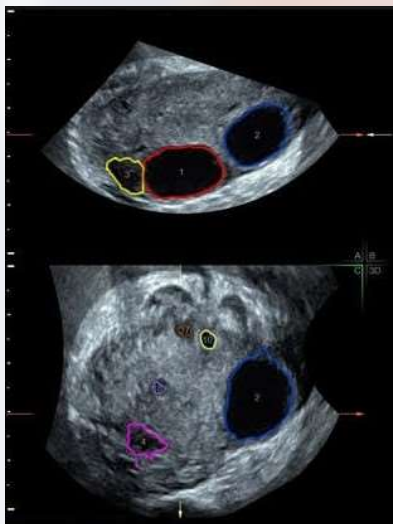


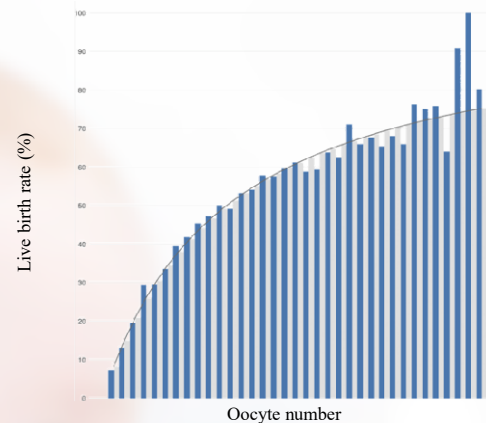
New approaches towards the use of 3D ultrasound imaging of the ovaries for the optimization of in vitro fertilization treatments - 3DfollicleAI

In women with many ovarian follicles, the precise evaluation of their number and size is critical to determine which day the triggering of final oocyte maturation will lead to a maximum number of mature oocytes, thus leading to better results following IVF.

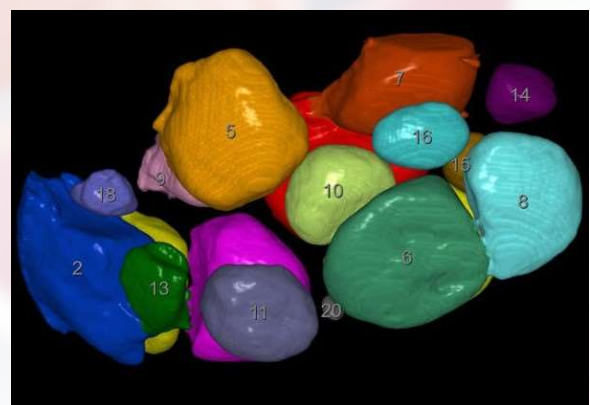


The new generation of 3D ultrasound imaging uses a system of automatic recognition and measurement of the dimensions of the follicles and provides accurate and automatic measurements of the absolute dimensions and volumes of the follicles.

Correlation of the number of eggs with the percentage of live births



The monitoring of developing follicles is traditionally performed via 2D ultrasound. It is important to have accurate measurements of the follicles, so that we can accurately determine the day of re-examination, the continuation or modification of the treatment regimen as well as the day of triggering final oocyte maturation and egg collection.



Thus, the objectives of our project are as follows: 1) Investigation of the accuracy and the advantages that the 3D method can have in relation to the classic 2D ultrasound monitoring. 2) The correlation of follicular measurements with embryological and clinical results 3) The possible change of the established and internationally accepted criteria (3 follicles with a diameter of ≥ 17 mm) used to induce the final maturation of the eggs 4) The application of machine learning techniques and artificial intelligence for the implementation of an automated referral machine