

[Faculty of Biotechnology and Drug Development](#)

<b>Name and Surname</b>	<b>Organizational Unit</b>	<b>Keywords connected to research interests</b>
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

<b>SCIENTIFIC SUPERVISOR</b>	
<b>Name and Surname</b>	Professor Antonija Jurak Begonja
<b>UNIRI Faculty</b>	<a href="#">Faculty of Biotechnology and Drug Development</a>
<b>Organisational Unit / Research Group</b>	Laboratory for haematopoiesis
<b>Research Team (Members)</b>	<a href="#">Antonija Jurak Begonja</a> , PhD, principal investigator <a href="#">Markus Bender</a> , PhD (University Hospital Wuerzburg, Germany), collaborator <a href="#">Antonella de Matteis</a> , PhD (Tigem institute; Italy), collaborator <a href="#">Steve Watson</a> , PhD (University of Birmingham, UK), collaborator
<b>Research Interests</b>	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.
<b>Key words (max. 5) connected to your research interests:</b>	Cell biology, platelets, blood, megakaryocytes, phosphoinositides
<b>EU-funded project experience</b>	Marie Curie FP7-PEOPLE-2011-COFUND (principal investigator) H2020-MSCA-ITN-2017, “Targeting Platelet Adhesion Receptors in Thrombosis” (collaborator)
<b>Scientific panel</b>	Life Sciences
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<b>SCIENTIFIC SUPERVISOR</b>	
<b>Name and Surname</b>	Research Associate Professor Duško Čakara
<b>UNIRI Faculty</b>	<a href="#">Faculty of Biotechnology and Drug Development</a>
<b>Organisational Unit / Research Group</b>	Centre for Micro- and Nanosciences and Technologies / Laboratory for Colloids, Polyelectrolytes and Interfaces (LCPI)
<b>Research Team</b>	Laboratory for Colloids, Polyelectrolytes and Interfaces (LCPI)
<b>Research Interests</b>	Clearly articulate the research interests emphasising specific topics offered to MSCA postdocs (max 500 characters).
<b>Keywords (max. 5) connected to your research interests</b>	Physical chemistry, colloids, surfaces, spectroscopy, electrochemistry
<b>EU-funded project experience</b>	<p>2024– present: HORIZON-EIC-2023-PATHFINDEROPEN-01 - ICONIC (project number 101129638), principal investigator</p> <p>2013 – 2017: FP7-PEOPLE-2013-ITN Marie Curie ITN Organic Bioelectronics (ORGBIO, project number 607896), principal investigator, work package leader</p>
<b>Scientific panel</b>	Chemistry
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<b>SCIENTIFIC SUPERVISOR</b>	
<b>Name and Surname</b>	Professor Igor Jurak
<b>UNIRI Faculty</b>	<a href="#">Faculty of Biotechnology and Drug Development</a>
<b>Organisational Unit / Research Group</b>	Laboratory for Molecular Virology
<b>Research Team</b>	<a href="#">Igor Jurak</a> , PhD, principal investigator <a href="#">Oliver Vugrek</a> , PhD (Inst. Ruđer Bošković, Laboratory for Advance Genomics; Zagre, HR), collaborator <a href="#">Mary O'Connell</a> , PhD (CEITEC, Brno, CZ), collaborator <a href="#">Donald M. Coen, PhD</a> (Harvard Medical School, USA), collaborator
<b>Research Interests</b>	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.
<b>Keywords (max. 5) connected to your research interests</b>	ADAR1, HSV-1, miRNAs, RNA-editing, novel drugs
<b>EU-funded project experience</b>	FP7-PEOPLE-CIG-2013
<b>Scientific panel</b>	Life Sciences
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<b>SCIENTIFIC SUPERVISOR</b>	
<b>Name and Surname</b>	Full professor, dr. sc. Nela Malatesti
<b>UNIRI Faculty</b>	<a href="#">Faculty of Biotechnology and Drug Development</a>
<b>Organisational Unit / Research Group</b>	Medicinal chemistry / PDT group
<b>Research Team</b>	Professors: <a href="#">Dr. Nela Malatesti</a> , <a href="#">Dr. Ivana Ratkaj</a> and <a href="#">Dr. Milan Mesić</a> . Doctoral student <a href="#">Martina Mušković</a> .
<b>Research Interests</b>	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.
<b>Keywords (max. 5) connected to your research interests</b>	Porphyrin, photodynamic therapy, anticancer activity, singlet oxygen
<b>EU-funded project experience</b>	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).
<b>Scientific panel</b>	Chemistry
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