

MICROMANIPULATION BY VITROLIFE

A complete solution for ICSI procedures.



TESTED, TRIED AND TRUSTED

Vitrolife micromanipulation products have been used from the beginning.

Used worldwide

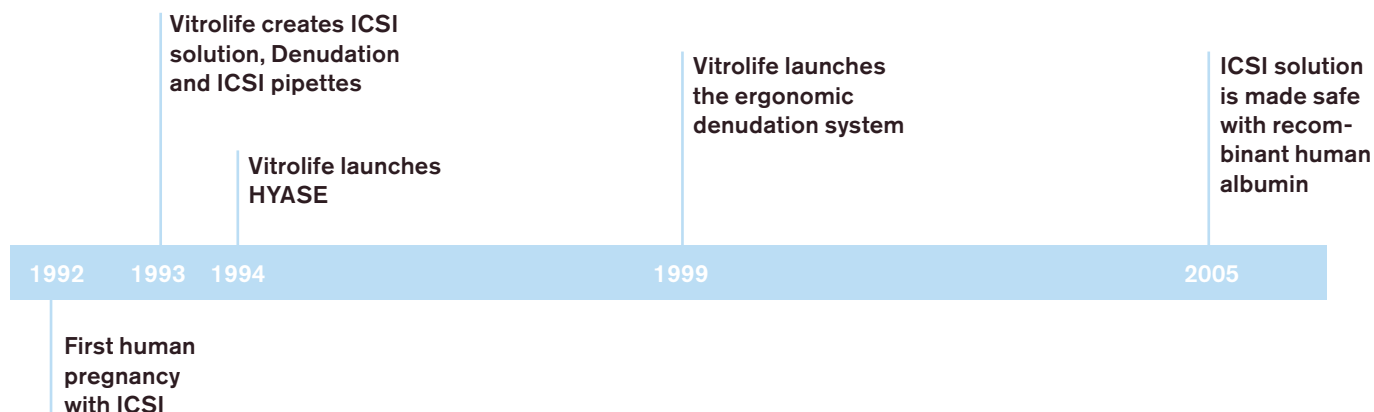
Vitrolife is the first choice in thousands of fertility clinics across the world. Our media and tools touch almost every step of IVF to provide the highest standards of quality and reliability at all the stages of the process.

Our products have been trusted from the start. And as fertility procedures develop, we can help you with new and innovative solutions and support from experienced embryologists.

A history of firsts

Vitrolife's pipettes and media for micromanipulation in ICSI are the result of over 20 years of experience and development. When precision and safety are necessities rather than luxuries, Vitrolife has consistently delivered the quality that leading IVF clinics have come to expect.

Vitrolife has been present at many of the defining milestones in ICSI. Today, many of our innovations are considered standard in ICSI. In 1993, Vitrolife



“Vitrolife pipettes fulfil my requests on quality and consistency and I am a satisfied customer since many years”.

Gianpiero D. Palermo, M.D., Ph.D.
Professor of Reproductive Medicine



developed the first commercially available ICSI medium. In the following year, Vitrolife introduced HYASE for denudation of oocytes. In 2005, ICSI solution was given a new formula with recombinant human albumin. This unique development has further improved product consistency and the safety of ICSI.

Improved ICSI

In 1992 science brought hope to thousands childless couples when the first pregnancies generated by ICSI were reported. It meant that male infertility factor was no longer an obstacle to starting a family. At its introduction in the early 1990's, fertilisation rates after ICSI were around 30%¹. Thanks to further

modifications of the procedure fertilisation rates of over 80% are now possible. This makes ICSI an essential and critical procedure in fertility treatment.

Success is not based on skill alone

The success of the ICSI depends not only on the embryologist's skills. The vitality of the biological material and the quality and characteristics of the tools used all affect the result of any procedure. From the earliest days Vitrolife has been involved in the evolution and development of the procedure.

Did you know that since the introduction of ICSI the need for donor sperm has been drastically reduced. Today, more than 95% of men can father their own genetic child.



WORKING FOR YOU AND YOUR RESULTS

Vitrolife reduces risks and helps secure results at every step of an ICSI procedure. Our integrated micromanipulation products work safely and consistently in your reality.

Media with safety and consistency

Our media offering includes sperm and oocyte handling solutions, denudation solution and covering oil.

Vitrolife's media combine both safety and consistency. This guarantees that the risk of contamination is kept to an absolute minimum and that the same conditions are reproducible year in year out. This is achieved by:

- Using **pharmaceutical grade components** with lot-to-lot consistency.



- Using **recombinant human albumin** in ICSI media for high consistency and optimal safety.

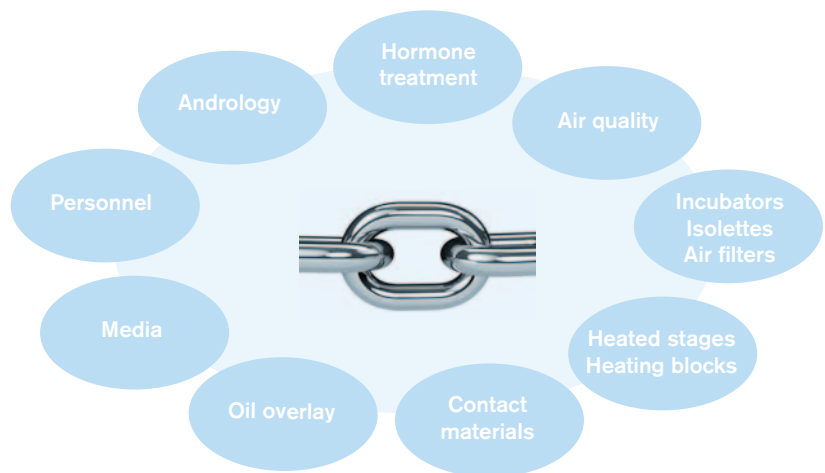
- **Checking the function and efficacy** of all media using relevant endpoints for testing; Human Sperm Survival Test (HSSA), Mouse Embryo Assay (MEA)* and endotoxin test.



* Multiple endpoints, including 1-cell, expanded blastocysts on day 5 \geq 80% and cell count.

Securing every link in the IVF-chain

As the challenges to raise success rates increase, the demands on the tools and media you use will become tougher. We provide an unbroken chain of quality products, for every step of an IVF-treatment. And when today's research becomes tomorrow's reality, we will continue to guarantee every link.



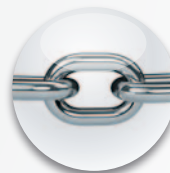
Precision pipettes for better control

Vitrolife's comprehensive range of pipettes give you optimal control in micromanipulation. They are manufactured with quality assured materials that are MEA and endotoxin (LAL) tested. Our pipettes have properties that make them ideal for precision work including:

- **Inspection of all pipettes** by an experienced technician to ensure consistency and quality. This guarantees that our pipettes are free of particulate debris and impurities.



- **Measurement** of critical design features to ensure function and control when in use.



- **Process control** at every stage of the production from sourcing the raw materials to packaging and sterilising the final product.

VITROLIFE MEDIA AND SOLUTIONS

When the quality of every drop counts.

ICSI solution - the safe way

In 1993 ICSI solution from Vitrolife was the first commercial product designed exclusively for the ICSI procedure. During ICSI, a small volume of medium is injected into the oocyte together with the sperm cell. For this, supplementation of ICSI with recombinant human albumin is the safest possible alternative.

HYASE - facilitating denudation

Spermatozoa release hyaluronidase when penetrating the cumulus mass. However, if ICSI is used as fertilisation method, the cumulus is removed by the embryologist using the same enzyme released by the spermatozoa.

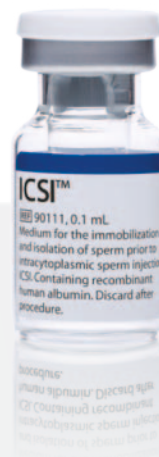
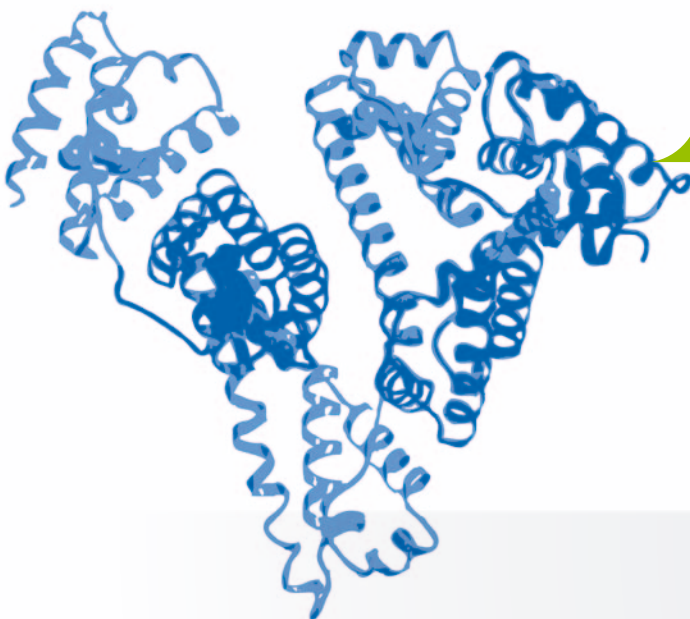
When oocytes are placed in diluted HYASE the cumulus mass is dispersed in a few seconds and the cells can easily be removed with a denudation pipette.

Solutions for success

ICSI solution and HYASE have been used clinically in ICSI procedures for many years with documented safety and efficacy^{2,3}.

A unique solution

We use recombinant albumin in our ICSI solution. Recombinant albumin has proven to be structurally identical to plasma-derived human albumin (HA) and possesses several advantages including lot-to-lot consistency, low endotoxin levels and the absence of plasma-derived contaminants⁴.



G-MOPS - stability in every drop

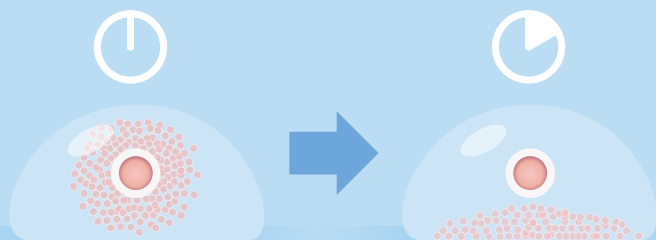
G-MOPS is a pH stable handling medium. It supports the handling and manipulation of oocytes and embryos outside the incubator. G-MOPS is part of the G-Series, where every product is developed to resemble the conditions of the female reproductive tract and fulfill embryo requirements. By using the entire G-Series from aspiration to transfer you can be confident you are providing the best for the embryo in every step.

OVOIL - protects your culture system

OVOIL is a covering oil that has been used for more than a decade and is well known for its lot-to-lot consistency. It contains 100% paraffin oil of highest quality with proven excellent embryo development when compared to other oils⁵. Leave nothing to chance. Let OVOIL protect your oocytes during ICSI.

How we secure efficacy

Before releasing HYASE, we simulate your work and your reality. Every batch of HYASE is tested for efficacy using Vitrolife's proprietary MEA method. By placing mouse cumulus complexes in HYASE for a set time it is possible check lot-to-lot consistency and enzyme activity by comparing with reference material.



VITROLIFE MICROPIPETTES

When precision, choice and control are essential.

ICSI and holding pipettes

We supply a wide variety of ICSI pipettes that allow you to work comfortably and effectively for the best possible results.

- We provide a wide range of pipettes with different characteristics, all are adapted to tackle different challenges in your work.
- ICSI pipettes are available with variety design features including bend angles from 0° to 35°.
- Vitrolife holding pipettes have an optimal lumen diameter and smooth edges. This means that oocytes or embryos can be handled with minimal trauma.

Choices to match your needs

A-series	B-series	C-series	Holding
<ul style="list-style-type: none">▪ Inner diam. 4-5.5µm▪ Bend located 500µm from tip <p>Short sharp bevel with a short spike</p> <p>Has a unique taper that gets wider later to give less damage to the oocyte.</p>	<ul style="list-style-type: none">▪ Inner diam. 4-5.5µm▪ Bend located 500µm from tip <p>Short sharp bevel with a longer spike</p> <p>Has a unique taper that gets wider later to give less damage to the oocyte.</p>	<ul style="list-style-type: none">▪ Inner diam. 5-6µm▪ Bend located 400µm from tip <p>Short bevel and a very short spike</p> <p>More sturdy and stiff behavior in PVP due to short distance from tip to location of bend.</p>	<ul style="list-style-type: none">▪ Bend located 1000µm from tip▪ Outer diameter 120 ± 10 µm▪ Aperture 25 ± 5µm <p>Flat surface allowing atraumatic fixation of oocytes and embryos during the injection procedure.</p>

Smooth
edges for
harmless
denudation

Denudation and transfer pipettes

To minimise the risk of oocyte damage during handling we provide a wide selection of pipettes with smooth edges and varying inner diameters.

- Each size is perfectly adapted to your operation be it denudation or handling.
- The pipettes are made of borosilicate glass that helps prevent the risk of oil clogging the inner surfaces.
- The pipettes come with a specially designed sterile silicone bulb. The bulb has a volume of less than 75% of the total volume of the pipette, to eliminate the risk of oocyte trapping.

Every pipette you receive is manually inspected

An experienced technician inspects every pipette to guarantee their mechanical integrity before release. This means that all pipettes meet the specified tolerances and that they are free from glass fragments and other residues.



Product list

Media and solutions

Product	Description	Package size	REF
G-MOPS™ PLUS	Handling medium, containing HSA	125 mL	10130
OVOIL™	Paraffin oil for oil overlay	100 mL	10029
ICSI™	Sperm handling solution	5 x 0.1 mL	10111
HYASE™	Hyaluronidase concentrate	5 x 0.1 mL	10017
G-PGD™	Medium for embryo biopsy	10 mL	10074

Micropipettes

Product	Comments	Internal diameter (µm)	Outer diameter (µm)	Angle length (µm)	Package size	REF
ICSI pipette without spike		4	-	30°	20-pack	14310
ICSI pipette without spike		4	-	20°	20-pack	14326
ICSI pipette without spike		4	-	35°	20-pack	14342
ICSI pipette without spike		4	-	30°	20-pack	14321
ICSI pipette without spike		5	-	30°	20-pack	14304
ICSI pipette without spike		5	-	20°	20-pack	14349
ICSI pipette without spike		5	-	30°	20-pack	14312
ICSI pipette without spike	For TESE	7.5	-	30°	20-pack	14338
ICSI pipette with spike	A-series, short spike	4-5.5	-	0°	10-pack	15401
ICSI pipette with spike	A-series, short spike	4-5.5	-	15°	10-pack	15402
ICSI pipette with spike	A-series, short spike	4-5.5	-	20°	10-pack	15403
ICSI pipette with spike	A-series, short spike	4-5.5	-	25°	10-pack	15404
ICSI pipette with spike	A-series, short spike	4-5.5	-	30°	10-pack	15405
ICSI pipette with spike	A-series, short spike	4-5.5	-	35°	10-pack	15406
ICSI pipette with spike	B-series, long spike	4-5.5	-	0°	10-pack	15411
ICSI pipette with spike	B-series, long spike	4-5.5	-	15°	10-pack	15412
ICSI pipette with spike	B-series, long spike	4-5.5	-	20°	10-pack	15413
ICSI pipette with spike	B-series, long spike	4-5.5	-	25°	10-pack	15414
ICSI pipette with spike	B-series, long spike	4-5.5	-	30°	10-pack	15415
ICSI pipette with spike	B-series, long spike	4-5.5	-	35°	10-pack	15419
ICSI pipette with spike	C-series, very short spike	5-6	-	0°	10-pack	15653
ICSI pipette with spike	C-series, very short spike	5-6	-	15°	10-pack	15612
ICSI pipette with spike	C-series, very short spike	5-6	-	20°	10-pack	15654
ICSI pipette with spike	C-series, very short spike	5-6	-	25°	10-pack	15655
ICSI pipette with spike	C-series, very short spike	5-6	-	30°	10-pack	15409
ICSI pipette with spike	C-series, very short spike	5-6	-	35°	10-pack	15410
Holding pipette		9-17	110-119	30°	20-pack	14318
Holding pipette		9-17	110-119	30°	20-pack	14323
Holding pipette		18-25	110-119	30°	20-pack	14308
Holding pipette		18-25	120-130	30°	20-pack	14393
Holding pipette		18-25	110-119	20°	20-pack	14340
Holding pipette		18-25	110-119	25°	20-pack	14346
Holding pipette		18-25	110-119	35°	20-pack	14333
Holding pipette		18-25	110-119	30°	20-pack	14316
Holding pipette		20-30	110-130	0°	10-pack	15284
Holding pipette		20-30	110-130	15°	10-pack	15285
Holding pipette		20-30	110-130	20°	10-pack	15610
Holding pipette		20-30	110-130	25°	10-pack	15301
Holding pipette		20-30	110-130	30°	10-pack	15305
Holding pipette		20-30	110-130	35°	10-pack	15306

Product	Comments	Internal diameter (µm)	Outer diameter (µm)	Angle length (µm)	Package size	REF
Denudation pipette		122-124	-	-	20-pack	14390
Denudation pipette		127-129	-	-	20-pack	14306
Denudation pipette		130-133	-	-	20-pack	14302
Denudation pipette		134-145	-	-	20-pack	14301
Denudation pipette		146-155	-	-	20-pack	14313
Denudation pipette		156-190	-	-	20-pack	14305
Transfer pipette		190-210	-	-	20-pack	14314
Transfer pipette		290-310	-	-	20-pack	14319
Transfer pipette *		50-60	-	-	20-pack	14344
Hatching pipette		11	-	30°	5-pack	14324
Hatching pipette		11	-	30°	5-pack	14347
Hatching pipette		18	-	30°	5-pack	14327
Blastomere pipette		35	-	30°	5-pack	14331
Blastomere pipette		45	-	30°	5-pack	14336
Blastomere pipette		45	-	30°	5-pack	14343
PZD pipette		-	-	30°	5-pack	14328

* for blastomere transfer and use in PGD.

Acessories for denudation and transfer pipettes

Product	Description	Size	REF
Pipette holder	Pipette holder	1-pack	14401
Rack for holder	Rack	1-pack	14403

ANDROLOGY BY VITROLIFE

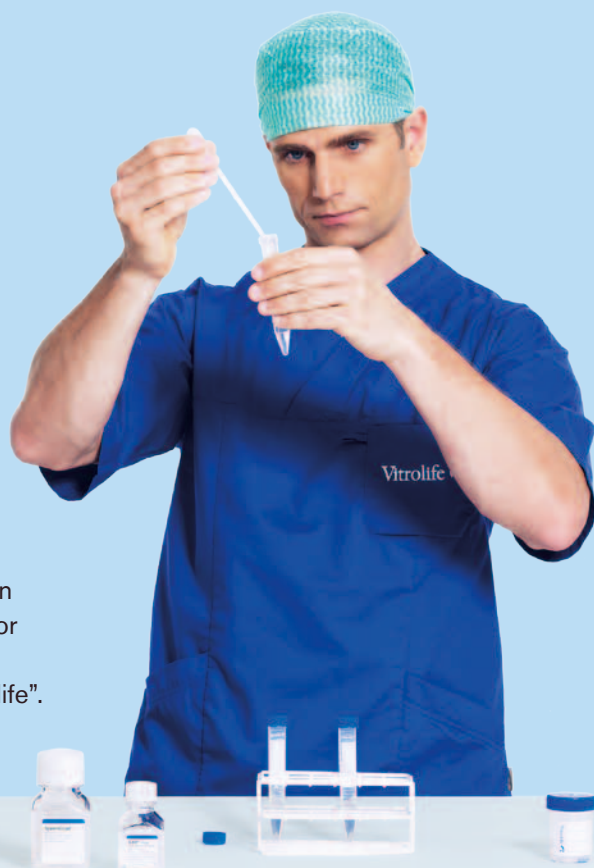
Different procedures for sperm processing all have their challenges. Vitrolife has developed a series of products to support the steps from diagnosis to cryopreservation of spermatozoa, all with the aim to support the selection of high quality spermatozoa.

- Diagnosis – Accurate measurement when choosing the appropriate treatment.
- Preparation – Supporting the selection of spermatozoa with the best potential for successful fertilisation.

- Cryopreservation – Enabling high survival, combined with maintained DNA integrity.



For more information visit Vitrolife online or order the brochure "Andrology by Vitrolife".



TOGETHER. ALL THE WAY™

ORDERS & CUSTOMER SUPPORT

Orders can be placed through our web site at www.vitrolife.com/fertility, where you also can chat with us. You can also contact us by email and phone on the following numbers;

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TECHNICAL SUPPORT

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Tech support

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Vitrolife 

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