

Andrology®

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Integrated solutions for sperm  
evaluation, preparation,  
selection & cryopreservation



CooperSurgical®  
Fertility Solutions

# The importance of male factor

## Focus on Andrology

Since the advent of assisted reproduction the scientific focus on infertility has mainly concentrated on female issues. This point of view, however, is now shifting as more and more evidence accumulates on the importance of the male factors. Evaluating the fertility of men can be very challenging. It is estimated that male factor is involved in 40–50% of all infertility cases.<sup>1-4</sup>

**A bad sperm may compromise a good oocyte. At CooperSurgical, we believe that by increasing the focus on andrology, we can help even more couples realize their ultimate dream – parenthood.**

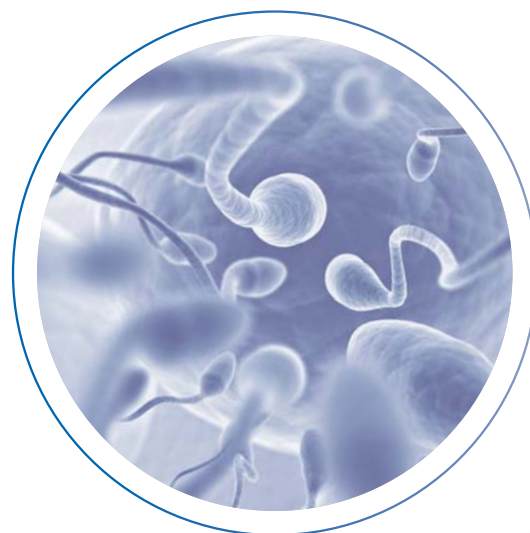
# 40~50%

**of all infertility cases are wholly or in part due to a male factor**

## Helping you improve success rates

As the field of ART evolves, CooperSurgical continually supports you with high quality and novel solutions that improve the diagnosis and treatment of male subfertility.

We employ industry experts and partner with leading scientists to produce the best possible solutions for you. We approach each challenge with one ultimate aim – to provide you with optimal solutions which enables you to maximize success rates.



# Minimizing DNA fragmentation in the andrology process

## Good processes and high quality products

Sperm DNA damage may compromise fertilization rates, implantation and increase pregnancy loss. External factors, such as storage temperatures, media used, the presence of reactive oxygen species, time between ejaculation and preparation, and several others may induce damage to sperm DNA *in vitro*. Minimizing DNA fragmentation is therefore critical throughout each step of sperm processing.

CooperSurgical provides high quality products. Through our expert knowledge, we can offer advice on optimization of each step in the andrology process to minimize DNA fragmentation and ultimately ensure the best quality sperm sample for fertilization.

At CooperSurgical we have a team of experts ready to assist with any question you might have.



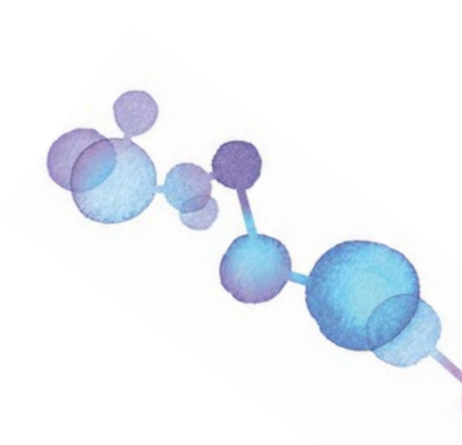
## Train with CooperSurgical

### Optimize your performance, learn new skills and network with international peers

We invite our customers and partners to come and learn new techniques and share best practices in our fully equipped laboratories. At our training labs, we provide evidence-based training by skilled, experienced embryologists, including demonstrations and hands-on training in a comprehensive range of ART processes.

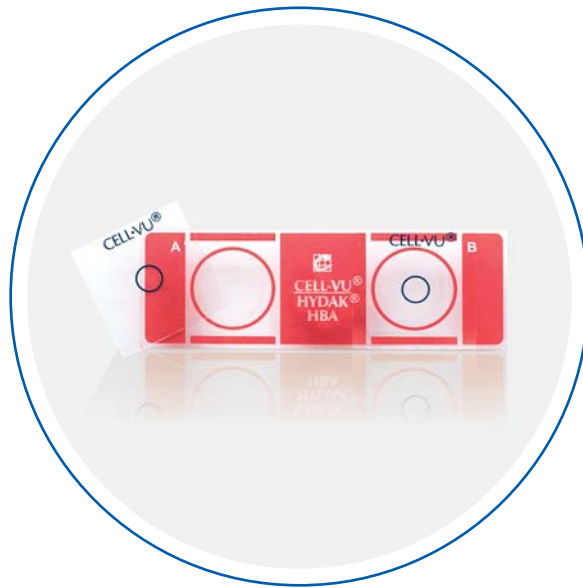


# Committed to every aspect of andrology

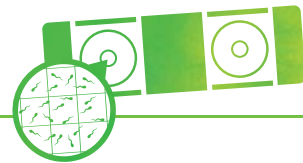


## Products designed for optimal sperm function

With CooperSurgical you have the necessary tools to optimize your work along each step of the andrology process. Our state-of-the-art products help you analyze, prepare, select and preserve the highest quality sperm samples.



### ANALYSIS



The HBA slide provides reliable prognostic information which is critical when making the right choices for your patients.

Get relevant information on sperm function, DNA integrity and physiology within minutes.

CooperSurgical can support you with a comprehensive range of products – from microscopes to the HBA® diagnostic assay.



### PREPARATION



Good procedures and high quality products for sperm preparation are prerequisite for optimal outcomes.

We offer both the equipment required and media for sperm preparation.



### FERTILIZATION



Selecting functionally competent, high quality sperm with hyaluronan binding techniques such as PICSi® or SpermSlow™ can reduce miscarriages.

The ergonomic design of the Integra™ micromanipulation system is made for ease of use and quick, efficient working.

We offer a variety of quality products, ranging from oil to micropipettes and micromanipulators, to support your complete treatment approach – whether you are doing IUI, IVF or ICSI.



### CRYOPRESERVATION



An effective protocol and high-quality products are important elements in sperm cryopreservation and patient management.

We offer cryopreservation solutions both with and without HSA.

We offer cryopreservation media to meet all your needs.



# Hyaluronan – a natural biomarker for sperm quality

## Reduce the risk of miscarriages

Selecting the right sperm is essential to enhance the chances of achieving a successful ICSI outcome. Compromised sperm may lead to impaired embryo development and an increased risk of pregnancy loss. Hyaluronan is a natural substance found in the cumulus oophorous complex surrounding the oocyte and the ability of sperm cells to bind to hyaluronan is an important biomarker for sperm maturity and quality. Only fully mature sperm that have completed the last crucial stages of spermatogenesis have developed receptors for hyaluronan. By integrating hyaluronan biomarker tools into your workflow you can select sperm of the highest quality and improve the chances of a successful pregnancy for your patients.



## Ability of sperm to bind to hyaluronan correlates to:<sup>5</sup>

- Lower rates of chromosomal aneuploidy
- Lower rates of DNA fragmentation
- Increased chromatin integrity
- Normal head morphology



# Reduce the risk of early miscarriage

## SPERM SELECTION

Clinical benefits of Hyaluronan based sperm selection:

- Higher embryo developmental rate<sup>6</sup>
- Better embryo quality<sup>6</sup>
- Lower rates of early miscarriage<sup>7,8</sup>



## PICSI® DISH

ICSI dish with hyaluronan microdots for sperm selection

The PICSI Dish is convenient, easy-to-use and allows for the selection of a mature sperm



## SPERM SLOW™

A semi-viscous medium containing hyaluronan for sperm selection

One step immobilization and selection of mature sperm for ICSI without the use of PVP

## DIAGNOSTIC DEVICE



## HBA® ASSAY

Information that allows you to choose the right treatment for your patient

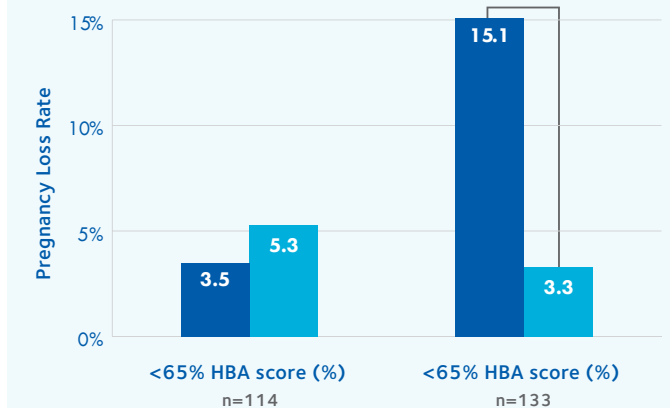
The HBA Assay allows you to distinguish between mature sperm that express hyaluronan receptors and those that do not. Assessing the proportion of sperm with receptors can be used to decide which treatment is best for your patients

- Sperm sample evaluation in minutes
- HBA score correlates to fertilization, pregnancy and cleavage rates<sup>6</sup>

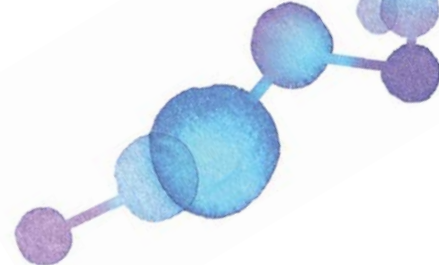
## Sperm selection with PICSI Dish reduces clinical pregnancy loss for patients with low HBA scores<sup>7</sup>

■ Control (ICSI) ■ HBA Bound (PICSI)

Randomized, controlled trial of 802 couples treated with ICSI at 10 sites across the USA; \*p-value <0.05



# Andrology product range



|                                     | SPERM ANALYSIS | SPERM PREPARATION | FERTILIZATION |                          | CRYO MEDIA |
|-------------------------------------|----------------|-------------------|---------------|--------------------------|------------|
|                                     |                |                   | IUI           | SPERM SELECTION FOR ICSI |            |
| <b>ORIGIO MEDIA</b>                 |                |                   |               |                          |            |
| ORIGIO Sperm Wash                   |                | ●                 | ●             |                          |            |
| ORIGIO Gradient (100%, 90%, 40/80%) |                | ●                 |               |                          |            |
| Sperm Preparation Medium            |                | ●                 |               |                          |            |
| Sperm Freezing Medium               |                |                   |               |                          | ●          |
| <b>HYALURONAN PRODUCTS</b>          |                |                   |               |                          |            |
| HBA® Assay                          | ●              |                   |               |                          |            |
| PICSI® Dish                         |                |                   |               | ●                        |            |
| SpermSlow™                          |                |                   |               | ●                        |            |
| <b>ADDITIONAL PRODUCTS</b>          |                |                   |               |                          |            |
| Makler® Chamber                     | ●              |                   |               |                          |            |
| Centrifuges                         |                | ●                 |               |                          |            |
| Microscopes                         | ●              | ●                 | ●             | ●                        | ●          |
| Micromanipulators                   |                |                   |               | ●                        |            |
| Oil                                 |                |                   | ●             | ●                        |            |
| PVP                                 |                |                   |               | ●                        |            |
| IUI Catheters                       |                |                   | ●             |                          |            |
| ICSI Micropipettes                  |                |                   |               | ●                        |            |

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