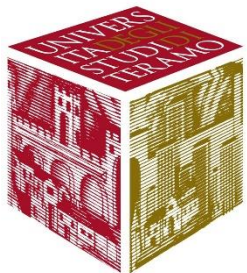




CdS in BIOTECNOLOGIE

FROM THE FUNCTION OF THE REPRODUCTIVE SYSTEM TO BIOTECHNOLOGIES



UNIVERSITÀ
DEGLI STUDI
DI **TERAMO**

Prof. Valentina Russo

Course Organization

The course is organised in:

- Theoretical Lessons
- Practical Lessons
(see schedule on e-learning platform)



<https://www.youtube.com/watch?v=NODbT6dlbLk>

Learning Objectives

At the end of the course, the student will have acquired an overview of the control mechanisms underlying the function of the female reproductive system in general, and ovarian function in particular.

Using the animal model, the student will gain skills in methodologies aimed at the isolation, handling, and evaluation of ovarian components and the female gamete, as well as the fundamental principles of IVM/IVF.

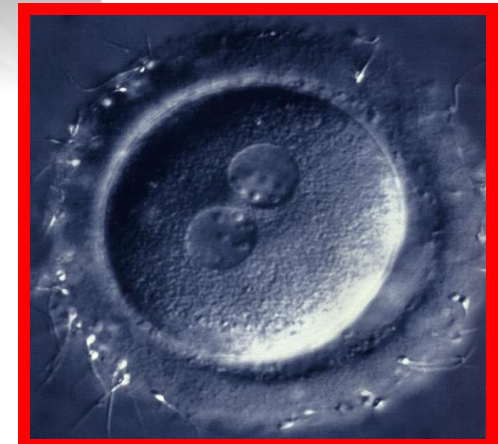
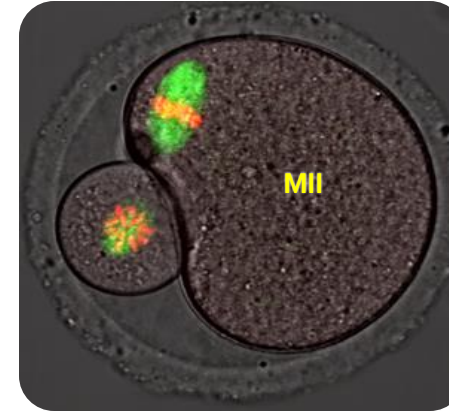
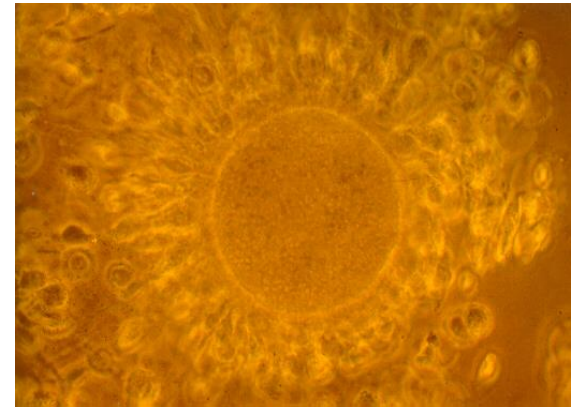
Course Description

Theoretical Course

- Structure of the female reproductive system
- Structure of the endocrine glands involved in the control of gonadal function
- Ovarian function and its neuroendocrine regulation
- Ovarian cycle, estrous cycle, and uterine cycle
- Reproductive biotechnologies applied to female reproduction

Practical-Application Course

- Microscopic morphological evaluation of the ovary
- Morphology of the reproductive system
- Isolation of ovarian follicles and quality assessment
- Recovery of cumulus–oocyte complexes and evaluation of their quality
- Isolation of oocytes
- Assessment of the meiotic stage of the oocyte
- Fundamentals of IVM/IVF



Recommended Textbook

Casa Editrice Ambrosiana

FISIOLOGIA DEGLI ANIMALI DOMESTICI

O. Sjaastad, O. Sand, K. Hove

Adaghi EY, Leung CK, The Ovary, Raven Press, New York

Supplementary Readings

Monesi V, Istologia, PICCIN, Padova.

Barone R, Anatomia comparata dei Mammiferi domestici, Vol. IV, Edagricole, Bologna.

Adaghi EY, Leung CK, The Ovary, Raven Press, New York.

Knobil E, Neill JD, Physiology of Reproduction Vol. I-II, Lippincott Williams & Wilkins; 2nd edition.

Scala C, Pasquinelli G, Cenacchi G, Microscopie in biologia e in medicina, CLUEB, Bologna

Sathananthan AH, Atlas of human cell ultrastructure, La Trobe University Press.

Examination Methods



1 Final Written Exam

... ORAL EXAM

Student Office Hours

Tuesday from 10.00 to 12.00

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