Advances in Menopause and Fertility

by ANGELA FINLAY

Could Menopause Soon be a Thing of the Past?

In a recent declaration, pioneering stem cell scientist Aubrey de Grey has suggested that a new era of fertility may be right around the corner. In an interview, the CEO of the SENS (Strategies for Engineered Negligible Senescence) Research Foundation confidently stated that with current advances in anti-aging therapies, menopause, along with its hormonal changes and reproductive limits, could be eradicated within 20 years.

How Stem Cell Research Relates to Menopause

Stem cell research is at the head of anti-aging treatments. The basic concept is the regrowth of healthy cells at the source: since stem cells can be guided into becoming another type of cell, they are able to repair, regenerate and replace damaged cells in that specific part of the body. For the reproductive system, this means that stem cells could halt the natural progression of menopause, giving new life to aging organs and essentially allowing women of any age to become pregnant and give birth.

Essentially, Dr. de Grey's approach aims to rejuvenate the ovaries. Although the method is still theoretical, De Grey suggests possible techniques like:

- Stimulating or replenishing stem cells in order to extend the life and function of the ovaries
- Creating a new ovary through tissue engineering

De Grey insists that if stem cells can help rejuvenate other organ tissue (like heart, lungs or liver), they should be able to do the same for the ovaries.

Counterpoints to Consider

It is difficult to dispute the major advances made in regenerative science in recent years, but some scientists are skeptical, saying de Grey might be getting ahead of himself. Some leaders in medical research, like Robin Lovell-Badge from London's National Institute for Medical Research, believes that anti-aging treatment is progressing, but at a slow pace. Also, further study is desperately needed before de Grey's claims can be tested – as of yet, no study has shown how stem cells could be used to generate egg cells.

Other fertility experts, like Evelyn Tefler from the University of Edinburgh, think the key may be in activating a woman's immature follicles after menopause to release eggs. Telfer's team have also shown that eggs can be matured outside of the body, which is another important possibility for extending fertility.

The impact of this scientific achievement, or de Grey's stem cell aspirations, would be monumental for millions of women at, or approaching, the end of their fertile period. And while many experts warn against putting your hopes in futures medical advancements, there have already been financial investors in De Grey's new anti-aging projects with SENS.