Media for Embryo Production

IVF, ICSI, ET

and

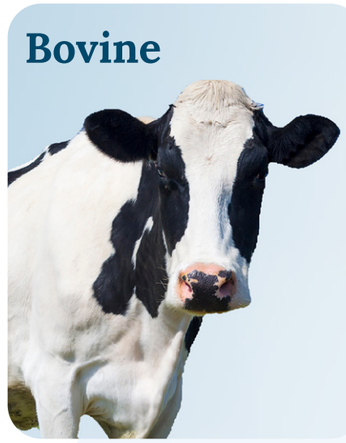
Cryo Preservation

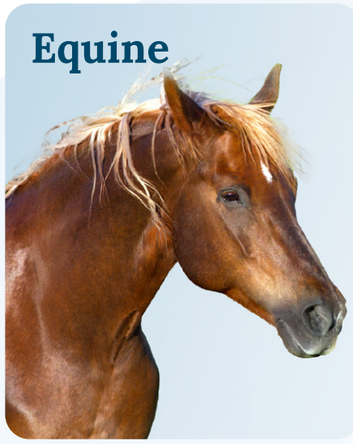
Stroebech media

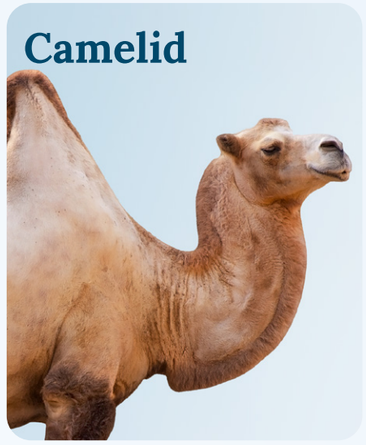
www.stroebech-media.com • info@stroebechmedia.com • Tel: +45 53 53 87 43

Helping you succeed is our passion!

Dr. Lotte Stroebech and Dr. Birthe Avery







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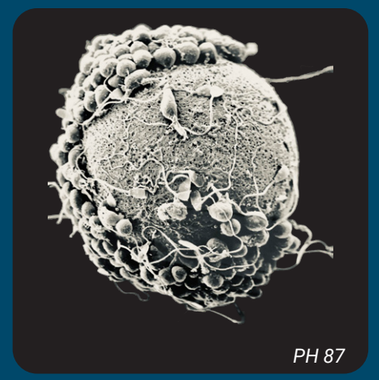
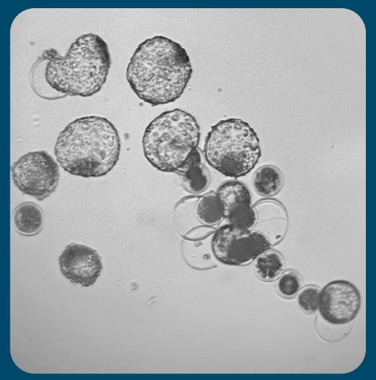




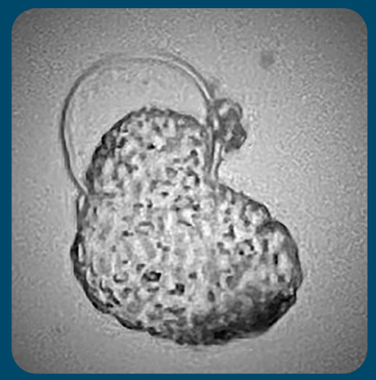


Photo: Poul Hyttel

IVF media for Assisted Reproductive Technologies in Animals

With no less than 3 scientists and more than 40 years of experience within media manufacturing and assisted reproductive technologies we have a highly developed media product line for in vitro fertilization in cows, sheep, goats, camels and buffaloes.

For assistance with IVF in exotic animals please get in touch. We offer individual training and support as well as courses within our media and protocols as well as extensive distributor training.

Quality Control

The Bovine Embryo Assay (BEA) test is the most important!

There are huge differences in reproductive physiology between the mouse and cow, therefore a MEA test is not sufficient QC for a bovine medium.

The oocyte maturation is more complex in cows and fertilization and sperm capacitation are species specific. A MEA test mostly assesses blastocyst development from either one-cell or two-cell stage embryos. Should a batch variation occur it will not be detected in a MEA test, where release parameter is > 80 % blastocyst rate. In the BEA test, however, a difference in medium quality can be detected even though the medium passes the MEA test. For instance, 35 % vs 55 % blastocyst rates indicate two media are different, however both media will have passed the MEA.

- ✓ Each batch of media comes with a certificate for BEA test as well as sterility, fungal and endotoxin tests
- ✓ The production site is ISO9001 and ISO13485 certified
- ✓ All media are delivered in glass bottles

Our scientific background

Lotte Stroebech

DVM, PhD

First in the world to commercialise a serum-free and ready-to-use IVF media range. Developed 1st generation media EmbryoTrans Biotech in 2013 and sold the media range to IVF Bioscience. 2nd generation IVF Media developed in 2020 for Stroebech Media.

Dr Stroebech has been at the forefront of many significant advances within in vitro production of embryos, with more than 20 years of experience in media development and protocol optimization.

Having consulted and trained more than 300 laboratories worldwide to get established or improve their results, she is a true expert within the field. She is often invited speaker to breeder organisation meetings throughout the world.

Dr Stroebech is a veterinarian with a PhD in Veterinary Physiology. She developed the first media for IVF Bioscience UK.

Dr Stroebech has in her capacity of associate professor at University of Copenhagen, supervised PhD and Postdocs in IVP of embryos. She is a member of the Steering Group Committee of EliteOva, and partner in the research projects EliteSemen, Searmet, GIFT Brazil, was Chairman of the Board of the Danish Society of Reproduction and Fetal Development (DSRF) previous boardmember of AETE and currently board member at IETS.

Birthe Avery

MD, PhD, DVSc

International recognized pioneer within IVF. Retired associate professor from the Veterinary Faculty, University of Copenhagen, Denmark.

Dr Avery is an international recognized pioneer within IVF and was for 27 years head of the IVF laboratory, and responsible for the research, which mainly included bovine, porcine and equine in vitro embryo technology. Dr Avery is a noteworthy embryologist, researcher and educator.

She became Doctor of Medicine, University Copenhagen, 1977 and PhD in Embryology, Royal Veterinary and Agricultural University, Copenhagen, 1991. And in 2007 Doctor in Veterinary Sciences, Royal Veterinary and Agricultural University, Copenhagen.
She has been a guest professor at Cornell University, New York, 1984, University Estate São Paulo, Jaboticabal, Brazil, 1993, University Wisconsin, Madison, 1996. Furthermore, she has been invited speaker to numerous national and international scientific conferences. She has worked from 2010 to currently, as Scientific Advisor and Consultant with Dr Stroebech optimizing and developing IVP media, and commercializing them into ready-to-use serum-free products. Thus, rendering a more accessible solution to IVP of bovine embryos and facilitated for more laboratories to implement the technique, without the trouble of media making and batch variation.

Claus Yding Andersen

MSc, DMSc

Professor of Human Reproductive Physiology, Faculty of Health and Medical Sciences, University of Copenhagen, Denmark.

Scientific Director of Reproductive Biology, Juliane Marie Center for Children, Women and Reproduction, University Hospital of Copenhagen, Denmark.

Certified Senior Clinical Embryologist, European Society for Human Reproduction and Embryology (ESHRE).

Doctor of Medical Science (DMSc), University of Copenhagen, Denmark, Master of Science in Engineering (MSc Eng), Technical University of Denmark.

Claus Yding Andersen has headed laboratories at fertility clinics and has gained international recognition within cryopreservation of ovarian and testicular tissue for fertility preservation, a technology he implemented the national service for. His career also includes leadership, scientific development and guidance of numerous PhD students.

IVF Media Products

The media range applies to in vitro production of bovine embryos from both Ovum Pick Up and Slaughterhouse ovary collection. The media can also be used to produce sheep, goat, buffaloes and camelid embryos. For endangered species, ZOO- and wildlife animals, get in touch.

All the media are ready-to-use and require no supplements, except for the equine range, which requires serum supplementation. As a customer you get a detailed Manual of Procedure and access to online support. Furthermore, we offer online training courses and individual troubleshooting sessions.

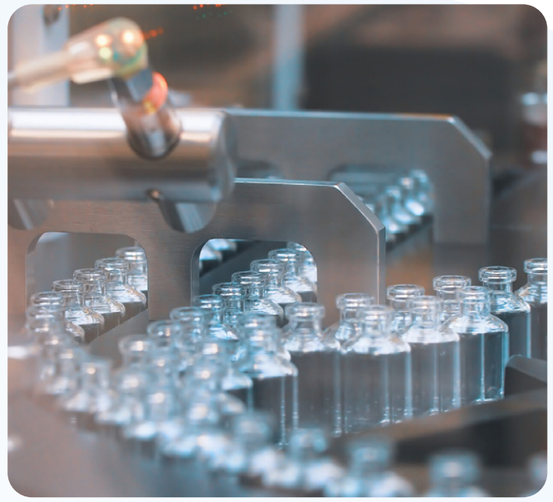
Contact us at info@stroebechmedia.com for custom made solutions.

Quality Control Tests and Manufacturing

- Sterility tested (Fungal and Bacterial)
- Osmolality tested and pH tested
- Endotoxin tested
- Manufacturer is ISO9001 and ISO13485 certified
- Controlled environment and to human standards
- Bovine Embryo Assay (BEA)
- Batch analysis certificate available

Distribution

Stroebech Media is delivered within 1-3 days in Europe and within 7 days to most parts of the world. Get in touch to learn more about our distribution network.



Manufacturing

Our factory is ISO13485 certified

- Each batch of medium comes with a certificate for BEA test as well as sterility, fungal and endotoxin tests
- The production site is ISO9001 and ISO13485 certified
- All media are delivered in glass bottles

ISO standards are internationally agreed by experts and when a factory is certified it ensures state-of-the-art manufacturing in a controlled environment and is your assurance of quality.

ISO 13485, also known as the medical device regulatory system, is a quality system for the medical device industry. It also means that the factory is audited through the Medical Device Single Audit Program (MDSAP) .

Bovine IVF Media

Every medium batch is provided with a Certificate of Analysis with a high level of Quality Control (QC) release parameters.

As a customer you get a detailed Manual of Procedure and access to online support. Furthermore, there will be online training courses and individual troubleshooting sessions.

All the media are serum-free and ready-to-use and require no supplements.

Key ingredients are listed at www.stroebech-media.com

The media range applies to in vitro production of bovine embryos from both Ovum Pick Up and Slaughterhouse ovary collection. The media can also be used to produce sheep, goat, buffaloes and camelid embryos. For endangered species, ZOO- and wildlife animals get in touch.

OPU Medium

500 ml. Prod. No. 2.01.500

For retrieval of oocytes from Ovum Pick Up and for Embryo Flushing (ET).

The medium is HEPES buffered, and does not require CO_2 equilibration. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 37° C prior to use.

WASH Medium

50 ml. Prod. No. 1.02.050

For handling of oocytes and embryos outside of the incubator.

The medium is HEPES buffered, and does not need CO_2 equilibration.The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use.

IVF Medium

20 ml. Prod. No. 1.06.020

For in vitro fertilization of matured oocytes.

Suitable for culture in 4WP dishes with 500 µl/well or in 100 µl drops An overlay of Stroebech Oil must be used to avoid evaporation.

The medium is Sodium Bicarbonate buffered and requires CO_2 equilibration.

The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use.

IVC Medium

20 ml. Prod. No. 1.07.020

For in vitro culture of embryos.

The medium is a one-step medium that can be used without change of medium for the entire period from inseminated oocytes to the blastocyst stages. Suitable for culture in 4WP dishes with 500 µl/well or in 100 µl drops. Use Stroebech Oil as overlay to avoid evaporation. The medium is Sodium Bicarbonate buffered and requires CO_2 equilibration. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use.

Holding Medium

20 ml. Prod. No. 1.09.020

For Embryo Holding/Transfer/Biopsy.

For Embryo transfer and holding, transportation and biopsy of in vitro and in vivo ET embryos Keep embryos for as short time as possible in transfer straws. For longer transportation use vials and for transportation more than 24 hours use CO_2 equilibrated IVC medium. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use. The medium is HEPES buffered and does not require CO_2 equilibration, but it can also be used in a CO_2 Incubator.

IVM Medium

20 ml. Prod. No. 1.03.020

For in vitro maturation of oocytes in the laboratory.

The medium is Sodium Bicarbonate buffered and requires CO_2 equilibration. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use.

H-IVM Medium

20 ml. Prod. No. 1.04.020.

For the in vitro maturation of oocytes outside the incubator.

The medium is HEPES buffered and does not require CO_2 equilibration, but it can also be used in a CO_2 Incubator (recommended without vial lid, if oocytes arrive to the laboratory before 20 hours of after IVM). The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use.

Semen Wash Medium

50 ml. Prod. No. 1.05.050

For washing of semen during centrifugation prior to in vitro fertilization.

The medium contains a very low concentration of Sodium Bicarbonate and is phosphate buffered and must therefore not be CO_2 equilibrated. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use with the lid on.

Stroebech Heavy Oil

50 ml. Prod. No. 2.09.050

Peroxide tested Pre-washed Oil.

Stroebech Heavy Oil is a pharmaceutical grade light mineral oil*), pre-washed and sterile filtered light paraffin oil. Oil is often the key to poor results, use only BEA tested and Peroxide Value (POV) tested oil as minimum standard quality control.

*) Liquid paraffin oil is a mineral oil and is a by-product of crude oil distillation.

Vitrification Kit

3 vials each containing 2 ml.
Prod. No. 2.20.006

3 Vials for Embryo Vitrification

Obtain higher embryo survival and pregnancy rates with vitrification than after slow freeze. Particularly in vitro and biopsied embryos benefit from this cryopreservation method. Media should not be pre-heated to more than 30° C prior to use – leave lid on in order to avoid evaporation.

Warming Kit

4 vials each containing 2 ml
Prod. No. 2.21.008

4 Vials for Embryo Warming

Obtain higher embryo survival and pregnancy rates with vitrification than after slow freeze. Particularly in vitro and biopsied embryos benefit from this cryopreservation method. Pre-heat media 38.8° C prior to use – leave lid on in order to avoid evaporation.

Small Ruminant IVF Media

Every medium batch is provided with a Certificate of Analysis with a high level of Quality Control (QC) release parameters.

The most important is the Bovine Embryo Assay BEA Test. There are huge differences in reproductive physiology between the mouse and cow, therefore a MEA test is not sufficient QC for a bovine medium.

OPU Medium

500 ml. Prod. No. 6.01.500

For retrieval of oocytes from Ovum Pick Up and for Embryo Flushing (ET).

The medium is HEPES buffered, and does not require CO_2 equilibration. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 37° C prior to use.

WASH Medium

50 ml. Prod. No. 5.02.050

For handling of oocytes and embryos outside of the incubator.

The medium is HEPES buffered, and does not need CO_2 equilibration. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use.

IVF Medium

20 ml. Prod. No. 5.06.020

For in vitro fertilization of matured oocytes.

Suitable for culture in 4WP dishes with 500 µl/well or in 100 µl drops An overlay of Stroebech Oil must be used to avoid evaporation. The medium is Sodium Bicarbonate buffered and requires CO_2 equilibration. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use.

IVC Medium

20 ml. Prod. No. 5.07.020

For in vitro culture of embryos.

The medium is a one-step medium that can be used without change of medium for the entire period from inseminated oocytes to the blastocyst stages. Suitable for culture in 4WP dishes with 500 µl/well or in 100 µl drops. Use Stroebech Oil as overlay to avoid evaporation. The medium is Sodium Bicarbonate buffered and requires CO_2 equilibration. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use.

Holding Medium

20 ml. Prod. No. 5.09.020

For Embryo Holding/Transfer/Biopsy.

For Embryo transfer and holding, transportation and biopsy of in vitro and in vivo ET embryos. Keep embryos for as short time as possible in transfer straws. For longer transportation use vials and for transportation more than 24 hours use CO_2 equilibrated IVC medium. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use. The medium is HEPES buffered and does not require CO_2 equilibration, but it can also be used in a CO_2 Incubator.

IVM Medium

20 ml.Prod. No. 5.03.020

For in vitro maturation of oocytes in the laboratory.

The medium is Sodium Bicarbonate buffered and requires CO_2 equilibration. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use.

H-IVM Medium

20 ml. Prod. No. 5.04.020

For the in vitro maturation of oocytes outside the incubator.

The medium is HEPES buffered and does not require CO_2 equilibration, but it can also be used in a CO_2 Incubator (recommended without vial lid, if oocytes arrive to the laboratory before 20 hours of after IVM). The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use.

Semen Wash Medium

50 ml. Prod. No. 5.05.050

For washing of semen during centrifugation prior to in vitro fertilization.

The medium contains a very low concentration of Sodium Bicarbonate and is phosphate buffered and must therefore not be CO_2 equilibrated. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use with the lid on.

Stroebech Heavy Oil

50 ml. Prod. No. 6.09.050

Peroxide tested Pre-washed Oil.

Stroebech Heavy Oil is a pharmaceutical grade light mineral oil*), pre-washed and sterile filtered light paraffin oil. Oil is often the key to poor results, use only BEA tested and Peroxide Value (POV) tested oil as minimum standard quality control.

*) Liquid paraffin oil is a mineral oil and is a by-product of crude oil distillation.

Vitrification Kit

3 vials each containing 2 ml.
Prod. No. 6.20.006

For vitrification of in vitro and in vivo embryos.

Obtain higher embryo survival and pregnancy rates with vitrification than after slow freeze Particularly in vitro and biopsied embryos benefit from this cryopreservation method. Media should not be pre-heated to more than 30° C prior to use – leave lid on in order to avoid evaporation.

Warming Kit

4 vials each containing 2 ml.
Prod. No. 6.21.008

For warming of in vitro and in vivo embryos.

Obtain higher embryo survival and pregnancy rates with vitrification than after slow freeze. Particularly in vitro and biopsied embryos benefit from this cryopreservation method. Pre-heat media 38.8° C prior to use – leave lid on in order to avoid evaporation.

Equine IVF/ICSI Media

Every medium batch is provided with a Certificate of Analysis with a high level of Quality Control (QC) release parameters.

Equine Hyaluronidase

5×1 ml. Prod. No. 4.02.005

For denudation of mature equine oocytes.

Equine Hyaluronidase medium is used in the oocyte denudation process. Hyaluronidase digests the hyaluronic acid between the cumulus cells, which makes it easier to denudate the oocytes. Medium should be preheated to 37° C prior to use with the lid on.

NOTE: Do not incubate in a CO_2 incubator as it will lower the pH below 7.

Equine OPU Medium

500 ml. Prod. No. 4.01.500

For retrieval of oocytes from Ovum Pick Up and for Embryo Flushing (ET).

The medium is HEPES buffered, and does not need CO_2 equilibration. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.8° C prior to use.

Equine Semen Wash Medium

50 ml. Prod. No. 3.05.050

For washing of semen during centrifugation prior to ICSI.

The medium contains a very low concentration of Sodium. Bicarbonate and is phosphate buffered and must therefore not be CO_2 equilibrated. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.2° C prior to use with the lid on. Advantages of using a non-gradient medium. Potential toxic gradients and excessive centrifugation is avoided Motility better preserved.Gentler for treating thawed re-frozen semen, Particularly suitable for when pieces of straw are used.

Equine IVM Medium

20 ml. Prod. No. 3.03.020

For in vitro maturation of oocytes in the laboratory.

The medium is Sodium Bicarbonate buffered and requires CO_2 equilibration.**The medium must be supplemented with 5 % serum**. Medium should be preheated to 38.2° C prior to use.

Equine Swim Up Medium

50 ml. Prod. No. 3.11.050

For sperm swim up.

The medium is HEPES buffered, and does not need CO_2 equilibration. The medium can be placed in incubator during swim up procedure. Place tube at an angle to maximize surface to harvest more spermatozoa. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.2° C prior to use.

Equine PVP Medium

1 ml. Prod. No. 4.10.001

For slowing down sperm for ICSI.

The medium is Hepes buffered and does not require CO_2 equilibration. The PVP immobilizes spermatozoa due to the high viscosity. Easier and more accurate selection of a single spermatozoa for ICSI. The medium is ready-to-use and does not need any supplements. Medium should be preheated to 38.2° C prior to use

Equine ICSI Medium

20 ml. Prod. No. 3.06.020

For intra cytoplasmic injection of matured oocytes.

The medium is Hepes buffered and does not require CO_2 equilibration. **The medium must be supplemented with 5 % serum.** Medium should be preheated to 38.2° C prior to use.

Equine IVC Medium 1 - Cleavage

20 ml. Prod. No. 3.07.020

For first step in vitro culture of embryos low glucose.

The medium is Sodium Bicarbonate buffered and requires CO_2 equilibration. **The medium must be supplemented with 5 % serum.** Medium should be preheated to 38.2° C prior to use.

Equine IVC Medium 2 - Blastocyst

20 ml . Prod. No. 3.08.020

For in vitro culture of embryos from day 5 high glucose.

The medium is Sodium Bicarbonate buffered and requires CO_2 equilibration. **The medium must be supplemented with 5 % serum.** Medium should be preheated to 38.2° C prior to use.

Equine Holding Medium

20 ml. Prod. No. 3.09.020

For transfer and handling of oocytes and embryos outside the incubator.

For Transfer of equine in vitro or in vivo produced embryos Keep embryos for as short time as possible in transfer straws For longer transportation use or CO_2 equilibrated IVC-2 medium. Medium should be preheated to 38.2° C prior to use. The medium is HEPES buffered and does not require CO_2 equilibration, but it can also be used inside a CO_2 Incubator. The medium can be used for in vivo derived equine embryos prior to transfer or vitrification.

Oocyte Holding Medium

20 ml. Prod. No. 3.12.020

For holding of oocytes prior to maturation.

For Embryo transfer and holding, transportation and biopsy of in vitro and in vivo ET embryos. Keep embryos for as short time as possible in transfer straws. For holding of oocytes to postpone maturation. **The medium must be supplemented with 5 % serum.** Medium should be preheated to 22° C prior to use. The medium is HEPES buffered and does not require CO_2 equilibration, but it can also be used in a CO_2 Incubator.

Equine Stroebech Heavy Oil

50 ml. Prod. No. 4.09.050

Peroxide tested Pre-washed Oil.

Stroebech Heavy Oil is a pharmaceutical grade light mineral oil*), pre-washed and sterile filtered light paraffin oil. Oil is often the key to poor results, use only BEA tested and Peroxide Value (POV) tested oil as minimum standard quality control.

*) Liquid paraffin oil is a mineral oil and is a by-product of crude oil distillation.

Equine Vitrification Kit

3 vials each containing 2 ml.
Prod. No. 4.20.006

3 Vials for Embryo Vitrification.

Obtain higher embryo survival and pregnancy rates with vitrification than after slow freeze Particularly in vitro and biopsied embryos benefit from this cryopreservation method. Media should not be pre-heated to more than 30° C prior to use – leave lid on in order to avoid evaporation.

Equine Warming Kit

4 vials each containing 2 ml.
Prod. No. 4.21.008

For warming of in vitro and in vivo embryos.

Obtain higher embryo survival and pregnancy rates with vitrification than after slow freeze. Particularly in vitro and biopsied embryos benefit from this cryopreservation method. Pre-heat media 38.8° C prior to use – leave lid on in order to avoid evaporation.

Quality Control

All media batches are Bovine Embryo Assay, BEA tested in addition to MEA prior to release.

There are huge differences in reproductive physiology between the mouse and a woman, obviously also between a cow and a woman. The most obvious similarity in cow and woman is gestation time and that they do not give birth to litters like mice.

However, the MEA test is considered sufficient for quality control release of ART media. When media are tested in the BEA, that all have passed MEA, they often give significantly different blastocyst rates as well as considerable morphologic and kinetic differences in the BEA test.

Fertilization and capacitation are species specific and a MEA test mostly assesses blastocyst development from either one-cell or two-cell stage embryos. Should a batch variation occur it will not be detected in a MEA test, where release parameter is > 80 % blastocyst rate. In the BEA test, however, a difference in medium quality can be detected even though the medium has passed the MEA test. For instance, 35 % vs 55 % blastocyst rates indicate two media are different, however both media will have passed the MEA. Hence, the MEA is a mere toxicological bio-assay, whereas the BEA also provides functional and performance data.

Therefore, we have decided that every single batch manufactured will undergo the BEA test in addition to the required MEA Test.

How is the BEA test conducted?
Ovaries from slaughterhouse cows are collected and in the laboratory the oocytes are aspirated from all follicles size 10 mm-35 mm. Approximately 8 oocytes per ovary is on average obtained. They are subsequently matured, fertilized and cultured. Each new medium is tested in a control group with a minimum 150 oocytes per group. Blastocyst rates and kinetics and morphology are evaluated as well as hatching rates. The average blastocyst rates in the BEA test are between 40-50% and thus indicate performance differences, whereas 80 – 90 % blastocyst rates in the MEA test only indicate whether the medium is toxic or not.

Plastic vs Glass bottles
Only in glass bottles can you maintain stability of the active compounds in the media for up to 18-24 months. Plastic will decrease quality of media over time and even contribute to toxicity and will always have a limited shelf-life. The entire batch must be manufactured in one day. That means that no stock solutions should be stored for a longer period of time and that the entire batch should be manufactured and bottled within the same day and not stored overnight.

Batch Certificate
Every single batch should always come with a batch certificate stating that sterility, fungal and endotoxin tests have been performed and passed quality control specifications. For some products pH will be measured, but it doesn't make sense to have a set pH value release criterion for pH, if the buffer is CO_2 calibrated with bicarbonate.

Comparison of embryo development in human, cow and mouse.

	Human	Cow	Mouse
Oocyte diameter (µm)	110-120	120	70-90
Stage at zygotic genome activation	4-8 cell	8-16 cell	2 cell
Time to reach			
2-cell stage (hours)	30	36	18-20
Blastocyst (hours)	120	150	70
Hatching (hours)	150	200	100
Implantation (days)	9	21	4

Based on: Virtues and limitations of the preimplantation mouse embryo as a model system, Robert A Taft, Theriogenology 2007.

Read the full article here:
https://doi.org/10.1016/j.theriogenology.2007.09.032

Amino acid
Amino acid uptake and utilization also differ among species with mouse embryos not requiring amino acids to develop to the blastocyst stage, in contrast to bovine and human embryos.

pH
Mouse embryos are less sensitive to and recover more easily from changes in pH than either human or bovine embryos.

Glucose
The ability to utilize glucose varies among species. Human embryos do not utilize glucose due to limited availability of hexokinase. The situation is more complicated for the mouse, as embryos from some strains can metabolize glucose while others cannot. Cattle embryos are able to metabolize glucose, although this is affected by culture conditions.

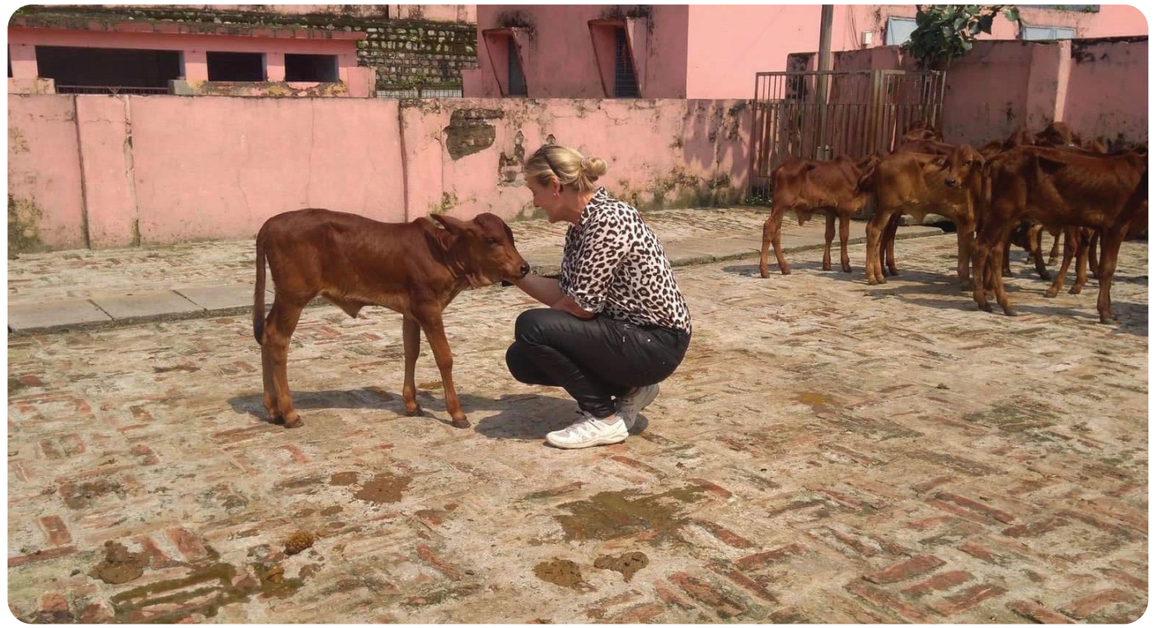
The strains of mice and developmental stage
Some of the controversy regarding the perceived value of the mouse embryo assay is likely the result of the conditions under which the assay was conducted. The strain of mouse used, stage of embryo used and the culture conditions employed may also affect the outcome. Thus, embryos from inbred strains may provide a better model, and the developmental stage of the embryo will also impact the result. For instance, one-cell embryos are more sensitive than two-cell, four-cell or eight-cell embryos. Finally, the type of media also influences the assay. For instance the absence of protein in the media improves the sensitivity of the assay.

Our Soul and Passion

Dr Stroebech is dedicated to improve IVF worldwide and contributed to the first frozen IVF calves born in India, the first buffalo pregnancy in Pakistan and counts many happy laboratory owners worldwide.

She has consulted with more than 300 IVF laboratories globally to help them get established or improve their results world-wide and has been involved in numerous animal reproduction research projects at Universities in many countries.

Helping you succeed is her passion!



Testimonials

What our customers say about us

"We have been using Stroebech media for bovine IVF for a short time but have seen an immediate improvement in blastocyst yield and quality. Having such off-the-shelf, ready-to-use, media has significantly simplified our laboratory workload and workflow."

Patrick Lonergan PhD, DSc, MRIA
Professor of Animal Reproduction
School of Agriculture and Food Science
University College Dublin, Ireland

"The Stroebech Media IVF suite is working extremely well in our bovine IVF laboratory. We have high blastocyst yield and excellent morphology. We appreciate the professional technical support and fast reply. I highly recommend Stroebech Media for research IVF."

Ylva Sjunnesson, DVM, PhD
Associate Professor
University of Agricultural Sciences, Sweden

"I want to acknowledge the efficiency of Stroebech Media for buffalo *in vitro* embryo production. Since, we included Stroebech Media for Buffalo IVF Program, embryo production and pregnancy has considerably improved."

Qaisar Shahzad
Technical Manager, Royal Cell Biotechnology
Royal Cell Biotechnology China/Pakistan

"I am using Stroebech Media for equine embryo production and have very satisfactory results with high blastocyst and pregnancy rates, also after vitrification. I appreciate all the technical support and help we get"

Ruben Francisco Vazquez, PhD
IVF Laboratory, Xenetica Fontao, Galicia, Spain

"Using Stroebech Media for bovine embryo production we achieved 10% better cleavage and blastocyst rate in group culture. And for single embryo culture the cleavage and blastocyst rate improved remarkably even up to 20%."

Marilin Ivask, PhD
Estonian University of Life Sciences, Tartu, Estonia
Institute of Veterinary Medicine and Animal Sciences
Chair of Animal Breeding and Biotechnology

"Stroebech Media comes with a detailed protocol and prompt support with lots of world class knowledge and professional consulting. The success of my embryo lab is based on the help from Dr Stroebech. Lotte is a wonderful person with endless passion in the field of IVF. Thank You!"

Elina Mark, DVM
Embryologist Scientist
Estonian University of Life Sciences, Tartu, Estonia

"It was such a wonderful feeling when I had beautiful blastocysts in my first SH IVP program in a new lab which I was setting up. Stroebech Media is a really great IVF media with the best technical support, thank you very much Lotte for continuous support and encouragement!"

Zsófia Vigh,
Lab manager
Milkmen Ltd.-Embryo Ltd, Hungary

Stroebech Heavy Oil

Stroebech Heavy Oil

50 ml Peroxide tested Pre-washed Oil

Description
Stroebech Oil is a pharmaceutical grade light mineral oil*), pre-washed and sterile filtered light paraffin oil. Oil is often the key to poor results, use only BEA tested and Peroxide Value (POV) tested oil as minimum standard quality control.

*) Liquid paraffin oil is a mineral oil and is a by-product of crude oil distillation.

Oil viscosity influences temperature, pH and osmolarity. Oil with higher viscosity has demonstrated higher yields compared to regular oil, in terms of blastocyst development and quality in terms of blastocyst formation rates and cell counts.

Advantages: easier to handle, droplets are maintained better, and oil doesn't spill over as easy.
Temperature, pH is better maintained and increased media osmolarity is avoided both during handling and during culture. This has a positive impact on blastocyst rate formation – especially for the longer culture periods require in some species.

The unit of viscosity is newton-second per square metre, which is usually expressed as pascal-second in SI units, cP.

We have increased the viscosity from < 30 cP to 95-140 cP.

Quality Control: we still apply the strict quality control tests of each batch which besides a bovine embryo assay (BEA) test also includes *) POV, sterility, and endotoxin tests.

*) The peroxide value (POV) is defined as the reactive oxygen contents expressed in terms of milliequivalents (meq) of free iodine per kilogramme of fat. It is determined by titrating iodine liberated from potassium iodide with sodium thiosulphate solution. Oils with POV well below 10 meq/kg are considered fresh – The limit for our oil is <0.1meq/kg

Media for Equine Embryo Production

IVF, ICSI, ET

and

Cryo Preservation

Stroebech media

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