



Pomeranian Medical University in Szczecin

SYLLABUS of the STEM CELLS IN DENTISTRY General Information

Module title: Stem cells in dentistry	
Module type	Facultative
Faculty PMU	Faculty of Medicine and Dentistry
Major	Dentistry
Level of study	long-cycle (S2J)
Mode of study	full-time studies
Year of studies, semester	Year II, semester I
ECTS credits (incl. semester breakdown)	2
Type/s of training	lectures (25h)
Form of assessment*	<input checked="" type="checkbox"/> graded assessment: <ul style="list-style-type: none"> <input type="checkbox"/> descriptive <input checked="" type="checkbox"/> test <input type="checkbox"/> practical <input type="checkbox"/> oral <input type="checkbox"/> non-graded assessment <input type="checkbox"/> final examination <ul style="list-style-type: none"> <input type="checkbox"/> descriptive <input type="checkbox"/> test <input type="checkbox"/> practical <input type="checkbox"/> oral
Head of the Department/ Clinic, Unit	Dr hab. n. med. Katarzyna Grocholewicz
Tutor responsible for the module	Dr n. med. Alicja Zawislak alicja.zawislak@pum.edu.pl
Department's/ Clinic's/ Unit's website	Department of Interdisciplinary Dentistry www.pum.edu.pl
Language	English

* replace ☐ into ☒ where applicable

Detailed information

Module objectives		The main didactic objective of "Stem cells in dentistry" is gaining knowledge of basic molecular biology in the context of usage in dentistry, and development of skills based on connection between basic sciences and clinical practice.
Prerequisite /essential requirements	Knowledge	Basic knowledge of biological processes in the human body. Knowledge of the morphology and physiology of the oral cavity.
	Skills	-
	Competences	Has a habit of self-education, understands the necessity of lifelong learning.

Description of the learning outcomes for the subject /module

No. of learning outcome	Student, who has passed the (subject) knows /is able to /can:	SYMBOL (referring the standards)	Method of verification of learning outcomes*
W01	knows and understands human body structures: cells, tissues and systems with particular regard to stomatognathic system	A.W1	ET
W02	knows and understands structure and functions of significant chemical compounds found in human body. In particular properties, functions, metabolism and energy aspects of proteins, nucleic acids, carbohydrates, lipids, enzymes and hormones reactions	B.W4	ET
W03	knows and understands issues of genetics and molecular biology	B.W17	ET
W04	knows and understands concepts of health and disease, mechanisms of developing disease on molecular, cellular, tissular and systemic level, clinical symptoms of disease, prognosis and its complications	C.W13	ET
W05	knows and understands symptoms, course and treatment methods of specified diseases of oral cavity, head and neck with regard to age groups	F.W4	ET

Table presenting LEARNING OUTCOMES in relation to the form of classes								
No. of learning outcome	Learning outcomes	Type of training						
		Lecture	Seminar	Practical	Clinical classes	Simulations	E-learning	Other...
W01	knows and understands human body structures: cells, tissues and systems with particular regard to stomatognathic system	X						
W02	knows and understands structure and functions of significant chemical compounds found in human body. In particular properties, functions, metabolism and energy aspects of proteins, nucleic acids, carbohydrates, lipids, enzymes and hormones reactions	X						
W03	knows and understands issues of genetics and molecular biology	X						
W04	knows and understands concepts of health and disease, mechanisms of developing disease on molecular, cellular, tissular and systemic level, clinical symptoms of disease, prognosis and its complications	X						
W05	knows and understands symptoms, course and treatment methods of specified diseases of oral cavity, head and neck with regard to age groups	X						

Table presenting TEACHING PROGRAMME			
No. of a teaching programme	Teaching programme	No. of hours	References to learning outcomes
Winter semester			
Lectures			
TK01	Molecular dentistry – a promising area of dentistry	2	W01, W03, W04
TK02	Head and oral cavity development including molecular aspects	2	W01, W03
TK03	Orofacial birth defects Part I	2	W01, W04, W05
TK04	Orofacial birth defects Part II	2	W01, W04, W05
TK05	Syndromic congenital anomalies Part I	2	W01, W04, W05
TK06	Syndromic congenital anomalies Part II	2	W01, W04, W05
TK07	Genetic dental anomalies and masticatory organ disorders	2	W01, W04
TK08	Stem cells and their sources in the human body	2	W01, W02, W03
TK09	Stem cells in the oral cavity Part I	2	W01, W02, W03
TK10	Stem cells in the oral cavity Part II	2	W01, W02, W03

TK11	Biomaterials used in the formation of tissue scaffolds. Stem cell banking.	2	W01,W03
TK12	Regenerative medicine in endodontics, dental and maxillofacial surgery	2	W03,W04,W05
TK13	Repetition. Final test.	1	W01,W02,W03, W04,W05

Booklist

Obligatory literature:

1. „Dental Stem Cells: Regenerative Potential” Zavan Barbara; Birkhauser 2016

2. „Stem Cells & Dentistry” Mohammed Faraz; Lambert 2012

Student's workload

Form of student's activity (in-class participation; activeness, produce a report, etc.)	Student's workload [h]
	Tutor
Contact hours with the tutor	25
Time spent on preparation to seminars/ practical classess	0
Time spent on reading recommended literature	5
Time spent on writing report/making project	0
Time spent on preparing to colloquium/ entry test	3
Time spent on preparing to exam	0
Other	0
Student's workload in total	33
ECTS credits for the subject (in total)	2
Remarks	

* Selected examples of methods of assessment:

EP – written examination

EU – oral examination

ET – test examination

EPR – practical examination

K – colloquium

R – report

S – practical skills assessment

RZC – practical classes report, incl. discussion on results

O – student's active participation and attitude assessment

SL – lab report

SP – case study

PS - assessment of student's ability to work independently

W – entry test

PM – multimedial presentation

other...