Level: master

Course title: REPRODUCTIVE ENDOCRINOLOGY

Status: obligatory

ECTS: 5

Requirements: -

Learning objectives

The learning objective is to obtain knowledge on complex and interrelated mechanisms of reproductive function control, on potentially negative effects of stress and endocrine disruting chemicals (EDCs) on reproductive function.

Learning outcomes

Upon successful completion of pre-examination and examination tasks, the students should: master the knowledge on control mechanisms of reproductive function; understand protocols of ovarian stimulation; be introduced to potentially negative effects of stress and EDCs; follow and understand the results and directions of current research in this field.

Syllabus

Theoretical instruction

Regulation of the activity of GnRH-neurons and hypophyseal gonadotropes. Prolactin and reproduction. Endocrine regulation of spermatogenesis. Testicular endocrine activity, regulation of Leydig cell activity. Endocrine ovarian function, steroid-producing cells, control of folliculogenesis and ovulation. Neuroendocrine control of menstrual cycle. Control of GnRH neuron activities and onsent of puberty.

Fertilisation, implantation mechanisms and placenta formation. Endocrinology of pregnancy. Hormone control of labour, lactation, maternal behaviour. Stress and reproduction. EDCs and possible mechanisms of action on reproductive function.

Practical instruction

Student research: experimental model – primary cultures of granulose cells; examination of gene expression and production of steroid hormones under different experimental conditions; keeping laboratory diaries.

Weekly teaching load

Weekly teaching load				Other: -
Lectures: 2	Exercises:	Other forms of teaching:-	Student research: 3	
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