

Study Programme: Veterinary Medicine			
Course Unit Title: Morphodynamic of stem cell development, their characteristics and importance in veterinary medicine			
Course Unit Code: 3DVM3I35			
Name of Lecturer(s): Gordana M. Ušćebrka, PhD, Full Professor; Slobodan Z. Stojanović, PhD, Associate Professor			
Type and Level of Studies: Doctoral Academic Studies			
Course Status (compulsory/elective): Elective			
Semester (winter/summer): Winter			
Language of instruction: English			
Mode of course unit delivery (face-to-face/distance learning): Face-to-face			
Number of ECTS Allocated: 8			
Prerequisites: Scientific research methods, Biostatistics, Courses of elective blocks 1, 2			
Course Aims: Introducing stem cell morphology, characteristics of their development, significance and applications in veterinary medicine.			
Learning Outcomes: Students will acquire the knowledge necessary for further education in the field of morphology; also will gain insight into pluripotency of stem cells and their wide range of applications in veterinary medicine.			
Syllabus: <i>Theory</i> Basic morphological characteristics of stem cells, morphological characteristics of embryonic stem cells, morphological characteristics of adult stem cells, stem cell pluripotency, applicability of stem cells, the role of stem cells in tissue regeneration and repair <i>Practice</i> Introduce students to modern methods of detection of stem cells with special reference to the possibility of using stem cells in tissue regeneration treatments, as well as introducing to methods of quantification of the results.			
Required Reading: 1. Петренко, А.Ю., Хунов, Ю.А., Иванов, З.Н. (2011) Стволовые клетки. Луганск „Пресс-экспресс“. 2. Sadler, T.W. (1996) Langmanova medicinska embriologija. Školska knjiga, Zagreb. 3. Eurell, J.A., Frappier, B.L. (2006) Dellmann's Textbook of Veterinary Histology. Blackwell Publishing. London. 4. Bellairs, R., Osmond, M. (1998). The atlas of chick development. Academic Press. London. 5. Selected papers related to course			
Weekly Contact Hours: 8	Lectures: 4	Practical work: 4	
Teaching Methods: The method of oral presentation and discussion. Method of presentations, demonstrations, simulations and illustrations on the board and the application of computers with using the appropriate software. Practical laboratory student works with independent student work on a research microscope.			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
student activity	5	Making of complete scientific work	25
seminar – practical part	20	Oral presentation scientific work results	30
seminar – presenting of results	20		