

INTRODUCING **Gems**®: YOUR COMPLETE RANGE OF IVF AND VITRIFICATION MEDIA



Optimised for every stage¹⁷

- Gems® Media consists of Buffer***, Growth media***, and Cryopreservation solutions.



Long heritage^{3,18}

- Almost 30-years of experience in developing culture media.



Consistently high quality batch-to-batch¹⁷

- Manufactured in state-of-the-art, medically accredited facilities in Sydney (ISO13485) under the supervision of extensive QA.



Robust and effective media^{3,19,20}

- Gems® is the 3rd generation of Culture medium suite. It aids the development of the embryo in vitro including components below.
EX: L-carnitine, Alanyl-Glutamine



Established safety and efficacy²¹

- Gems® has been in clinical use in Genea ART clinics since the year 2013, 3 contributing to the birth of an estimated 6,500 babies.



User-friendly²²

- Ready-to-use Medium with clear labeling and various colors to aid recognition and minimize the potential for errors.

*** Buffers are available to use outside the CO₂-controlled environment because they are pH stabilize with the HEPES. Media is pH stabilized with HCO₃ (Bicarbonate) which requires an effective buffer such as CO₂.
EG= Ethylene glycol, DMSO= Dimethyl Sulfoxide.

REFERENCES 1. Data on file at Genea ART clinics QRTV318, Human Embryo Culture in Geni®, Audited birth outcome results from internally reported Laboratory Performance Measures (LPMs). 2. QFRM190 Gems® Clinical Evaluation Report. 3. Mortimer D. "Human blastocyst development media." Human Reproduction 16,12 (2001): 2725-4. QFRM536 Oocyte Retrieval Buffer ORB-50 and ORB-20 tech specs. 5. QFRM906 Sperm Medium SPB-50 and SPB-20 tech specs. 6. QFRM904 Sperm Wash Gradient Set SWG-01 tech specs. 7. QFRM903 Sperm Buffer SPB-50 and SPB-20 tech specs. 8. QFRM907 Fertilisation Medium FEM-50 and FEM-20 tech specs. 9. QFRM908 Cleavage Medium CLM-50 and CLM-20 tech specs. 10. QFRM909 Blastocyst Medium BLM-50 and BLM-20 tech specs - MKT02109 Nov 2016. 11. QRTV263 Geni® Medium Study Report. 12. QFRM902 Gems® Technical Specification Geni® Medium. 13. QFRM910 Vitrification Set VIT-01 tech specs. 14. QFRM911 Warming Set WRM-01 tech specs. 15. QFRM913 Gavi® Medium Cartridge Gavi®-MED-20 tech specs. 16. QFRM912 VitBase VBS-20 tech specs. 17. QFRM40 Gems® Instructions for use. 18. QFRM190 Gems® Clinical Evaluation Report. 19. Gihan Mansour et al. "L-carnitine supplementation reduces oocyte cytoskeleton damage and embryo apoptosis induced by incubation in peritoneal fluid from patients with endometriosis." Fertil Steril 91,5 (2009): 2079-86. 20. Kim et al. "Replacement of glutamine with the dipeptide derivative alanyl-glutamine enhances in vitro maturation of porcine oocytes and development of embryos." Zygote 22(2013): 286-9. 21. Data on file at Genea ART clinics. QRTV318, 09 Human Embryo Culture in Geni®. 22. Human Fertilisation and Embryology Authority (HFEA). Adverse incidents in fertility clinics: lessons to learn 2010-2012. Available at <http://www.hfea.gov.uk/9449.html>. Accessed January 2017. Last updated September 2015.

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Genea
BIOMEDX
Gems



DESIGNED BY EMBRYOLOGISTS WHO USE IT¹

Gems®: A complete embryo medium suite, including the third generation of the world's first sequential media^{2,3}

OPTIMISED FOR EVERY STEP

GAMETE HANDLING AND PREPARATION



Oocyte Retrieval Buffer 50mL⁴

- Used to reduce environmental stress on the oocytes during their collection from ovarian follicles.



Sperm Medium 50mL⁵

- Used to wash and resuspend sperm for the insemination step in IUI, IVF, or diagnostic washing. Optimize for storage in a 6% CO₂ incubator.



Sperm Wash Gradient SET⁶

(45% 50mL / 90% 50mL)*



- Used to separate sperm from seminal plasma and also to separate highly motile sperm in preparation for insemination.



Sperm Buffer 50mL⁷

- Used to wash and resuspend sperm for the insemination step in intrauterine insemination (IUI), IVF, or diagnostic washing.

GROWTH MEDIA



Fertilisation Medium 50mL⁸

- Supports an optimal process for fertilization providing a suitable environment for both oocytes and sperms.



Cleavage Medium 50mL⁹

- Higher EDTA content and the higher concentration of pyruvate, lactate, non-essential amino acids to aid the embryo to reach the cleavage stage.**
- Lower concentration of glucose and essential amino acids.**



Blastocyst Medium 50mL¹⁰

- No EDTA and the lower concentration of pyruvate, lactate, non-essential amino acids.**
- Higher concentration of glucose and essential amino acids aid the development of embryos from cleavage to the blastocyst stage.**



Geri® Medium 50mL^{11,12}

- Ready-to-use Medium to support extended culture, with uninterrupted incubation up to blastocyst stage. Embryos retain their micro-environment throughout in vitro culture.

VITRIFICATION & WARMING SOLUTIONS



Vitrification Set¹³

(SOL1 20mL / SOL2 20mL / SOL3 10mL)*

- Cryoprotectant solutions protect against cell damage (EG/DMSO/Trehalose).
Used for the manual vitrification of embryos.



Warming Set¹⁴

(SOL1 20mL / SOL2 10mL / SOL3 10mL)*

- For thawing vitrified embryos using either the Verification Set or the Gavi® Medium Cartridge.

Gavi® Medium Cartridge 320µL¹⁵

(Solution 1 and Solution 2)*

- Used in conjunction with Gavi® System for embryo vitrification (EG/ DMSO/Trehalose).

OTHERS



VitBase 20mL¹⁶

- Maintains embryos for a short period in a non-gassed environment.

* Not for individual sale

** Compared to the rest of Gems® sequential media.