



# Intrauterine Insemination

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Helping you improve  
your success rates



**ORIGIO** • SAGE • Humagen • TPC • **K-Systems** • RI • **Wallace** • LifeGlobal • CooperGenomics

**CooperSurgical**  
Fertility and Genomic Solutions

# Committed to all aspects of IUI

CooperSurgical Fertility and Genomic Solutions has a full range of products to help you optimize your IUI success rates, including a cutting edge range includes workstations and equipment, diagnostics for selecting the healthiest sperm, preparation media and a soft malleable transfer catheter that aids even dispersion of sperm.



## ANALYSIS



40-50% of all infertility cases involves a male factor<sup>1</sup>, hence, reliable prognostic information is vital in helping you make the right choices for your patients. To gain valuable insight into the likelihood of success with IUI, use our HBA Assay for an evaluation of sperm sample quality in minutes.

## PREPARATION



Providing optimal conditions for sperm cells during preparation is critical for optimizing your success rates. Our high-quality sperm preparation products are specially designed with a more alkaline pH to mimic natural physiological conditions and to support the sperms motility and capacitation.

1. Kumar N and Singh AK. Trends of male factor infertility, an important cause of infertility: A review of literature. J Hum Reprod Sci. 2015;8:191–196



## IUI

Minimizing patient trauma during the IUI procedure helps you to maximize the chances of successful fertilization. All of our IUI catheters have a smooth rounded tip profile and our versatile range allows you to match the patient's anatomy as well as your preference.

## OPERATOR PROTECTION

Protecting the operator is as important as protecting the samples during preparation for IUI. When working with high-risk samples, our biosafe, class II workstations – such as the ORIGIO Mars IVF Workstation – provide peace of mind for both operator and patient.



# Enhance your success rates with an integrated solution for IUI

## Advantages of an integrated solution:

- Reduce the time taken to carry out procedures by using intelligently designed products
- Remove the worries of compatibility issues between products
- Individualize your protocols by choosing from an extensive portfolio with products to suit any clinic's needs

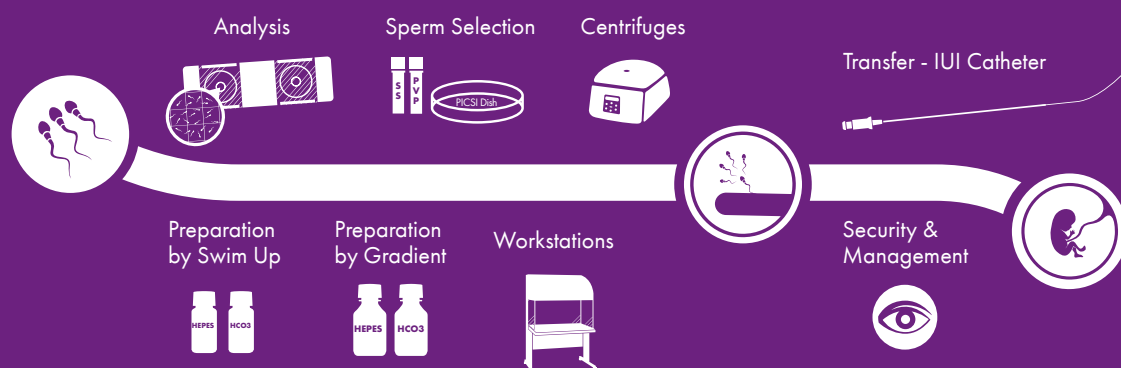


## Key benefits of using our products for IUI:

- HBA Assay – quick and reliable sperm sample evaluation
- Sperm preparation media – designed to provide optimal conditions for sperm viability
- ScanFuge centrifuges – customizable with a choice of rotors, buckets, adaptors, and sleeves
- IUI catheters – with a smooth tip and formable outer sheath for comfort and control
- Workstations – designed to protect both sample and operator
- RI Witness™ – ensures patient samples are tracked through the lab

## Andrology

## IUI





## Sperm quality

Determining whether a sperm sample is suitable for IUI is essential for enhancing the chances of achieving successful pregnancy.

Manual sperm analysis techniques offer a rough guide for differentiating 'probably fertile' from 'probably subfertile', however, they are limited in the information they provide and they are therefore unable to predict true fertility potential.

## HBA<sup>®</sup> Assay

The HBA Assay is a diagnostic tool with dual hyaluronan-coated chambers designed to allow you to evaluate the ratio of mature sperm in a sperm sample. This core is important as it has been shown that mature sperm, which has the ability to bind to hyaluronan, are less likely to have DNA damage.<sup>2</sup>

Assessing the proportion of sperm that bind to hyaluronan can help you decide which treatment is best for your patient. If a patient has a high percentage of mature sperm cells ( $\geq 65\%$ ), this indicates that IUI might be a suitable treatment for the couple, if the female partner does not have a contraindication.<sup>3</sup>

2. Parmegiani L, et al. "Physiologic ICSI": Hyaluronic acid (HA) favors selection of spermatozoa without DNA fragmentation and with normal nucleus, resulting in improvement of embryo quality. *Fertility and Sterility*. 2010;93:598–604.

3. Worrlow, K.C., Eid, S., Woodhouse, D., Perloe, M., Smith, S., Witmyer, J., Ivani, K., Khoury, C., Ball, G.D., Elliot, T., Lieberman, J., 2013. Use of hyaluronan in the selection of sperm for intracytoplasmic sperm injection (ICSI): Significant improvement in clinical outcomes-multicenter, double-blinded and randomized controlled trial. *Human Reproduction* 28, 306–314. doi:10.1093/humrep/des417

### The HBA Assay offers you:

- Quick and reliable sperm screening
- Information needed to make the right decision
- A reliable alternative to expensive DNA integrity assays, as it correlates statistically with sperm chromatin tests



# Purifying Sperm for IUI

CooperSurgical Fertility and Genomic Solutions offer a unique and novel sperm preparation portfolio – the ORIGIO Gradient Series – consisting of ORIGIO Sperm Wash and ORIGIO Gradients. These are all designed to provide optimal conditions for sperm viability

Our media have a more alkaline pH to mimic the physiological conditions sperm will encounter *in vivo*. Sperm are quite sensitive to acidic external pH, which will lower the intracellular pH (pHi) in the sperm cells and thus impede sperm motility and function and alkaline (high pH) external pH stimulates several sperm motility parameters. (Will et al 2011).



## Key benefits of our sperm preparation media are:

- **Alkaline pH (8–8.5) and bicarbonate** – improves sperm motility and supports capacitation
- **Fully HEPES buffered** – can be used under atmospheric conditions and does not require pre-incubation before use
- **Antioxidants** – citrate, taurine and EDTA
- **HSA** – anti-sticking, antioxidant, reservoir for cholesterol, fatty acids and vitamins
  - 10 mg/ml in ORIGIO Sperm Wash
  - 5 mg/ml in ORIGIO Gradient™ 90, 80 and 40
- **Osmolality** – differentiated osmolality through the gradients to mimic *in vivo* conditions and protect sperm during isolation
- **Long shelf life** – 52 weeks shelf life and 28 day open bottle shelf life
- **Low endotoxin** – endotoxins are toxic to spermatozoa
  - ORIGIO Sperm Wash  $\leq 0.15$  EU/ml
  - ORIGIO Gradients  $\leq 0.8$  EU/ml
- **Smallest bottle size available on the market!** – Reduces wastage in smaller clinics
- **Ready to use media**



# ORIGIO Sperm Wash

## for sperm preparation by swim up

The physiological pH, bicarbonate, antioxidants and high HSA content provides optimal conditions for the spermatozoa during the swim-up process. Because the media are fully HEPES buffered the procedure can be performed in atmospheric conditions outside the incubator.



# ORIGIO Gradients

## for efficient separation of motile sperm

ORIGIO Gradients enable motile sperm to be separated from extraneous cells and seminal plasma and to select a subpopulation of cells with the highest capacity for fertilizing an oocyte.



# ScanFuge Centrifuges

A unique centrifuge with fixed angle and swing out bucket rotor with Digital display setting of speeds and run times

## ScanFuge Midi Centrifuge

A unique autoclavable rotor centrifuge with digital display setting with automatic door release and alarms for imbalance, over heat and over speed



## ScanFuge Maxi

A unique centrifuge with fixed angle and swing out bucket rotor with Digital display setting of speeds and run times



| Technical Information | ScanFuge Midi                                    | ScanFuge Maxi               |
|-----------------------|--|-----------------------------|
| Max speed             | 4000 rpm   | 4000 rpm                    |
| Max RCF x g           | 2075   | 2774                        |
| Max Capacity          | 6 x 15 ml - adaptors available for 3 ml to 14 ml | 6 x 15 ml – 4 x 85 ml       |
| Run time              | 99 min 59 sec or continuous                      | 99 min 59 sec or continuous |
| Acceleration time     | < 20 sec   | < 20 sec                    |
| Deceleration time     | < 20 sec   | < 20 sec                    |
| Programme Memory      | 10   | 10                          |
| Dimensions (WxDxH)mm  | 296 x 412 x 206                                  | 375 x 480 x 260             |
| Weight                | 17.5kg (net) – 18.7kg (gross)                    | 19.5kg (net) – 25kg (gross) |



# Wallace Intrauterine Insemination Catheters

The Wallace IUI catheter is a premium quality device, featuring a smooth tip and formable outer sheath for optimal placement control within the uterus

The two-piece design replicates the Wallace Classic catheter, making it suitable for the training of embryo transfer techniques.

## Key product benefits

- Flexible outer sheath with memory can be pre-curved to aid insertion in varying anatomies
- Smooth rounded tip to minimize trauma and maximize success rates
- Similar catheter design to Wallace Embryo Transfer Catheter range, helping develop an effective technique
- Bilateral side eyes for maximum dispersion of sperm and minimal risk of blockage
- Compatible with the Wallace stylet for difficult procedures (1816ST - Wallace 18cm Stylet)

## Technical Information

|  |          |
|--|----------|
| Inner catheter inner diameter                | 1.07 mm  |
| Inner catheter outer diameter                | 1.58 mm  |
| Outer sheath outer diameter                  | 2.3 mm   |
| Stylet protrusion from outer sheath          | 2.0 mm   |
| Volume of catheter not including hub (18 cm) | 0.17 ml  |
| Volume per cm of catheter                    | 0.009 ml |



# Fortuna IVF Class I Workstations

Fortuna IVF Workstations are specially designed to meet the needs of a busy IVF Laboratory where Class I protection is required

- **Consistent, gentle air flow** – even curtain of non-turbulent air flow at less than 48dBA, filtered with HEPA filters
- **Certified** – Fortuna workstations are independently certified and comply with necessary safety requirements for electrical equipment: IEC 61010 – 2-010:2003, IEC 61010-1-2010 (3rd edition). CE marked
- **Even temperature control** – integrated temperature controlled humidification system enabling full flexibility for short-term incubation
- **Optimized work area** – electrically heated, microscope prepared surface, with accurate control and even temperature stability. A heated glass stage and an LED light source as standard. Also included as standard are a 21.5" LCD monitor and electrical outlets

## Width options

900 mm

1200 mm

1500 mm

1800 mm





#### Width options

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900 mm

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1200 mm

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1500 mm

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1800 mm

## Mars IVF Class II Workstations

Mars IVF Workstations are specially designed to meet different laboratory space requirements

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- **Even, clean air flow** – even curtain of non-turbulent air flow at less than 52dBA, filtered with HEPA filter
- **Certified** – independently certified and comply with the necessary safety requirements for electrical equipment: IEC 61010 – 2-010:2003, IEC 61010 – 1 2010 (3rd Edition). CE marked
- **Adjustable window** – electrically adjustable front window
- **Temperature controlled, optimized work area** – electrically heated surface with accurate control and even temperature stability. The heated surface is microscope prepared and includes a heated glass stage, and an LED light source as standard, as well as a 21.5" LCD monitor and electrical outlets

# IUI product range

## HBA Assay

|           |                   | Order Code |
|-----------|-------------------|------------|
| HBA slide | Pack of 10 assays | BCT-HBA-10 |

## ORIGIO Sperm Prep Media

|                       |            |          |
|-----------------------|------------|----------|
| ORIGIO Gradient 100   | 60 ml      | 84000060 |
|                       | 2 x 60 ml  | 84002060 |
|                       | 4 x 125 ml | 84004125 |
| ORIGIO Gradient 90    | 60 ml      | 84010060 |
| ORIGIO Gradient 40/80 | 2 x 60 ml  | 84022060 |
|                       | 2 x 10 ml  | 84022010 |
|                       | 12 x 10 ml | 84021210 |
| ORIGIO Sperm Wash     | 60 ml      | 84050060 |
|                       | 5 x 60 ml  | 84055060 |
|                       | 10 x 10 ml | 84051010 |

## ORIGIO Workstations Class I

|                                 |   |            |
|---------------------------------|---|------------|
| Fortuna IVF Class I Workstation | 900 mm                                    | WF900      |
|                                 | 1200 mm                                   | WF1200     |
|                                 | 1200 mm for ICSI                          | WF1200ICSI |
|                                 | 1500 mm                                   | WF1500     |
|                                 | 1800 mm                                   | WF1800     |
|                                 | 1800 mm Dual                              | WF1800D    |
|                                 | Workstation Fortuna 1800 mm Multi Purpose | WF1800MP   |

## ORIGIO Workstations Class II

|                               |  |          |
|-------------------------------|--|----------|
| Mars IVF Class II Workstation | 900 mm                                 | WM900    |
|                               | 1200 mm                                | WM1200   |
|                               | 1500 mm                                | WM1500   |
|                               | 1800 mm                                | WM1800   |
|                               | 1800 mm Dual                           | WM1800D  |
|                               | Workstation Mars 1800 mm Multi Purpose | WM1800MP |

## Centrifuge Equipment

|               |                  |               |
|---------------|------------------|---------------|
| ScanFuge Midi | Midi 230 V/60 Hz | 7.607.514.101 |
|               | Midi 110 V/60 Hz | 7.607.514.801 |
| ScanFuge Maxi | Maxi 230 V/50 Hz | 7.617.514.201 |
|               | Maxi 110 V/60 Hz | 7.617.514.802 |

## IUI Catheters

|                           |  |        |
|---------------------------|--|--------|
| Wallace IUI Catheter      | Intra-uterine insemination catheter (18 cm) – Quantity: 10 | AIC18  |
| Wallace Compatible Stylet | Rigid Stylet for introducing the 18 cm – Quantity: 10      | 1816ST |

## K-Systems Workstations Class I - L100 Series (115V)

|           |  |  |
|-----------|--|--|
| L124 IVF  | 1200 mm, standard heat                 | 4.111.212.121<br>4.112.212.121                                   |
|           | 1200 mm, with RI Witness               | 4.111.312.121<br>4.112.312.121                                   |
| L126 IVF  | 1800 mm, standard heat                 | 6.111.212.121<br>6.112.212.121<br>6.121.212.121<br>6.122.212.121 |
|           | 1800 mm, with RI Witness               | 6.111.312.121<br>6.112.312.121<br>6.121.312.121<br>6.122.312.121 |
| L126 DUAL | 1800mm, standard heat                  | 6.131.812.121<br>6.132.812.121<br>6.133.812.121<br>6.134.812.121 |
|           | 1800mm, with RI Witness                | 6.131.912.121<br>6.132.912.121<br>6.133.912.121<br>6.134.912.121 |
| L126 MP   | 1800mm, Multi Purpose, standard heat   | 6.111.512.121<br>6.112.512.121                                   |
|           | 1800mm, Multi Purpose, with RI Witness | 6.111.612.121<br>6.112.612.121                                   |
| L124 ICSI | 1200mm for ICSI                        | 4.141.142.314  |

## K-Systems Workstations Class II

|          |                                  |                                |
|----------|----------------------------------|--------------------------------|
| L234 IVF | 1200mm, standard heat            | 4.211.422.232<br>4.212.422.232 |
|          | 1200mm, with RI Witness on right | 4.211.322.232<br>4.212.322.232 |
|          |                                  |                                |

Availability of a device for clinical use is dependent on the regulatory approval status of that device within the country the device is intended to be sold into.