

### PROMISE 2021

### Personalised medicine

Target students: 3rd - 5th year students of health sciences

Teaching language: English

**Teaching team:** Sandra Kostić, Sven Maričić, Branka Bernard, Dunja Glavaš, Kristian Vlahoviček, Juan Antonio Ruiz Santiesteban, Igor Štagljar, Miroslav Radman, Maria Llerena, Marin Viđak, Ana Marušić,

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**Student workload:** 50 – 60 hours

Estimated workload for PROMISE Personalised Medicine module (total 58:28:33)						
	Week 1	Week 2	Week 3	Week 4	Final Week	DESCRIPTION
COMPULSORY VIDEOS						
Number of compulsory videos	6	13	10	2	0	
Duration of compulsory videos (min)	0:53:24	1:29:18	1:04:22	0:35:47	0:00:00	
Workload for compulsory videos (min)	2:40:12	4:27:54	3:13:06	1:47:21	0:00:00	1 min video = 3 min workload
COMPULSORY READING MATERIALS						
Number of compulsory reading materials	7	8	7	4	0	
Number of pages of compulsory reading materials (page)	36	29	44	25	0	
Workload for compulsory reading materials (page)	6:00:00	4:50:00	7:20:00	4:10:00	0:00:00	1 page text = 10 min workload
ASSIGNMENTS						
Workload for quiz (min)	1:00:00	1:00:00	1:00:00	1:00:00	2:00:00	
Workload for individual assignment (min)	1:00:00	1:00:00	1:00:00	4:00:00	3:00:00	
Workload for group assignment (min)	0:00:00	0:00:00	0:00:00	0:00:00	8:00:00	
Workload for transversal activity (min)	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	
TOTAL WORKLOAD (min)	10:40:12	11:17:54	12:33:06	10:57:21	13:00:00	2 ECTS = 60 h workload

# Brief description of the course

Personalized Medicine Module is the first among the four online modules covering personalized, participatory, preventive, and predictive medicine, each module presenting the topic considering responsible research and innovation principles. In this first module we present how individually tailored treatments help achieve more favourable outcomes and better quality of life for the patients. The personalized medicine module is aimed at young future researchers and health care professionals, who want to learn the merits, methods and applications of rapidly evolving personalized medicine approaches and the concepts of responsible research and innovation. The topics are presented by a number of researchers in the field, which will introduce the students to the ecosystem of personalized medicine.

### **Contents**

Introduction to P4 Medicine

Introduction to Responsible Research and Innovation

Tissue Engineering and Personalized Medicine

In silico clinical trials

Biomarkers for personalized medicine

Personalized medicine in neurodegeneration



### Precision medicine in cancer treatment

### **Teaching methodology**

Pedagogical videos, expert videos, written material complementing the video topics, links to selected materials existing online, selected scientific publications. During the time of the course, students can ask questions via forum to the course moderators. Course moderators monitor student work and support the students if needed.

#### Assessment

<u>Weekly quizzes (weeks 1-4):</u> There's a quiz student need to take each week after finish studying all the required materials. Students need to have 60% correct answers to pass, and they need to pass all the weekly quizzes to qualify for the PROMISE badge. Weekly quizzes will earn students 40% of total points.

<u>Final quiz (final week):</u> In the last week of the module, students are expected to solve the final quiz which will test their understanding of all topics covered during the module. Students need 60% to pass, and the pass earns 10% of the total points.

# Individual assignment: Glossary (weeks 1-4)

For each topic, students must create at least two glossary entries describing a concept covered in the required materials. Students can modify and add to the glossary during the whole course. This activity can earn you 15% of student's final points.

## Individual assignment: Essay (week 4)

Students need to write one short essay (approximately one page, font size 12) for this module. Also, students must review two of the colleagues' essays. Finally, students can rewrite the essay according to the received comments. This helps students to expand their understanding of the topics and see how others approach the problems in question. Students are provided with writing and reviewing instructions. For this activity students earn up to 20% of your total points - 10% for original submission, 5% for the effort and skills as a reviewer, and 5% for the corrected version of your essay.

# Group assignment (final week)

During the final week, students are expected to collaborate with fellow learners in creating a brochure addressing a health-related issue. Each group will have a group forum for debating the topic, agreeing on the approach, and organizing the work, and a shared document for their project. Successful completion of this assignment depends not only on the finished product of the group's work, but also on student's personal participation during planning and realization of the project (which will be visible from your activity on the forum). This activity can earn 15% of the total points - 10% for individual contribution to the group's work as visible from the forum, and 5% for the final group submission.