At Hull and East Riding Fertility, we have five expert Embryologists and one Andrologist who are dedicated to their role of helping people achieve their desire of having a baby.


Christine


Laura


Caroline


Jane


Sam


Emily

The day in the life of an Embryologist

Embryology is a career based around the subject of assisted reproduction in a clinical setting, specifically providing fertility treatment within an *in vitro* fertilisation (IVF) clinic, monitored under the regulation of the Human Fertilisation and Embryology Authority (HFEA).

Clinical Embryologists are healthcare scientists working within a specialised laboratory, NHS or private, alongside doctors and nurses whilst having a great deal of patient contact, satisfying both the scientific and clinical mind. The Embryologist is ultimately responsible for IVF procedures and the monitoring and safeguarding of embryos, requiring confident clinical judgement and the ability to work in a multi-disciplinary team.

A typical day (if they exist!)

A typical day for an Embryologist begins with a full check of the laboratory conditions to make sure it is safe and ready to handle eggs, sperm and embryos. We check embryo development for those already in culture, assigning a grade and call patients to update them on the number, stage and quality of embryo

development, as well as answering any important questions they may have. If the embryos are at day five of development, the blastocyst stage, the patients will be asked to come in that day for their embryo transfer and updated if there are any embryos suitable to freeze. It feels such a privilege to be able to witness the embryo developing over a period of days from something with just one cell to over 100 cells!

Also, in the morning, we perform embryo thawing for those patients booked in for their frozen embryo transfer. This process takes around one hour whilst the embryos are taken through a series of solutions to rehydrate them, and the patients are called with an update and asked to come in for their embryo transfer.

Embryo transfer is such an exciting time for all involved, giving the patients the opportunity to see their embryo for the first time. The embryo for transfer is carefully moved using a pipette into a transfer dish, which is electronically and manually witnessed by the Embryologist and Doctor/Nurse. All dishes and tubes within the laboratory are electronically tagged to stop any potential errors. The embryo is loaded into a tiny catheter which is quickly, but carefully, placed into the uterus and a small plunger pressed to release the embryo.

Meanwhile, an Embryology colleague will be involved with the retrieval of eggs (oocytes) where ovarian follicles are drained of their fluid and eggs identified under a microscope. Simultaneously, the semen sample is prepared, or donor sperm thawed, to retrieve the most motile and morphologically normal sperm.

Insemination takes place in the afternoon either through the method of IVF or IVF with ICSI (Intracytoplasmic Sperm Injection), dependent on semen sample results and previous history. ICSI involves the injection of a single sperm into a mature egg, a highly skilled procedure, but immensely satisfying. The following day the eggs are checked for signs of normal fertilisation and the embryos formed are monitored up to day five to check for development and quality prior to selecting the best embryo for transfer into the uterus.

It can be quite busy in the laboratory as certain procedures are time critical, but we work really well as a team, and we always make time for our patients. We are more than happy to talk on the phone about any concerns or questions. All our Embryologists have side projects that run behind the scenes, from sperm donor recruitment, cryostore management, service development and quality management. We always love to hear the news of a positive pregnancy test or have a visit from a baby, reinforcing how rewarding our job is and the important work we are doing in the laboratory.

Embryologists undergo several years of specialised training to enable them to use judgement to provide clinical advice to both patients and other health care professionals and additionally participate in areas of service development and quality management.

Why choose Embryology?

Embryologists are quite often asked the question – what is that and how did you find out about it? For me however, Embryology is something that grabbed my attention right from the off with a lecture slotted into my Biomedical Sciences degree and my lucky break of being offered the only research project available to my year in the Embryology field. Trainee Embryologist positions are extremely difficult to acquire, so I decided to further my studies with a Masters in Assisted Reproduction Technology, to give me that competitive edge. The training involved Certification by the Association of Clinical Embryologists (ACE) through a split of course work, practical based monitoring and a *viva*. Followed by formulation of a portfolio to achieve registration as a Clinical Scientist with the Health and Care Professions Council. I have chosen to continue my studies with a Certification in Genomic Medicine and studying via the Royal College of Pathologists, achieving Diplomate status in Reproductive Science and close to achieving Fellowship, the highest accolade.

More information

If you are interested in further information about our Embryology Team then visit our website Embryologists Archives - Hull & East Riding Fertility (hulleastridingfertility.co.uk). Or for more information on Embryology, visit the Association of Reproductive and Clinical Scientists (ARCS) Home - Association of Reproductive and Clinical Scientists - ARCS (arcscientists.org)

Laura Mason, Deputy Lab Manager

14 March 2023