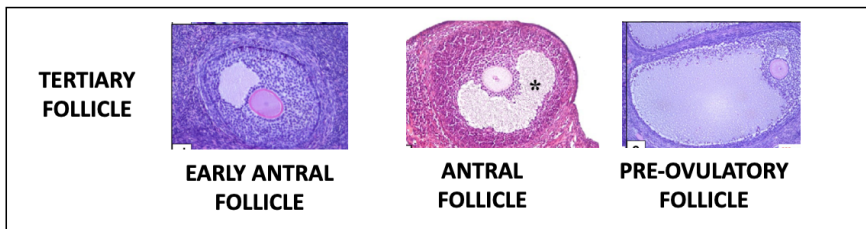
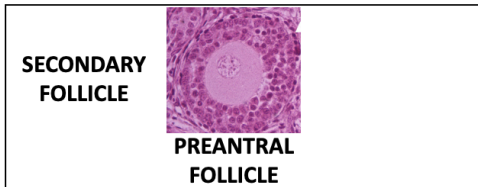
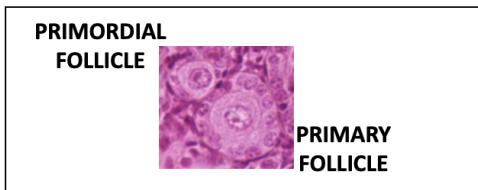


UNIT-I

Lesson works



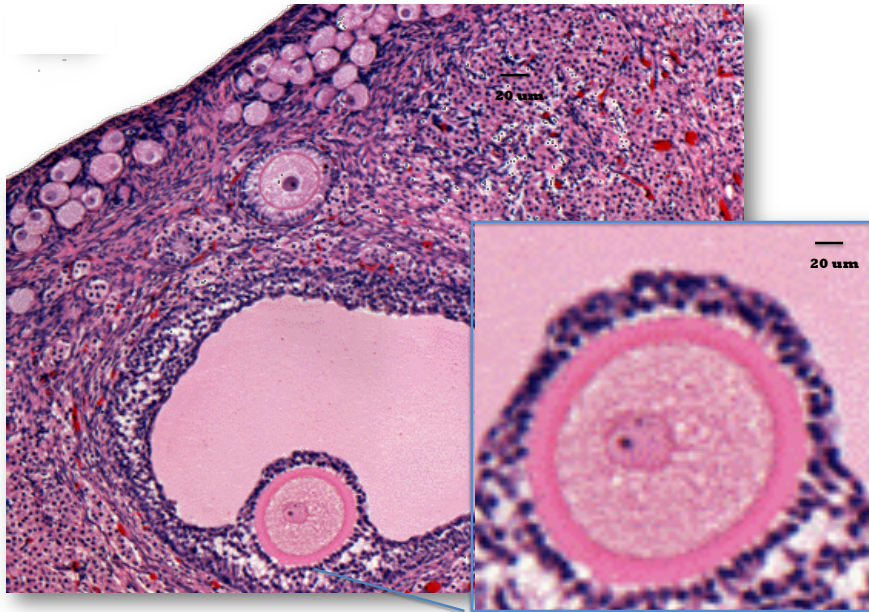
Growth Phase

For Follicle (FOLLICULOGENESIS)
For oocyte (OOGENESIS)

The oocyte, independently of the follicle in which they are enclosed and regardless of their growth stage, are arrested in PROPHASE I of meiosis.

LESSON WORK 1 UNIT 1

Group number _____ date _____



You must be aware that with the current technological advances we are able to use a very small amount of ovarian oocytes for performing the in vitro maturation (IVM) procedures.

This aspect may be appreciated by looking with attention to this ovary section. Please respond to the following questions

1. How many oocytes do you recognize into the ovary?

Indicate the relative number _____

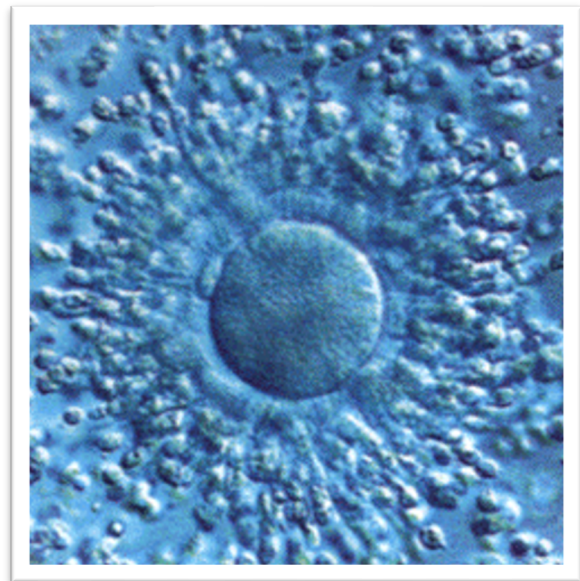
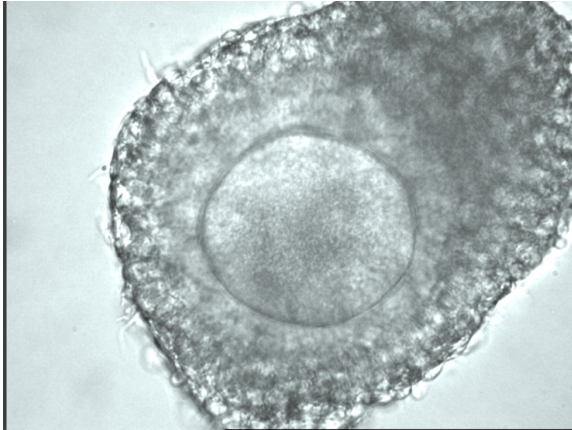
2. How many of them, in your opinion, are suitable for IVM (Please indicate them with arrows)?
3. How do you select the oocyte/s suitable for IVM? Please indicate the biological reason

How many other categories of ovarian follicles can you identify inside the present section

- 1.
- 2.
- 3.

Which are the morphological differences between the categories of oocytes inside the pictures

LESSON WORK 2 UNIT 1



Could you please indicate the major differences between these two cumulus oocyte complexes?

LEFT OOCYTE

1. With a red pen outlines the oocytes
2. With a black/blue pen outlines the other structures

3. Briefly described the cumulus cells

Number of layers

Overall aspect

Right oocyte

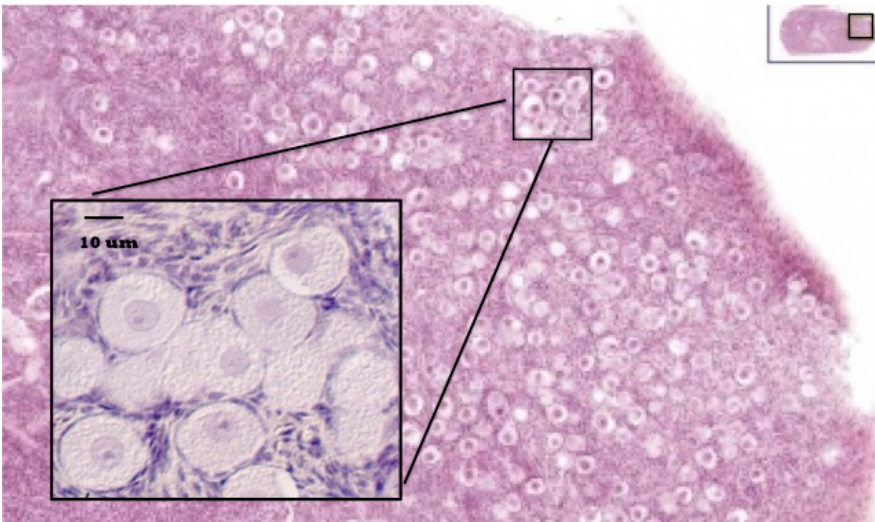
1. With a red pen outlines the oocytes
2. With a black/blue pen outlines the other structures

3. Briefly described the cumulus cells

Number of layers

Overall aspect

LESSON WORK 3 UNIT 1



1. Could you indicate with red and black arrows the cytoplasm and the nuclei, respectively, of these oocytes enclosed into a foetal ovary?
2. Could you describe the nuclear stage characterizing these oocytes?

LESSON WORK 4 UNIT 1



A OVARY FROM PIG (a pluri ovulatory specie)

Is it from a pre-pubertal o pubertal animal?

Distinguish the follicular structures present in this ovary.

Might this ovary be used to perform IVM?

Explain why?

LESSON WORK 5 UNIT 1

1. When the LH surge occurs in the estral cycle?
 - Pro-estro
 - Estro
 - Diestro
 - Anestro
2. When the LH surge occurs in the menstrual cycle?
 - Prior ovulation
 - During luteal phase
 - During follicular phase

NOTES:

ANIMALS (Estral cycle)

PRO-ESTRO

ESTRO (from LH surge to the release of the oocyte)

DIESTRO

ANESTRO nonbreeding season or period of rest in the female mammal

WOMAN (Menstrual cycle)

follicular phase

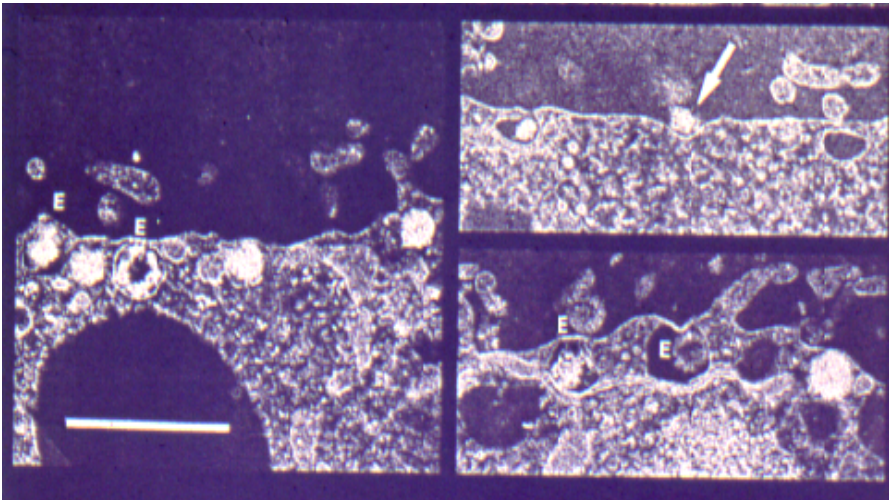
ovulation

luteal phase

LESSON WORK 6 UNIT 1

Group number _____

Premature cortical granules case



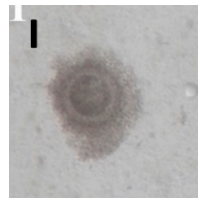
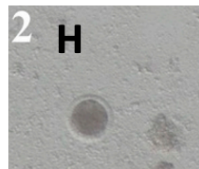
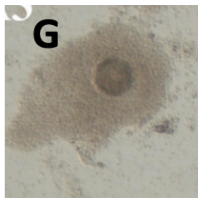
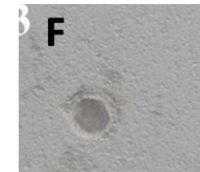
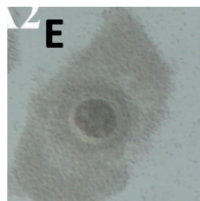
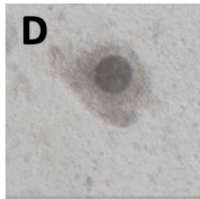
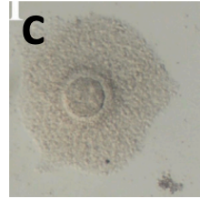
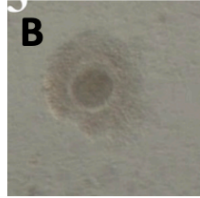
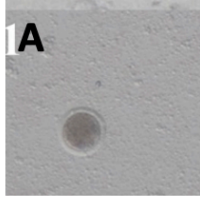
Premise

The pictures displayed mature oocytes that have undergone cortical granules exocytosis as a consequence of their cryopreservation

Question

1. Could you explain which may be the consequence of that?
2. How can you overcome this problem in order to still use these oocytes in assisted reproductive technologies?

Time to assess your grasp



Assign a score to the COCs:

- GOOD QUALITY
- MEDIUM QUALITY
- POOR QUALITY

Motivate your choice:

Good quality why

.....

Medium quality why

.....

Poor quality why

.....