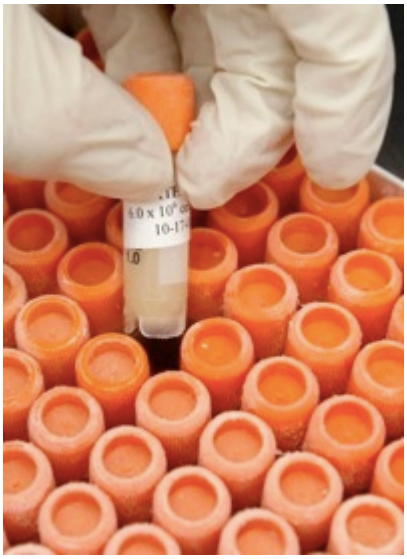
Written by **Ann Shibler** on July 6, 2009

GE to Use Embryonic Stem Cells



General Electric is still known for its now-retired but easily identifiable slogan: “We bring good things life.” But perhaps, in light of their newest venture, it was best that this slogan was put aside a few years ago for a different marketing slogan: “Imagination at work.”

Geron Corp, a U.S. biotech company, is already devoted to developing and harvesting human embryonic stem cells (hESC) for various medical therapies. The first commercial products of the GE-Geron venture are supposed to be ready for the marketplace in just one year, but that remains to be seen, as many believe the technology isn’t nearly advanced enough, and the idea is theoretical only.

GE and Geron are moving forward, knowing full well that any harvesting of cells requires the destruction of days-old embryonic human beings. This destruction is glossed over by Geron’s press release wherein the company takes special pains to bring to light its supposed concern for patients who may take harmful drugs:

> Up to three quarters of toxicity problems are not detected until preclinical or later stages of drug development and this significantly increases the cost of developing new drugs. Earlier detection of toxicity problems could reduce both overall drug development costs and potentially harmful patient exposure in clinical trials.

GE also justified the means for their end when spokesman Konstantin Fiedler, who is the general manager of GE’s Healthcare division, said they wouldn’t be selling any actual stem cells, but only special cells derived from stem cells. Fiedler even offered the subtle but shocking comparison of embryonic humans with those of lab rats, saying:

> This could replace, to a large extent, animal trials. Once you have human cells and you can get them in a standardized way, like you get right now your lab rats in a standardized way, you can actually do those experiments on those cells.

Amy Comstock Rick, president of the Coalition for the Advancement of Medical Research (CAMR), which pressures congressional members into a better understanding of “the importance of federal funding for and oversight of embryonic stem cell research,” was positively gushing over the GE-Geron deal. “What I read this to be is validation that human embryonic stem cell research is moving through the pipeline as it should be and what once were promising theoretical ideas are now getting closer and closer to being ideas in practice,” Rick commented.

Don’t forget that CAMR is an umbrella organization for about 100 universities and scientific societies and foundations, all waiting for their piece of the federally funded embryonic stem-cell pie.

Other pharmaceutical and biotech companies are also jumping on the embryonic stem-cell band wagon: Osiris Therapeutics, Inc.; StemCells, Inc.; Aastrom biosciences, Inc.; and Pfizer, Inc., a giant in the pharmaceutical world.

Still, there are other companies and scientists who are taking the adult stem-cell approach and hope to bring to market safe and effective products even faster. (Adult stem cells, unlike embryonic stem cells, do not entail the destruction of human life.) One is Cellular Dynamics International, founded by Dr. James Thomson, a pioneer in pluripotent stem-cell lines from adult tissues at the University of Wisconin-Madison. Pluripotent stem cells (iPSCs) are adult tissue cells that are reprogrammed to an embryonic state.

On July 1 CDI released information announcing an expansion of an agreement with Roche, a company that specializes in diagnostics in invitro cancer and transplantation, and pharmaceuticals for autoimmune and inflammatory diseases, along with metabolic and central nervous system diseases. CDI and Roche are collaborating to also enhance drug safety testing using iPSCs that "enable patient-specific stem cells, an important factor in moving the technology toward personalized medicine."

Regenocyte Therapeutic, and researchers at Theravitae, an Israeli biotech company, have also had success with adult stem cells. A 77-year-old adult male underwent stem-cell therapy for end-stage heart disease. After six months he had generated new heart tissue with an impressive improvement in cardiac function and quality of life.

Regenocyte Therapeutic has real patient results for many degenerative diseases using adult stem cell therapy, totally avoiding the ethic and moral issues of using embryonic stem cells.

Nonetheless, the embryonic stem-cell debacle will continue and will be carried out under the watchful eye of the National Institutes of Health's National Stem Cell Bank. It is they who will finalize stem-cell guidelines for the use of their registry, which they wish to "grow, characterize and distribute, and to provide comprehensive technical support to stem cell researchers around the world," for the "excess IVF embryos" that now exist.

Photo: AP Images