

Nidacon News

The news letter from your ART supplier • No 2 • 2013

► Welcome to the new Nidacon website www.nidacon.com

In a constant effort to make us your first choice, we launched our new website on October 25th 2013.

Simple and better: A simple-to-navigate website which features all the informa-

tion you need. A clean, new look at our products and the world of (ART) Assisted Reproduction Technologies. Take a look at the site and please let us know what you think. Missing information, wrong information etc., help us to improve even further.

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The Blog. We encourage you to visit our Blog, and regularly keep informed of different topics of interest. Our first blog entry discusses Social Media and its value in IVE. We hope you will enjoy it and please take time to leave your comments, share it, subscribe and become social too.

A clean, new look at our products and the world of (ART) Assisted Reproduction Technologies.



Cartagena – Colombia 27-28th September 2013

▶ International Workshop in Comparative Genomic Hybridization and Vitrification of Blastocysts.

We attended the hands-on workshop "Comparative Genomic Hybridization and Vitrification of Blastocysts" in the magic and beautiful city of Cartagena in Colombia.

Two days filled with great science. On Friday September 27th lots of good lectures:

- El Dr Elkin Lucena* (Colombia)
- INVO Fast-track in ART
- Dr. Kathleen Miller* (USA)
- Embryoscope- Blastocyst Culture
- Trophoctoderm Biopsy
- Dr. Gary Smith* (USA)
- Micro Fluids
- Stem Cells from Affected Embryos
- Dr. Mark Hughes* (USA)
- Microarray analysis of IVF Embryos
- Dr Juliana Cuzzi* (Brazil)
- CGH Array
- Dr. Angela Saa* (Colombia)
- Blastocyst Vitrification
- Dr Richard Burt* (USA)
- A new clinical approach to using embryonic stem cells



On Saturday 28th; Trophoctoderm Biopsy and Blastocyst Vitrification hands on attended by 20 embryologists

Nidacon was present with our products VitriBlast™ and ThermoBlast™, and also we launched the new closed system vitrification device, SafeSpeed™.

from Latin America. Nidacon was present with our products VitriBlast™ and ThermoBlast™, and also we launched the new closed system vitrification device, SafeSpeed™.

We received the best possible reviews, for both easy handling and safety when used for vitrifying and storing oocytes and blastocysts.

Special thanks go out to the organizers, Cecolfes and Genesis. The beauty of Cartagena was highlighted by "Pirate Night", an event which reminded us of how beautiful and magic the Caribbean truly is. We hope to see you next year in Guatemala.



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▶ Frequently asked questions?

Some recent questions and answers that might be useful to you.



What should be used for washing the sperm pellet after the PureSperm®100 gradient centrifugation?

We recommend PureSperm®Wash for washing the sperm pellet after gradient centrifugation. The ionic balance of PureSperm®Wash lies between that of the gradient and commonly used fertilisation media and, therefore, will not cause premature hyperactivation of the sperm. PureSperm®Wash is also ready-to-use and contains an appropriate level of human serum albumin.

Why is NidOil™ packed in amber bottles?

There have been several reports of other commercially available paraffin oils becoming embryo-toxic after exposure to light on the laboratory bench. Therefore, NidOil™ is packed in amber bottles as a precaution against light-induced changes to the product.



What is the shelf-life of Nidacon products after opening?

All our products except the staining products Sperm VitalStain™ and Sperm MorfoStain™ should be stored at 2 to 8°C after opening. The same shelf-life applies after opening, if the product is handled aseptically.



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New product for vitrification – Closed system with the open system performance

SafeSpeed™ – Safe and efficient



Science behind SafeSpeed™

Two of the main variables influencing vitrification outcome are the cooling rate and the outcome of warming rate.

The paradigm of vitrification has changed, and the warming rate is signaled as the most sensitive factor affecting the survival rate (Manzur et al, 2011). The SafeSpeed™ system focuses on the optimization of these parameters for maximum survival rates.

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an ultra-fine capillary assembled on a plastic straw with a protective cover sleeve.

The Safespeed™ device has been developed, thanks to dedicated investigations of Prof. Risco, in quartz capillaries, looking for the best combination of thermal transfer, thick-

ness and outer/inner diameter, ratio and capillary length, all of these to achieve the most optimal cooling/warming rates.

cooling and storage in liquid nitrogen and during warming. The technique is designed to minimize operator variability.

During the last three years, experimental trials have been performed with mouse and human oocytes. Out of 1700 samples, 95 % of the vitrified mouse oocytes survived after warming, and 93 % of the human oocytes (n=94) were recovered (Ginemed, Torrecardenas Hospital, Spain). Fertilization rate observed after ICSI was 70 %. Currently, transfer trials are being carried out at Cecolfes, Colombia and Ginemed, Spain.

Technical description

The Safespeed™ device consists of a polycarbonate straw container optimized for closed system cryopreservation. It is composed of

The SafeSpeed™ container is heat-sealed at both ends and, consequently, the solution containing the oocyte or embryo in the capillary is hermetically isolated during



Performance

Mouse Embryo Assay (10/04/2013)	EMBRYO DEVELOPMENT RATES			
	Post thawing Survival	Four-cell Stage	Blastocyst Stage	Good Quality (morphology)
Safepreservation	100%	100%	90%	92.9%
Control	Fresh	100%	93.3%	94.4%

References

Steponkus, S.P. et al, Cryopreservation of *Drosophila melanogaster* embryos, *Nature* 345, 170 - 172 (1990)

Bielanski A et al, Viral contamination of embryos cryopreserved in liquid nitrogen, *Cryobiology* 40, 110–116 (2000)

Risco R et al, Thermal performance of quartz capillaries for vitrification, *Cryobiology* 55(3):222-9 (2007).

Mazur P et al, Survival of mouse oocytes after being cooled in a vitrification solution to -196°C at 95° to $70,000^{\circ}\text{C}/\text{min}$ and warmed at 610° to $118,000^{\circ}\text{C}/\text{min}$: A new paradigm for cryopreservation by vitrification, *Cryobiology*. 62(1): 1–7 (2011)

Thermogram





New exciting movie produced at Nidacon!

Take a look at our new instructional film for ProInsert™.

It is short and illustrates the easiness of using ProInsert™.

We also have instructional films for pre-

paring sperm using density gradients and for freezing sperm; you can find them on our website www.nidacon.com

Our goal is to have films for all our products and procedures. The star in the film is as usual our product development manager Anna Nilång-Laessker.

► Pdf-invoices



In order to minimize the paper handling and make both your and our administration more effective, we will start sending out our **invoices electronically** in pdf-format.

We would therefore kindly ask you to supply us with the **e-mail address** you prefer to have the pdf-invoice sent to. If for some reason you are not able to receive Invoices by e-mail, **please notify us!**



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► Upcoming events

11 congresso ASEBIR,
November 20-22nd,
2013 in Sevilla Spain



Nordic Fertility Society meeting, January 2-5th, 2014 in Haugesund, Norway



ALPHA, 10th biennial conference, 9-11th of May, 2014, Antalya, Turkey

► Orders

We always send an order confirmation within a day after it has arrived. If you have not received the confirmation in that time, please contact us. We want to make sure that we don't miss your order.

In the future it will be possible for you to order directly from our website, but until then you can use contact@nidacon.com

You can of course also call or fax us.



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► Who to contact

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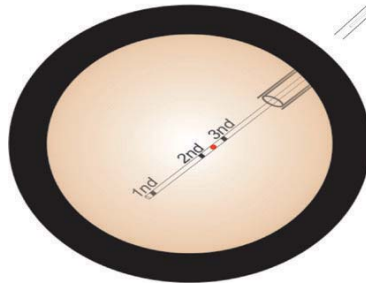
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New product for vitrification – Closed system with the open system performance

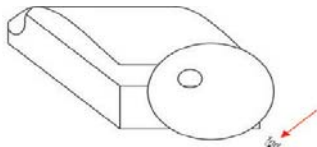
► SafeSpeed™ – Cooling

1. Aspirate the oocyte into the capillary and place it between the 2nd and 3rd mark.



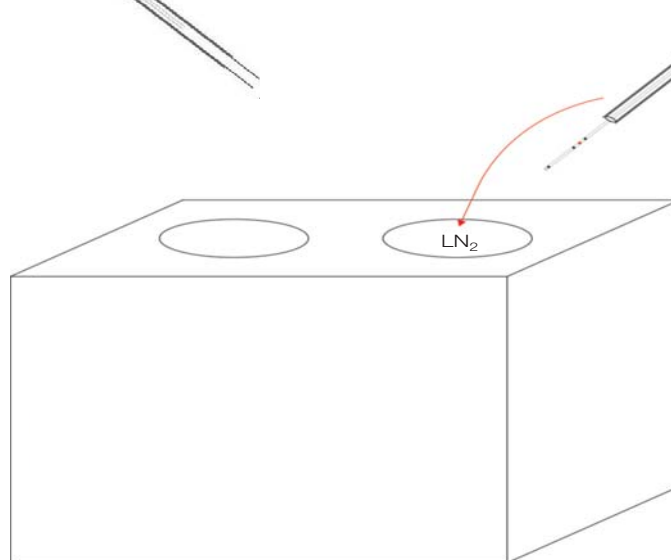
Compatibility with different medium kits and aspiration systems

- Rubber bulb
- Micromanipulator
- Stripper pipette
- Mouth pipeting



2. Automated thermo-sealing of both ends (capillary first).

3. Plunge the device (capillary first) into liquid nitrogen reservoir.

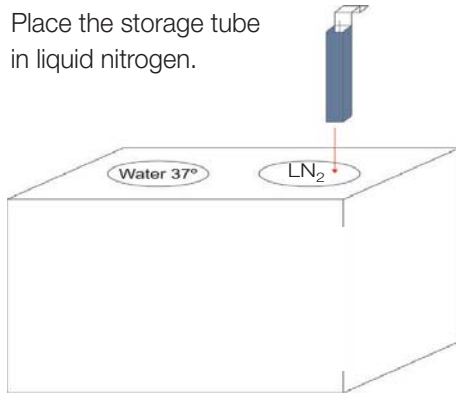


4. Inside liquid nitrogen slide down the cover sleeve until it clicks at the security mark to protect the fine capillary.
5. Place the device in a storage tube.
6. Transfer the storage tube to the liquid nitrogen container for long term storage.

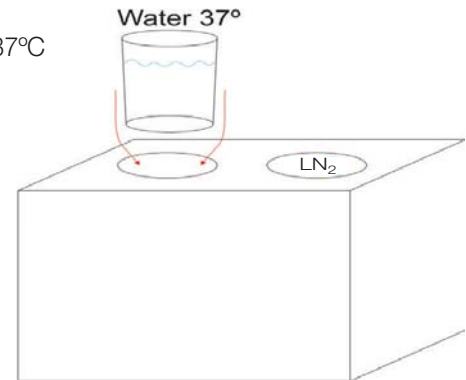
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SafeSpeed™ – Warming

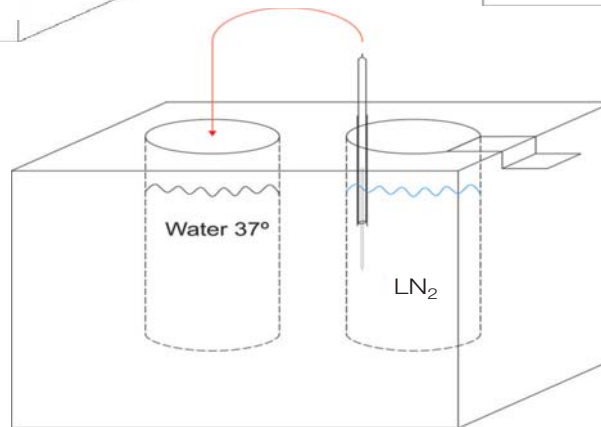
- 1.** Place the storage tube in liquid nitrogen.



- 2.** Place water at 37°C in the container.



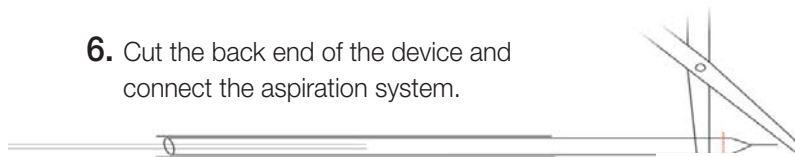
- 3.** Hold the device in liquid nitrogen, pull up the cover sleeve and transfer quickly to warm water.



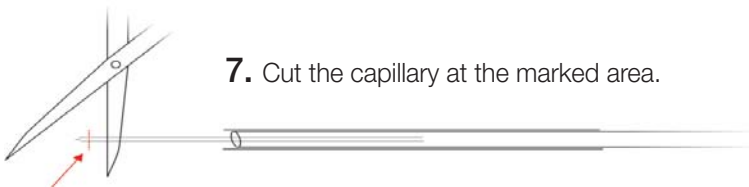
- 4.** Shake for two seconds for a better heat transfer.

- 5.** Wipe off excess water.

- 6.** Cut the back end of the device and connect the aspiration system.



- 7.** Cut the capillary at the marked area.



- 8.** Gently expel oocyte into warming media and continue with warming protocol as usual.

