say that Dr. Lawrence Werlin is different. Looking a little bit like Einstein with silvery, shoulder-length hair and glasses, he jaunts down the hall of his fertility clinic in Irvine to Mick Jagger tunes in a white frock and blue scrubs.

But as one of the top reproduction doctors in Orange County, he's allowed a few eccentricities.

Specializing in a controversial method of diagnosing an embryo's genetics before implanting it in the mother's womb through in vitro fertilization, he'll be en route to Berlin, Germany, Friday night as one of six U.S. doctors selected to attend an international reproduction conference from June 27-29.

June is World Infertility Month. The conference brings more than 5,000 reproduction doctors and specialists worldwide together to discuss ethical issues regarding new procedures as well as updates on other reproduction issues. Werlin will be especially interested in a course on the ethics of preimplantation genetic diagnosis.

Highly regulated in Europe, the procedure is a highly divisive topic amongst professionals. In the United Kingdom for example, the authorities will only allow the procedure to be done for people that are at high risk for a severe chromosomal disorder.

"People worry about new technology, and they will also worry about abusive technology," Werlin said. He believes that the ethical guidelines set up by parents and society need to be changed and re-evaluated in the face of evolving medical procedures.

Though he doesn't do "family planning" in which perfectly healthy couples choose their embryo based on personal or social reasons, he does offer the diagnostic procedure for patients who are having difficulty conceiving or are at high-risk for hereditary diseases. Couples can then choose only healthy-looking embryos and discard the rest of the embryos.

Leading a nationwide study last year, through an independent group of fertility specialists called the Genesis Network of Reproductive Health, Werlin says he now has the data to validate preimplantation genetic diagnosis as a tool to help transfer healthy embryos back into the womb.

The study also gave women in high-risk categories answers for why they weren't getting pregnant, and options as to which embryos are better possibilities.

Now he is working on reducing the multiple birth rates of twins, triplets and quadruplets whose mothers had no choice but implant anywhere from the usual two to four embryos in hopes of one successful pregnancy.

Werlin began the study early this month, investigating how a preimplantation diagnostic tool could be used to only implant the healthiest embryos rather than the usual multiple embryos. He hopes to reduce multiple birth rates while increasing pregnancy success rates.

Preimplantation genetic diagnosis involves taking a biopsy from a 3-day old embryo, laying the cell flat on a slide and using a biochemical process to probe for disorders such as too many or not enough chromosomes.

While some people don't want their embryos tampered with because of the possibility of damage, or are concerned that only nine chromosomes are tested, he says the biopsy doesn't hurt, and it has only a 5 percent likelihood of damaging the embryo.

Because 85 to 90 percent of the disorders that occur in nature only involve nine of the 23 chromosomes, the test only looks at chromosomes 13, 15, 16, 17, 18, 21, 22, X and Y. Having an extra, missing or fragmented chromosome causes conditions such as Turner's syndrome or down syndrome.

He says studies show that anywhere from 70-100% of the embryos are abnormal in older couples, or couples suffering from a severe problem like inadequate sperm or recurrent pregnancy loss.

That's also one of the reasons those embryos never implant.

Without knowing what is wrong, couples experience the emotional roller coaster of cycle after disappointing cycle of in vitro fertilizations.

One such couple's account was published in The New Yorker, as an excerpt from the father's memoir called "Baby B" and their experience with Werlin, affectionately called the "the Whirl." The doctor now hands out the excerpt to all of his new patients to warn them about what they are in for.

But he hopes they will choose to undergo preimplantation genetic diagnosis and find out why they aren't getting pregnant.

"Knowing that would help them say 'fine, I can close this chapter of my life,' " said Werlin.



MIGUEL VASCONCELLOS/IRVINE WORLD NEWS

Reproductive specialist Dr. Lawrence Werlin is reflected in the glass case holding pictures of children sent by grateful parents he has helped with their fertility problems