



Role of Embryologists in Fertility Treatment

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Specialised support

Fertility issues plague many couples in today's world. However, the good news is that there have been radical advances in fertility treatment which includes not just procedures but also specialists. While attention is naturally focused on the doctors and medical procedures involved, behind the scenes, another group of highly skilled professionals plays an equally critical role —the embryologists. These specialists work in laboratories and are responsible for handling eggs, sperm and embryos with extraordinary precision.

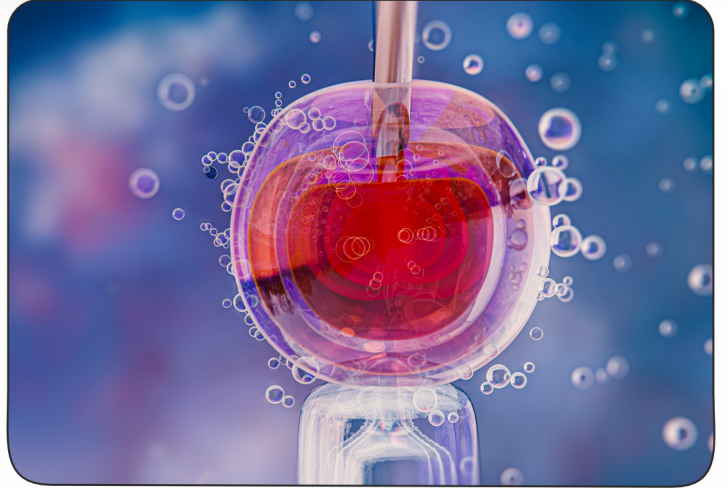
Who are embryologists?

Simply put, embryologists are trained experts in reproductive biology and laboratory science. Their work begins even before fertilisation takes place. They carefully analyse sperm samples, select the healthiest sperm and process them for use in procedures such as in vitro fertilisation (IVF) or intracytoplasmic sperm injection (ICSI). Simultaneously, they assess the eggs retrieved from the woman's ovaries to determine their maturity and quality.

How do embryologists make a difference?

What is often overlooked is that one of the most crucial moments in fertility treatment occurs in the laboratory when fertilisation is performed. During IVF, embryologists combine the egg and sperm in a controlled environment to allow fertilisation to occur naturally. In cases where sperm quality or numbers are low, they perform ICSI, a technique in which a single sperm is injected directly into an egg – a process which requires skill and extensive training.

Once fertilisation occurs, embryologists monitor the developing embryos over several days. They carefully observe how the embryos divide and grow, grading them based on their quality and developmental progress. This monitoring helps the fertility team decide which embryos are most suitable for transfer into the uterus.



Embryologists also manage the laboratory environment that embryos require for optimal growth. Factors such as temperature, humidity, light exposure and gas composition need to be carefully controlled. Even small changes in these can affect embryo development.

Another important responsibility of embryologists is embryo freezing or cryopreservation. High-quality embryos can be frozen for future use through modern freezing techniques that allow embryos to remain viable for years.

Embryologists also work closely with fertility specialists and the rest of the clinical team and contribute valuable insights about embryo development and laboratory outcomes.

It is not wrong to say that embryologists are the silent partners in fertility care. While patients may not interact with them directly, their expertise, attention to detail and dedication are vital to the success of fertility treatments.