



GEMSTONE

University of Ljubljana
Faculty of Pharmacy



Funded by the Horizon 2020 Framework Programme
of the European Union

Gemstone Training School 2022

“Osteoblast cell models and functional evaluation of GWAS hits”

Ljubljana, 15.-17.9.2022

Location: University of Ljubljana, Faculty of Pharmacy, Tržaška 32, 1000 Ljubljana, Slovenia

Title of lecture/practical

Lecturer/Trainer

Day 1, 15. 9. 2022

9:15-10 h	Introduction	David Karasik, Bar Ilan University, Israel; Janja Marc, University of Ljubljana
10-10:45 h	Prioritization of GWAS hits	Sjur Reppe, Oslo University Hospital, Norway
10:45-11 h	<i>Coffee break</i>	
11-11:45 h	Functional In-silico Assessment of Genomic regions identified by GWAS	Fernando Rivadeneira, Erasmus MC, Netherlands
11:45-12:30 h	The versatility of osteoblasts	Bram van der Eerden, Erasmus MC, Netherlands
	<i>Lunch break</i>	
14-16:30 h	Practical 1: Prioritization of GWAS, eQTL	Tilen Kranjc, TK Science, Slovenia

16:30 – 22 h	<i>Social event: Trip to Piran</i>	
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Day 2, 16. 9. 2022

9:15-10 h	GWAS technology	Janja Marc, University of Ljubljana, Slovenia
10-10:45 h	Bone cell differentiation	Juliane Salbach-Hirsch, University Clinics Carl Gustav Carus Dresden, Germany
10:45-11 h	<i>Coffee break</i>	
11-11:45h h	Scientific and regulatory aspects of cell and tissue engineering in development of advanced therapy medicinal products (ATMPs).	Matjaž Jeras, University of Ljubljana, Slovenia
11:45-12:30 h	Approaches to function analyses (Gene overexpression, Gene knock-out with CRISPR/Cas9 technology)	Nika Lovšin, University of Ljubljana, Slovenia
	<i>Lunch break</i>	
14-17h	Practical 2: Cell culturing, Cell transfection	Taja Zore, Lucija Ana Vrščaj, Nika Lovšin, Lara Smrdel (University of Ljubljana, Slovenia)
	<i>Social event: Walk around Ljubljana and Visit of Castle</i>	

Day 3, 17. 9. 2022

9:15-10 h	Read-out methods for functional characterization (qPCR, Western blot, ELISA, Alizarin Red S staining, ALP assay)	Barbara Ostanek, University of Ljubljana, Slovenia
10-10:45 h	Mouse models for skeletal disease	Eleni Douni, Agricultural University of Athens, Greece
10:45-11 h	<i>Coffee break</i>	
11-11:45h h	Functional evaluation of non-coding RNAs	Maria Ines Almeida, University of Porto, Portugal

11:45-12:30 h	In vitro models of bone cell and vascular biology	Terhi Heino, University of Turku, Finland
<i>Lunch break</i>		
14-17 h	Osteoblast assays: Alizarin staining, ALP assay	Taja Zore, Lucija Ana Vrščaj, Nika Lovšin, University of Ljubljana