

## **Results on the Selnas / Choice method tests**

**Length of study:** 6 years

**Number of couples participating:** 155

**Success ratio:** 98.70%. 153 couples obtained babies with the gender chosen.

**Genders chosen:** 81 couples chose a girl and 74 couples a boy.

### **Pre test births:**

2 couples had more than 3 children.....1.30%

68 couples had more than 2 children of the same sex.....43.9%

11 couples had 2 children of different sex.....7.1%

64 couples already had one child.....41.3%

10 couples had no previous children.....6.5%

### **Time taken to achieve pregnancy:**

75 mothers achieved pregnancy in 4 months.....48.4%

44 mothers achieved pregnancy in 6 months.....28.4%

28 mothers achieved pregnancy in 8 months.....18.0%

8 couples achieved pregnancy in 12 months.....5.1%

**Residence of couples:** France.

### **Authentication of tests:**

*Jean Marc Baroso, Huissiers de Justice associe, (Court Official)*

*Details...*

### **Scientific research for the SELNAS / CHOICE method.**

The research of French scientists was based on previous experiments which proved that sperm with x (girl) or y (boy) chromosomes were drawn by a different energy charge. This was followed by the discovery that the ovule membrane has an alternating charge which draws or rejects an X (girl) or Y(boy) sperm chromosome.

This alternation of polarity occurs on a predictable cycle for each mammal, a woman having polarity periods of between 1 to 10 days per month and 70 days per year for each different polarity.

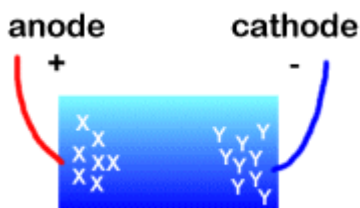
The ovum membrane's alternating polarity is nature's way of selecting sperm with different gender determining chromosomes .

French scientists invented the Selnas/Choice method which identifies individually the time of occurrence of each polarity cycle . His 15 years of study on thousands of animal and human records revealed that the polarity was predictable given certain parameters. Using a sophisticated software these parameters resulted through analysing individual information in a forward prediction of the polarity cycle whilst the subject matter is different it is the same as the weather forecast for the next year produced by the meteorological office.

The Selnas/Choice method is not an interference with nature's way of procreation but a harnessing of its natural function according to the desires of the parents. It avoids the need for undesirable genetic manipulations, operations, medications or prenatal abortions in cases of undesired gender- it is completely natural without any stress or risk to the mother or baby.

Nearly all governments and religions accept natural methods of contraception and choosing the Selnas/Choice / with the Selnas/Choice method falls into the same acceptance ethics.

In 1933 professors Koltzoff and Shroeder the famous Russian scientists concluded that it was possible to separate the sperms with y and x chromosomes through a charge from an anode or a cathode.



In 1990, scientist at the university of Roscoff found that the fact of the Sperm joining the ovule produced an electrically influenced luminous ring.

In 1992 the Science university of Tokyo confirmed the Koltzoff V Schroder findings and recognised the ability to separate the sperm containing y and x Chromosomes by electrolyses.

In 1994 a French Scientist completed his 15 year study on 1000s of mammal case studies and in 1996 followed by his final tests of the Selnas/Choice method based on 155 human couples showing a 98.7% success rate.

**BIOLOGY NOVEMBER 1997**

## **PRECONCEPTUAL GENDER DETERMINATION IN MAMMALS**

### **APPLICATION OF VARIATION IN ELECTROCHEMICAL POTENTIAL IN THE PELLUCID ZONE OF THE OVOCYTE**

#### **INTRODUCTION:**

Since two Russian scientists, Koltzoff and Schroeder discovered that spermatozoa could be separated by electrophoresis, man has wanted to use this fact to achieve gender selection by insemination of graded spermatozoa. However that the ovule might itself be able to select the spermatozoa by means of their intrinsic electric charge was not considered. Nevertheless one of the fundamental laws of electricity states that two opposite electrical charges attract, while two like charges repel. How, therefore can we explain that the ovule membrane is able to attract spermatozoa carrying opposite electrical charges?

The so-called diet method has already illustrated that the affinity of the ovule for one type of spermatozoa may be influenced to the detriment of the other. This is a phenomenon of electrotactism; but why is it that this principle does not apply 100%? Perhaps because a species of non-migrating herbivores living in a region where the soil is particularly rich in sodium would very soon die out because it would not produce any females. However it is quite clear that even with a completely unbalanced diet, there are always at least 20% births of the sex opposite to the one corresponding to this type of diet, and that this applies to man as well as to cattle. It is as if the influence of diet is neutralised at a certain point by a safety mechanism to ensure that whatever happens a certain number of individuals of the opposite sex are born. In our opinion the ovule is able to disregard the influence of prejudicial environmental by polarising the pellucid membrane for a total of about 70 days throughout the year, and this applies to both sexes.

This observation has been identified as the ``Cyclic variation of ovule polarity."

# RECAPITULATION ON CHROMOSOMAL, GENETIC AND ANATOMICAL SEXUAL CHARACTERISTICS

## GENDER SELECTION BY ENVIRONMENT

We know at present that gender determination in man has a genetic origin but that there are other mechanisms which apply in some animals. It appears, for instance that sex may be determined by the incubation temperature of the eggs, which can modify the action of enzymes such as aromatase. This hypothesis applies to some reptiles: one experiment has demonstrated that alligator eggs incubated below 32°C produced females only, whilst eggs incubated at 34°C or above produced exclusively male offspring.

In some species of tortoise, the contrary is true and cold favours the birth of males. Another example of sex determination related to an external cause is the case of the *Bonellia*, a marine worm commonly found in the Mediterranean. If the eggs encounter the proboscis of an adult female and if this female fertilises them, they produce males. If they land freely on the rocky sea floor, they attach themselves to it and give birth to females.

Genetic and environmental determination are sometimes found together within one and the same taxonomic group as in the nematodes. Thus, in the earthworm, *Caenorhabditis elegans*, sex determination is chromosomal and depends on the X:A ratio where X is the number of X chromosomes and A the number of autosomes (non sexual chromosomes), whilst in another earthworm, a parasite of plant roots, it is population density, via pherome secretion, which influences the choice of gender. Elsewhere, similar systems may have evolved separately and are found in widely divergent species. This is called concerted evolution.

## PHYSIOLOGICAL ANATOMY OF THE OVULE

Cell activity takes place in the cytoplasm: synthesis, storage, production of energy, and so on. Ribosomes from the nucleus and linked by an RNA "messenger" thread are the site of protein synthesis and these proteins, as enzymes, carry out the majority of cell activities: they execute the programme set by the messengers from the nucleus. They are frequently aligned along the outside of clefts by which they taken to other parts of the cytoplasm, in particular the regions known as the "dictyosomes of Golgi".

The various activities of the cytoplasm (synthesis, concentration and rejection) require large amounts of energy. This is provided by the mitochondria, tiny, highly structured organs surrounded by a membrane containing, in particular the enzyme sites. The site of complex electrochemical reactions, the ovule and various other cells use oxygen supplied by the blood, to destroy glucose and produce carbon dioxide, all of which releases a considerable quantity of energy to be reutilised in the synthesis of phosphorous compounds, including ATP (adenosine triphosphate) and this, in turn, when hydrolysed in the cytoplasm, restores the level of energy stored. These organs play a key role in cell life; it is at one part or another of their membrane that the metabolic equilibrium of the cell is established. Their role may be compared to that of an electric membrane which burns imported matter and transforms the energy

obtained into an electric current which is transported and especially usable in the pellucid zone."

The pellucid membrane is about 90Å thick, surrounds the cytoplasm, and is the route of all exchanges with the exterior. Diagrammatically it looks like a double line made up of two rows of proteins within which there is a layer of lipid. It similarly contains sugars, oligosaccharides bound to proteins and lipids which play an important role in the phenomena of intercellular recognition and adhesion. This membrane can be permeable, but it is a selective permeability: some substances pass through and others are rejected. Simultaneously filter, sieve, and even shield, the pellucid zone provides the ovule with its immunological specificity, and in so doing plays a vital role, although the exact mechanism is as yet inadequately understood.

### **COMMENTS:**

It has been established that various reactions which take place within the ovule have functions related to the sex ratio of the species. The action of intracellular enzymes permits the assimilation of multiple functions; multiple reactions involved in the transformations of intermediary metabolism, the study of which is based on electrochemical thermodynamics. This metabolism is a coherent interplay of reactions, some of which are endergonic (synthesis) and other exergonic (oxidation and hydrolysis), and linked to one another, either directly or by one or several intermediate reactions.

One of these, adenosine triphosphate production (ATP), the outcome of reversible phosphorylation of adenosine diphosphate, has a predominant role in biological electrochemical energy transfers within the pellucid zone.

Moreover, if we look at what is known about the ovule of some animal species which have been studied in the laboratory, we have to admit that ovule metabolism in mammals undergoes variations in calcium and sodium concentration, influencing intracellular pH and thereby its potentiality. This phenomenon leads to the modification of membrane components and the structure of pellucid zone receptors where the spermatozoa become attached, and thus determine the penetration of one type rather than another.

### **PHYSIOLOGICAL ANATOMY OF SPERMATOZOA**

These are contained in the seminal liquid (sperm). This vesicular liquid contains, in particular a sugar essential to the survival of spermatozoa: fructose. It also contains ascorbic acid, prostaglandins and a vesiculine which, under the influence of an enzyme which originates in the prostate, causes the sperm to coagulate on emission. The sperm, emitted by ejaculation, represents an extemporaneous mixture of two epididymo-testicular fractions containing spermatozoa and secretions from the adjoining glands. Coagulated on emission, sperm undergoes spontaneous liquefaction in the ensuing 5 to 20 minutes due to the two major elements: spermatozoa and seminal plasma. It is important to note that sperm also possesses a buffer capacity designed to protect the spermatozoa from vaginal acidity and uterine alkalinity, two phenomena capable of changing the electrical charge of each of them.

Spermatozoa are cells with a long flagellum, 0.06 mm in length and they consist of several sections: a head (0.005 mm by 0.002 mm) containing the nucleus. The tip of the head forms the acrosome, and the head is linked by a short section or neck, to the main, long portion of the flagellum, which tapers towards the end. On account of their small size, it is impossible at present to measure the intensity of their individual electrical charge, whilst that of the ovule is in the region of 60 millivolts.

It is extremely difficult to define normal sperm, as there are several very considerable variations. To be considered fertile, sperm has to contain something in the region of 60 million spermatozoa per cubic centimetre. In fact it seems that the mobility of the spermatozoa rather than their precise number is the determining factor as to actual fecundity. This mobility decreases in time if the sperm is left at ambient temperature but vitality can be preserved for an almost unlimited period of time by freezing the sperm and storing it in nitrogen at  $-190^{\circ}\text{C}$ . Man appears to be the least effective producer of spermatozoa amongst all the mammals studied: in man spermatogenesis takes the longest (mean 74 days for spermatogonium to become spermatozoon), produces the smallest number of spermatozoa and yields the least quantity of gametes per ejaculation (mean 200 million).

## COMMENT

One of the most decisive elements in our research has been our knowledge of the work of two Russian scientists, Mme Vera SCHROEDER and M. KOLTZOFF, who in March 1933 published an article in *Nature* describing the fact that depending on whether they carry an X or Y chromosome, spermatozoa have opposite polarisation. The X spermatozoa have a negative charge and the Y spermatozoa a positive charge. This fact was observed when the X and Y spermatozoa were separated by electrophoresis. Numerous studies revealed that when a weak electrical current was passed through a solution containing spermatozoa, those with the X chromosome were attracted by the anode (+) and those with the Y chromosome by the cathode (-).

Mme SCHROEDER and M. KOLTZOFF were also the first to identify the appearance of a brief luminous ring at the moment of contact between spermatozoon and ovule. This phenomenon has since been measured and is proof of an electrical involvement in fertilisation.

More recently, in June 1992, the department of biology at the Scientific University of Tokyo published the results of work carried out by five Japanese scientists (ISHIJIMA, OKUNO M., ODAGIRI H., MOHRI T., MOHRI H.) entitled "*Separation of X and Y chromosome-bearing murine sperm by electrophoresis*". The results of this research provided absolute proof of the earlier work of Mme SCHROEDER and M. KOLTZOFF.

## OVULATION AND FERTILISATION

All the ovules are produced at a very early stage of foetal growth, between the third and seventh week of embryonic life. They are then known as primary follicles and measure about 200 $\mu$ ; there are on average 200,000 to 400,000 per ovary. At this stage, they have already commenced their specific division, meiosis. They then remain inactive until puberty. From then on, at each menstrual cycle, this process of division is concluded by the ripening of the ovules. Normally a single follicle reaches

maturity on the thirteenth day of the cycle, whilst the others remain atretic. On the fourteenth day, the follicle reaches 5 to 6 mm in diameter and ruptures. It then expels the ovule and its granular crown towards the top of the Fallopian tube (the funnel of the oviduct). Like menstruation, ovulation is dependent upon pituitary hormones, FSH and LH.

By definition, fertilisation is the union of two gametes of different sex, male and female, spermatozoon and ovule, to form an egg, the essential first stage in the development of all living creatures which employ sexual reproduction. It begins with the penetration of the spermatozoa into the cytoplasm of the ovule. The ovule, migrating slowly down the Fallopian tube remains capable of fertilisation for 24 to 48 hours. It then reaches the outer third. Spermatozoa which have entered the genital tract can, under the right conditions, survive up to 72 hours in the cervical mucus. They are able to traverse the neck of the cervix on account of their mobility, but also thanks to a veritable phenomenon of chemical tropism. The flagellum pushes the head of the spermatozoon forward by a spinning movement. The whole journey is thought to take between one and twelve hours. In rabbit, the journey time is four hours, in guinea-pig twenty minutes and in rat less than two minutes.

Another problem is the direction taken by the spermatozoa inside the female genital tract. How do the spermatozoa meet up with the ovule? It is achieved by tactism, sensations which guide progress so that they approach one another or move apart depending on whether they are positive or negative. The spermatozoa reach the ovule thanks to two tactisms: one is rheotactism, or the tactism to current which makes them swim up all the tubular and uterine secretions, and the other is chemotactism to a substance emitted in increasing amounts by the ovule. Once the secretions accumulated by the spermatozoa have managed to break down the protoplasm by dissolving the intracellular cement, the ovule is accessible and capable of being fertilised. Among the hundreds of spermatozoa swimming around it, only one will fertilise the ovule. At the front of the spermatozoon, on the ovule surface, a slight protuberance has been observed, called the "cone of attraction" as it appears to attract it.

In spite of the importance of fertilisation and the central position it occupies in the science of biology, it is a strange fact that in the past it was essentially unknown territory, and that all we know about it is less than a hundred years old.

## COMMENT

The department of cellular and molecular biology of the university of Roscoff has published "*Success in fertilisation: A question of time and electricity.*"

Depending on the species studied, the control mechanisms which are active at the plasma membrane of the egg are either electrical or biochemical. In the first instance, the fertilising spermatozoon initiates a change in inductance in the egg membrane which is the potential for fertilisation. In all the species studied, the functional arrangement may be summarised as follows: the ovule membrane presents a resting potential permitting fusion of the spermatozoon which comes into contact with it. In fact the surface of the spermatozoon has a voltage sensitive element which decides the possibilities of gamete fusion. This effective electrical mechanism is very rapid (100 to 400 milliseconds), so that the first fertilising spermatozoon provokes an electrical response in the egg membrane.

## DETERMINATION OF GENDER IN MAMMALS

Thinking that we might have detected a new biological phenomenon on man, we felt it was essential to verify its existence in other mammals.

The first species studied after man was cattle:

RACE: CHAROLAIS; SALERS; FRENCH BLACK AND WHITE FRIESIAN

Our research was specifically aimed at finding out whether the date of fertilisation had any bearing on the sex of the resulting offspring. Fertilisation dates were monitored in 7000 cattle directly on farmers' premises, at insemination centres and veterinary surgeries.

A second study was then carried out on horses of the TRAIT ARDENNAIS [breed of draught horse native to the Ardennes].

In a parallel study, fertilisation dates were monitored in humans. 5104 cases were studied in IVF, AI and gynaecological centres. This study was carried out in France at various periods between 1985 and 1991. The conclusions of these statistical studies enabled us to confirm that the date of conception has a correlation with the resulting sex. In addition, this research confirmed the following 5 points:

1. The ovule controls its electrical charge in an alternating, but irregular fashion so as to attract X-bearing chromosomes at one time and Y-bearing chromosomes at another. These periods correspond to an effective polarity of the ovule and are interspersed with neutral periods of variable duration during which specific dietary input appears to have a significant influence on the sex ratio.
2. To date this phenomenon has been observed in man as well as in bovine and equine species, but the incidence of very unbalanced litters in dogs and other multiple birth mammals suggests that the same process exists in these species.
3. In each of the species studied to date, the sum of the days of periods with *either* negative or positive polarity amounted to the equivalent of 65 to 75 days of a calendar year.
4. These periods vary in duration from one ovulation cycle to another, from between 0 and 10 days, and are distributed differently from one species to another.
5. This phenomenon is totally independent of the ovulation cycle and originates at the stage of the ovocyte, sometimes changing the cycle of future mothers because the coincidence of ovulation with the appropriate days of polarity does not, in some cases occur until after several months. However, the fact that there is a very marked rise in fertility during the preselected days makes it possible to achieve gestation after only a very few attempts (almost one attempt per gestation) both with natural and artificial fertilisation methods.

After collating the results of these tests, a number of clinical trials were undertaken in man, as well as studies in cattle and horses. One study was carried out in 155 women, 612 cows and 79 mares.

According to the biological parameters of each species on the one hand, and of the future mother on the other, it is possible to determine when the electrochemical modification of the ovocyte membrane will occur in order to promote exclusively the conception of one sex or the other. The various parameters specific to each species taken in conjunction with the age of the mother to be and the elements of her ovulation cycle allow us to calculate the exact sequence of modification of electric polarity.

These elements enabled us to predetermine the sex of progeny in two studies of "Cattle and horses" with an 86% success rate in these two species: the results in man were 98.7%, which illustrates the existence of a biological phenomenon. Both placebo effect and the influence of chance can be discarded both on account of the success rate and of the diversity of the species involved.

## **SEX DISTRIBUTION IN THE ANIMAL STUDIES**

SPECIES: **CATTLE**

RACE: CHAROLAIS/SALERS/FRENCH BLACK AND WHITE FRIESIAN

AIM OF TEST: MALE AND FEMALE

NUMBER OF CASES TREATED: 608

NUMBER OF MALE BIRTHS OBTAINED: 282 (47%)

NUMBER OF FEMALE BIRTHS OBTAINED: 287 (47.5%)

MALE FAILURES: 15 (2.5%)

FEMALE FAILURES: 16 (3%)

SPECIES: **HORSE**

RACE: TRAIT ARDENNAIS

NUMBER OF CASES TREATED: 79

AIM OF TEST: FEMALE PROGENY ONLY

NUMBER OF MALE BIRTHS OBTAINED: 13 (16%)

NUMBER OF FEMALE BIRTHS OBTAINED: 66 (84%)

CLINICAL TRIAL IN MAN

A clinical trial in man was also undertaken, on the basic premise that as the human data is more precise than the animal equivalent, (dates of ovulation and birth), it would be possible to achieve a higher success rate in man than in animals.

Experience in the sphere has enabled us to establish an increase in fertility or success of reimplantation of 400%.

## CONCLUSION

In the 1980's Professor J. STOLKOWSKI announced that sex determination was possible by means of modifications in the ion content of food. He demonstrated that by influencing the medium, the affinity of the pellucid zone of the ovule for one type of spermatozoon rather than the other could be altered. It has frequently been observed that, where cattle are bred, the sex ratio of the calves can vary to a very high degree as a function of the mineral content of the food. Similarly, acidifying or alkalinising solutions in the vagina have made it possible partially to verify the electro-tactism of gametes. Analysis of the failures encountered in using the diet method has revealed that these corresponded in time and level to the contrary periods of polarity determined by our studies.

Tests performed on the relationship between date of conception and date of birth allow us to put forward the theory that the ovocyte is influenced by a cyclic phenomenon independent of the ovulation cycle. This phenomenon, christened the ``*Cyclic variation of ovule polarity*'', is fixed for each species and specific to each one. We have now identified this cycle for women, mares and cows. Future research will enable us to verify the validity of this hypothesis in multiple birth mammals such as dog and pig. The striking disproportion in sex ratio in litters of puppies and piglets leads us to think that this phenomenon exists in every species of mammal.

Recently, work published by Dr. Kenneth GLANDER of Duke University, Durham, has allowed us to establish that in Brazil, in *Muriquis* monkeys, mothers-to-be are able to modify vaginal electric potential in order to promote fertilisation of the ovule by male or female spermatozoa according to need to preserve the male/female equilibrium of their group.

What was initially a safety measure to ensure the survival of species can therefore enable us today to make a natural choice within each family to maintain the desired balance.

In order to make the *Cyclic variation of ovule polarity* a practical and operational method, we have worked out a 12-month calendar based on the parameters specific to each species and mother - (in man, the parameters are blood group, date of birth, date of the beginning of the last menstrual cycle and age at the onset of menstruation). This calendar indicates the days during which procreation is advised in order to obtain a child of the desired sex.

In our studies, we also analysed the most practical ways of achieving the best results from using this method and the calendar appeared the most suitable. We would like to point out that the dates of the cycle of polarity\* do not always correspond with the dates of ovulation; where this is the case, we suggest that the dates of ovulation be adjusted, if necessary with the assistance of a medical practitioner, to the personalised calendar.

Finally, we would emphasise the importance of only having protected sex on other days, as conception outside the ovulation cycle is always possible (spontaneous ovulation).

The so-called phenomenon of the *Cyclic variation of ovule polarity* enables us to make an important advance in understanding the determination of sex in all mammals.

\* The cycle of polarity, unlike the ovulation dates, is immovable.

## **SCIENTIFIC DEFINITION OF THE Selnas/Choice METHOD**

### PROCEDURE FOR THE PRECONCEPTUAL DETERMINATION OF SEX IN MAMMALS

(BOVINE, EQUINE, HUMAN)

BASED ON INTERPRETATION OF A CYCLE OF INVERTED POLARITY OF THE OVOCYTE, LEADING TO A DIFFERENTIAL AFFINITY OF THE PELLUCID MEMBRANE FOR ONE OR OTHER TYPE OF SPERMATOZOON (X or Y).

### PHYSIOLOGICAL ANATOMY OF THE OVULE

Cell activity takes place in the cytoplasm: synthesis, storage, production of energy, and so on. Ribosomes from the nucleus and linked by an RNA "messenger" thread are the site of protein synthesis and these proteins, as enzymes, carry out the majority of cell activities: they execute the program set by the messengers from the nucleus. They are frequently aligned along the outside of clefts by which they taken to other parts of the cytoplasm, in particular the regions known as the "dictyosomes of Golgi".

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**There are more results on scientific research in the french language web site**

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