

... life within



Fertility Consultants Group



What is OVUM and what we do

We are a group of consultant gynaecologists, biologists and midwives that have a long and wide experience in the field of infertility with a special interest in egg donation programmes.

Ovum runs one of the largest egg donation programmes in Greece collaborating with IVF centres that fully comply with Greek legislation and the Greek Authority for Assisted Human Reproduction service standards.

The OVUM mission

The traditional concept of motherhood where the genetic (giving her DNA), physical (giving birth) and social (raising) mother is one and the same person is gradually evolving. Women and couples who reach the difficult decision to use donated eggs (or sperm), are persons determined to become parents "at all cost".

OVUM aims to assist and support these women and couples in their attempt of having a healthy child, paying particular attention to the welfare of the child.

We provide

- > Recruited and sharing donors.
- > Practically NO waiting list.
- > Thorough screening testing and interviewing of the donors.
- > Meticulous cycle coordination.
- > Excellent results.

Who needs donated eggs and why

Some women need to **receive donated eggs** to become pregnant:

- > Women who despite treatment with maximal doses of infertility drugs in IVF are unable to produce enough eggs to give a reasonable chance of pregnancy.
- > Women whose ovaries stop functioning at a much earlier age than might be expected (less than 40 years old). These are women with premature ovarian failure/premature menopause and have no eggs.
- > Women who are carriers of diseases such as Hemophilia or Duchene's Dystrophy.

These diseases are passed on by women to male children. Rather than risk having an affected child a woman may opt for donated eggs.

- > Women older than **45 years old**.
- > Women with **repeated failure** in previous IVF treatments.

Fertility Treatments available

IVF ICSI IMSI **Blastocyst transfer**. Assisted Hatching. **Surgical sperm retrieval**. Egg freezing. **Embryo freezing using the vitrification method**. Pre implantation genetic diagnosis (PGD) **Embryo donation**. Surrogacy.





What are the extra advantages of OVUM

Fertility Consultants Group

Our work is fully orientated and tailored around patients seeking treatment abroad.

We offer

- > Direct contact with our team 24h a day, 7 days a week.
- > Experienced nurse co-coordinator.
- > Counseling service.
- > Travelling service for transport and accommodation.
- > Treatment for particular circumstances for which the Greek legislation is more flexible compared to other countries (such as single women, women over the age of 45)
- > Very competitive costs.

Results

Egg donation is well acknowledged in international literature as the form of fertility treatment providing the best results compared to standard IVF/ICSI.

Since success mainly depends upon the age of the donor and the accuracy of cycle co-ordination, OVUM has excellent results to report, well above the national average of several European countries. We document our results on a 6 monthly basis and we persistently reach more than 95% additive positive clinical pregnancy rate in 3 treatment cycles. **An updated and structured copy of our results is enclosed in each information pack.**

« A regularly updated page with detailed results separated by age group may also be found on our website: www.ovum-ivf.com »



Mr/Dr Anastasios Sykoutris _ Ph D, MD, MSc

Consultant Obstetrician & Gynaecologist.
Fertility Specialist.

Trained in the UK for a long time, in various hospitals.

GMC registered in the **specialists register**.

Certificate of Completion of Specialist Training (**CCST**)

MASTER's degree in human reproduction-IVF from Bristol University.

Clinical and Research Fellow.

IVF Unit of Chelsea and Westminster Hospital in London (ex).

Consultant and Clinical Director in different IVF Units in Greece.

Consultant in the IVF Units of **REA** Private Maternity Hospital and **MITERA** IVF Unit, Athens, Greece.

One of the **Responsible Consultants** of OVUM FERTILITY CONSULTANTS GROUP in Athens, with a special interest in the **egg donation program**.

Married, father of **two sons & a daughter**.



OVUM's IVF Unit

OVUM's IVF unit is a state of the art unit which implements the most sophisticated, reliable and safe medical science techniques for the treatment of infertility problems. The team of the unit consists of highly specialized medical and nursing staff as well as clinical embryologists who have high success rates in assisted reproduction.

The competitive advantage of OVUM's IVF unit is the time lapse technology which is used in the embryo culture and allows the continuous monitoring of embryo development, thus ensuring best selection during the embryo transfer.

OVUM's IVF laboratory equipment supports all the latest techniques of an embryological laboratory, thus ensuring an integrated approach for the treatment of infertility problems. Specifically, all operating parameters of the laboratory are controlled through sensors that are connected to a central server, so that potential malfunctions can be avoided.

Most importantly, OVUM's IVF Unit places emphasis on the personalized treatment of infertility problems in full respect of the need of every couple for confidentiality.

When a couple should seek medical advice?

Couples who experience infertility problems despite unprotected sexual intercourse for a year or more, should seek medical advice from their obstetrician/ gynecologist. Furthermore, couples with infertility related indications or of an advanced maternal age (over 40 years of age), should seek medical advice from their obstetrician / gynecologist immediately.

Indications for men are:

- > Erection Disorders
- > Low sperm count or motility
- > Azoospermia

Indications for women are:

- > Menstrual cycle disorders.
- > History of inflammation in the reproductive system (salpingitis, endometriosis, etc.)
- > History of operations on the reproductive tract (tubes removal, cysts removal on the ovaries, etc.)
- > Previous miscarriages.
- > Advanced maternal age (over 40 years of age or FSH>12)



Assisted Reproductive Treatments at the pre-IVF stage

At the pre-IVF stage, your obstetrician/gynecologist may recommend a series of simple assisted reproductive treatments such as ovulation induction and intrauterine insemination.

The ovulation induction is indicated for women with ovulatory disorders. This particular treatment usually involves ovarian stimulation and ultrasound monitoring of the growth of follicles. When the follicles reach the desired size, the couple should have sexual intercourse.

Intrauterine insemination (IUI) involves monitoring the development of follicles, as above. When the follicles reach the desired size, the partner produces sperm and this is processed in the laboratory, to improve its motility. Processed sperm is then transferred in the uterine cavity with a soft catheter.

Both treatments are minimally invasive and low-cost, but they also have lower success rates comparing to in Vitro Fertilization. Moreover, these treatments cannot be applied in cases of women with blocked fallopian tubes or partners with male factor problems (low concentration or sperm motility).

What is In Vitro Fertilization (IVF)

In Vitro Fertilization (IVF) includes a wide range of techniques aiming to help couples to overcome infertility problems in cases where other available medical treatments of infertility fail or cannot be applied.

The birth of Louise Brown in 1978 represents the starting point of IVF's rapid development. Since then, thousands of children have been born, while the percentage of IVF births in some countries reaches 4% out of the total annual births.

Today, IVF is widely acknowledged and accepted as an effective and safe method for both the woman and the newborn.



IVF procedure

The IVF procedure is structured as follows:

1. STIMULATION OF MULTIPLE FOLLICULAR GROWTH

Depending on the needs of the couple, the specialized physician selects the appropriate protocol of ovulation induction. Once the appropriate stimulation protocol is chosen the physician will monitor follicular growth with ultrasound and may recommend changes to the drug dosage. Once the follicles reach the desired size, a single dose of hCG is administered to induce ovulation.

2. EGG COLLECTION

During the egg collection the follicular fluid is aspirated from the follicles with a long needle. The procedure is done under mild sedation. The eggs are identified and collected in the embryology laboratory and are transferred immediately into the culture medium. They are evaluated for their developmental stage and quality. At the same time the sperm of the partner is processed and the fertilization technique is chosen, which may be the **Classical IVF** or **Intracytoplasmic Sperm Injection (ICSI)**.

3. IN VITRO FERTILIZATION

The next day after egg collection (the first day of culture) the oocytes are checked for fertilization. The fertilized eggs are transferred to a special culture medium and their growth is monitored. The culture of the embryos can last from 2 to 3 days or in the case of blastocyst stage transfer, 5 to 6 days.

The embryos are evaluated for their division rate and morphological characteristics. The aim of the culture of embryos is to approach the ideal conditions that will allow the embryos to develop successfully. At the end of culture, the best quality embryos are selected for transfer. If there are surplus good quality embryos remaining, they can be cryopreserved for future use. Prior to embryo transfer, assisted hatching may also be performed.

4. EMBRYO TRANSFER

At this stage the embryos are placed in the uterus through a flexible catheter. This procedure is painless and fast, but of paramount importance for the final result. The probability of success generally increases as more embryos are transferred, although this also increases the risk of a multiple pregnancy. Under the Greek law, the maximum number of embryos transferred is three for women up to 40 years and four for women aged over 40 years.



OVUM's approach to IVF

OVUM's Fertility Unit uses the most modern in Vitro Fertilization methods for treatment of infertility problems, based on the highest international specifications.

Specifically, the methods used are:

Classical IVF, which is the simplest method and the first that was ever applied. Eggs and sperm are placed together in a suitable medium and after 14 to 20 hours the fertilization is checked. This method can give very good results and is preferred in cases of mild male factor.

ICSI (Intracytoplasmic Sperm Injection), which involves the injection of the spermatozoon into the oocyte with microcontrollers. Because in this case the natural fertilization process is bypassed, the method is particularly effective in cases where the sperm has impaired fertilization potential, or in cases of azoospermia, where spermatozoa may be retrieved directly from testicular tissue. It is also applied in cases of failed fertilization attempts with the Classical IVF.

The culture at the blastocyst stage, i.e. until the fifth or sixth day, is a technique that can increase the chances of success, under certain conditions. Not all embryos reach this stage, often less than half. Thus, the number of good quality blastocysts, which are available for transfer or cryopreservation, is considerably smaller than the original number of embryos.

Assisted hatching, which is a process applied before embryo transfer and involves the thinning of the zona pellucida, a thin shell surrounding the embryo during early development. The objective is to assist the embryo during the process of hatching, during which the transparent zona is ruptured to allow the embryo to adhere to the endometrium.

The cryopreservation of embryos is applied in cases where embryos of good quality are remaining after the transfer or in cases that the embryo transfer cannot be performed for various reasons.

In our laboratory we cryopreserve embryos exclusively by **vitrification**, a technique which significantly improves the survival rates of embryos after thawing. Using vitrification, the pregnancy rate in frozen/thawed cycles approaches that of 'fresh' cycles. It is also possible to cryopreserve sperm and testicular tissue. Vitrification has also enabled cryopreservation of oocytes with very high survival rates.

Why choose OVUM's fertility unit

Responding to the growing demand for medical treatment of infertility problems, OVUM has invested in creating a state of the art IVF Unit which meets the strictest international quality and safety standards and is equipped with cutting edge high tech laboratory equipment. The main competitive advantages of OVUM's IVF Unit are:

SAFETY

- > On-site dedicated facilities at OVUM Unit which is built according to the highest international standards.
- > Two high-tech operation theatre rooms, which are fully equipped with the most technologically advanced medical equipment, thus providing maximum safety.

STATE OF THE ART LABORATORY INFRASTRUCTURE

- > A special air filtering system, that maintains higher pressure than the adjacent rooms, achieving air purity level 'C' (clean room specifications according to EU standards).
- > All operating parameters (temperature, humidity) as well as the proper operation of all the laboratory equipment are controlled continuously with an individual alert system to prevent cases of malfunction.
- > A specially designed room with negative pressure for embryo genetic analysis (PGD), so that the process is done without affecting the culture conditions in the embryological laboratory.





IVF Techniques used

Ovum's IVF laboratory uses the most modern and innovative techniques. Specifically, these techniques are:

IMSI technique (Intracytoplasmic morphologically-selected sperm injection) is used during ICSI. The spermatozoon to be injected is visualized in very high magnification, a technique which has been shown to improve pregnancy rates, especially in male factor infertility.

Using the Time Lapse technique, (continuously monitoring embryo development during culture via a camera installed inside the incubators) embryo cleavage is checked without affecting culture conditions, thus **allowing optimal selection of the embryos** placed in the uterus.

> The cultivation of embryos up to the **blastocyst stage**, until the fifth or sixth day of culture, is a technique that can under certain conditions **increase the chances of success**.

> **The laser system**, used in the process of embryo biopsy for preimplantation diagnosis and selection (PGD & PGS) and during assisted hatching, **reduces the risk of harm** to the embryo and **facilitates implantation**.

> Finally, **the technique of vitrification**, is used exclusively in the cryopreservation of embryos, **with success** rated approaching those of a **'fresh' cycle**.

The same technique is used for the cryopreservation of oocytes, with good results. Thus, the hitherto elusive task of preserving female fertility in advanced reproductive age can be achieved.



Counseling

«Your care at OVUM's IVF Unit is provided in a personal and respectful environment.»

Individual and couple counseling offer the chance to talk to an experienced professional who will help sort out your feelings, identify coping mechanisms, and help you find solutions to your problems.



Services

IMMUNOLOGY OF REPRODUCTION

Clinical and Laboratory immunological investigation of infertility factors and investigation of immunological reasons for repeated failures in IVF. Assessment & treatment of immunological problems.

HYSTEROSCOPIES AND LAPAROSCOPIES

Diagnostic and interventional laparoscopies and hysteroscopies to investigate infertility problems in REA central operating rooms by the treating physician.

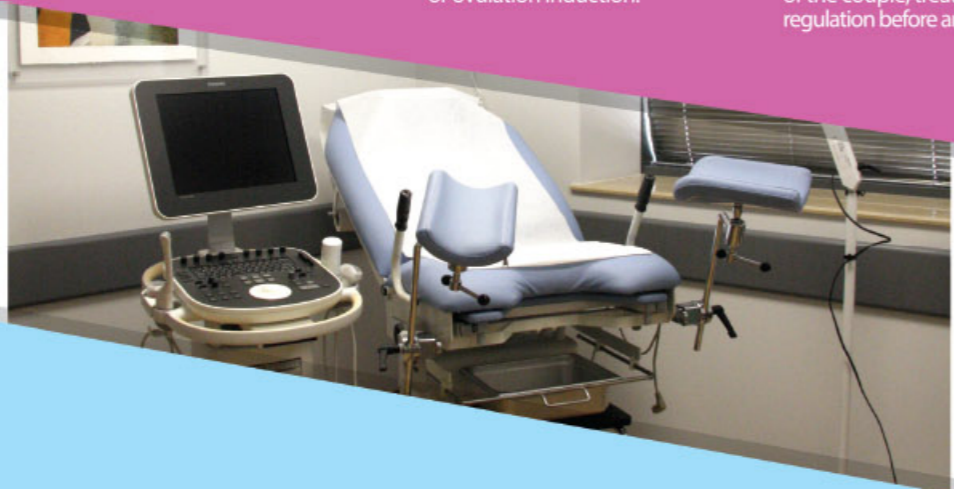
Clinical Infertility

PHYSICAL EXAMINATION

- > Clinical physical examination of the couple.
- > Protocols - Schemes for ovulation induction.
- > Andrological examination, detection, treatment & monitoring of men with sperm problems.
- > Insemination.
- > Surgical sperm extraction from the epididymis or testicle (MESA-TESE)
- > Egg collection-Embryo transfers.
- > Check and treatment of endocrinological problems in couples with infertility problem.
- > Ovulation disorders, clinical and laboratory investigation, regulation.
- > Polycystic ovaries, clinical and laboratory investigation for treatment and cycle regulation or ovulation induction.

ULTRASOUND

- > Simple or 4D transvaginal ultrasound.
- > Series of vaginal ultrasounds for ovulation monitoring.
- > Transvaginal colour Doppler ultrasound of ovaries - uterus - endometrium.
- > Transvaginal colour Doppler ultrasound to investigate endometrial receptivity in cases of infertility.
- > Ultrasound - guided transvaginal cyst aspirations.
- > Ultrasound test of testicles, prostate, seminal vesicles and Doppler of the scrotum to infertile men.
- > Reproductive endocrinology.
- > Investigation of endocrinological disorders of the couple, treatment & regulation before an attempt.



Services

Laboratory

EMBRYOLOGICAL

- > Classic in Vitro Fertilization
- > Intracytoplasmic sperm injection (ICSI)
- > Laser Assisted Hatching
- > Blastocyst Stage Culture
- > Preimplantation Diagnosis and Screening (PGD and PGS)
- > Intracytoplasmic morphologically - selected sperm injection (IMSI)
- > Cryopreservation of embryos with Vitrification Technique
- > Cryopreservation of eggs with Vitrification Technique
- > EMBRYO TIME-LAPSE. Video monitoring of embryos during culture incubation that allows a more reliable assessment and selection of best embryos for embryo transfer.

ANDROLOGICAL

- > Sperm analysis.
- > Microbiological and biochemical tests.
- > Antisperm antibodies test.
- > Sperm DNA fragmentation test.
- > FISH.
- > Intrauterine Insemination (IUI)
- > Testicle biopsy in cases of azoospermia.
- > Cryopreservation of sperm and testicular tissue.



OUR COMMITMENT

... is to provide superior fertility care in a private and personal environment.

OUR PASSION

... is to encourage you to hold on to your dreams.



Mr/Dr. Anastasios Sykoutris

PhD, MD, MSc, BRISTOL University UK, Gynaecologist - Surgeon - Obstetrician, Master in IVF by the University of BRISTOL, UK - Clinical Director of OVUM Specialized in Hysteroscopy and Laparoscopic Surgery (Contact Number: 0030 6976 649484 email: ovumgreece@gmail.com)

In 1994 I gained my degree in Medicine with "Excellent" grade, University of L'Aquila, Italy. During the 2nd year of my studies after examinations I became assistant to Human Anatomy Department. Served my rural service in the Artificial Kidney Unit General Hospital of Chania, Crete. Served as a doctor in the Navy in particular in the Navy Hospital of Crete. I worked as an SHO in Obstetrics and Gynaecology in GH-Crete for 3 years. Since 2000 I've worked in various hospitals in U.K. such as Doncaster Royal Infirmary, University Hospital Hull and East Yorkshire. I worked as a Registrar at the Department of Obstetrics / Gynaecology PILGRIM Hospital BOSTON U.K. In 2003 I have got a CCST as a Specialist in Obstetrics-Gynaecology. Also, I worked as a Clinical Research Fellow in the IVF Unit of the University Hospital CHELSEA and WESTMINSTER, London. In October 2005, I acquired my Masters Degree in Human Reproduction and Development from the University of BRISTOL U.K. On 2006 I have got the license of Gynaecological-Obstetric ultrasound from the University of Athens, Greece. Since 2006, I am working as a Consultant in different IVF Unit in Athens, Greece. Also, since 2010 I am working as a Responsible Clinical Director of egg donation program in OVUM Fertility Consultants Group (OFCG).



Economou Emanuel

Assistant Professor (email: eveconom@pharmagenetix.net)

Born 30 January 1962 in Athens, Greece. **Education:** Pharm.D., School of Pharmacy, Athens University, 1985, Ph.D., Nuclear Medicine, "Demokritos" Research Center, 1993, Post Doctoral Diploma, Nuclear Medicine, KFA, Julich, Germany, 1997. **Appointments:** Assistant Professor in Pharmacogenetics and Molecular Pharmacology, Medical School, University of Athens, Quality Control Manager, Radioimmunoassay Lab, Nuclear Medicine Dept., "Hygeia" Private General Hospital, Head and Scientific Director, "Pharmagenetics" Private Institute for Therapeutic Individualization. **Publications:** 67 international research articles and 102 abstracts in international journals; 1702 citations. Honors: Listed in "International Biographical Dictionaries"; "Membership of the International Order of Merit"; "Outstanding Scientists of the 21st Century"; "Great Minds of the 21st Century"; "International Health Professional of the Year 2007". **Memberships:** Fellow, European Society of Cardiology; Member, American Association of Clinical Chemistry.



Routsis Stavros

BSc in Natural Sciences (Skype: stavros.routsis email: stavrosroutsis@yahoo.gr)

Born 05 August 1968 in Athens Greece. **Academic Studies:** BSc in Natural Sciences (Biology), University of L'Aquila, Italia **1988-1995:** BIOLOGICAL SCIENCES specialty MOLECULAR BIOCHEMISTRY. **Professional Experience:** 1997-2006: Assistant Professor Department of applied biochemistry. Monitoring and coordination of university laboratory tutoring applied biochemistry courses. **2006 to date:** tutoring in private schools. Tutoring lessons in the Italian language, preparing for introduction Italian universities. **2013 to date:** OVUM coordinator. Excellent knowledge of Italian. Very good knowledge of English.



Dimitris Papadopoulos

Was born in Russia and raised in Giannitsa. He studied biology at science department of the Aristotle University of Thessaloniki. Then he continued his studies at Larissa Medical University, to get his postgraduate degree in biology of reproduction having as his supervisor Professor of obstetrics Mr. John Messinis. He prepared his thesis at the University Hospital of Larissa entitled «Vitrification of ova and embryos, prospects and problems of the method!» In the context of the postgraduate program he was trained in assisted reproduction techniques. His training continued at the IVF unit IAKENTRO in Thessaloniki. From October 2009 and for 3 years he worked at "Mother" maternity hospital as a Clinical Embryologist. Since October 2012 he has been working with the IVF clinic of "REA" maternity hospital. He is a member of Panhellenic Association of Clinical Embryologists, of Hellenic Association of Bioscientists, and of the ESHRE (European Association of Human Reproduction and Embryology).