

REPRODUCTIVE BIOLOGY ASSOCIATES

Recipient Consent for Oocyte Donation Using Cryopreserved Eggs From an Anonymous Donor

I, _____ (“Recipient”) and _____ (“husband/partner”) agree to a form of treatment known as oocyte (egg) donation in conjunction with oocyte freezing, thaw of cryopreserved oocyte, in vitro fertilization (IVF), and embryo transfer (ET) (the “Treatment”). We have an infertility problem that is unresolved by conventional therapy. We understand that egg donation provides a means by which infertile couples may conceive and bear children. We request this Treatment, and after detailed and complete discussion with our physician listed below, we understand that the following is an outline of the steps required in this Treatment, as well as the material risks and potential benefits of this Treatment. We have been advised that, in addition to the material risks explained in this consent form, there may be other risks involved in this therapy.

I (We) further understand that the egg donor shall remain anonymous through the services of Reproductive Biology Associates (“RBA”), _____ MD (“Physician”) or associates or staff involved in the RBA Egg Donor Bank Program.

Nature and Purpose of Treatment: The purpose of the Treatment is to allow me, as the Recipient, to carry and deliver a child that I could not otherwise conceive. This allows me to experience pregnancy, childbirth, and motherhood through the use of egg donation. Child(ren) conceived by this method will not have my genetic material but will have that of the egg donor and my husband/partner. Regardless of the outcome, however, I will be the mother of any child(ren) born to me as a result of egg donation and hereby accept all the legal responsibility required of a parent with regard to her child(ren).

Diagnosis Indicating Treatment: I (We) have been diagnosed with an infertility problem that is unresolved by conventional therapy.

Procedures to be Followed: RBA will obtain one or more eggs from an egg donor. I (We) have been advised that the egg donor has been carefully screened by RBA to be a suitable donor from a psychological and physical standpoint, having been tested for infectious diseases, and screened and questioned in regards to familial genetic diseases, and emotional stability. I (We) understand that RBA is neither giving nor making any guarantee or warranty about the reliability of the history of the egg donor. RBA will make an effort to match the general physical characteristics of the egg donor with the Recipient’s general physical characteristics.

Ovulation stimulating agents, including pituitary hormones called gonadotropins, will be used to stimulate multiple egg production in the egg donor. The pituitary is the master gland at the base of the brain. Modification and control of the donor’s pituitary hormones will be induced by drugs, administered by injection daily for up to 28 days, which modify the gonadotropin releasing hormone from the base of the brain. Two different approaches may be used, GNRH agonists or antagonists. Human chorionic gonadotropin (HCG), which mimics the pituitary hormone LH, is used to trigger ovulation. This injection is given once approximately 36 hours prior to egg retrieval.

The egg donor will have blood samples collected and undergo ovarian ultrasound examination, in which high frequency sound waves are used to form an image of the follicles, the fluid filled areas where eggs develop. The purpose of these tests is to identify the time at which eggs are suitable for recovery. Surgery to retrieve the eggs will be scheduled near the time of projected ovulation. Vaginal ultrasound guided egg retrieval is the method of egg retrieval, which involves the introduction of a specially designed needle through the vaginal wall under local anesthesia and intravenous sedation.

The donated eggs will then be cryopreserved. Cryopreservation involves freezing eggs at a very low temperature, such as in liquid nitrogen, to keep the eggs viable so as to store them for future fertilization and transfer. The American Society for Reproductive Medicine considers egg freezing to be experimental in nature but permits any IVF treatment center to offer the service if it has internal clinic data to justify the technique. RBA has completed an IRB approved investigation which concluded that RBA's freezing technique resulted in high rates of pregnancy with no apparent additional risk to the Recipient or offspring resulting from frozen eggs.

The Recipient will be assigned a Treatment start date once her pre-treatment evaluation is complete and a suitable donor has been identified from the RBA frozen egg bank. Administration of hormones to prepare the uterine lining for embryo placement will be induced by drugs, administered by injection daily for up to 28 to 35 days, which modify the gonadotropin releasing hormone from the base of the brain. Estrogen and progesterone will be administered by injection, vaginally or orally according to established protocols for uterine preparation. The Recipient will have blood samples collected and undergo ovarian ultrasound examination, in which high frequency sound waves are used to form an image of the uterine lining. The purpose of these tests is to identify the time at which the uterus is suitable for embryo transfer.

In consideration of the fees paid for use of cryo-preserved eggs (see Fee Schedule), the Recipient will receive enough eggs to guarantee transfer of 2 (two) embryos. As a practical matter, some Recipients will need more eggs than others to be assured of 2 embryos for transfer. RBA will not charge additional fees in the event more eggs are required than usual to achieve 2 embryos. Similarly, some Recipients will be fortunate enough to have their thaw procedure result in more than 2 embryos. In these cases, the recipient is entitled to cryo-preserve the additional viable embryos. Additional fees will be collected (see Fee Schedule) for storage and subsequent transfer of supernumerary embryos.

Once the cryopreserved eggs have been thawed and determined viable, the husband/partner will provide a fresh sperm specimen collected by masturbation or other means, or a sperm donor can be used, to inseminate the eggs by intracytoplasmic sperm injection (ICSI). ICSI is usually performed when there is known or suspected defective sperm production, or when low numbers of eggs (less than 5) are recovered at egg retrieval. With the use of cryopreserved eggs, the ICSI procedure is required to attain fertilization. A single sperm in these cases is picked up in a fine hollow needle and injected into the body of the egg. The micromanipulation itself, the actual insertion, or the result of it, may cause immediate degeneration of the egg, or may yield abnormal embryo(s). Technical problems might exist which may make successful sperm injection impossible, under which circumstances this procedure is likely to fail.

I consent to the use of intracytoplasmic sperm injection (ICSI) without which insemination of thawed eggs will likely fail to result in embryos.

Recipient's initials

Husband/partner's initials

A clinical method for potential enhancement of pregnancy during IVF, known as assisted hatching, involves micromanipulation of the zona pellucida (soft shell surrounding the embryo) after fertilization and prior to replacement of embryo(s) into the uterus. A small hole will be made in the zona pellucida by micromanipulation using an acidic medium or laser to "drill" through this outer shell. This technique may facilitate the hatching ability of embryo(s) to improve the ability of the embryo(s) to implant. If hatched embryos are placed in the Recipient's uterus, the female will take corticosteroids and antibiotics by mouth for 5-15 days.

I do _____ / do not _____ consent to the use of assisted hatching if it is recommended.

Recipient's initials

Husband/partner's initials

After 3 days, if fertilization takes place as planned, at the 4- to 8-cell stage, early embryo(s) may be placed into the Recipient's uterus. This transfer will be made through the Recipient's cervix via a small catheter. In some cases the embryo(s) will be cultured in vitro for a total of five days, until the blastocyst stage.

Almost all IVF procedures produce eggs which do not fertilize. After 24 hours it is clear that these will not benefit the attempt to conceive. Most of these eggs are discarded, but in some cases the eggs may be studied to investigate the science of human reproduction, subject to your consent. Some of this knowledge could be of benefit to future patients.

I do _____ / do not _____ consent to the utilization of our unfertilized eggs for scientific research.

Recipient's initials

Husband/partner's initials

There are usually some eggs which appear to fertilize normally. During the 3-5 days of incubation it becomes clear that a certain percentage of embryos cease to develop. These embryos are composed of degenerating cells which are no longer dividing. These embryos are discarded. However, from time to time, scientific observations can be made on these embryos which could help us to understand human reproduction and infertility, subject to your consent. None of these embryos would be monitored in culture beyond 14 days.

I do _____ / do not _____ consent to the utilization of our abnormal embryos or embryos that cease to develop for scientific research.

Recipient's initials

Husband/partner's initials

Reasons for Possible Failure:

- A. The egg(s), if obtained, may not be normal.
- B. The husband/partner may be unable to obtain a semen specimen or may produce no sperm.
- C. Eggs may not survive the thawing procedure.
- D. Fertilization may not occur.
- E. Cleavage, or cell division, of the fertilized egg(s) may not occur.
- F. The embryo(s) may not develop normally.
- G. It will not be possible to maintain the life of the embryo if the Recipient does not return for transfer.
- H. Implantation may not occur.
- I. Loss or damage of the fertilized eggs or embryo(s) may occur during the procedure.
- J. There may be other reasons that are not understood by the scientists.

Realizing the difficulty and imperfections of this Treatment, it is still our wish to attempt this Treatment. In consenting to the Treatment we/I also understand that RBA makes no guarantee of pregnancy or the subsequent health of any offspring.

Note: Complications from some of the problems listed below may lead to serious permanent disability or death.

Material Discomforts and Risks: The following are some of the risks and discomforts associated with the embryo transfer procedure:

- A. **Blood drawing:** Discomfort and the possibility of developing a painful bruise at the needle site may occur. A blood clot in the vein may occur.
- B. **Ultrasound:** This examination involves the use of a form of energy (sound waves) which at high energy levels may produce heat and tissue damage. At the extremely low energy levels utilized in diagnostic ultrasounds, no adverse effects have been observed to date.
- C. **Medications:** Some of the risks associated with taking hormones to recreate the menstrual cycle are common. Women may experience none to all of the following symptoms: nausea, vomiting, slight weight gain or loss, breast tenderness and enlargement, occasional vaginal bleeding, changes in skin pigment on the upper lip, under the eyes, or on the forehead, yeast infections of the vagina, vaginal discharge and wetness, hot flashes, night sweats, menstrual period cramping, headaches, fluid retention and mood swings. Much less common side effects include appetite changes, nervousness and fatigue, and changes in sex drive. More serious but rare side effects include hypertension (high blood pressure), gall bladder disease, blood clots developing in the legs, lungs, eyes, brain, heart or elsewhere, heart attacks and strokes. I have been advised that I am at more risk for developing heart problems and blood clots if I smoke, or have in the past.
- D. **Risks to Us:** As with any transfer of embryo(s), the risk of tubal or ectopic pregnancy or miscarriage exists. Pregnancy may not occur, and this will lead to personal disappointment. Corticosteroids will be given by mouth to the Recipient for five days and

the following side effects may occur in rare cases. It may mask signs of infection, and new infections may appear during use. High blood pressure, salt and water retention, and increased excretion of potassium and calcium may occur. These effects may cause mood swings, insomnia, depression, psychotic manifestations, muscle weakness, impaired wound healing, increased sweating, headache, or dizziness.

If the Recipient is over 50 years of age, there is a significantly increased risk (as much as 10-fold) of preeclampsia and gestational diabetes when compared to women less than 50 years of age.

The use of antibiotics may result in nausea, vomiting, diarrhea, loss of appetite, and rashes. Also in uncommon or rare cases, sensitivity to the sun, hypersensitivity reactions resulting in shock, or blood diseases including reduced platelets or fractured red cells with anemia or bleeding may occur.

E. Embryo transfer: This procedure may cause discomfort and may lead to infection or ectopic or tubal pregnancy, which could result in hemorrhage, or excessive bleeding or death.

F. Risk to Potential Children: There are theoretical risks of the procedure which potentially could damage the embryo and result later in defects in the child. It is not known if the risk with this procedure (egg donation) is higher or lower than the risks associated with children conceived naturally. The normal filtering effect of the female reproductive tract selects against certain types of abnormal sperm. Since this filter is lost in IVF, abnormal sperm could be responsible for fertilization of the egg and to fertilization with more than one sperm and potential genetic abnormality.

Although the early embryo is thought to be highly resistant to environmental damage, the laboratory culture conditions may induce previously unknown problems.

Some studies of outcomes of assisted reproduction show no apparent increase of developmental defects. Two articles indicate double the normal rates of low birth rate and major birth defects. In 2002, research indicated that low birth weight occurred at double normal rates in IVF offspring, for reasons which were unknown. Birth defects were noted in IVF babies of almost 3%, about double normal rates. It is possible that the characteristics of the parents are the origin of these problems. A group of patients with specifically identified increased risk of abnormalities is the group of male factor patients, particularly those with extremely low sperm production. In the event that we should become pregnant following transfer of embryos after ICSI, you have advised us to consider further tests to establish the genetic normality of our fetus.

There may be unforeseen risks for the Recipient, the husband/partner, or the embryo(s), fetus(es), or child(ren) that develop from this Treatment. While it is difficult to anticipate any such risks, we acknowledge that we have been notified of this possibility.

G. Controversial Ethics: Certain aspects of the ethics of this Treatment are controversial. Some members of the community, including our own family or friends, may not approve of this Treatment. This disapproval may damage interpersonal relations between us and our family and/or friends.

H. **Multiple Pregnancies:** Replacement of more than one embryo increases the chance of pregnancy. The goal of the procedure is to obtain multiple embryos for transferring to the uterus and leading to pregnancy. Transfer of more than two (2) embryos at a time increases the risk of multiple pregnancy.

These rates are much higher than in natural pregnancy. Multiple pregnancy has an increased risk for premature birth, birth defects, maternal hypertension, low birth weight, and many other complications. Pregnancies with triplets or more fetuses always deliver prematurely - about 4 to 6 weeks early for triplets, and 6 to 8 weeks early for quadruplets. Such severely premature infants are at risk for many complications including long term neurological and other handicaps and death.

Multiple pregnancies may lead to emotional and financial strain for you and prolonged hospitalization of the Recipient before birth and of both the Recipient and infants after birth. Deaths of babies around the time of delivery and the number of babies born with long-term handicaps are several times more common in multiple births than in single births. The major problem is that the babies are born before they are fully mature.

Some of the disorders and other factors that are responsible for increased illness and death of infants of multiple pregnancies include: premature delivery, unequal blood flow to the developing twins, placental infarcts (portions of the placenta lose their blood supply), and premature separation of the placenta and compression of the cord. Also, higher numbers of birth defects occur in offspring of multiple-fetus pregnancies. These problems are even more frequent in sets of identical twins.

A procedure known as fetal reduction of pregnancy has been proposed for some women whose pregnancies involve 3 or more fetuses. More information on this controversial procedure is available on an individual basis.

If pregnancy is established, miscarriage, tubal or ectopic pregnancy, stillbirth, or birth defects may occur.

I. **Failure to Achieve Pregnancy:** The Treatment may fail to produce a pregnancy. If the Treatment does not succeed, you could be disappointed. You could experience frustration, anxiety, and depression, which may be severe.

J. **Psychological Impact:** If the Recipient becomes pregnant there may be greater psychological stress than experienced in a natural pregnancy because of the manner in which the Recipient's pregnancy was achieved and the fact that the egg(s) were donated by another woman. Psychological consultation associated with the egg donor program is not intended to predict any short or long term effects of receiving donated eggs.

K. **Other Complications:** Other unforeseen or rare complications, which have not been listed that may occur.

Current Status of Egg Donation Success: In 2006, RBA performed 80 transfers averaging 2.1 embryos per transfer. This resulted in a 69% clinical pregnancy rate after fresh embryo transfer. These results may not apply to any specific case, due to individual patient

