Faculty of Biotechnology and Drug Development		
Name and Surname	**Organizational Unit**	**Keywords connected to research interests**
Antonija Jurak Begonja	Laboratory for haematopoiesis	Cell biology, platelets, blood, megakaryocytes, phosphoinositides
Duško Čakara	Centre for Micro- and Nanosciences and Technologies / Laboratory for Colloids, Polyelectrolytes and Interfaces (LCPI)	Physical chemistry, colloids, surfaces, spectroscopy, electrochemistry
Igor Jurak	Laboratory for Molecular Virology	ADAR1, HSV-1, miRNAs, RNA-editing, novel drugs
Nela Malatesti	Medicinal chemistry in photodynamic therapy	Porphyrin, photodynamic therapy, anticancer activity, singlet oxygen

SCIENTIFIC SUPERVISOR	
Name and Surname	Professor Antonija Jurak Begonja
UNIRI Faculty	Faculty of Biotechnology and Drug Development
Organisational Unit / Research Group	Laboratory for haematopoiesis
Research Team (Members)	Antonija Jurak Begonja, PhD, principal investigator Markus Bender, PhD (University Hospital Wuerzburg, Germany), collaborator Antonella de Matteis, PhD (Tigem institute; Italy), collaborator Steve Watson, PhD (University of Birmingham, UK), collaborator
Research Interests	Bleeding tendencies can result from thrombocytopenia or platelet dysfunction. Chemoradiotherapy causes prolonged life-threatening thrombocytopenias, and the only therapy is transfusion of platelets. Therefore, better knowledge of mechanisms governing platelet biology may improve treatments for abnormal platelet counts or function. Platelets are the smallest blood cells that derive from megakaryocytes in the bone marrow. Focus of our research group is how small lipid molecules, phosphoinositides (PIs), contribute to development of megakaryocytes and regulate platelet activity. We have recently discovered involvement of specific type of PIs in ribosome biology that contributes to cell survival and differentiation.
Key words (max. 5) connected to your research interests:	Cell biology, platelets, blood, megakaryocytes, phosphoinositides
EU-funded project experience	Marie Curie FP7-PEOPLE-2011-COFUND (principal investigator) H2020-MSCA-ITN-2017, “Targeting Platelet Adhesion Receptors in Thrombosis” (collaborator)
Scientific panel	Life Sciences
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SCIENTIFIC SUPERVISOR	
Name and Surname	Research Associate Professor Duško Čakara
UNIRI Faculty	Faculty of Biotechnology and Drug Development
Organisational Unit / Research Group	Centre for Micro- and Nanosciences and Technologies / Laboratory for Colloids, Polyelectrolytes and Interfaces (LCPI)
Research Team	Laboratory for Colloids, Polyelectrolytes and Interfaces (LCPI)
Research Interests	Clearly articulate the research interests emphasising specific topics offered to MSCA postdocs (max 500 characters).
Keywords (max. 5) connected to your research interests	Physical chemistry, colloids, surfaces, spectroscopy, electrochemistry
EU-funded project experience	2024– present: HORIZON-EIC-2023-PATHFINDEROPEN-01 - ICONIC (project number 101129638), principal investigator 2013 – 2017: FP7-PEOPLE-2013-ITN Marie Curie ITN Organic Bioelectronics (ORGBIO, project number 607896), principal investigator, work package leader
Scientific panel	Chemistry
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SCIENTIFIC SUPERVISOR	
Name and Surname	Professor Igor Jurak
UNIRI Faculty	Faculty of Biotechnology and Drug Development
Organisational Unit / Research Group	Laboratory for Molecular Virology
Research Team	Igor Jurak, PhD, principal investigator Oliver Vugrek, PhD (Inst. Ruđer Bošković, Laboratory for Advance Genomics; Zagre, HR), collaborator Mary O'Connell, PhD (CEITEC, Brno, CZ), collaborator Donald M. Coen, PhD (Harvard Medical School, USA), collaborator
Research Interests	Herpes simplex virus 1 (HSV-1) is an important human pathogen that usually causes self-limiting disease, but in rare cases can also lead to severe morbidity and death. HSV-1 belongs to the herpesviruses, large dsDNA viruses characterized by a biphasic replication cycle (productive and latent phase). We have recently discovered a specific post-transcriptional modification (A-to-I editing) of HSV-1 miRNAs that may have an important function in viral replication. Our main interest is to investigate the role of editing proteins in both productive and latent infection.
Keywords (max. 5) connected to your research interests	ADAR1, HSV-1, miRNAs, RNA-editing, novel drugs
EU-funded project experience	FP7-PEOPLE-CIG-2013
Scientific panel	Life Sciences
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SCIENTIFIC SUPERVISOR	
Name and Surname	Full professor, dr. sc. Nela Malatesti
UNIRI Faculty	Faculty of Biotechnology and Drug Development
Organisational Unit / Research Group	Medicinal chemistry / PDT group
Research Team	Professors: Dr. Nela Malatesti, Dr. Ivana Ratkaj and Dr. Milan Mesić. Doctoral student Martina Mušković.
Research Interests	Synthesis, characterisation and biological activity evaluation of new amphiphilic porphyrin-based photosensitisers (PSs) for anticancer photodynamic therapy. Studies of the influence of hydrophobic and ionic groups on the PS's aggregation properties, production of singlet oxygen (and other reactive oxygen species), selectivity between cancer (melanoma) and normal cells, entry and localization in the cell, and the overall PDT effect. Important PDT parameters such as the influence of different wavelengths, light and PDT dose, and PS incubation time are also studied.
Keywords (max. 5) connected to your research interests	Porphyrin, photodynamic therapy, anticancer activity, singlet oxygen
EU-funded project experience	Member of two projects funded by the European Social Fund (ESF): HR.3.1.15-0044 and UP.03.1.1.02.0019. Part of the group for implementation of the project "Research Infrastructure for Campus-based Laboratories at the University of Rijeka", financed by European Regional Development Fund (ERDF).
Scientific panel	Chemistry
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