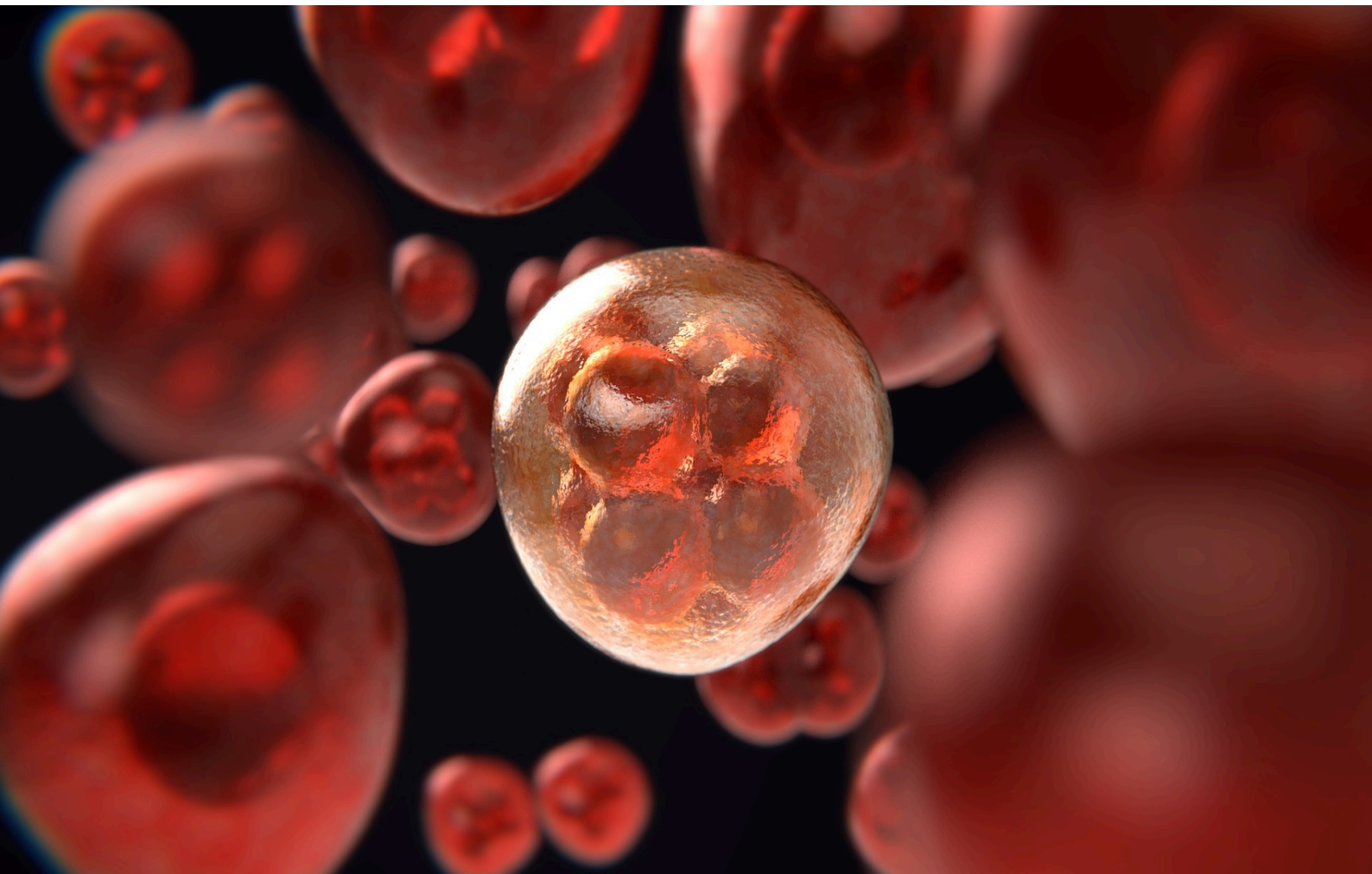




- National Institute for Agricultural Research -

# Reproduction biotechnologies applied to mammals and humans



# Reproduction biotechnologies applied to mammals and humans

## Version 1

(Last updated: 2005-12-15)

This terminology collection contains 223 terminological entries listing terms and expressions specific to reproductive biotechnologies, from artificial insemination to cloning and transgenesis.

This resource is a representation that can be used by computer applications of the book published by Quae (ISBN: 2-7380-0935-2 ; ISSN : 1159-5663)

A French version of this resource is also available.

The resource is browsable online on the terminological portal Loterre: <https://www.loterre.fr>

### Legend

- Syn: Synonym.
- → : Corresponding Preferred Term.
- FR: French Preferred Term.
- RT: Related Term.
- DO: Subject Field.
- URI: Concept's URI (link to the online view).

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# Terminological Entries

# 2

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## 2-cell stage embryo

RT: developmental block

FR: *embryon au stade 2 cellules*

URI: <https://opendata.inra.fr/BRMH/67>

---

24-hour cycle

→ **day-night cycle**

---

# 8

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## 8-16-cell stage embryo

RT: developmental block

DO: *Development biology*

FR: *embryon au stade 8-16 cellules*

URI: <https://opendata.inra.fr/BRMH/68>

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## A

**acrosome reaction**

Note(s): The acrosome reaction involves fusion of outer and inner membranes of acrosomal membranes. It is rapidly triggered by zona-receptor interaction and involves calcium uptake which induces changes in membrane potentials, modifications in pH, swelling and the release of acrosomal enzymes. This increase of intracellular calcium can be achieved in vitro by exposing spermatozoa to calcium ionophores or phosphodiesterase inhibitors. The acrosome reaction is accompanied by modifications in sperm plasma membrane, which exposes receptors for zona binding and possibly factors exposed on the equatorial segment in preparation for sperm-oocyte fusion. (Source : INRA)

DO: · *Development biology*  
· *Reproduction biology*

FR: *réaction acrosomique*

URI: <https://opendata.inra.fr/BRMH/177>

*activation of the oocyte*

→ **oocyte activation**

**administration of melatonin by feeding**

Syn: *melatonin feeding*

RT: **melatonin**

Note(s): Administration of melatonin either by timed daily feeding, injection (in intact animals), or by infusion (in pinealectomized animals) in such a way as to mimic the length of the secretion profile of a given duration of dark phase, is as potent as the application of the corresponding dark phase itself (in intact animals) in the generation of a reproductive response. (Source : INRA)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *administration de mélatonine dans l'alimentation*

URI: <https://opendata.inra.fr/BRMH/2>

*AI*

→ **artificial insemination**

*AIH*

→ **insemination with partner sperm**

**androgenetic embryo**

RT: **parthenogenesis**

Note(s): Recognition of the parental origin of pronuclei in 2- and 3- pronucleate zygotes is important for a number of reasons. In combination with precise enucleation, it may provide a way for obtaining androgenetic and gynogenetic embryos which have only single parental genomes. (Source : INRA)

DO: · *Development biology*  
· *Genetics and heredity*

FR: *embryon androgénote*

URI: <https://opendata.inra.fr/BRMH/66>

*anestrus*

→ **anoestrus**

**anoestrus**

Syn: *anestrus*

Note(s): - Anestrus: period of sexual inactivity between estrus periods in animals. (Source : INRA)

- En anglais, anoestrus peut-être utilisé comme adjectif (anoestrus ewes). (Source : INRA)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *anoestrus*

URI: <https://opendata.inra.fr/BRMH/8>

**antral follicle**

Syn: *graafian follicle*

RT: **FSH**

DO: · *Development biology*  
· *Reproduction biology*

FR: *follicule à antrum*

URI: <https://opendata.inra.fr/BRMH/108>

*ART*

→ **assisted reproductive technology**

**artificial insemination**

Syn: *AI*

RT: · **oestrus detection**

· **sperm bank**

· **sperm recovery**

Note(s): For livestock, the main advantage of artificial insemination is in the extensive use of superior males. With one ejaculate, several hundred cows or several tens of ewes and goats may be inseminated. Depending on species and husbandry systems, semen is collected at a semen production centre, then diluted and stored with antibiotics at +15°C (ram, boar, stallion) or frozen at -196°C (bull, buck), or is collected on the farm and diluted and used immediately (boar). (Source : INRA)

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*  
· *Veterinary sciences*

FR: *insémination artificielle*

URI: <https://opendata.inra.fr/BRMH/125>

*artificial insemination with anonymous donor sperm*

→ **artificial insemination with donor sperm**

**artificial insemination with donor sperm**

Syn: · *artificial insemination with anonymous donor sperm*

· *donor insemination*

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*

FR: *insémination artificielle avec le sperme d'un donneur*

URI: <https://opendata.inra.fr/BRMH/126>

*artificial insemination with husband's semen*

→ **insemination with partner sperm**

*assisted conception technology*

→ **assisted reproductive technology**



**assisted fertilization**

Syn: *micro-assisted fertilization*

RT: [intracytoplasmic sperm injection](#)

Note(s): Micromanipulation for assisted fertilization is used to overcome either severe male factor infertility or idiopathic failure to fertilize. After considerable experience with alternative forms of assisted fertilization (partial zona dissection, under zona insemination), direct intracytoplasmic sperm injection was fully adopted as the principal form of assisted fertilization in 1993. (Source : INRA)

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*

FR: *fécondation assistée*

URI: <https://opendata.inra.fr/BRMH/100>

---

**assisted hatching**

Syn: *assisted zona hatching*

RT: · [blastocyst stage](#)  
· [zona pellucida](#)

Note(s): Successful hatching of the embryo is a prerequisite for its implantation in the uterus. Failure of ZP rupture and subsequent impaired hatching account at least in part for the relatively low implantation rates of embryos resulting from IVF. This may be due to the loss of elasticity (hardening) of the ZP after in vitro culture and in vivo aging. This led to the adoption of assisted hatching techniques in which breaching of the ZP is performed to promote the natural process of hatching. Digestion by acidic Tyrode's solution is the most widely used technique even though it involves the use of a strong chemical agent. (Source : INRA)

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*

FR: *éclosion embryonnaire assistée*

URI: <https://opendata.inra.fr/BRMH/62>

---

*assisted reproduction technology*

→ [assisted reproductive technology](#)

---

**assisted reproductive technology**

Syn: · *ART*  
· *assisted conception technology*  
· *assisted reproduction technology*  
· *techniques for assisted reproduction*

RT: [sperm recovery](#)

Note(s): At least one in ten couples of reproductive age is affected by infertility. Tubal disease, ovulatory defects, endometriosis and abnormal physiology are the most common causes of failure to conceive. Many of these disorders can be treated successfully with surgery, ovulation induction or intrauterine insemination, but in selected cases or when there is long-standing intractable infertility, assisted reproductive technology (ART) becomes the treatment of choice. The techniques for assisted reproduction include in vitro fertilization, gamete intrafallopian transfer, zygote intrafallopian transfer, embryo cryopreservation and other related procedures. The most recent and successful approach entails the direct microinjection of a single spermatozoon into the ooplasm: intracytoplasmic sperm injection. (Source : INRA)

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*

FR: *assistance médicale à la procréation*

URI: <https://opendata.inra.fr/BRMH/10>

---

*assisted zona hatching*

→ [assisted hatching](#)

---

**asynchronous embryo transfer**

DO: *Veterinary sciences*

FR: *transfert asynchrone*

URI: <https://opendata.inra.fr/BRMH/204>

---

# B

*bisected embryo*

→ [split embryo](#)

*bisection*

→ [embryo bisection](#)

## blastocoel

RT: · [blastocoel fluid](#)  
· [blastocyst stage](#)

DO: · [Development biology](#)  
· [Reproduction biology](#)

FR: [blastocoele](#)

URI: <https://opendata.inra.fr/BRMH/13>

## blastocoel fluid

RT: [blastocoel](#)

Note(s): Blastocyst formation manifests the beginning of fluid transport by the trophoctoderm cells, as well as physical partitioning of cells between an inner compartment (the inner cell mass) and an outer epithelium (the trophoctoderm) that envelops the inner cells and retains the blastocoel fluid. (Source : INRA)

DO: [Reproduction biology](#)

FR: [liquide blastocoélique](#)

URI: <https://opendata.inra.fr/BRMH/136>

*blastocyst*

→ [blastocyst stage](#)

*blastocyst elongation*

→ [blastocyst expansion](#)

## blastocyst expansion

Syn: *blastocyst elongation*

RT: · [blastocyst stage](#)  
· [trophoblast](#)

DO: [Reproduction biology](#)

FR: [expansion du blastocyste](#)

URI: <https://opendata.inra.fr/BRMH/95>

## blastocyst stage

Syn: *blastocyst*

RT: · [assisted hatching](#)  
· [blastocoel](#)  
· [blastocyst expansion](#)  
· [embryo hatching](#)

Note(s): Blastocyst formation manifests the beginning of fluid transport by the trophoctoderm cells, as well as physical partitioning of cells between an inner compartment (the inner cell mass) and an outer epithelium (the trophoctoderm) that envelops the inner cells and retains the blastocoel fluid. The mural trophoctoderm surrounds the blastocoel, and the polar trophoctoderm overlies the inner cell mass. (Source : INRA)

DO: · [Development biology](#)  
· [Reproduction biology](#)

FR: [blastocyste](#)

URI: <https://opendata.inra.fr/BRMH/14>

## blastocyst-stage embryo

FR: [embryon au stade blastocyste](#)

URI: <https://opendata.inra.fr/BRMH/69>

## blastomere

Note(s): A blastomere is one of the undifferentiated cells formed by cleavage of the fertilized ovum. This includes cells in the cleavage, morula and blastula stages of the embryo. (Source : INRA)

DO: · [Development biology](#)  
· [Reproduction biology](#)

FR: [blastomère](#)

URI: <https://opendata.inra.fr/BRMH/17>

*block period*

→ [developmental block](#)

## C

Cassou embryo transfer gun

→ [embryo transfer gun](#)

Cassou inseminating gun

→ [embryo transfer gun](#)

Cassou straw

→ [straw](#)

## cell cycle

Note(s): The cell cycle is the sequence of events between mitotic divisions. The cycle is conventionally divided into G0, G1 (G standing for gap), S (synthesis phase during which the DNA is replicated), G2 and M (mitosis). Cells which will not divide again are considered to be in G0, and the transition from G0 to G1 is thought to commit the cell to completing the cycle and dividing. (Source : INRA)

DO: *Cellular biology*

FR: *cycle cellulaire*

URI: <https://opendata.inra.fr/BRMH/46>

## cell line

Note(s): A cell line is a permanently established cell culture which will proliferate indefinitely given appropriate fresh medium and space. Lines differ from cell strains in that they have escaped the Hayflick limit and become immortalized. (Source : INRA)

DO: *Cellular biology*  
*Molecular biology*

FR: *lignée cellulaire*

URI: <https://opendata.inra.fr/BRMH/134>

## cervical transfer

DO: *Veterinary sciences*

FR: *transfert cervical*

URI: <https://opendata.inra.fr/BRMH/206>

## chimera

Syn: *chimeric animal*

Note(s): These chimeras were formed by aggregating two 8- and 16-cell-stage mouse embryos. For analytical purposes, the two embryos were obtained from strains that differed in coat or eye color, chromosomal morphology, or biochemical traits. (Source : INRA)

DO: *Genetics and heredity*

FR: *chimère*

URI: <https://opendata.inra.fr/BRMH/205>

*chimeric animal*

→ [chimera](#)

## chromatin

Note(s): Chromatin is the stainable material of interphase nucleus becoming organized into visible chromosomes at cell division and being composed of DNA attached to a protein (primarily histone) structure base. (Source : INRA)

DO: *Cellular biology*

FR: *chromatine*

URI: <https://opendata.inra.fr/BRMH/27>

## clone

Note(s): The word "clone" comes from the Greek "klon" which means twig. (Source : INRA)

DO: *Biotechnology and applied microbiology*  
*Reproduction biology*

FR: *clone*

URI: <https://opendata.inra.fr/BRMH/30>

## cloned embryo

RT: [cloning](#)

Note(s): The relatively low developmental rates of the cloned embryos both in vitro and in vivo may be influenced by many factors: the higher sensitivity of the cloned embryos to the in vitro and in vivo environment as is common with other types of micromanipulated embryos; the incompatibility of the cell cycle stage of the nuclear donor cells; and the inadequate activation of the recipient oocyte cytoplasm during nuclear transfer. (Source : INRA)

DO: *Biotechnology and applied microbiology*  
*Development biology*

FR: *embryon cloné*

URI: <https://opendata.inra.fr/BRMH/74>

## cloning

RT: [cloned embryo](#)  
[donor embryo](#)  
[embryo bisection](#)  
[enucleated oocyte](#)  
[nuclear transfer](#)  
[quarter embryo](#)  
[recloning](#)  
[split embryo](#)

Note(s): Cloning is the process of making an exact genetic duplicate of another being. Recently success has been obtained in cloning mice, sheep and cattle using nuclei from differentiated cells: fetal fibroblasts, adult mammary gland cells, cumulus cells, skin cells. (Source : INRA)

DO: *Biotechnology and applied microbiology*  
*Reproduction biology*

FR: *clonage*

URI: <https://opendata.inra.fr/BRMH/28>

## cloning of embryos

Syn: *embryo cloning*

FR: *clonage embryonnaire*

URI: <https://opendata.inra.fr/BRMH/29>

## co-culture

Syn: *coculture*

RT: [co-cultured embryo](#)

Note(s): Cattle, pigs and sheep embryos have been cultured through the period of blocked development and to the blastocyst stage with good efficiency by co-culture with oviduct epithelial cells or media conditioned by cultured oviduct cells. (Source : INRA)

DO: *Molecular biology*

FR: *coculture*

URI: <https://opendata.inra.fr/BRMH/31>

## co-cultured embryo

RT: [co-culture](#)

FR: *embryon en coculture*

URI: <https://opendata.inra.fr/BRMH/79>

COO

→ [cumulus oocyte complex](#)

## COELIOSCOPY

*coculture*

→ [co-culture](#)

---

### coelioscopy

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*

FR: *coelioscopie*

URI: <https://opendata.inra.fr/BRMH/32>

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*COH*

→ [superovulation](#)

---

*collected embryo*

→ [recovered embryo](#)

---

*collection of embryo*

→ [recovery of embryos](#)

---

*collection of oocytes employing transvaginal follicular aspiration under ultrasonographic guidance*

→ [oocyte retrieval](#)

---

*compact morula stage*

→ [morula](#)

---

*compacted morula stage*

→ [morula](#)

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### compacted morula stage embryo

RT: *morula*

FR: *embryon au stade morula compactée*

URI: <https://opendata.inra.fr/BRMH/71>

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### conditioned medium

DO: *Molecular biology*

FR: *milieu conditionné*

URI: <https://opendata.inra.fr/BRMH/144>

---

*controlled ovarian hyperstimulation*

→ [superovulation](#)

---

### corona radiata

Syn: *coronal cells*

DO: · *Development biology*  
· *Reproduction biology*

FR: *corona radiata*

URI: <https://opendata.inra.fr/BRMH/39>

---

*coronal cells*

→ [corona radiata](#)

---

### corpus luteum

RT: · *luteolysis*  
· *pregnancy rate*

Note(s): - In most mammals, the life time duration of the corpus luteum is short and luteolysis occurs in order to promote a new ovulatory cycle. Gestation induces an inhibition of luteolysis and the transformation of a cyclic corpus luteum into a pregnancy corpus luteum [...]. (Source : INRA)

- The plural form of corpus luteum is corpora lutea. (Source : INRA)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *corps jaune*

URI: <https://opendata.inra.fr/BRMH/40>

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*corpus luteum regression*

→ [luteolysis](#)

---

### cross fertilization

Note(s): The existence of hybrids, both under natural and artificial conditions is unequivocal evidence of cross-fertilization between closely related species. (Source : INRA)

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*

FR: *fécondation croisée*

URI: <https://opendata.inra.fr/BRMH/101>

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*cryopreservation*

→ [freezing](#)

---

*cryopreserved embryo*

→ [frozen embryo](#)

---

### cryoprotectant

Syn: · *cryoprotectant agent*  
· *cryoprotective agent*

RT: · *freezing*  
· *vitrification*  
· *vitrification freezing*

Note(s): A cryoprotective agent is a substance capable of protecting against injury due to freezing. (Source : INRA)

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*  
· *Veterinary sciences*

FR: *cryoprotecteur*

URI: <https://opendata.inra.fr/BRMH/42>

---

*cryoprotectant agent*

→ [cryoprotectant](#)

---

*cryoprotective agent*

→ [cryoprotectant](#)

---

## culture of the embryo

Syn: *embryo culture*

RT: [· developmental block](#)  
[· final recipient](#)  
[· sequential medium](#)  
[· temporary recipient animal](#)

Note(s): Many procedures such as embryo transfer, in vitro fertilization, sex determination, and cloning depend heavily on the ability to maintain the viability of embryos for several hours to several days outside of the reproductive tract. Usually, the embryos are cultured in vitro, but they may also be stored in the oviduct of a temporary host of another species. The embryo culture system must not only maintain the viability of the embryo, but also support continued development. Co-culture has offered a possible means of producing blastocysts capable of high implantation rates. However, recent developments in the field of embryo physiology and metabolism have led to the formulation of new sequential serum-free culture media capable of supporting the development of viable blastocysts in several mammalian species, including the human. The high viability of blastocysts cultured in the appropriate sequential media means that fewer embryos are required for transfer to achieve a pregnancy, culminating in fewer multiple births. (Source : INRA)

DO: [· Biochemistry](#)  
[· Molecular biology](#)  
[· Reproduction biology](#)

FR: [culture des embryons](#)

URI: <https://opendata.inra.fr/BRMH/43>

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## cumulus oocyte complex

Syn: *COC*

Note(s): Criteria for the selection of follicles and oocytes, mainly recovered from ovaries of slaughtered cattle, for in vitro culture are: the stage of the oestrus cycle of the donor, body condition, age, breed, classification of follicles based on macroscopic and morphological appearance, and on histological and ultrastructural examination of the follicular wall and the cumulus oocyte complex, and hormone concentrations in the follicular fluid. (Source : INRA)

DO: [· Development biology](#)  
[· Reproduction biology](#)

FR: [complexe ovocyte-cumulus](#)

URI: <https://opendata.inra.fr/BRMH/35>

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## cumulus oophorus

DO: [· Development biology](#)  
[· Reproduction biology](#)

FR: [cumulus oophorus](#)

URI: <https://opendata.inra.fr/BRMH/45>

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## cytoplasm

RT: [enucleated oocyte](#)

FR: [cytoplasme](#)

URI: <https://opendata.inra.fr/BRMH/48>

---

*cytoplasm*

→ [enucleated oocyte](#)

---

# D

*dark phase*

→ [scotophase](#)

## day-night cycle

Syn: · *24-hour cycle*  
· *light-dark cycle*

DO: *Reproduction biology*

FR: *nycthémère*

URI: <https://opendata.inra.fr/BRMH/151>

*daylength*

→ [photoperiod](#)

## demi embryo

Syn: · *demi-embryo*  
· *half embryo*

RT: [embryo bisection](#)

DO: *Reproduction biology*

FR: *demi-embryon*

URI: <https://opendata.inra.fr/BRMH/49>

*demi-embryo*

→ [demi embryo](#)

*detection of oestrus*

→ [oestrus detection](#)

*determination of gender*

→ [embryo sexing](#)

## developmental block

Syn: · *block period*  
· *period of blocked development*

RT: · [2-cell stage embryo](#)

· [8-16-cell stage embryo](#)

· [culture of the embryo](#)

Note(s): Conventional culture systems have proved inadequate for the culture of cattle embryos from early cleavage to the blastocyst stage. Part of this problem stems from the existence of a block to in-vitro culture at the 8 - 16 - cell stage. (Source : INRA)

DO: · *Development biology*

· *Reproduction biology*

FR: *stade de blocage*

URI: <https://opendata.inra.fr/BRMH/194>

*direct intracytoplasmic sperm injection*

→ [intracytoplasmic sperm injection](#)

*DNA sequence specific for the Y chromosome*

→ [Y chromosome-specific probe](#)

## donor

Syn: · *donor dam*  
· *donor female*  
· *genetic mother*

Note(s): - Most embryo transfer donors are treated with pregnant mare's serum gonadotropin (PMSG) or follicle stimulating hormone (FSH) to induce the maturation and ovulation of a larger than normal number of oocytes. (Source : INRA)  
- donor dam ne s'emploie que chez l'animal (Source : INRA)

DO: · *Reproduction biology*

· *Veterinary sciences*

FR: *femelle donneuse*

URI: <https://opendata.inra.fr/BRMH/103>

*donor dam*

→ [donor](#)

## donor embryo

RT: [cloning](#)

DO: · *Biotechnology and applied microbiology*

· *Development biology*

FR: *embryon donneur*

URI: <https://opendata.inra.fr/BRMH/78>

*donor female*

→ [donor](#)

*donor insemination*

→ [artificial insemination with donor sperm](#)

## E

**early embryo**FR: *embryon précoce*URI: <https://opendata.inra.fr/BRMH/82>

eCG

→ **PMSG**

echography

→ **ultrasonography**

electrically mediated cell fusion

→ **electrofusion****electrofusion**Syn: *electrically mediated cell fusion*

Note(s): A fusion chamber consisting of two electrodes 500µm apart and overlaid with Zimmerman's fusion medium was used to fuse the blastomere and oocyte cytoplasm. The electrofusion process required that the membranes to be fused be parallel to the two electrodes. (Source : INRA)

DO: · *Biochemistry*  
· *Molecular biology*  
· *Reproduction biology*

FR: *électrofusion*URI: <https://opendata.inra.fr/BRMH/63>**electroporation**

Note(s): Electroporation is a technique in which electric pulses of intensity in kilovolts per centimeter and of microsecond-to-millisecond duration cause a temporary loss of the semipermeability of cell membranes, thus leading to ion leakage, escape of metabolites, and increased uptake by cells of drugs, molecular probes, and DNA. Some applications of electroporation include introduction of plasmids or foreign DNA into living cells for transfection, fusion of cells to prepare hybridomas, and insertion of proteins into cell membranes. (Source : INRA)

DO: · *Biochemistry*  
· *Molecular biology*  
· *Reproduction biology*

FR: *électroporation*URI: <https://opendata.inra.fr/BRMH/64>**embryo**

RT: · *fertilized egg*  
· *preembryo*

Note(s): [...] early events in mammalian development, very likely including the human, involve formation of extraembryonic, rather than embryonic, structures and functions. [...] This means that zygote, cleavage, and early blastocyst stages should be regarded as preembryonic, rather than embryonic. Such terminology reserves the term "embryo" for the rudiment of the whole being that first appears in the second week after fertilization in humans. (Source : INRA)

DO: *Development biology*FR: *embryon*URI: <https://opendata.inra.fr/BRMH/65>**embryo bank**

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*  
· *Veterinary sciences*

FR: *banque d'embryons*URI: <https://opendata.inra.fr/BRMH/11>**embryo bisection**

Syn: · *bisection*  
· *embryo splitting*

RT: · *cloning*  
· *demi embryo*  
· *quarter embryo*  
· *split embryo*  
· *whole embryo*

Note(s): Identical twins in cattle by bisection of six- to seven-day morulae and early blastocysts with a fine glass needle. Bisected demi-embryos were produced in 1983 placed into surrogate zonae pellucidae and transferred nonsurgically to recipient mothers. Fifty-six percent developed into fetuses with 30% of the original embryos resulting in identical twins. This technique has gone out of favour by the embryo transfer industry and is little used today. (Source : INRA)

DO: · *Biotechnology and applied microbiology*  
· *Reproduction biology*

FR: *scission d'embryon*URI: <https://opendata.inra.fr/BRMH/185>

embryo cloning

→ **cloning of embryos**

embryo collection

→ **recovery of embryos**

embryo culture

→ **culture of the embryo****embryo freezing**Syn: *freezing of the embryo*RT: *freezing*FR: *congélation embryonnaire*URI: <https://opendata.inra.fr/BRMH/37>

embryo harvesting

→ **recovery of embryos****embryo hatching**Syn: *hatching of the embryo*RT: *blastocyst stage*

Note(s): Successful hatching of the embryo is a prerequisite for its implantation in the uterus. (Source : INRA)

DO: · *Development biology*  
· *Reproduction biology*

FR: *éclosion de l'embryon*URI: <https://opendata.inra.fr/BRMH/61>

embryo recovery

→ **recovery of embryos**

## embryo reduction

Syn: *multifetal pregnancy reduction*

RT: *multiple pregnancy*

Note(s): Multifetal pregnancy reduction has been shown to improve survival rates in high-order multiple pregnancies (>/=4). (Source : INRA)

DO: *Gynecology and obstetrics*

FR: *réduction embryonnaire*

URI: <https://opendata.inra.fr/BRMH/181>

*embryo replacement*

→ **embryo transfer**

## embryo score

DO: *Gynecology and obstetrics*

*Reproduction biology*

*Veterinary sciences*

FR: *score embryonnaire*

URI: <https://opendata.inra.fr/BRMH/186>

## embryo selection

DO: *Gynecology and obstetrics*

*Reproduction biology*

*Veterinary sciences*

FR: *choix des embryons*

URI: <https://opendata.inra.fr/BRMH/26>

## embryo sexing

Syn: *determination of gender*

*gender selection*

*predetermination of the sex of embryos*

*sex determination*

*sexing of embryos*

RT: *sexed embryo*

*Y chromosome-specific probe*

Note(s): Embryo sexing: bovine embryos can be reliably sexed by using an embryo biopsy technique adapted for commercial embryo transfer. With this technique, a Y chromosome DNA sequence is amplified by using a polymerase chain reaction test performed on biopsied cells. The presence or absence of the Y-specific sequence is then determined by using gel electrophoresis. (Source : INRA)

DO: *Genetics and heredity*

*Reproduction biology*

*Veterinary sciences*

FR: *sexage des embryons*

URI: <https://opendata.inra.fr/BRMH/188>

*embryo splitting*

→ **embryo bisection**

*embryo survival rate*

→ **embryonic survival rate**

## embryo transfer

Syn: *embryo replacement*

*replacement of embryo*

RT: *synchronous embryo*

*transferable embryo*

Note(s): Embryo transfer experiments have shown that successful implantation and normal embryonic development are determined by: a) the development stage of the embryo at the time of transfer to the uterus; b) the period of time in the cycle during which implantation can be initiated (the "window of implantation"); c) the synchrony between the fertilization stage of the embryo and the postovulatory stage of the endometrium. (Source : INRA)

DO: *Veterinary sciences*

FR: *transfert d'embryons*

URI: <https://opendata.inra.fr/BRMH/207>

## embryo transfer gun

Syn: *Cassou embryo transfer gun*

*Cassou inseminating gun*

*insemination gun*

*replacement catheter*

Note(s): [...] nonsurgical transfers were performed transcervically using 0.25 ml French straws in a Cassou embryo transfer gun or a disposable embryo transfer gun with or without an additional protective sheath. (Source : INRA)

DO: *Reproduction biology*

*Veterinary sciences*

FR: *pistolet d'insémination*

URI: <https://opendata.inra.fr/BRMH/169>

*embryonic stem cell*

→ **ES cell**

## embryonic survival rate

Syn: *embryo survival rate*

*survival rate of embryos*

RT: *freezing*

FR: *taux de survie des embryons*

URI: <https://opendata.inra.fr/BRMH/198>

## enucleated oocyte

Syn: *cytoplasm*

*enucleated recipient oocyte*

RT: *cloning*

*cytoplasm*

*nuclear transfer*

*oocyte enucleation*

Note(s): The nuclear transfer procedure involves the transfer of a nucleus (or the entire cell) from a donor cell into an enucleated (without chromosomal DNA) oocyte (a cytoplasm), itself often recovered after subjecting females to ovarian stimulation. (Source : INRA)

DO: *Biotechnology and applied microbiology*

*Reproduction biology*

FR: *ovocyte énucléé*

URI: <https://opendata.inra.fr/BRMH/156>

*enucleated recipient oocyte*

→ **enucleated oocyte**

*equine chorionic gonadotropin*

→ **PMSG**



**ES cell**

Syn: *embryonic stem cell*

Note(s): ES cells are totipotent cells from the inner-cell mass of an embryo that are able to be cultured without differentiation. (Source : INRA)

DO: · *Cellular biology*  
· *Development biology*

FR: *cellule ES*

URI: <https://opendata.inra.fr/BRMH/22>

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*estrus*

→ **oestrus**

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*estrus synchronization*

→ **oestrus synchronization**

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**expanded blastocyst**

DO: · *Development biology*  
· *Reproduction biology*

FR: *blastocyste expansé*

URI: <https://opendata.inra.fr/BRMH/16>

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## F

**fertilization**RT: [oocyte penetration](#)DO: [Reproduction biology](#)FR: [fécondation](#)URI: <https://opendata.inra.fr/BRMH/99>**fertilized egg**Syn: [fertilized oocyte](#)  
[zygote](#)RT: [embryo](#)

Note(s): Development of a new generation is usually considered to begin with the zygote, which contains a new hereditary constitution (genome) contributed to by both parents through the union of sperm and oocyte. The process of syngamy establishes a genetically unique entity. (Source : INRA)

DO: [Development biology](#)  
[Reproduction biology](#)FR: [œuf](#)URI: <https://opendata.inra.fr/BRMH/153>*fertilized oocyte*→ [fertilized egg](#)**final recipient**RT: [culture of the embryo](#)  
[temporary recipient animal](#)FR: [receveuse définitive](#)URI: <https://opendata.inra.fr/BRMH/178>*first polar body emission*→ [first polar body extrusion](#)**first polar body extrusion**Syn: [first polar body emission](#)RT: [meiotic maturation in vitro](#)DO: [Development biology](#)  
[Reproduction biology](#)FR: [expulsion du premier globule polaire](#)URI: <https://opendata.inra.fr/BRMH/96>*FISH*→ [fluorescence in situ hybridization](#)*flow cytometric sorting of sperm*→ [sperm sorting](#)*flow cytometric sorting of X and Y-chromosome bearing sperm*→ [sperm sorting](#)*flow cytometric sperm sorting*→ [sperm sorting](#)**flow cytometry**

Note(s): Mammalian sperm are inherently different in that the X sperm carries from 2.8 to 4.2% more DNA than the Y sperm. Individual sperm DNA can be determined and used as the differentiating characteristic with flow cytometry and cell sorting instrumentation especially modified to measure small amounts of DNA in sperm. The process utilizes a fluorochrome to bind to the DNA. The relative DNA is measured by passing the living sperm through a laser beam and collecting the light energy from the individual sperm. (Source : INRA)

DO: [Genetics and heredity](#)  
[Molecular biology](#)FR: [cytométrie en flux](#)URI: <https://opendata.inra.fr/BRMH/47>*Follicle-Stimulating Hormone*→ [FSH](#)*foster mother*→ [surrogate mother](#)**founder transgenic**DO: [Biotechnology and applied microbiology](#)  
[Genetics and heredity](#)FR: [animal transgénique fondateur](#)URI: <https://opendata.inra.fr/BRMH/7>**freezing**Syn: [cryopreservation](#)RT: [cryoprotectant](#)  
[cryoprotectant](#)  
[embryo freezing](#)  
[embryonic survival rate](#)  
[frozen embryo](#)  
[frozen embryo](#)  
[frozen semen](#)  
[frozen-thawed embryo](#)  
[frozen-thawed embryo](#)  
[sperm and oocyte freezing](#)  
[viable embryo](#)  
[vitrification](#)  
[vitrification](#)  
[vitrification freezing](#)

Note(s): To store embryos for longer periods, metabolism must be stopped, which is achieved only at low temperatures (liquid nitrogen: -196°C). Successful freezing lies in the control of three steps: - presence of a cryoprotectant; - the change of phase of water should be carefully controlled; - cells must be dehydrated... (Source : INRA)

DO: [Gynecology and obstetrics](#)  
[Reproduction biology](#)  
[Veterinary sciences](#)FR: [cryoconservation](#)URI: <https://opendata.inra.fr/BRMH/41>*freezing of the embryo*→ [embryo freezing](#)*French CECOS Federation*→ [French centers for semen preservation](#)

**French centers for semen preservation**

Syn: *French CECOS Federation*  
 DO: · *Gynecology and obstetrics*  
 · *Reproduction biology*  
 FR: **CECOS**  
 URI: <https://opendata.inra.fr/BRMH/21>

*French straw*

→ **straw**

**fresh semen**

FR: *sperme frais*  
 URI: <https://opendata.inra.fr/BRMH/192>

**fresh transfer of IVF embryos**

Syn: · *transfer as fresh embryos*  
 · *transfer of fresh embryos*

Note(s): The pregnancy rate following transfer of equine embryos stored (24h) on a fetal bovine monolayer was compared with that following transfer as fresh embryos immediately after collection. (Source : INRA)

DO: · *Gynecology and obstetrics*  
 · *Veterinary sciences*

FR: *transfert d'embryons frais*  
 URI: <https://opendata.inra.fr/BRMH/211>

**frozen embryo**

Syn: *cryopreserved embryo*  
 RT: · *freezing*  
 · *frozen-thawed embryo*  
 FR: *embryon congelé*  
 URI: <https://opendata.inra.fr/BRMH/76>

**frozen semen**

RT: *freezing*  
 FR: *sperme congelé*  
 URI: <https://opendata.inra.fr/BRMH/191>

**frozen-thawed embryo**

RT: · *freezing*  
 · *frozen embryo*  
 FR: *embryon décongelé*  
 URI: <https://opendata.inra.fr/BRMH/77>

**FSH**

Syn: *Follicle-Stimulating Hormone*  
 RT: **antral follicle**

Note(s): [...] gonadotropins, especially follicle-stimulating hormone (FSH), enhance early follicle cell development and early oocyte growth. Purified follicle stimulating hormone (FSH) is administered to women to stimulate the growth and maturation of ovarian follicles and thus increase the frequency of conception in couples with fertility problems. (Source : INRA)

DO: · *Endocrinology and metabolism*  
 · *Reproduction biology*

FR: **FSH**  
 URI: <https://opendata.inra.fr/BRMH/109>

**fluorescence in situ hybridization**

Syn: *FISH*  
 FR: *hybridation in situ en fluorescence*  
 URI: <https://opendata.inra.fr/BRMH/107>

# G

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## gamete donation

DO: *Gynecology and obstetrics*  
 FR: *don de gamètes*  
 URI: <https://opendata.inra.fr/BRMH/58>

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## gamete intrafallopian transfer

Syn: *GIFT*

Note(s): Gamete intrafallopian transfer (GIFT) is a method in which oocytes and sperm are transferred to one or both fallopian tubes, usually by means of laparoscopically directed tubal cannulation. Thus, fertilization occurs in vivo. (Source : INRA)

DO: *Gynecology and obstetrics*  
 FR: *transfert intratubaire de gamètes*  
 URI: <https://opendata.inra.fr/BRMH/112>

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*gender selection*

→ [embryo sexing](#)

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## gene therapy

RT: *gene transfer*

Note(s): Gene therapy is a medical/surgical intervention currently being developed, in which genes are introduced into cells in order to treat or cure a wide variety of human diseases. It has attracted much interest since the first submissions of phase I clinical trials in the early 1990s, for the treatment of inherited genetic diseases. The possible application of gene transfer technology to treat AIDS, cardiopathies, and neurologic diseases is under evaluation. (Source : INRA)

DO: *Biotechnology and applied microbiology*  
 FR: *thérapie génique*  
 URI: <https://opendata.inra.fr/BRMH/200>

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## gene transfer

Syn: *transgenesis*  
 RT: *gene therapy*  
*transfection*  
*transgene*

Note(s): It is expected that gene transfer will become a common practice to generate new strains of livestock when the method of gene transfer will be more efficient and when genes of interest to be transferred will be identified. (Source : INRA)

DO: *Biotechnology and applied microbiology*  
*Genetics and heredity*  
 FR: *transfert de gènes*  
 URI: <https://opendata.inra.fr/BRMH/209>

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*genetic mother*

→ [donor](#)

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*genome imprinting*

→ [genomic imprinting](#)

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## genomic imprinting

Syn: *genome imprinting*

Note(s): Genes are recognized as undergoing genomic imprinting when they are capable of being expressed only from the paternal or only from the maternal chromosome. Development in mammals is influenced by genome imprinting which results in differences in the expression of some homologous maternal and paternal alleles. (Source : INRA)

DO: *Genetics and heredity*  
*Reproduction biology*  
 FR: *empreinte génomique*  
 URI: <https://opendata.inra.fr/BRMH/89>

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*genomic reprogramming*

→ [reprogramming of the donor nucleus](#)

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## germ line

Note(s): The germline, uniquely amongst the lineages of the embryo, carries the genome from generation to generation and is therefore the only lineage which retains true developmental totipotency. (Source : INRA)

DO: *Development biology*  
*Genetics and heredity*  
 FR: *lignée germinale*  
 URI: <https://opendata.inra.fr/BRMH/135>

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*germinal vesicle breakdown*

→ [GVBD](#)

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*gestational mother*

→ [surrogate mother](#)

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*GF*

→ [growth factor](#)

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*GIFT*

→ [gamete intrafallopian transfer](#)

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## GnRH

Syn: *LH-releasing factor*  
*LHRH*  
*gonadotrophin releasing hormone*  
*gonadotropin releasing hormone*  
*gonadotropin-releasing hormone*  
*luteinizing-hormone-releasing hormone*

Note(s): Gonadotropin releasing hormone is a decapeptide which is produced in specific neurons in the brain of all vertebrates. The hormone is carried via a blood portal system to the anterior pituitary where it stimulates release of luteinizing hormone (LH) and follicle stimulating hormone (FSH). (Source : INRA)

DO: *Endocrinology and metabolism*  
*Reproduction biology*  
 FR: *GnRH*  
 URI: <https://opendata.inra.fr/BRMH/114>

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*gonadotrophic hormones*

→ [gonadotropins](#)

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*gonadotropin releasing hormone*

→ [GnRH](#)

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gonadotropin releasing hormone

→ [GnRH](#)

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gonadotropin-releasing hormone

→ [GnRH](#)

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## gonadotropins

Syn: gonadotrophic hormones

Note(s): Gonadotropins play a pivotal role in the regulation of reproductive function in both the male and the female. (Source : INRA)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *hormones gonadotropes*

URI: <https://opendata.inra.fr/BRMH/118>

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graafian follicle

→ [antral follicle](#)

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## granulosa cells

Note(s): Embryo development is enhanced when the oocytes from small follicles undergo in-vitro maturation in the presence of hormone-stimulated granulosa cells. (Source : INRA)

DO: · *Development biology*  
· *Reproduction biology*

FR: *granulosa*

URI: <https://opendata.inra.fr/BRMH/115>

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## growth factor

Syn: GF

Note(s): [...] early mammalian embryos produce and secrete growth factors, for instance, interleukin 1 (IL-1); in some cases, they also possess the receptors for these factors. (Source : INRA)

DO: · *Cellular biology*  
· *Reproduction biology*

FR: *facteurs de croissance*

URI: <https://opendata.inra.fr/BRMH/98>

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GVB

→ [GVBD](#)

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## GVBD

Syn: · GVB  
· *germinal vesicle breakdown*

RT: [reinitiation of meiosis](#)

Note(s): One of the major events of structural changes during oocyte maturation is germinal vesicle breakdown (GVB), indicating the reinitiation of meiosis and the disappearance of the germinal vesicle. These structural changes of the oocyte nucleus are initiated in vivo by the LH surge. GVB begins with undulations of the nuclear envelope which continues for about 1-2 h. These undulations may correlate with the onset of chromosome condensation and the detachment of chromosomes from their site-specific partners in the nuclear membrane. (Source : INRA)

DO: · *Development biology*  
· *Reproduction biology*

FR: *rupture de la vésicule germinative*

URI: <https://opendata.inra.fr/BRMH/117>

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# H

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## H-Y antigen

*Syn:* *histocompatible Y antigen*

*Note(s):* H-Y antigen is a sex-specific cell surface antigen produced by the sex-determining gene of the Y chromosome in mammals. (Source : INRA)

*DO:* · *Genetics and heredity*  
· *Immunology*  
· *Reproduction biology*

*FR:* *antigène H-Y*

*URI:* <https://opendata.inra.fr/BRMH/9>

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*half embryo*

→ **demi embryo**

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*hamster test*

→ **zona-free hamster ova sperm penetration assay**

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*hamster-oocyte penetration test*

→ **zona-free hamster ova sperm penetration assay**

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*harvested embryo*

→ **recovered embryo**

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*harvesting of embryos*

→ **recovery of embryos**

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## hatched blastocyst

*DO:* · *Development biology*  
· *Reproduction biology*

*FR:* *blastocyste éclos*

*URI:* <https://opendata.inra.fr/BRMH/15>

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*hatching of the embryo*

→ **embryo hatching**

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*heat detection*

→ **oestrus detection**

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## heterozygous animal

*Note(s):* heterozygote is a noun, while heterozygous is an adjective. (Source : INRA)

*DO:* *Genetics and heredity*

*FR:* *animal hétérozygote*

*URI:* <https://opendata.inra.fr/BRMH/4>

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*histocompatible Y antigen*

→ **H-Y antigen**

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## holding pipette

*FR:* *pipette de maintien*

*URI:* <https://opendata.inra.fr/BRMH/168>

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## homologous recombination

*Note(s):* Homologous recombination between a DNA sequence in a chromosome and a newly introduced DNA sequence (gene targeting) allows the specific replacement of an endogenous gene by another gene. In practice, gene replacement has been mainly used to specifically inactivate a gene in the mouse. (Source : INRA)

*DO:* *Genetics and heredity*

*FR:* *recombinaison homologue*

*URI:* <https://opendata.inra.fr/BRMH/180>

---

## homozygous animal

*Note(s):* homozygote is a noun, while homozygous is an adjective. (Source : INRA)

*DO:* *Genetics and heredity*

*FR:* *animal homozygote*

*URI:* <https://opendata.inra.fr/BRMH/5>

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*HOP*

→ **zona-free hamster ova sperm penetration assay**

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ICM

→ [inner cell mass](#)

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ICSI

→ [intracytoplasmic sperm injection](#)

---

identical twins

→ [monozygous twins](#)

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## implant

RT: [implant removal](#)

FR: [implant](#)

URI: <https://opendata.inra.fr/BRMH/122>

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## implant removal

Syn: [implant withdrawal](#)

RT: [implant](#)

FR: [dépose de l'implant](#)

URI: <https://opendata.inra.fr/BRMH/50>

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*implant withdrawal*

→ [implant removal](#)

---

## implantation

Syn: [nidation](#)

RT: [preimplantation-stage embryo](#)

Note(s): Implantation generally occurs when the fertilized ovum has reached the blastocyst stage, or at the start of gastrulation after the appearance of secondary mesoderm. During the preimplantation stage of pregnancy, the endometrium provides an environment that sustains embryonic development, and then participates in the nidation process. (Source : INRA)

DO: [Development biology](#)  
[Reproduction biology](#)

FR: [implantation](#)

URI: <https://opendata.inra.fr/BRMH/124>

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## implantation window

Syn: [period of uterine receptivity](#)

Note(s): There is strong evidence that a temporal window of maximal endometrial receptivity exists. Implantation efficiency appears to decrease significantly when ET is performed outside this window. The concept of an "implantation window" comes mainly from studies in Muridae. In this species, implantation is induced by low doses of ovarian estrogens. Such nidatory estrogens act on the progesterone endometrium and are responsible for the short period of uterine receptivity. This period is followed by a refractory phase during which the uterine environment becomes hostile for the embryos. (Source : INRA)

DO: [Development biology](#)  
[Reproduction biology](#)

FR: [fenêtre d'implantation](#)

URI: <https://opendata.inra.fr/BRMH/106>

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*in situ hybridisation*

→ [in situ hybridization](#)

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## in situ hybridization

Syn: [in situ hybridisation](#)

Note(s): In situ hybridisations involve hybridising a labelled nucleic acid (often labelled with a fluorescent dye) to suitably prepared cells or histological sections. This is used particularly to look for specific transcription, and localisation of genes to particular chromosomes (Source : INRA)

DO: [Genetics and heredity](#)  
[Molecular biology](#)

FR: [hybridation in situ](#)

URI: <https://opendata.inra.fr/BRMH/121>

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*in vitro fertilisation*

→ [In Vitro Fertilization](#)

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## In Vitro Fertilization

Syn: [IVF](#)

[IVFET](#)

[In Vitro Fertilization and Embryo Transfer](#)

[in vitro fertilisation](#)

Note(s): To be successful IVF requires simultaneous and complete achievement of oocyte maturation and sperm cell capacitation. However, many other parameters related to the environment of gametes at the time of fertilization such as temperature, medium, pH, number and/or dilution rate of spermatozoa may play an important role. (Source : INRA)

DO: [Gynecology and obstetrics](#)  
[Reproduction biology](#)  
[Veterinary sciences](#)

FR: [fécondation in vitro](#)

URI: <https://opendata.inra.fr/BRMH/102>

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*In Vitro Fertilization and Embryo Transfer*

→ [In Vitro Fertilization](#)

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*in vitro maturation*

→ [meiotic maturation in vitro](#)

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*In Vitro Oocyte Maturation*

→ [meiotic maturation in vitro](#)

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## in vitro spermatogenesis

Note(s): When isolated germ cells and somatic cells were formed into pellets by centrifugation and were then cultured with 11-KT for 30 days, the entire process of spermatogenesis from premitotic spermatogonia to spermatozoa was induced. (Source : INRA)

DO: [Gynecology and obstetrics](#)  
[Reproduction biology](#)  
[Veterinary sciences](#)

FR: [spermatogenèse in vitro](#)

URI: <https://opendata.inra.fr/BRMH/190>

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## injected oocyte

RT: [intracytoplasmic sperm injection](#)

FR: [ovocyte injecté](#)

URI: <https://opendata.inra.fr/BRMH/157>

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**inner cell mass**

Syn: *ICM*

Note(s): A small group of cells, at first a quarter of the blastocyst cells, resulting from the inner cells of the morula, is located under the trophoctoderm; it is the inner cell mass. (Source : INRA)

DO: · *Development biology*  
· *Reproduction biology*

FR: *bouton embryonnaire*

URI: <https://opendata.inra.fr/BRMH/18>

**insemination at detected heat**

RT: *oestrus*

FR: *insémination sur chaleurs observées*

URI: <https://opendata.inra.fr/BRMH/130>

*insemination gun*

→ **embryo transfer gun**

**insemination with partner sperm**

Syn: · *AIH*

· *artificial insemination with husband's semen*  
· *partner insemination*

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*

FR: *insémination artificielle avec sperme du conjoint*

URI: <https://opendata.inra.fr/BRMH/127>

*intact embryo*

→ **whole embryo**

*integrated exogenous gene*

→ **transgene**

*intermediate animal*

→ **temporary recipient animal**

**intracytoplasmic sperm injection**

Syn: · *ICSI*

· *direct intracytoplasmic sperm injection*  
· *single sperm intracytoplasmic injection*

RT: · *assisted fertilization*  
· *injected oocyte*

Note(s): Intracytoplasmic sperm injection (ICSI) in human clinical work involves the injection of an intact, live, spermatozoon into the cytoplasm of a mature oocyte that has been extracted transvaginally. After fertilization occurs, the embryo is transferred into the uterus. This procedure now affords men who were previously thought to be irreversibly infertile the chance to initiate their own biologic pregnancy. Patients with obstructive or secretory azoospermia necessitating the use of epididymal or testicular sperm achieve good fertilization rates after ICSI. After considerable experience with alternative forms of assisted fertilization (partial zona dissection, under zona insemination), direct intracytoplasmic sperm injection was fully adopted as the principal form of assisted fertilization in 1993. (Source : INRA)

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*

FR: *micro-injection intracytoplasmique d'un spermatozoïde*

URI: <https://opendata.inra.fr/BRMH/142>

**intraperitoneal insemination**

Syn: *IPI*

FR: *insémination intrapéritonéale*

URI: <https://opendata.inra.fr/BRMH/128>

**intrauterine insemination**

Syn: *IUI*

FR: *insémination intrautérine*

URI: <https://opendata.inra.fr/BRMH/129>

*intravaginal device*

→ **intravaginal implant**

**intravaginal implant**

Syn: · *PRID*

· *intravaginal device*  
· *progesterone-releasing intravaginal device*

RT: · *vaginal spiral*  
· *vaginal sponge*

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*  
· *Veterinary sciences*

FR: *dispositif intravaginal*

URI: <https://opendata.inra.fr/BRMH/56>

*IPI*

→ **intraperitoneal insemination**

*IUI*

→ **intrauterine insemination**

*IVF*

→ **In Vitro Fertilization**

*IVFET*

→ **In Vitro Fertilization**

*IVM*

→ **meiotic maturation in vitro**



# K

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## karyoplast

DO: [Development biology](#)  
[Reproduction biology](#)

FR: [caryoplaste](#)

URI: <https://opendata.inra.fr/BRMH/20>

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*karyotyped embryo*

→ [sexed embryo](#)

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## karyotyping of the cells

DO: [Genetics and heredity](#)  
[Gynecology and obstetrics](#)

FR: [analyse chromosomique](#)

URI: <https://opendata.inra.fr/BRMH/3>

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## L

**Lac-Z gene**

Syn: *lac-Z/beta-galactosidase marker gene*

DO: · *Genetics and heredity*  
· *Molecular biology*

FR: *Lac Z*

URI: <https://opendata.inra.fr/BRMH/132>

*lac-Z/beta-galactosidase marker gene*

→ **Lac-Z gene**

**laparoscopic embryo transfer**

Syn: *laparoscopic transfer of embryos*

Note(s): Laparoscopic embryo transfer in small ruminants: [...] the reproductive tract is visualized via the laparoscope and the uterus is held by grasping forceps [...]; the embryos [are] deposited using flexible tubing [...] [or] glass pipettes. (Source : INRA)

DO: · *Reproduction biology*  
· *Veterinary sciences*

FR: *transfert sous contrôle laparoscopique*

URI: <https://opendata.inra.fr/BRMH/214>

*laparoscopic transfer of embryos*

→ **laparoscopic embryo transfer**

**LH**

Syn: *luteinizing hormone*

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *LH*

URI: <https://opendata.inra.fr/BRMH/133>

**LH surge**

Syn: · *ovulatory surge of luteinizing hormone*  
· *surge of LH*

Note(s): The LH surge is the most dramatic spontaneous signal emitted by the hypothalamic-pituitary system and depends on resonance between neural and ovarian oscillators. (Source : INRA)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *pic de LH*

URI: <https://opendata.inra.fr/BRMH/167>

*LH-releasing factor*

→ **GnRH**

*LHRH*

→ **GnRH**

*light-dark cycle*

→ **day-night cycle**

*long-day breeder*

→ **long-day breeding species**

**long-day breeding species**

Syn: *long-day breeder*

RT: · *melatonin*  
· *photoperiod*

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *espèce de jours longs*

URI: <https://opendata.inra.fr/BRMH/94>

*luteal regression*

→ **luteolysis**

*luteinizing hormone*

→ **LH**

*luteinizing-hormone-releasing hormone*

→ **GnRH**

**luteolysis**

Syn: · *corpus luteum regression*  
· *luteal regression*  
· *regression of the corpus luteum*

RT: *corpus luteum*

Note(s): Luteolysis or regression of the corpus luteum terminates the female reproductive cycle of many mammals. It is characterized by an initial decline of progesterone secretion. In humans, this causes the endometrial pseudodecidua to degenerate resulting in menstruation. (Source : INRA)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *lutéolyse*

URI: <https://opendata.inra.fr/BRMH/137>

# M

*male-specific chromosomal DNA fragment*

→ **Y chromosome-specific probe**

*marker gene*

→ **reporter gene**

## Maturation promoting factor

Syn: *MPF*

Note(s): Maturation-promoting factor must be activated to induce nuclear envelope breakdown, chromosome condensation and formation of the spindle apparatus. (Source : INRA)

DO: *Cellular biology*

FR: *MPF*

URI: <https://opendata.inra.fr/BRMH/149>

## meiotic maturation in vitro

Syn: *IVM*  
*In Vitro Oocyte Maturation*  
*in vitro maturation*

RT: **first polar body extrusion**

Note(s): Primary oocytes removed from antral follicles of abattoir-obtained ovaries can be induced to undergo in vitro the sequence of events found during in vivo periovulatory maturation of those oocytes in follicles selected to ovulate. Systems for in vitro maturation must ensure that the resulting oocyte has normally completed the first reduction division, is capable of undergoing normal fertilization and yields a zygote competent of developing to term after embryo transfer. (Source : INRA)

DO: *Gynecology and obstetrics*

*Reproduction biology*

*Veterinary sciences*

FR: *maturation ovocytaire in vitro*

URI: <https://opendata.inra.fr/BRMH/138>

*meiotic resumption*

→ **reinitiation of meiosis**

## melatonin

RT: *administration of melatonin by feeding*  
*long-day breeding species*  
*short-day breeding species*

Note(s): Melatonin is produced by the pineal gland only during darkness; the duration of its secretion is the main signal which mediates the stimulatory and suppressive effects of the photoperiod on reproductive activity. (Source : INRA)

DO: *Endocrinology and metabolism*

*Reproduction biology*

FR: *mélatonine*

URI: <https://opendata.inra.fr/BRMH/139>

*melatonin feeding*

→ **administration of melatonin by feeding**

*micro-assisted fertilization*

→ **assisted fertilization**

## MOET

Syn: *MOET scheme*  
*Multiple Ovulation and Embryo Transfer*

RT: **nucleus herd**

Note(s): To implement a MOET programme, the females identified as donor dams can be grouped into one herd, or they may stay dispersed in their original herds or around embryo collection and transfer centres. When they are grouped into one herd, this is described as a Nucleus MOET scheme; when dispersed, the scheme is termed a non-Nucleus. (Source : INRA)

DO: *Genetics and heredity*

*Reproduction biology*

FR: *MOET*

URI: <https://opendata.inra.fr/BRMH/146>

*MOET scheme*

→ **MOET**

## monozygous twins

Syn: *identical twins*

Note(s): The underlying mechanism for monozygous twin formation is the division of the embryo at some stage early in development. Separation of cells may theoretically occur before or after inner cell mass formation. Although totipotency of early blastomeres in many species has long been established, spontaneous separation and independent growth of these early cells before inner cell mass formation has never been observed. However, if such an event occurs in the human, the formation of separate amnions and chorions make this indistinguishable from dizygotic twinning. (Source : INRA)

DO: *Genetics and heredity*

*Reproduction biology*

FR: *jumeaux monozygotes*

URI: <https://opendata.inra.fr/BRMH/131>

## morula

Syn: *compact morula stage*  
*compacted morula stage*  
*morula stage*

RT: *compacted morula stage embryo*  
*morula-stage embryo*

Note(s): The plural form of morula is morulae. (Source : INRA)

DO: *Development biology*

*Reproduction biology*

FR: *morula*

URI: <https://opendata.inra.fr/BRMH/147>

*morula stage*

→ **morula**

## morula-stage embryo

RT: **morula**

Note(s): To multiply embryos by nuclear transfer valuable morula-stage embryos are recovered by non-surgical flush from the uterus of an inseminated cow and the individual cells or blastomeres are removed from the morula and transferred into enucleated oocytes. (Source : INRA)

DO: *Development biology*

FR: *embryon au stade morula*

URI: <https://opendata.inra.fr/BRMH/70>

## mosaic

DO: *Genetics and heredity*

*Reproduction biology*

FR: *mosaïque*

URI: <https://opendata.inra.fr/BRMH/148>

## MULTIPLE PREGNANCY

MPF

→ **Maturation promoting factor**

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*multifetal pregnancy reduction*

→ **embryo reduction**

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*multiple gestation*

→ **multiple pregnancy**

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*Multiple Ovulation and Embryo Transfer*

→ **MOET**

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### **multiple pregnancy**

*Syn:* *multiple gestation*

*RT:* **embryo reduction**

*Note(s):* The incidence of twins, triplets, and higher-order multiple gestations has increased dramatically because of widespread use of ovulation-inducing drugs and advanced assisted reproductive techniques. There is considerable perinatal/maternal morbidity and mortality associated with multifetal gestations. (Source : INRA)

*DO:* *Gynecology and obstetrics*

*FR:* ***grossesse multiple***

*URI:* <https://opendata.inra.fr/BRMH/116>

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# N

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*nidation*

→ [implantation](#)

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*nuclear replacement*

→ [nuclear transfer](#)

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*nuclear reprogramming*

→ [reprogramming of the donor nucleus](#)

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## nuclear transfer

Syn: · [nuclear replacement](#)  
· [nuclear transplantation](#)

RT: · [cloning](#)  
· [enucleated oocyte](#)  
· [recloning](#)

Note(s): Nuclear transfer, as opposed to blastomere separation and culture or embryo splitting, is the technique of choice for the production of clonally derived mammals because clone size can be unlimited given the availability of nuclear donor cells that can be propagated and maintained in vitro. Individual steps in the nuclear transfer procedure include oocyte recovery and maturation from excised ovaries, or ovarian stimulation and the recovery of MII oocytes; enucleation and preparation of the cytoplast (chromosome removal by micromanipulation); donor nucleus isolation and transfer to the cytoplast to produce an unfused pair; chemical activation of the cytoplast; electrically induced fusion of unfused pairs; embryo culture; and finally, embryo transfer to the oviduct or uterus of a synchronized recipient either with or without prior embryo cryopreservation and low-temperature storage. The oocyte must reprogram the nucleus, a task that before 1997 was thought to be impossible if the donor cell originated from a highly differentiated tissue. (Source : INRA)

DO: · [Biotechnology and applied microbiology](#)  
· [Reproduction biology](#)

FR: [transfert de noyaux](#)

URI: <https://opendata.inra.fr/BRMH/210>

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*nuclear transplantation*

→ [nuclear transfer](#)

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## nucleus herd

RT: [MOET](#)

DO: · [Genetics and heredity](#)  
· [Veterinary sciences](#)

FR: [noyau de sélection](#)

URI: <https://opendata.inra.fr/BRMH/150>

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## O

**oestrus***Syn:* estrus*RT:* insemination at detected heat*Note(s):* The term of estrus will be used to denote the period of time during which the female of most mammals will accept mating by the male. (Source : INRA)*DO:* · Endocrinology and metabolism  
· Reproduction biology*FR:* oestrus*URI:* <https://opendata.inra.fr/BRMH/152>**oestrus detection***Syn:* · detection of oestrus  
· heat detection*RT:* · artificial insemination  
· pregnancy diagnosis*Note(s):* The success of artificial insemination and embryo transfer relies on accurate heat detection. (Source : INRA)*DO:* · Endocrinology and metabolism  
· Reproduction biology  
· Veterinary sciences*FR:* détection de l'oestrus*URI:* <https://opendata.inra.fr/BRMH/53>**oestrus synchronization***Syn:* · estrus synchronization  
· synchronization of oestrus*Note(s):* For artificial insemination programs and for embryo transfer as well, effective control of estrus is essential. Usually, the objective is to have large numbers of females in estrus at the same time, hence the term estrus synchronization. (Source : INRA)*DO:* · Endocrinology and metabolism  
· Reproduction biology  
· Veterinary sciences*FR:* synchronisation des chaleurs*URI:* <https://opendata.inra.fr/BRMH/196>*offspring*

→ progeny

*oligonucleotid polymerase chain reaction*

→ PCR

**oocyte activation***Syn:* activation of the oocyte*RT:* oocyte penetration*Note(s):* Normally brought about by contact between spermatozoon and egg membrane, activation is the first stage in development and occurs independently of nuclear fusion. The net result is a block to further fusion and thus to polyspermy. In addition to the morphological changes, there are rapid changes in metabolic rate and an increase in protein synthesis from maternal mRNA. (Source : INRA)*DO:* · Development biology  
· Reproduction biology*FR:* activation de l'ovocyte*URI:* <https://opendata.inra.fr/BRMH/1>*oocyte aspiration by an ultrasonographically-guided vaginal puncture*

→ oocyte retrieval

*oocyte collection using transvaginal ultrasound-guided follicle aspiration*

→ oocyte retrieval

**oocyte donation***Note(s):* Relatively few countries have legislation addressing oocyte donation. For women with dysfunctional or no ovaries, the only way to achieve a pregnancy is through the use of a donor oocyte or embryo. (Source : INRA)*DO:* Gynecology and obstetrics*FR:* don d'ovocytes*URI:* <https://opendata.inra.fr/BRMH/57>**oocyte enucleation***RT:* enucleated oocyte*Note(s):* Metaphase II oocytes are placed in HEPES-buffered HECM-2 (hamster embryo culture medium) containing 7.5 µg/ml cytochalasin B (Sigma) and incubated in this medium for 15 min prior to the start of and during enucleation. Enucleation is accomplished by using a micropipette to remove the polar body and the surrounding cytoplasm. Oocytes are enucleated while the chromosomes are being visualized to ensure successful enucleation. This involves staining the oocyte and viewing them under ultraviolet irradiation for less than 10 sec. The oocytes that are fully enucleated are returned to culture. About 38-42 h after initiation of maturation the enucleated oocytes are activated by exposure to room temperature (23-27°C) for 3 h prior to fusion. (Source : INRA)*DO:* · Biotechnology and applied microbiology  
· Reproduction biology*FR:* énucléation d'ovocyte*URI:* <https://opendata.inra.fr/BRMH/90>*oocyte harvest*

→ oocyte retrieval

**oocyte penetration***Syn:* sperm penetration into oocytes*RT:* · fertilization  
· oocyte activation*FR:* pénétration de l'ovocyte par le spermatozoïde*URI:* <https://opendata.inra.fr/BRMH/163>**oocyte retrieval***Syn:* · OPU

· collection of oocytes employing transvaginal follicular aspiration under ultrasonographic guidance

· oocyte aspiration by an ultrasonographically-guided vaginal puncture

· oocyte collection using transvaginal ultrasound-guided follicle aspiration

· oocyte harvest

· ovum pick-up

*DO:* · Gynecology and obstetrics  
· Reproduction biology*FR:* OPU*URI:* <https://opendata.inra.fr/BRMH/154>*OPU*

→ oocyte retrieval

## out-of-season breeding

Note(s): During the last 35 years the treatments available for out-of-season breeding have not made a significant impact on British systems of lamb production in the case of progestagen - PMSG treatment - it has been largely due to an unacceptably low level of fertility following treatment during deep anoestrus. Photostimulation on the other hand results in a high level of fertility and is the only treatment which confers the advantages of oestrous cyclicity. (Source : INRA)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *désaisonnement*

URI: <https://opendata.inra.fr/BRMH/51>

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*ovulatory surge of luteinizing hormone*

→ **LH surge**

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*ovum pick-up*

→ **oocyte retrieval**

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# P

*palpation per rectum*

→ [rectal palpation](#)

*PAP*

→ [pregnancy-associated protein](#)

## parthenogenesis

*Syn:* [parthenogenetic development](#)

*RT:* [androgenetic embryo](#)  
[parthenogenetic embryo](#)

*Note(s):* Parthenogenesis is defined as reproduction without the genetic participation of the sperm. Mammalian parthenotes fail to develop to term. (Source : INRA)

*DO:* [Biotechnology and applied microbiology](#)  
[Reproduction biology](#)

*FR:* [parthénogenèse](#)

*URI:* <https://opendata.inra.fr/BRMH/161>

*parthenogenetic development*

→ [parthenogenesis](#)

## parthenogenetic embryo

*RT:* [parthenogenesis](#)

*DO:* [Development biology](#)  
[Genetics and heredity](#)

*FR:* [embryon parthénote](#)

*URI:* <https://opendata.inra.fr/BRMH/81>

## partial zona dissection

*Syn:* [PZD](#)  
[ZD](#)

[zona cutting](#)  
[zona drilling](#)

*RT:* [zona pellucida](#)

*Note(s):* Partial zona dissection, in which a fine cutting pipette is pushed through the zona pellucida and the oocyte is released from the holding pipette and rubbed against the cutting pipette until a slit is produced, was proposed as a method for increasing fertilization. On average, fertilization rates are lower after partial zona dissection (PZD) compared with zona drilling and polyspermy rates are also generally reduced. This is possibly due to the smaller breach of the zona pellucida after PZD (80 µm<sup>2</sup>) compared with that produced after zona drilling (230 µm<sup>2</sup>). These techniques demonstrated that fertilization and pregnancies could be achieved with semen of very poor quality, but successes were sporadic. (Source : INRA)

*DO:* [Gynecology and obstetrics](#)

*FR:* [ouverture de la zone pellucide](#)

*URI:* <https://opendata.inra.fr/BRMH/155>

*partner insemination*

→ [insemination with partner sperm](#)

*PB*

→ [polar body](#)

## PCR

*Syn:* [Polymerase Chain Reaction](#)  
[oligonucleotid polymerase chain reaction](#)

*Note(s):* In contrast to in situ hybridization, where signal amplification is done after hybridization, PCR exponentially amplifies a defined nucleic acid sequence. (Source : INRA)

*DO:* [Molecular biology](#)

*FR:* [PCR](#)

*URI:* <https://opendata.inra.fr/BRMH/162>

*PCT*

→ [postcoital test](#)

*period of blocked development*

→ [developmental block](#)

*period of uterine receptivity*

→ [implantation window](#)

## perivitelline space

*RT:* [subzonal insemination](#)

*FR:* [espace périvitellin](#)

*URI:* <https://opendata.inra.fr/BRMH/92>

*PGC's*

→ [primordial germ cells](#)

*PGD*

→ [preimplantation diagnosis](#)

*photoinducible phase*

→ [photosensitive state](#)

## photoperiod

*Syn:* [daylength](#)

*RT:* [long-day breeding species](#)  
[short-day breeding species](#)

*Note(s):* It has been established that the photoperiod is the main environmental cue which controls the seasonal pattern of reproductive activity in sheep and goats. Under normal seasonal fluctuation of daylength, rams exhibit significant variation in their reproductive performance. Their period of low performance coincides with deep anoestrus in ewes. (Source : INRA)

*DO:* [Endocrinology and metabolism](#)  
[Reproduction biology](#)

*FR:* [photopériode](#)

*URI:* <https://opendata.inra.fr/BRMH/166>

*photoperiod treatment*

→ [photostimulation](#)

*photoperiodic treatment*

→ [photostimulation](#)

*photorefractory period*

→ [photorefractory phase](#)



## photorefractory phase

Syn: *photorefractory period*

RT: [photosensitive state](#)

Note(s): The photorefractory period of the adult golden hamster is characterized by failure of the reproductive system to respond to short-day treatment with gonadal regression. The reproductive system of photorefractory hamsters remains functional irrespective of ambient photoperiod. Prolonged treatment with long days terminates photorefractoriness in hamsters, restoring the ability of the animal's hypothalamo-hypophysio-gonadal axis to respond to short-day lengths. (Source : INRA)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *phase photoréfractaire*

URI: <https://opendata.inra.fr/BRMH/164>

*photosensitive phase*

→ [photosensitive state](#)

## photosensitive state

Syn: · *photoinducible phase*

· *photosensitive phase*

RT: [photorefractory phase](#)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *phase photosensible*

URI: <https://opendata.inra.fr/BRMH/165>

## photostimulation

Syn: · *photoperiod treatment*  
· *photoperiodic treatment*

Note(s): Several forms of photostimulation, involving alternating sequences of long and short days, are effective in modifying the seasonal fluctuation of several parameters used to assess the reproductive capacity of rams. (Source : INRA)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *traitement photopériodique*

URI: <https://opendata.inra.fr/BRMH/202>

*plastic insemination straw*

→ [straw](#)

*PMS*

→ [PMSG](#)

## PMSG

Syn: · *PMS*  
· *eCG*  
· *equine chorionic gonadotropin*  
· *pregnant mare serum*  
· *pregnant mare serum gonadotrophin*

Note(s): -PMSG has frequently been mentioned as being unique among mammalian gonadotropins because it possesses both FSH- and LH-like bioactivities. (Source : INRA)

-Among the equids, CG (Chorionic Gonadotropin) has been identified in horses, donkeys and zebras. (...) The term "pregnant mare serum gonadotropin" (PMSG) is used to designate the CG that is present in horses. The term "equine CG", (...) strictly speaking, refers to CGs from the genus *Equus*, although it has been used for horse CG by others. (Source : INRA)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *PMSG*

URI: <https://opendata.inra.fr/BRMH/170>

## polar body

Syn: *PB*

Note(s): After ovulation or IVM, the oocyte arrests at metaphase of the second meiotic division when the first polar body (diploid) is extruded. Gamete fusion and entry of the sperm cell into the ooplasm triggers activation, characterized by the completion of the second meiotic division, the formation of a female pronucleus (haploid) and a second polar body. (Source : INRA)

DO: · *Development biology*  
· *Reproduction biology*

FR: *globule polaire*

URI: <https://opendata.inra.fr/BRMH/113>

*Polymerase Chain Reaction*

→ [PCR](#)

## polyspermy

Note(s): Sub-zonal injection of spermatozoa (SZI) has two major limitations. The first is the variable and relatively low fertilization rates that are routinely achieved, and the second is the high level of polyspermy (fertilization of the egg by two or more spermatozoa) that can result when multiple spermatozoa are injected into the perivitelline space. (Source : INRA)

DO: *Reproduction biology*

FR: *polyspermie*

URI: <https://opendata.inra.fr/BRMH/171>

## postcoital test

Syn: · *PCT*  
· *Sims-Huhner test*  
· *postcoital testing*

Note(s): The postcoital test has been introduced 100 years ago and is widely accepted. Infertility evaluation is frequently begun with PCT intended to evaluate sperm deficiencies or mucus hostility. However, although generally known and easy to perform, there is no common agreement on the standardization of the PCT. It is well known that the hormonal influence is of paramount influence. (Source : INRA)

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*

FR: *test post coïtal*

URI: <https://opendata.inra.fr/BRMH/199>

*postcoital testing*

→ [postcoital test](#)

*predetermination of the sex of embryos*

→ [embryo sexing](#)

## preembryo

RT: [embryo](#)

FR: *pré-embryon*

URI: <https://opendata.inra.fr/BRMH/172>

## pregnancy diagnosis

Syn: pregnancy test

RT: · oestrus detection  
· pregnancy-associated protein  
· pregnancy-specific protein B  
· rectal palpation

Note(s): -PMSG can be measured from 35 days of pregnancy in the mare. Less extensively used nowadays, this method was the first hormonal pregnancy diagnosis for livestock. Pregnancy specific proteins have been measured in peripheral blood. In ruminants, this PSPB (pregnancy specific protein B) can be detected after 25 days of pregnancy. (Source : INRA)

-Diagnoses is the plural form of diagnosis. (Source : INRA)

DO: · Gynecology and obstetrics  
· Reproduction biology  
· Veterinary sciences

FR: **diagnostic de gestation**

URI: <https://opendata.inra.fr/BRMH/54>

## pregnancy rate

RT: corpus luteum

Note(s): In human in-vitro fertilization (IVF) embryos are routinely transferred to the uterus on day 2 or day 3 of development. Resultant implantation and pregnancy rates are disappointingly low, with only approximately 10% of embryos transferred leading to a live birth. The ability to culture embryos to the blastocyst stage should help to resolve this problem by synchronizing the embryo with the female reproductive tract, and by identifying those embryos with little developmental potential. (Source : INRA)

DO: · Gynecology and obstetrics  
· Reproduction biology

FR: **taux de gestation**

URI: <https://opendata.inra.fr/BRMH/197>

pregnancy test

→ **pregnancy diagnosis**

## pregnancy-associated protein

Syn: PAP

RT: pregnancy diagnosis

FR: **PAP**

URI: <https://opendata.inra.fr/BRMH/160>

## pregnancy-specific protein B

Syn: PSPB

RT: pregnancy diagnosis

FR: **PSPB**

URI: <https://opendata.inra.fr/BRMH/175>

pregnant mare serum

→ **PMSG**

pregnant mare serum gonadotrophin

→ **PMSG**

## preimplantation diagnosis

Syn: · PGD

· preimplantation genetic diagnosis

Note(s): Preimplantation genetic diagnosis now represents an alternative reproductive option for parents at high risk of having offspring affected with certain genetic diseases. Progress in the past year has included increasing reliability in embryo sexing by both polymerase chain reaction and fluorescent in situ hybridization techniques. (Source : INRA)

DO: Veterinary sciences

FR: **diagnostic préimplantatoire**

URI: <https://opendata.inra.fr/BRMH/55>

preimplantation embryo

→ **preimplantation-stage embryo**

preimplantation genetic diagnosis

→ **preimplantation diagnosis**

## preimplantation-stage embryo

Syn: preimplantation embryo

RT: implantation

Note(s): [...] the adequacy of preimplantation culture conditions for any species could be determined by transferring preimplantation-stage embryos to the oviduct or uterus of the natural or a surrogate mother, with development to term as the endpoint. (Source : INRA)

DO: Development biology

FR: **embryon au stade préimplantatoire**

URI: <https://opendata.inra.fr/BRMH/72>

PRID

→ **intravaginal implant**

## primary culture

Note(s): The lamb (Dolly) born after nuclear transfer from a mammary gland cell was the first mammal to develop from a cell derived from an adult tissue. The primary culture contained mainly mammary epithelial as well as other differentiated cell types, including myoepithelial cells and fibroblasts. (Source : INRA)

DO: Molecular biology

FR: **culture primaire**

URI: <https://opendata.inra.fr/BRMH/44>

## primordial germ cells

Syn: PGC's

Note(s): The germ cells of the developing gonad are large, oval cells which possess a nucleus of very round contour. Both the nucleus and cytoplasm retain a densely granular appearance. It has been demonstrated that in vertebrate embryos the primordial germ cells originate extragonadally and lodge in the genital ridge after an extensive migratory tour. (Source : INRA)

DO: · Development biology

· Reproduction biology

FR: **cellules germinales primordiales**

URI: <https://opendata.inra.fr/BRMH/24>

## progeny

Syn: offspring

DO: Genetics and heredity

FR: **descendance**

URI: <https://opendata.inra.fr/BRMH/52>

*progestagen*

→ **progestin**

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*progesterone-releasing intravaginal device*

→ **intravaginal implant**

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### **progestin**

Syn: · *progestagen*  
· *progestogen*  
· *synthetic progestin*

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *progestatif*

URI: <https://opendata.inra.fr/BRMH/173>

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*progestogen*

→ **progestin**

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### **pronuclear stage transfer**

Syn: *PROST*

DO: *Veterinary sciences*

FR: *transfert au stade pronoyau*

URI: <https://opendata.inra.fr/BRMH/205>

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### **pronuclear stage tubal transfer**

DO: *Gynecology and obstetrics*

FR: *transfert tubaire au stade pronoyau*

URI: <https://opendata.inra.fr/BRMH/217>

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### **pronucleus**

Note(s): Decondensation of the sperm head begins 1 h after zona penetration. Male pronucleus formation occurs simultaneously with disappearance of the nuclear membrane, decondensation of the chromosomes and reformation of the pronuclear membrane from oocyte endoplasmic reticulum which is supported by action of growth factors. This coincides with decondensation of the maternal chromatin and the formation of the female pronucleus. (Source : INRA)

DO: · *Development biology*  
· *Reproduction biology*

FR: *pronucleus*

URI: <https://opendata.inra.fr/BRMH/174>

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*PROST*

→ **pronuclear stage transfer**

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*PSPB*

→ **pregnancy-specific protein B**

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*PZD*

→ **partial zona dissection**

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# Q

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## quarter embryo

RT: · [cloning](#)  
· [embryo bisection](#)

Note(s): One embryo (an excellent quality late morula) can be dissected into four equal portioned 'quarter' embryos using a simplified micromanipulation procedure. Each quarter embryo is then placed in a 0.25 ml French straw and non-surgically transplanted to four different crossbred beef recipient females. (Source : INRA)

FR: [quart d'embryon](#)

URI: <https://opendata.inra.fr/BRMH/176>

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## R

**recipient***Syn:* recipient female*RT:* surrogate mother*Note(s):* Interactions of a number of factors determine the success of surgical transfer: age and quality of embryos, site of transfer, degree of synchrony between estrus cycle of the donor and recipients, number of embryos transferred, in vitro culture conditions, skill of personnel, and management techniques. (Source : INRA)*DO:* · [Reproduction biology](#)  
· [Veterinary sciences](#)*FR:* femelle receveuse*URI:* <https://opendata.inra.fr/BRMH/104>

recipient female

→ [recipient](#)**recloning***RT:* · [cloning](#)  
· [nuclear transfer](#)*DO:* · [Biotechnology and applied microbiology](#)  
· [Reproduction biology](#)*FR:* reclonage*URI:* <https://opendata.inra.fr/BRMH/179>**recombinant retrovirus***Syn:* · [RRV](#)  
· [retroviral vector](#)*Note(s):* The recombinant retrovirus (RRV) is introduced by transfection in the transcomplementing cells. (Source : INRA)*DO:* · [Biochemistry](#)  
· [Genetics and heredity](#)  
· [Molecular biology](#)*FR:* rétrovirus recombinant*URI:* <https://opendata.inra.fr/BRMH/184>

reconstituted egg

→ [reconstructed embryo](#)**reconstructed embryo***Syn:* reconstituted egg*Note(s):* In the presence of a high level of MPF activity the transferred nucleus undergoes nuclear membrane breakdown and chromosome condensation. It has been argued that the developmental potential of reconstructed embryos depends upon the "reprogramming of gene expression" by the action of cytoplasmic factors and that this might be enhanced by the prolongation of this period of exposure. (Source : INRA)*DO:* · [Biotechnology and applied microbiology](#)  
· [Development biology](#)*FR:* embryon reconstitué*URI:* <https://opendata.inra.fr/BRMH/83>**recovered embryo***Syn:* · [collected embryo](#)  
· [harvested embryo](#)*RT:* recovery of embryos*FR:* embryon collecté*URI:* <https://opendata.inra.fr/BRMH/75>**recovery of embryos***Syn:* · [collection of embryo](#)  
· [embryo collection](#)  
· [embryo harvesting](#)  
· [embryo recovery](#)  
· [harvesting of embryos](#)*RT:* recovered embryo*Note(s):* For most applications embryos are collected sometime between fertilization and implantation, usually after migration to the uterus. Surgical recovery is the only practical means of obtaining embryos that are located in the oviduct. In cows and horses, nonsurgical collection can be repeated an unlimited number of times on an individual donor without reducing her subsequent fertility. (Source : INRA)*DO:* · [Reproduction biology](#)  
· [Veterinary sciences](#)*FR:* collecte des embryons*URI:* <https://opendata.inra.fr/BRMH/34>**rectal palpation***Syn:* palpation per rectum*RT:* pregnancy diagnosis*FR:* palpation rectale*URI:* <https://opendata.inra.fr/BRMH/159>

regression of the corpus luteum

→ [luteolysis](#)**reinitiation of meiosis***Syn:* · [meiotic resumption](#)  
· [resumption of meiotic maturation](#)*RT:* GVBD*Note(s):* The physiological trigger for meiotic resumption in the human oocyte is the surge of luteinizing hormone, but it can also occur spontaneously if oocytes are released from antral follicles and cultured in vitro. (Source : INRA)*DO:* · [Cellular biology](#)  
· [Endocrinology and metabolism](#)  
· [Reproduction biology](#)*FR:* reprise de la méiose*URI:* <https://opendata.inra.fr/BRMH/182>

replacement catheter

→ [embryo transfer gun](#)

replacement of embryo

→ [embryo transfer](#)**reporter gene***Syn:* marker gene*DO:* · [Biotechnology and applied microbiology](#)  
· [Genetics and heredity](#)*FR:* gène rapporteur*URI:* <https://opendata.inra.fr/BRMH/110>

reprogramming of gene expression

→ [reprogramming of the donor nucleus](#)

### reprogramming of the donor nucleus

Syn: · *genomic reprogramming*  
· *nuclear reprogramming*  
· *reprogramming of gene expression*  
· *reprogramming of the genome*

Note(s): Effective nuclear transfer, with development to term of the reconstituted egg, must depend on adequate functional reprogramming of the donor nucleus. Macromolecules (messenger RNAs and proteins) stored in oocytes only support mammalian development for a relatively short time (as measured by the number of cell divisions), and the shorter this period, the less time there is for reprogramming. (Source : INRA)

DO: · *Development biology*  
· *Reproduction biology*

FR: *reprogrammation nucléaire*

URI: <https://opendata.inra.fr/BRMH/183>

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*reprogramming of the genome*

→ **reprogramming of the donor nucleus**

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*resumption of meiotic maturation*

→ **reinitiation of meiosis**

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*retroviral vector*

→ **recombinant retrovirus**

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*RRV*

→ **recombinant retrovirus**

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## S

**scotophase**

Syn: · *dark phase*  
· *scotophil phase*

Note(s): It is now common ground amongst research groups in this area that the secretion of melatonin in entrained conditions and in all species studies, with the possible exception of pigs, occurs during the dark phase of the day and is positively correlated with the length of darkness in both natural and artificial light conditions. (Source : INRA)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *scotophase*  
URI: <https://opendata.inra.fr/BRMH/187>

*scotophil phase*

→ **scotophase**

**seasonal anoestrus**

FR: *anoestrus saisonnier*  
URI: <https://opendata.inra.fr/BRMH/225>

*second polar body emission*

→ **second polar body extrusion**

**second polar body extrusion**

Syn: *second polar body emission*  
DO: · *Development biology*  
· *Reproduction biology*  
FR: *expulsion du second globule polaire*  
URI: <https://opendata.inra.fr/BRMH/97>

*semen bank*

→ **sperm bank**

*semen collection*

→ **sperm recovery**

*semen sexing*

→ **sperm sorting**

**sequential medium**

RT: *culture of the embryo*  
Note(s): The plural form of medium is media. (Source : INRA)  
DO: *Biochemistry and molecular biology*  
FR: *milieu séquentiel*  
URI: <https://opendata.inra.fr/BRMH/145>

*sex determination*

→ **embryo sexing**

*Sex determining Region of the Y chromosome*

→ **SRY gene**

**sexed embryo**

Syn: *karyotyped embryo*  
RT: *embryo sexing*  
DO: · *Biotechnology and applied microbiology*  
· *Reproduction biology*  
FR: *embryon sexé*  
URI: <https://opendata.inra.fr/BRMH/84>

*sexing of embryos*

→ **embryo sexing**

*short-day breeder*

→ **short-day breeding species**

**short-day breeding species**

Syn: *short-day breeder*  
RT: · *melatonin*  
· *photoperiod*

Note(s): The sheep is generally regarded as a "short-day" breeding species for two reasons. Firstly, the annual period of reproduction begins in late summer as the daylength is becoming shorter and terminates in late winter as daylength is gradually lengthening. Secondly, under artificial photoperiodic conditions, short days can induce a period of reproduction while long days inhibit the process. (Source : INRA)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *espèce de jours courts*  
URI: <https://opendata.inra.fr/BRMH/93>

*Sims-Huhner test*

→ **postcoital test**

*single sperm intracytoplasmic injection*

→ **intracytoplasmic sperm injection**

SPA

→ **zona-free hamster ova sperm penetration assay**

**sperm and oocyte freezing**

RT: *freezing*  
FR: *congélation des spermatozoïdes et des ovocytes*  
URI: <https://opendata.inra.fr/BRMH/36>

**sperm bank**

Syn: *semen bank*  
RT: · *artificial insemination*  
· *sperm recovery*  
FR: *banque de sperme*  
URI: <https://opendata.inra.fr/BRMH/12>

## sperm capacitation

Note(s): Capacitation is defined as the series of transformations that spermatozoa normally undergo during their migration through the genital tract, in order to reach and bind the zona pellucida, undergo the acrosome reaction, and fertilize the egg. In vitro numerous capacitation systems have been used including high ionic strength media and glycosaminoglycans such as heparin and fucose sulphate, ageing, pH shift, calcium ionophores and caffeine and oviduct fluid. (Source : INRA)

DO: · [Development biology](#)  
· [Reproduction biology](#)

FR: [capacitation des spermatozoïdes](#)

URI: <https://opendata.inra.fr/BRMH/19>

*sperm collection*

→ [sperm recovery](#)

## sperm donation

DO: [Gynecology and obstetrics](#)

FR: [don de spermatozoïdes](#)

URI: <https://opendata.inra.fr/BRMH/59>

*sperm penetration assay*

→ [zona-free hamster ova sperm penetration assay](#)

*sperm penetration into oocytes*

→ [oocyte penetration](#)

## sperm recovery

Syn: · [semen collection](#)

· [sperm collection](#)

· [sperm retrieval](#)

RT: · [artificial insemination](#)

· [assisted reproductive technology](#)

· [sperm bank](#)

FR: [collecte de sperme](#)

URI: <https://opendata.inra.fr/BRMH/33>

*sperm retrieval*

→ [sperm recovery](#)

*sperm separation*

→ [sperm sorting](#)

## sperm sorting

Syn: · [flow cytometric sorting of X and Y-chromosome bearing sperm](#)

· [flow cytometric sorting of sperm](#)

· [flow cytometric sperm sorting](#)

· [semen sexing](#)

· [sperm separation](#)

Note(s): -In mammals, the only known method of reliably separating X- and Y-bearing spermatozoa in order to produce offspring of a specific sex is flow cytometric sorting. This method is based on the observation that X-chromosome bearing spermatozoa of large farm animals (i.e. cow, sheep, pig and horse) contain 3.5-4.2% more DNA than Y-bearing spermatozoa. In this method relative DNA content is determined by quantitative staining with Hoechst 33342 and DNA content is measured using a modified cell sorter. The major constraint on widespread application of this technique has been the slow sorting rate. In the case of the human, the DNA difference is around 2.8%. Fluorescence in-situ hybridization (FISH) has confirmed sorting accuracy. (Source : INRA)

-spermatozoa is the plural form of spermatozoon. (Source : INRA)

DO: · [Genetics and heredity](#)

· [Reproduction biology](#)

FR: [tri des spermatozoïdes X et Y](#)

URI: <https://opendata.inra.fr/BRMH/220>

## split embryo

Syn: [bisected embryo](#)

RT: · [cloning](#)

· [embryo bisection](#)

Note(s): Embryo splitting allows half the embryo to be karyotyped and the other half used for transfer. The pregnancy rate from split embryo is only slightly less than that for intact embryos. (Source : INRA)

DO: · [Biotechnology and applied microbiology](#)

· [Development biology](#)

FR: [embryon bisséqué](#)

URI: <https://opendata.inra.fr/BRMH/73>

SRY

→ [SRY gene](#)

## SRY gene

Syn: · [SRY](#)

· [Sex determining Region of the Y chromosome](#)

· [TDF](#)

· [testis determining factor](#)

Note(s): The development of an eutherian mammal as a male is a consequence of testis formation in the embryo, which is initiated by a gene on the Y chromosome, SRY. In the absence of this gene, ovaries are formed and female characteristics develop. Sex determination therefore hinges on the action of this testis-determining gene, known as Tdy in mice and TDF in humans. (Source : INRA)

DO: · [Genetics and heredity](#)

· [Reproduction biology](#)

FR: [gène SRY](#)

URI: <https://opendata.inra.fr/BRMH/111>

## straw

Syn: · [Cassou straw](#)

· [French straw](#)

· [plastic insemination straw](#)

Note(s): [...] if the straw in which the embryo has been frozen also contains a volume of sucrose solution, transfer can be made directly, on the farm, as simply as an artificial insemination. (Source : INRA)

DO: · [Reproduction biology](#)

· [Veterinary sciences](#)

FR: [paillette](#)

URI: <https://opendata.inra.fr/BRMH/158>



## subcutaneous implant

Note(s): Continuous release melatonin implants of several varieties, for example subcutaneous silastic sachets, intra-vaginal sponge will induce short-day effects at an appropriate time of the year in anoestrus ewes. (Source : INRA)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*  
· *Veterinary sciences*

FR: *implant sous-cutané*

URI: <https://opendata.inra.fr/BRMH/123>

*subzonal injection*

→ **subzonal insemination**

## subzonal insemination

Syn: · *SUZI*  
· *SZI*  
· *subzonal injection*  
· *subzonal insertion*  
· *subzonal sperm insertion*  
· *under zona insemination*

RT: **perivitelline space**

Note(s): Another procedure consists in a subzonal insemination (SZI): spermatozoa are aspirated in a micropipette and injected across the zona of the oocyte held by suction using a pipette ; one to ten spermatozoa are injected into the perivitelline space. Fertilization rates after SZI are similar to those using zona drilling and partial zona dissection (PZD), yet polyspermy is a particular problem with authors reporting polyspermy in excess of 30 % of the fertilized oocytes. (Source : INRA)

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*

FR: *micro-injection de spermatozoïdes sous la zone pellucide*

URI: <https://opendata.inra.fr/BRMH/141>

*subzonal insertion*

→ **subzonal insemination**

*subzonal sperm insertion*

→ **subzonal insemination**

## supernumerary embryo

FR: *embryon surnuméraire*

URI: <https://opendata.inra.fr/BRMH/85>

## superovulation

Syn: · *COH*  
· *controlled ovarian hyperstimulation*

Note(s): The increase of number of follicles growing to ovulation is obtained by gonadotropin injection during the luteal phase of the oestrous cycle (luteal regression induced by prostaglandin) in the cow or at the end of progestagen treatment in sheep and goats. In sheep and goats, the superovulation treatment can be repeated every 6 weeks. (Source : INRA)

DO: · *Endocrinology and metabolism*  
· *Reproduction biology*

FR: *superovulation*

URI: <https://opendata.inra.fr/BRMH/195>

*surge of LH*

→ **LH surge**

## surrogate mother

Syn: · *foster mother*  
· *gestational mother*

RT: **recipient**

Note(s): An ART (Assisted Reproductive technology) infant could have as many as five parents (i.e. a donor father, a donor mother, a surrogate or gestational mother, and the couple actually rearing the child. (Source : INRA)

FR: *mère porteuse*

URI: <https://opendata.inra.fr/BRMH/224>

*survival rate of embryos*

→ **embryonic survival rate**

*SUZI*

→ **subzonal insemination**

## swim up

Note(s): A swim-up procedure is often used in IVF to segregate between motile and immotile spermatozoa. [...] The ability of a spermatozoa to "swim" through a column of culture media within a given time may be indicative of its cell velocity and trajectory. (Source : INRA)

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*  
· *Veterinary sciences*

FR: *migration ascendante*

URI: <https://opendata.inra.fr/BRMH/143>

*synchronization of oestrus*

→ **oestrus synchronization**

## synchronous embryo

RT: **embryo transfer**

FR: *embryon synchrone*

URI: <https://opendata.inra.fr/BRMH/86>

## synchronous embryo transfer

Note(s): Early attempts to transfer embryos showed that more pregnancies were obtained if the donor and recipient were in oestrus at the same time (synchronous transfer). (Source : INRA)

FR: *transfert synchrone*

URI: <https://opendata.inra.fr/BRMH/215>

*synthetic progestin*

→ **progestin**

*SZI*

→ **subzonal insemination**

# T

TDF

→ [SRY gene](#)

*techniques for assisted reproduction*

→ [assisted reproductive technology](#)

*temporary host*

→ [temporary recipient animal](#)

## temporary recipient animal

Syn: · *intermediate animal*  
· *temporary host*

RT: · [culture of the embryo](#)  
· [final recipient](#)

DO: · *Reproduction biology*  
· *Veterinary sciences*

FR: [femelle receveuse intermédiaire](#)

URI: <https://opendata.inra.fr/BRMH/105>

TEST

→ [Tubal Embryo Transfer](#)

*testis determining factor*

→ [SRY gene](#)

TET

→ [Tubal Embryo Transfer](#)

## totipotency

Syn: *totipotentiality*

Note(s): Full or cellular totipotency is the ability of a cell other than an oocyte to develop into an entire offspring including the germ line. Nuclear totipotency involves the same ability in a nucleus after its transfer into an enucleated oocyte. (Source : INRA)

DO: · *Cellular biology*  
· *Development biology*

FR: [totipotence](#)

URI: <https://opendata.inra.fr/BRMH/201>

*totipotentiality*

→ [totipotency](#)

TPET

→ [Tubal Embryo Transfer](#)

*Trans-Vaginal Tubal Embryo Stage Transfer*

→ [Tubal Embryo Transfer](#)

## transcomplementing cell

Note(s): Transcomplementing cells express the proteins required for the formation of viral particles. (Source : INRA)

DO: · *Biochemistry*  
· *Molecular biology*  
· *Virology*

FR: [cellule transcomplémentante](#)

URI: <https://opendata.inra.fr/BRMH/23>

## transfection

RT: [gene transfer](#)

Note(s): Transfection is the incorporation of foreign DNA into cultured, usually eukaryotic cells by exposing them to naked DNA. (Source : INRA)

DO: *Biotechnology and applied microbiology*

FR: [transfection](#)

URI: <https://opendata.inra.fr/BRMH/203>

*transfer as fresh embryos*

→ [fresh transfer of IVF embryos](#)

*transfer of fresh embryos*

→ [fresh transfer of IVF embryos](#)

## transfer of frozen embryos

FR: [transfert d'embryons congelés](#)

URI: <https://opendata.inra.fr/BRMH/208>

## transferable embryo

Syn: *transferable quality embryo*

RT: [embryo transfer](#)

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*  
· *Veterinary sciences*

FR: [embryon transférable](#)

URI: <https://opendata.inra.fr/BRMH/87>

*transferable quality embryo*

→ [transferable embryo](#)

## transgene

Syn: *integrated exogenous gene*

RT: [gene transfer](#)

Note(s): Transgene expression has been directed towards the mammary gland in ruminants and swine for the production of pharmaceutical proteins such as human antithrombin III in goat, human lactoferrin in dairy cattle, human alpha-1 antitrypsin in sheep, or monoclonal antibodies. (Source : INRA)

DO: *Biotechnology and applied microbiology*

FR: [transgène](#)

URI: <https://opendata.inra.fr/BRMH/219>

*transgenesis*

→ [gene transfer](#)

## transgenic animal

Note(s): Transgenic animals clearly have potential applications in agriculture, biomedical research, and for the production of pharmaceuticals. The efficiency of transgenesis by pronuclear microinjection in ruminants remains low and, to date, this method allowed only the random introduction of foreign genes. The different steps in producing a transgenic animal are: - superovulation of donor animals or in vitro maturation of oocytes; - fertilization in vivo or in vitro and collection of oocytes or embryos; - microinjection of recombinant DNA into one of the pronuclei of one cell embryo or zygote; - in vitro development of embryos; - embryo transfer to recipient animals; - analysis of DNA from offspring for the presence of transgene; - mating of transgenic animals (founders) with non-transgenics to propagate the transgenic line. (Source : INRA)

DO: · *Biotechnology and applied microbiology*  
· *Genetics and heredity*

FR: *animal transgénique*

URI: <https://opendata.inra.fr/BRMH/6>

*trophectoderm*

→ [trophoblast](#)

## trophoblast

Syn: *trophectoderm*

RT: [blastocyst expansion](#)

Note(s): The mural trophoctoderm surrounds the blastocoel, and the polar trophoctoderm overlies the inner cell mass. (Source : INRA)

DO: · *Development biology*  
· *Reproduction biology*

FR: *trophoblaste*

URI: <https://opendata.inra.fr/BRMH/221>

*Tubal Embryo Stage Transfer*

→ [Tubal Embryo Transfer](#)

## Tubal Embryo Transfer

Syn: · *TEST*  
· *TET*  
· *TPET*  
· *TV-TEST*  
· *Trans-Vaginal Tubal Embryo Stage Transfer*  
· *Tubal Embryo Stage Transfer*  
· *Tubal Preembryo Transfer*

Note(s): Zygote intrafallopian transfer (ZIFT), pronuclear stage transfer (PROST) and tubal embryo transfer (TET) differ only in the stage of embryonic development in which the embryos are transferred: PROST in the pronuclear stage, ZIFT in the two-cell stage, TET beyond the two-cell stage. (Source : INRA)

DO: · *Gynecology and obstetrics*  
· *Reproduction biology*

FR: *transfert intratubaire d'embryon*

URI: <https://opendata.inra.fr/BRMH/212>

*tubal embryo transfer*

→ [tubal transfer](#)

*Tubal Preembryo Transfer*

→ [Tubal Embryo Transfer](#)

## tubal transfer

Syn: *tubal embryo transfer*

DO: *Gynecology and obstetrics*

FR: *transfert tubaire*

URI: <https://opendata.inra.fr/BRMH/216>

TV-TEST

→ [Tubal Embryo Transfer](#)

# U

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## ultrasonography

Syn: · echography  
· ultrasound exam  
· ultrasound examination  
DO: · Gynecology and obstetrics  
· Nuclear medicine  
FR: *échographie*  
URI: <https://opendata.inra.fr/BRMH/60>

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*ultrasound exam*

→ **ultrasonography**

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*ultrasound examination*

→ **ultrasonography**

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*under zona insemination*

→ **subzonal insemination**

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## uterine transfer

DO: Gynecology and obstetrics  
FR: *transfert utérin*  
URI: <https://opendata.inra.fr/BRMH/218>

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# V

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## vaginal spiral

RT: · intravaginal implant

· vaginal sponge

DO: · *Endocrinology and metabolism*

· *Reproduction biology*

FR: *spirale vaginale*

URI: <https://opendata.inra.fr/BRMH/193>

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## vaginal sponge

RT: · intravaginal implant

· vaginal spiral

FR: *éponge vaginale*

URI: <https://opendata.inra.fr/BRMH/91>

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## viable embryo

RT: freezing

FR: *embryon viable*

URI: <https://opendata.inra.fr/BRMH/88>

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## vitrification

RT: · cryoprotectant

· freezing

· vitrification freezing

Note(s): The vitrification approach eliminates the need for controlled slow freezing and the concomitant extracellular ice by producing the necessary dehydration prior to cooling. In fact, the rate of cooling for vitrification is relatively unimportant provided only that it is rapid enough to prevent crystallization. (Source : INRA)

DO: · *Gynecology and obstetrics*

· *Reproduction biology*

· *Veterinary sciences*

FR: *vitrification*

URI: <https://opendata.inra.fr/BRMH/222>

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## vitrification freezing

RT: · cryoprotectant

· freezing

· vitrification

FR: *congélation par vitrification*

URI: <https://opendata.inra.fr/BRMH/38>

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# W

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## whole embryo

Syn: *intact embryo*

RT: [embryo bisection](#)

Note(s): The limit to the number of identicals produced by splitting is maximally 4 and efficiently 2. This procedure is commonly used in the cattle embryo transfer industry and results in a pregnancy rate nearly equivalent to the whole embryo with the number of offspring nearly doubled. (Source : INRA)

DO: *Development biology*

FR: *embryon entier*

URI: <https://opendata.inra.fr/BRMH/80>

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# Y

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*Y chromosome specific DNA hybridization probe*

→ **Y chromosome-specific probe**

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## **Y chromosome-specific probe**

*Syn:*

- DNA sequence specific for the Y chromosome
- Y chromosome specific DNA hybridization probe
- Y-specific probe
- male-specific chromosomal DNA fragment

*RT:* **embryo sexing**

*Note(s):* These Y chromosome-specific probes can be used in conjunction with DNA-replicating techniques such as a polymerase chain reaction, thus decreasing the number of cells required to sex an embryo, potentially to 1 or 2 cells. (Source : INRA)

*DO:*

- Genetics and heredity
- Reproduction biology

*FR:* **sonde moléculaire spécifique du chromosome Y**

*URI:* <https://opendata.inra.fr/BRMH/189>

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*Y-specific probe*

→ **Y chromosome-specific probe**

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## Z

ZD

→ [partial zona dissection](#)

ZIFT

→ [zygote intrafallopian transfer](#)*zona cutting*→ [partial zona dissection](#)*zona drilling*→ [partial zona dissection](#)**zona pellucida**RT: [· assisted hatching](#)  
[· partial zona dissection](#)

Note(s): The human zona pellucida, a glycoprotein structure surrounding both the unfertilized oocyte and the preembryo is responsible for inducing the acrosome reaction in bound spermatozoa, affords species-specific binding of spermatozoa to the oocyte covering allowing penetration and fertilization, blocks polyspermy, mechanically prevents disruption of the oocyte or preembryo, prevents immune cell attack, and protects both the oocyte and preembryo from biochemical toxicity. Three sulphated zona proteins have been identified, ZP1, ZP2 and ZP3. (Source : INRA)

DO: [· Development biology](#)  
[· Reproduction biology](#)FR: [zone pellucide](#)URI: <https://opendata.inra.fr/BRMH/223>**zona-free hamster ova sperm penetration assay**Syn: [· HOP](#)  
[· SPA](#)  
[· hamster test](#)  
[· hamster-oocyte penetration test](#)  
[· sperm penetration assay](#)

Note(s): A negative hamster test appears to predict infertility of men with some accuracy. If spermatozoa of certain men yield less than 10% penetration rates, their chance of being fertile is very low because a) a negative result means that the spermatozoa have difficulties in becoming capacitated and acrosome-reacted and b) the spermatozoa of virtually all men of proven fertility give penetration rates higher than 10%. (Source : INRA)

DO: [· Gynecology and obstetrics](#)  
[· Reproduction biology](#)FR: [hamster test](#)URI: <https://opendata.inra.fr/BRMH/120>*zygote*→ [fertilized egg](#)**zygote intrafallopian transfer**Syn: [ZIFT](#)

Note(s): Zygote intrafallopian transfer has been developed mainly to document fertilization before transfer in patients who otherwise fulfill the criteria for GIFT. (Source : INRA)

DO: [· Gynecology and obstetrics](#)  
[· Reproduction biology](#)FR: [transfert intratubaire de zygotes](#)URI: <https://opendata.inra.fr/BRMH/213>



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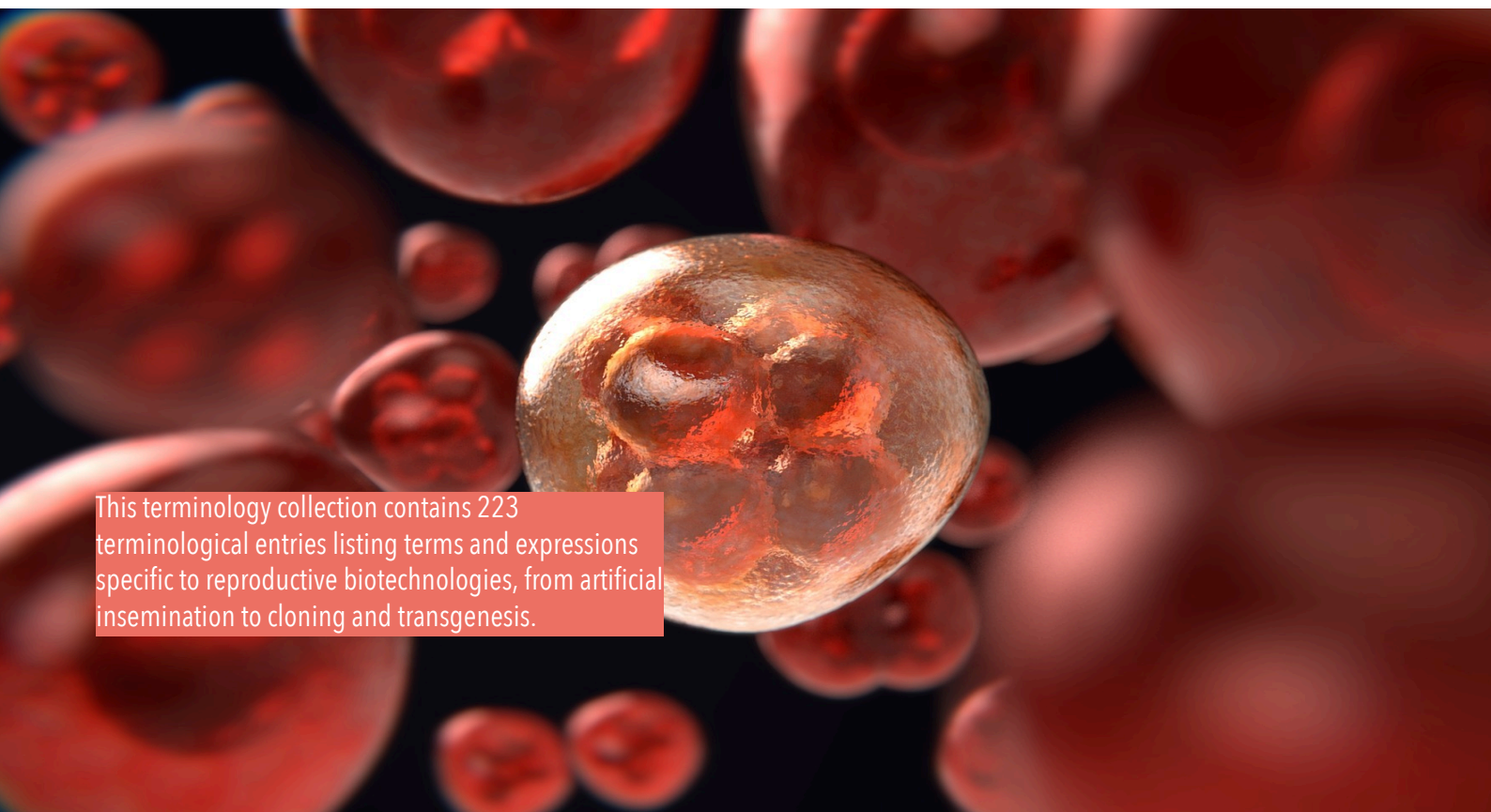
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# Reproduction biotechnologies applied to mammals and humans



This terminology collection contains 223 terminological entries listing terms and expressions specific to reproductive biotechnologies, from artificial insemination to cloning and transgenesis.

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