# Ultra-rapid warming applied to cleavage-stage embryos for the first time, opening new avenues for fertility patients

DENVER, CO, UNITED STATES, October 23, 2024 /EINPresswire.com/ -- In a recent study presented at the 80th ASRM Scientific Congress & Expo, researchers have successfully applied ultra-rapid warming (URW) to cleavage-stage embryos for the first time. Previously studied in blastocyst-stage embryos, this faster and more efficient thawing process has now shown similarly encouraging results in earlier-stage embryos, offering new possibilities for fertility treatments and lab procedures.

Embryos are often vitrified at the blastocyst stage (around five days post-fertilization). However, some cases require freezing at the cleavage stage (two to three days after fertilization). While URW, which uses a one-step protocol, has been proven effective with blastocysts in terms of survival and viability, its potential with cleavage-stage embryos remained unexplored — until now.

In this study, 71 previously cryopreserved cleavage-stage embryos were thawed using URW and compared to control groups thawed via traditional multi-step standard warming (SW). The embryos were divided between vitrified and slow-frozen groups. Although survival rates were similar between the two groups, URW-thawed embryos exhibited improved blastocyst formation rates and higher viability compared to those thawed with standard methods. This indicates that URW could provide an alternative to conventional thawing methods for cleavage-stage embryos.

“This is the first time ultra-rapid warming has been applied to cleavage-stage embryos, and the results are promising,” said Nagham Younis, Ph.D., Grand Rapids Associate Lab Director, Ovation Fertility, lead author of the study. “It has been recently proven that ultra-rapid warming works very well for blastocysts, and now we’ve shown that it can be just as effective for embryos frozen at an earlier developmental stage. Applying this technique to cleavage-stage embryos could give fertility clinics and patients a more streamlined option while still ensuring excellent lab outcomes.”

While initial lab results show promise, further clinical studies are required to fully understand how URW impacts long-term clinical outcomes. This research is a critical step forward in refining protocols for thawing cleavage-stage embryos, with the potential to enhance fertility treatment options.

About Ovation Fertility

Ovation® Fertility, part of the US Fertility network, is a leading national consortium of IVF laboratories dedicated to advancing reproductive care. Working closely with affiliated physician practices, Ovation leverages cutting-edge, evidence-based fertility treatments to provide hopeful parents with the highest chances of success. Ovation offers a comprehensive range of services, including frozen donor and surrogacy services and secure storage solutions for frozen biomaterials. Together, Ovation and its partners are committed to setting new standards in reproductive medicine. Learn more at https://www.ovationfertility.com.

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