

MAY - 9 2000

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**510(k) Summary
Summary of Safety and Effectiveness Information
Supporting a Substantially Equivalent Determination
(K991472)**

The product:

- "Medi-Cult Embryo Freezing Medium" Cat. No. 1079

Indication for use:

"Medi-Cult Embryo Freezing Medium" is for freezing of early (2-8 cell stage) embryos.

The medium has been specifically designed to meet the requirements of early (2-8 cell stage) embryos and freezing.

Product formulation:

Dulbecco's Phosphate Buffered Saline (PBS) supplemented with:

- Assisted Reproduction Technique Supplement (ARTS)
- Human Serum Albumin (HSA) - Obtained from a U.S licensed source (U.S license No.140).

"Medi-Cult Embryo Freezing Medium" is to be used with cryoprotectants for freezing and thawing of embryos. It is a phosphate buffered salt solution containing Assisted Reproduction Technique Supplement (ARTS) and Human Serum Albumin (HSA).

Product testing control contents:

- Bioburden, production-test
- Integrity filter testing, production-test
- Sterility, QC-test
- pH, QC-test
- Mouse Embryo, (two cells assay; $\geq 80\%$ hatched), QC-test
- Osmolarity, QC-test
- Endotoxin, QC-test

The Medi-Cult products for cryopreservation are in general formulated according to data published in peer reviewed international journals by internationally recognised scientists in the field. We have collected clinical data from clinics that use only products from Medi-Cult.

The clinical result of a given IVF-clinic will depend on the patient population treated, the clinical procedures, the laboratory routines and on the various culture media used. A comparison of the clinical performance of clinics using only Medi-Cult media with other IVF-clinics using similar clinical and laboratory routines will give an indication on the performance of the Medi-Cult culture media. It appears that in countries where we have access to both national data and data from individual clinics, clinics using Medi-Cult media generally performs well.

The IVF-units in the Nordic countries use similar clinical and laboratory protocols and their patient populations are comparable.

The largest IVF clinics in Norway have been using only Medi-Cult media since the end of the 1980's. The results from cycles where cryopreserved embryos have been replaced can be obtained from The IVF-unit, Dept of Obstetrics & Gynecology, University of Trondheim, Norway and The National Hospital, Oslo, Norway.

Table 1a. The outcome after replacement of frozen/thawed IVF-embryos at the IVF-Unit, Dept of Ob. & Gyn. University of Trondheim, Norway in the period 1988-1998

Number of embryo replacements	Clinical pregnancies	Pregnancy rate per embryo replacement
966	164	17.0

Table 1b. The outcome after replacement of frozen/thawed The National Hospital, Oslo, Norway in the period 1994-1996

Number of embryo replacements	Clinical pregnancies	Pregnancy rate per embryo replacement
465	85	18.3

The national average for Norway is not meaningful since the two other clinics cryopreserving embryos only performed a few cycles (1994 -1996: 37 cycles/ 3 pregnancies 8.1% pregnancy rate)

In Sweden, the Carl von Linne Clinic uses only products from Medi-Cult for culture of gametes and embryos. For the year 1997 their birth rate per frozen embryo replacement was 22% (National data not available yet).

The Human Fertilisation and Embryology Authority (HFEA) in the UK, collects clinical data from all centres licensed to offer treatment for infertility by assisted reproduction.

HFEA publishes these data in a booklet and on the web. The clinical data are presented both unadjusted and adjusted for the demographics of the clinics patient population.

In the Table below the clinical data from some UK-clinics that use only Medi-Cult products is shown.

Table 2. Live birth rates per embryo replacement obtained in IVF units in the UK in the period April 1st 1996 to March 31st. 1997.

Name of clinic	Number of FER*-cycles	Live birth rate per embryo replacement %
Chelsea and Westminster Hospital	24	20.8
CARE at Park Hospital	95	20.0
The Woking Nuffield Hospital	38	15.8
Leeds General Infirmary	333	14.1
Nurture	104	7.8
Holly House Fertility and IVF	115	17.4
Guy's and St Thomas Assisted Conception Unit	651	27.1
UK national average	4646	12.1

*FER: Frozen embryo replacement

There have been no registered complaints on the product and no evidence in the last 1.5 year that the product has been the cause of any serious adverse events in connection with its intended use.

Thus based on the Federal Register Notice (Final Rule, Vol. 63, No. 175, page 48429, September 10, 1998), "Obstetric and Gynecologic Devices; Reclassification and Classification of Medical Devices Used for In-Vitro Fertilization and Related Assisted Reproduction Procedures" effective on October 13, 1998 and the supportive clinical data we feel that the safety and effectiveness of the product for its intended use is shown in the present submission.

Prepared and Submitted by:

Ronald G. Leonardi, Ph. D.
President, R & R Registrations
P.O. Box 262069, San Diego CA 92196
858-586-0751

Date

B5. 510(k) Summary

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Substantially Equivalent Determination**

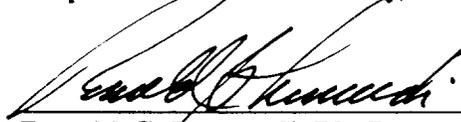
The media "Medi-Cult Embryo Freezing Medium" is for freezing of embryos for support of In-Vitro fertilisation has been used extensively over a number of years to the satisfaction of the users at the IVF- and ART- clinics and laboratories.

There have been no registered complaints on the product and no evidence in the last 1.5 year that the product has been the cause of any serious adverse events in connection with its intended use.

A number of trials have shown that The Medi-Cult Embryo Freezing Medium performs well. (see Clinical Testing section reference list). A number of publications in peer- reviewed books or journals have presented data using Medi-Cult media. Often more than one product from Medi-Cult has been used in the studies listed. * *can attach*

Thus based on the Federal Register Notice (Final Rule, Vol. 63, No. 175, page 48429, September 10, 1998), "Obstetric and Gynecologic Devices; Reclassification and Classification of Medical Devices Used for In-Vitro Fertilization and Related Assisted Reproduction Procedures" effective on October 13, 1998 and the supportive clinical data we feel that the safety and effectiveness of the product for its intended use is shown in the present submission.

Prepared and Submitted by:

 April 13, 1999
Date

Ronald G. Leonardi, Ph. D.
President
R & R Registrations
P.O. Box 262069
San Diego CA 92196
1-619-586-0751



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

MAY - 9 2000

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

Medi-Cult A/S
c/o Ronald G. Leonardi, Ph.D.
R & R Registrations
P.O. Box 262069
San Diego, CA 92196-2069

Re: K991472
Medi-Cult Embryo Freezing Medium
Dated: April 3, 2000
Received: April 4, 2000
Regulatory Class: II
21 CFR §884.6180/Procode: 85 MQL

Dear Dr. Leonardi:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the Current Good Manufacturing Practice requirements, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic QS inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4591. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its internet address "<http://www.fda.gov/cdrh/dsma/dsma:main.html>".

Sincerely yours,

Daniel G. Schultz, M.D.
Captain, USPHS
Director, Division of Reproductive,
Abdominal, and Radiological Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure(s)

510(k) Number (if known): K991472

Device Name: Medi-Cult Embryo Freezing Medium

Indications for Use:

Medi-Cult Embryo Freezing Medium" is for freezing of early (2-8 cell stage) embryos.

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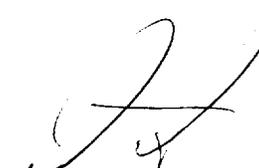
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use
 (Per 21 CFR 801.109)

OR

Over-The-Counter Use

(Optional Format 1-2-96)



(Division Sign-Off)
Division of Reproductive, Abdominal, ENT,
and Radiological Devices
510(k) Number K991472