Genea BIOMEDX

Geri

INTRODUCING GERI®

AWARD-WINNING TIME-LAPSE INCUBATOR WITH INTEGRATED CONTINUOUS EMBRYO MONITORING SYSTEM

Our benchtop incubator – Geri® ensures a uniform and controlled gas and temperature environment, which can help improve embryo viability and quality.[1,6]

CONTINUOUSLY HUMIDIFIED INCUBATION:
Geri® has six individual single-patient chambers with independently controlled humidity.[4]

SAFETY MECHANISMS:
Safety features, redundancies, and alarm functions help maintain stable conditions.

REAL-TIME INCUBATION MONITORING:
Individual sensors in each chamber enable monitoring of critical parameters within the incubator.[4]

ENHANCED LAB EFFICIENCY:
Geri® is designed as an easy-to-use, compact benchtop incubator with a minimal footprint[4] for seamless integration into your lab.

MODULAR SOFTWARE OFFERING:
Geri® Connect & Assess software is built on a modular approach to allow integration of new functionalities over time.

INTEGRATED EMBRYO MONITORING:
A dedicated high-resolution camera in each chamber provides time-lapse views of each embryo's development.[4]

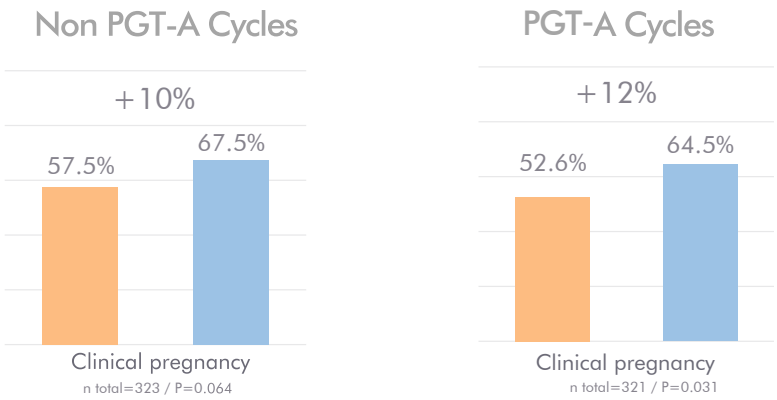
GERI® IS THE ONLY TIME-LAPSE INCUBATOR THAT COMBINES INDIVIDUALIZED CULTURE, TIME-LAPSE MONITORING AND THE OPTION OF CHOOSING **A DRY OR HUMID CULTURE ENVIRONMENT.**

DRY or HUMID culture: THE IMPORTANCE OF OSMOLALITY STABILITY

The study comparing humid and dry time-lapse incubation with a single-step medium found that humid conditions increased the likelihood of achieving a clinical pregnancy in ICSI cycles. This effect was particularly significant in PGT-A cycles, where a 12% higher clinical pregnancy rate was observed.[7]

Embryos from all cycles cultured in humid conditions, including donor oocyte cycles, had 23.6% higher odds of achieving clinical pregnancy (OR = 1.236, p=0.041), as shown by inverse probability of treatment-weighted logistic regression. Overall pregnancy rates, including all cycles, were 64.9% vs. 60.6% in humid and dry conditions, respectively.

IMPROVED PREGNANCY OUTCOMES WITH HUMID CULTURE - ESPECIALLY IN PGT-A CYCLES



The study also found that early embryonic development progressed significantly faster and embryos reached the morula stage considerably sooner under humid conditions, which has been linked to higher competence and implantation potential.

DEVELOPMENTAL EVENT	DRY CULTURE		HUMID CULTURE		P- VALUE
	Mean ± SD (hours)	N	Mean ± SD (hours)	N	
PN appearance	10.25 ± 4.13	3,585	10.05 ± 4.01	3,664	0.033
PN fade	23.51 ± 3.61	3,186	23.31 ± 3.22	3,186	0.017
2-cell stage	27.17± 4.96	3,441	26.82± 4.25	3,413	0.001
Morula	86.46 ± 10.16	2,474	85.71 ± 9.92	2,474	0.009
Duration of the 1st cell cycle	3.34 ± 3.34	3,084	3.15 ± 2.17	3,084	0.002

1. Swain JE, et al. Optimizing the culture environment and embryo manipulation to help maintain embryo developmental potential. Fertil Steril. 2016 Mar;105(3):571-587. doi: 10.1016/j.fertnstert.2016.01.035. Epub 2016 Feb 3. Erratum in: Fertil Steril. 2016 May;105(5):1377. doi: 10.1016/j.fertnstert.2016.03.033. PMID: 26851765. **2.** Zhang JQ, et al. Reduction in exposure of human embryos outside the incubator enhances embryo quality and blastulation rate. Reprod Biomed Online. 2010 Apr;20(4):510-5. doi: 10.1016/j.rbmo.2009.12.027. Epub 2009 Dec 28. PMID: 20129824. **3.** Swain JE. Decisions for the IVF laboratory: comparative analysis of embryo culture incubators. Reprod Biomed Online. 2014 May;28(5):535-47. doi: 10.1016/j.rbmo.2014.01.004. Epub 2014 Jan 27. PMID: 24656561. **4.** QFRM422 Geri® User Manual **5.** Bontekoe S, et al. Low oxygen concentrations for embryo culture in assisted reproductive technologies. Cochrane Database Syst Rev. 2012 Jul 11;2012(7):CD008950. doi: 10.1002/14651858.CD008950.pub2. PMID: 22786519; PMCID: PMC11683526. **6.** Kirkegaard K, et al. Effect of oxygen concentration on human embryo development evaluated by time-lapse monitoring. Fertil Steril. 2013 Mar 1;99(3):738-744.e4. doi: 10.1016/j.fertnstert.2012.11.028. Epub 2012 Dec 11. PMID: 23245683. **7.** Valera MÁ, et al. A propensity score-based, comparative study assessing humid and dry time-lapse incubation, with single-step medium, on embryo development and clinical outcomes. Hum Reprod. 2022 Aug 25;37(9):1980-1993. doi: 10.1093/humrep/deac165. PMID: 35904473.