



„Science and us”

2nd Biomedicine and Health PhD Students Congress
University of Rijeka, Faculty of Medicine,
16 - 18 May 2024, Rijeka, Croatia

Book of Abstracts



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IMPRESSUM

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CREDITS FOR PARTICIPANTS:

Croatian Medical Chamber gives:

20 points for active participants | 12 points for passive participants

Croatian Healthcare Professionals Chambers gives:

12 points for active participants | 8 points for passive participants

Dear participants,

It is our great pleasure to welcome you to the “*Science and Us*”, 2nd Biomedicine and Healthcare Congress for PhD students at the Faculty of Medicine University of Rijeka.

Our vision was to create a congress suitable for PhD students in which you will enrich your knowledge through a creatively designed three-day program, expand your scientific perspectives, gain experience in presenting your data in a stress-free environment, and achieve new collaborations and friendships.

We would like to express our sincere gratitude to all the PhD students and participants who have recognized our efforts and shown a keen interest in attending our congress. We are thrilled to have received over 130 applications from nine different countries. Furthermore, we would like to extend our heartfelt thanks to our invited lecturers and other presenters for taking the time to come to Rijeka and generously share their knowledge and engage with PhD students.

We would like to express our gratitude to the Faculty of Medicine for their tremendous support in organizing this congress. In particular, we want to thank the Dean, Professor Goran Hauser, the members of the Scientific Committee led by Professor Marina Šantić, Mrs. Evgenia Arh, Mrs. Mamaja Jančić, Mrs. Darjana Nadarević and all other administrative staff members who contributed to the success of this event.

We would also like to thank the sponsors for recognizing and backing this important event. Without your help, we could not have organized this event at such a high level.

We hope that this congress will catalyze further exploration, collaborations, and discoveries.

Enjoy the congress and your stay in our beautiful Rijeka.

Once again, welcome to “*Science and Us*” and thank you for being part of this!

Warm regards,

Organizing committee of “*Science and Us*” congress

DAY 1 - Thursday – May 16th 2024	
11.00 – 12.00 Main Hall	Registration and Welcome Reception
12.00 – 12.20 Lecture room 2	Opening Ceremony Goran Hauser, MD, PhD, Dean of the Faculty of Medicine, Rijeka Marina Šantić, PhD, Vice Dean for Scientific Research Fran Krstanović, President of the Congress
12.20 – 13.10 Lecture room 2	Keynote lecture: Eric Cascales, Institute of Microbiology of the Mediterranean, Marseille, France <i>“Architecture, Biogenesis and Mechanism of Action of a Bacterial Speargun: The Type VI Secretion System”</i>
13.10 – 14.45 Lecture room 2	Topic 1. Health and Environmental Engineering Chair: Darija Vukić Lušić, Darja Puškadija 
13.10 – 13.45	Invited lecture 1: Mojca Korošec, University of Ljubljana, Ljubljana, Slovenia <i>“Honey properties through our senses: sensory analysis in honey quality control”</i>
13.45 – 14.00	Mateo Jakac , University of Rijeka, Rijeka, Croatia <i>“Phenolic characterization and biological effect of ethanol propolis extract under in vitro conditions”</i>
14.00 – 14.15	Tasneem S. Abu Ghazal , University of Szeged, Szeged, Hungary <i>“Synergistic Effects of Some Natural Phenylpropanoids and Flavonoids with Commercial Antibiotics”</i>
14.15 – 14.30	Orinamhe Godwin Agbadua , University of Szeged, Szeged, Hungary <i>“Exploring the Scavengome of Resveratrol: A Performance-Based Diversity-Oriented Drug Discovery Approach”</i>
14.30 – 14.45	Neven Sučić , University of Rijeka, Rijeka, Croatia <i>“Implementing new technologies for Environmental Legionella identification”</i>
14.45 – 15.45 Main Hall	Lunch break
15.45 – 17.00 Lecture room 2	Workshop 1: Ani Gerbin <i>“Grant writing”</i>
17.00 – 17.35 Lecture room 2	Topic 2. Public Health (Part 1) Chair: Lovorka Bilajac, Matea Bilobrck 
17.00 – 17.35	Invited lecture 2: Tamara Alhambra Borrás, Polibienestar Research Institute, Valencia, Spain <i>“Urban Public Health: current research”</i>
17.35 – 19.00 Main Hall	Poster Session 1 with snacks and drinks (Biomedicine)
21- end	Party: The Beertija

DAY 2 - Friday – May 17 th 2024		
10.00 – 11.00 Lecture room 2	Topic 2. Public Health (Part 2) Chair: Lovorka Bilajac, Matea Bilobrk	
10.00 – 10.15	Matea Bilobrk , University of Rijeka, Rijeka, Croatia <i>“The gap between awareness of dyslipidemia and its prevalence”</i>	
10.15 – 10.30	Saša Kugler , University of Ljubljana, Ljubljana, Slovenia <i>“Knowledge, attitudes and behaviours related to salt intake in adult population of Slovenia”</i>	
10.30 – 10.45	Jasmina Hasanović , University of Zagreb, Zagreb, Croatia <i>“Exploring the Relationship Between Socioeconomic Status Indicators and Low Fruit and Vegetable Consumption in Children with Obesity: Insights from the Childhood Obesity Surveillance Initiative in Croatia (CroCOSI)”</i>	
10.45 – 11.00	Ivana Todorović , University of Banja Luka, Banja Luka, Bosnia and Herzegovina <i>“Prevalence of Cigarette Smoking and Influence of Associated Factors among Students of the University of Banja Luka: A Cross-Sectional Study”</i>	
11.00 – 11.35 Lecture room 2	Topic 3. Dental Medicine Chair: Stjepan Špalj, Dubravka Karner	
11.00 – 11.35	Invited lecture 3: Martina Drevenšek , University of Ljubljana, Ljubljana, Slovenia <i>“Research methods on alveolar bone remodeling”</i>	
11.35 – 12.35 Lecture room 2	Workshop 2: Jelena Kalinić <i>“How to communicate scientific discoveries with the public?”</i>	
12.35-12.40	Group photo in front of the Faculty building	
12.40 – 13.05	Coffee break	
13.05 – 13.15	Dario Lečić , Croatian Science Foundation <i>“Presentation of the Croatian Science Foundation”</i>	
13.15 – 13.30	Antonija Jurak Begonja , University of Rijeka, Rijeka, Croatia <i>“Presentation of the Croatian Society of Biochemistry and Molecular Biology”</i>	
13.30 – 17.35 Lecture room 2	Topic 4. Clinical Medicine Chair: Marko Klarić, Milena Šestić	
13.30 – 14.05	Invited lecture 4: Maja Pakiž , University Medical Center Maribor, Maribor, Slovenia <i>“The ESGO protocol of developing international guidelines”</i>	
14.05 – 15.05 Main Hall	Lunch break	

15.05 – 15.20	Gabrijela Sopta Primorac , University of Rijeka, Rijeka, Croatia <i>“The role of direct cytological smear of the endometry in the diagnosis of ovarian cancer - case report”</i>
15.20 – 15.35	Edi Muhaxhiri , University of Ljubljana, Ljubljana, Slovenia <i>“Laparoscopic removal of a large hydatid cyst in the left ovarian fossa: A case report”</i>
15.35 – 15.50	Antun Lončarić , University of Rijeka, Rijeka, Croatia <i>“GLA-rich protein as a marker of vascular calcification in chronic kidney disease”</i>
15.50 – 16.05	Matej Bura , University of Rijeka, Rijeka, Croatia <i>“Segmental lung lecruitment in patients with bilateral COVID-19 pneumonia complicated by acute respiratory distress syndrome”</i>
16.05 – 16.20	Maja Ploh , University of Rijeka, Rijeka, Croatia <i>“Changes in cognitive function in patients with lymphoproliferative diseases during cranial and extracranial radiotherapy – a pilot study”</i>
16.20 – 16.35	Silvija Miletić Gršković , University of Rijeka, Rijeka, Croatia <i>“The effect of Klotho protein on vascular calcifications in patients with spondyloarthritis”</i>
16.35 – 16.50	Ana Brajdić Šćulac , University of Rijeka, Rijeka, Croatia <i>“Effects of 21 day altitude training camp in elite swimmers on lung diffusing capacity for carbon monoxide (DLCO)”</i>
16.50 – 17.05	Marko Kosić , University of Rijeka, Rijeka, Croatia <i>“Adding kinesitherapy to a standard rehabilitation for low back pain”</i>
17.05 – 17.20	Luka Laura , University of Mostar, Mostar, Bosnia and Herzegovina <i>“Microbiological and epidemiological characteristics of brucellosis in Bosnia and Herzegovina”</i>
17.20 – 17.35	Marija Jeremić , University of Belgrade, Belgrade, Serbia <i>“How ORPHEUS labeling promotes improving the organization and outcomes of the PhD studies: A case study at the Faculty of Medicine, University of Belgrade”</i>
17.35 – 19.00 Main Hall	Poster Session 2 with snacks and drinks <i>(Health and Environmental Engineering, Public Health, Dental Medicine, Clinical Medicine)</i>

DAY 3 - Saturday – May 18th 2024	
9.00 – 12.35 Lecture room 2	Topic 5. Biomedicine Chair: <i>Vanda Juranić Lisnić, Jelena Materljan</i>
9.00 – 9.35	Invited lecture 5: Luka Čičin – Šain , Helmholtz Centre for Infection Research, Braunschweig, Germany <i>“Antiviral immunity in the context of vaccination and infections”</i>
9.35 – 9.50	Andrea Mihalić , University of Rijeka, Rijeka, Croatia <i>“Microglia adapt to latent cytomegalovirus infection to provide superior control of reactivating virus”</i>
9.50 – 10.05	Lucija Šakota , University of Rijeka, Rijeka, Croatia <i>“The role of kynurenine pathway and sting in a mouse model of congenital cytomegalovirus infection”</i>
10.05 – 10.20	Josip Peradinović , University of Rijeka, Rijeka, Croatia <i>“Immunity in optineurin insufficiency mouse model during aging: From the central nervous system to the periphery”</i>
10.20 – 10.35	Ena Bellulovich , University of Rijeka, Rijeka, Croatia <i>“Exploring Nectin-2 as potential checkpoint target in glioblastoma multiforme”</i>
10.35 – 10.50	Siniša Zrna , University of Rijeka, Rijeka, Croatia <i>“SOD1 is associated with extracellular vesicles in cerebrospinal fluid from patients with severe traumatic brain injury”</i>
10.50 – 11.20	Coffee break
11.20 – 11.35	Leticia Hudcová , Comenius University, Bratislava, Slovakia <i>“The impact of LL37 on NETs: increasing resistance, enhancing immunogenicity, and potentiating the vicious cycle”</i>
11.35 – 11.50	Sara Aničić , University of Zagreb, Zagreb, Croatia <i>“Inhibitory effect of Notch signaling pathway on osteoclastogenesis in patients with rheumatoid arthritis”</i>
11.50 – 12.05	Lydia Gačina , University of Rijeka, Rijeka, Croatia <i>“Immunobiology of cytomegalovirus expressing the NKG2D ligand H60a”</i>
12.05 – 12.20	Doris Brkić , University of Zagreb, Zagreb, Croatia <i>“Utilizing machine learning models to predict COVID-19 symptom severity based on host genetic predisposition”</i>
12.20 – 12.35	Vukan Ivanović , University of Belgrade, Belgrade, Serbia <i>“Analysis of trends in honoring the most successful PhD theses at the Faculty of Medicine, University of Belgrade, since the introduction of the honoring practice”</i>
12.35 – 13.00 Main Hall	Award ceremony and closing remarks

Keynote lecture
Invited Lectures
Workshop
Special Guests

Keynote lecture:



dr.sc. Eric Cascales,

Institute of Microbiology of the Mediterranean, Marseille, France

“Architecture, Biogenesis and Mechanism of Action of a Bacterial Speargun: The Type VI Secretion System”

The type VI secretion system (T6SS) delivers protein effectors to diverse cell types including prokaryotic and eukaryotic cells, therefore participating to inter-bacterial competition and pathogenesis. The T6SS is comprised of an envelope-spanning complex anchoring a cytoplasmic tubular edifice. This tubular structure is evolutionarily, functionally and structurally related to the tail of contractile phages. It is composed of an inner tube tipped by a spike complex and engulfed within a sheath-like structure. This structure assembles onto a platform called “baseplate” that is recruited and anchored to the membrane complex. The T6SS functions as a nano-speargun: upon sheath contraction, the inner tube is propelled into the target cell, allowing the delivery of highly potent toxins. I will describe the architecture, the biogenesis and the mode of action of this fascinating secretion machine, and will present the activity and mechanism of delivery of selected toxins.

HEALTH AND ENVIRONMENTAL ENGINEERING - Invited lecture:



dr. sc. Mojca Korošec,

University of Ljubljana, Ljubljana, Slovenia



“Honey properties through our senses: sensory analysis in honey quality control”

Sensory analysis is a vital component of honey quality control, providing valuable insights into the properties of this natural sweetener. Through the senses of sight, smell, taste, and feel, we can evaluate various aspects of honey, including colour, odour, flavour, and texture. This presentation aims to examine the importance of sensory analysis in assessing honey quality and how it can impact consumer preferences and purchasing decisions.

The colour of honey can vary widely, from light golden to dark amber, and is indicative of its botanical and geographical origins. Odour plays a crucial role in honey perception, with floral, fruity, woody, or earthy notes contributing to its overall sensory profile. The flavour of honey, influenced by its botanical sources, can range from delicate and floral to warm

and chemical, offering a diverse sensory experience to consumers. Furthermore, the texture of honey, whether creamy, crystallized, or runny, adds another dimension to its sensory characteristics.

Understanding the sensory properties of honey is pivotal for quality control and product positioning. By conducting sensory analysis with a panel of experts, producers can ensure consistency in their honey products and identify any off-flavours or odours that may indicate spoilage, contamination or adulteration. Moreover, sensory evaluation allows for the identification of unique flavour profiles that can differentiate a honey product in the market, appealing to different consumer preferences.

In conclusion, sensory analysis is a valuable tool for assessing the quality of honey, providing valuable information about its colour, odour, flavour, and texture. By leveraging sensory evaluation, producers can enhance product quality, differentiate their offerings, and meet the diverse preferences of consumers. The presentation underscores the significance of sensory analysis in honey quality control and its implications for the honey industry.

PUBLIC HEALTH - Invited lecture:



dr.sc. Tamara Alhambra Borrás,

Polibienestar Research Institute, Valencia, Spain



“Urban Public Health: current research”

Research in the field of public health is dynamic, continuously addressing a myriad of challenges and opportunities aimed at enhancing the health and well-being of populations. One emerging area of focus within this discipline is urban public health.

Urban public health is related to the health and well-being of populations living in urban areas. In particular, our research line in this area focuses on urban design and health equity, as urban planning and design play crucial roles in shaping health outcomes, especially among vulnerable populations.

Previous research findings from our projects (Cancerless, ValueCare, UHCE, Effichronic) showed that understanding and addressing health disparities rooted in social determinants such as income, housing, access to social and health services, are crucial for grasping public health issues and effectively resolving them.

Our latest research direction in urban public health (HORUS) is oriented towards reshaping urban health habits and lifestyles with the objective of making cities serve as positive influencers on people’s health outcomes.

DENTAL MEDICINE - Invited lecture :



dr.sc. Martina Drevenšek, dr. dent. med.

University of Ljubljana, Ljubljana, Slovenia



“Research methods on alveolar bone remodeling”

Bone modeling and remodeling are essential processes that are activated throughout life and are regulated by various factors that ensure functional bone adaptation. Responses to load are influenced by numerous factors such as the magnitude, direction, and duration of force, alongside local and systemic conditions. These conditions encompass individual physiological differences, pharmacological interventions, and the presence of systemic diseases.

Force-induced strains on teeth during orthodontic treatment modify the vascularity and blood flow within the periodontal ligament, prompting the local synthesis and release of key molecular mediators including neurotransmitters, cytokines, growth factors, colony-stimulating factors, and arachidonic acid metabolites. These mediators facilitate diverse cellular responses by various cell types in and around the teeth, thus creating a conducive microenvironment for either tissue apposition or resorption.

The biological mechanisms underlying bone modeling and remodeling can be explored through various research models. In vitro models (such as different cell cultures), analytical models, and in vivo models (including human and animal subjects) are commonly used. Among animal models, the rat model is frequently employed due to its ability to meet essential criteria, such as constant force magnitude and direction, and precise measurement technique.

The lecture will focus on the application of the rat model in the study of bone modeling and remodeling. It will cover various methodologies including biochemical assays, histomorphometry, pharmacological techniques, and the analysis of serum samples. The results of our own research, the problems that researchers encounter and how they can be solved will be presented.

CLINICAL MEDICINE - Invited lecture:**dr.sc. Maja Pakiž, dr. med.**

University Medical Center Maribor, Maribor, Slovenia

*“The ESGO protocol of developing international guidelines”*

The field of medicine has been changing from eminence-based medicine to evidence-based medicine. Management of patients according to latest scientific evidence and guidelines is associated with highest possible quality of care. However, there are published worldwide estimations that about 30 to 40 % of patients receive treatment that is not based on scientific evidence and about 20 to 25 % of patients receive treatment that is either not needed or potentially harmful. That is why in new era scientists do not only try to develop evidence-based guidelines, but also to try to develop efficient tools for implementation of guidelines into everyday practice.

According to implementation science the most important step in raising quality of patients' care is how the guidelines are developed. The guidelines should be developed in transparent way, should be based on scientific evidence, they should sound realistic and plausible, the guidelines should have broad support within specialty. The guidelines should also be published in open access way so that they are easily accessed by all and should be actively disseminated in educational events. The guidelines should also be “user friendly”, may be associated with applications for smart phones or decision support systems. One of the biggest barriers for efficient implementation of guidelines in everyday practice are guideline-related barriers – for instance, guidelines are not based on evidence, they are not accessible, they are very complex, with no clear interventional goals, they are not applicable or feasible in everyday practice.

ESGO is European Society for Gynecologic Oncology. It is dedicated to improvement of care of women with gynecologic cancers, through prevention, research, excellence in care and education. One of its aim is to harmonize cancer care among all European centers and countries. One of the ways how to do it is to develop guidelines for specific cancer populations, if possible, together with sister societies (for instance European Society for medical oncology (ESMO), ESHRE, ESGE, etc). The major strengths of ESGO guidelines development are transparency, broad inclusion of different specialists and sister societies, systematic independent literature review by a dedicated methodologist, formulation of applicable recommendations with level of agreement, external review process with integration of comments from external review into the final product. With this kind of

procedure ESGO guidelines became the most used guidelines in Europe for management of patients with gynecologic cancers.

For implementation of guidelines into everyday clinical practice, besides having evidence-based guidelines developed in transparent way, additional tools are needed that motivate physicians to change their habits and behavior (to overcome so called personal barriers). This could be done in different ways. One of them is a prospective clinical audit. It means, that hospitals or departments prospectively measure outcomes of clinical care. For instance, they measure number and type of complications after treatment, re-admissions to hospital after treatment, etc. To measure clinical outcomes development of quality indicators is crucial. For instance, quality indicator may be that after surgery for endometrial cancer there should be less than 2% of major complications. Quality indicators may be related also to process, for instance; how many patients were operated by dedicated gynecologic oncology surgeon (and not by general gynecologists). Sticking to quality indicators encourage physicians to implement evidence-based treatment to their patients. Further, developed guidelines and quality indicators may help authorities who are responsible for organization of health care (ministry of health, managements of the hospitals, etc). ESGO is also active in developing quality indicators and links quality indicators fulfillment to accreditation process. The presentation at “Science and us” in Rijeka will show more practical aspects of these important procedures.

The knowledge about process and science behind guideline development and their implementation strategies to everyday clinical practice is therefore important for all dedicated to health care (to individual physicians and to all included in organization of health care).

BIOMEDICINE - Invited lecture:



dr.sc. Luka Čičin - Šain

Helmholtz Centre for Infection Research, Braunschweig, Germany



“Antiviral immunity in the context of vaccination and infections”

With the introduction of vaccines into the regular calendar of pediatric care, numerous infections have been all but extinguished, and only occur exceptionally. However, other infection threats persist, and strategies that have worked against measles, mumps, or hepatitis B have not been adequate to develop vaccines against mononucleosis, HIV, hepatitis C, or a universal flu vaccine.

The problem is partly caused by the rapid evolution of RNA viruses, which makes it easier for them to escape antigenic recognition. In addition, some viruses evade antibodies by spreading directly from cell to cell within the organism, without creating infectious particles in the extracellular space. Finally, numerous viruses have developed immune evasins – genes that disable the functions of the immune system, and thus the antiviral effect of vaccines. These restrictions partially overlap among viruses, but are also partially species-specific. Therefore, it is clear that the development of future vaccines cannot depend on only one strategy, but on numerous concepts that take into account the particularities of the pathogen in the interaction with immune cells in order to optimize immune recognition and memory in a targeted manner.

This lecture will provide a brief overview of several major unsolved problems and contemporary approaches in modern vaccinology, as well as the results of preclinical studies that point to possible solutions.

WORKSHOP 1:



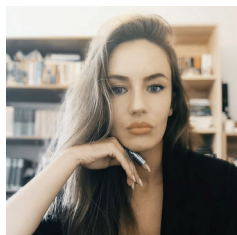
dr.sc. Ani Gerbin

8AM Innovation, Rijeka, Croatia

“Grant writing”

Funding is a vital part of conducting biomedical research and innovation projects. The workshop will equip the participants with basic knowledge on how to navigate numerous opportunities for project financing with EU and international funds and programmes and how to prepare a competitive project proposal that helps solve fundamental and practical problems in the health domain. Using real project cases, the workshop will provide an overview of the most important challenges, tips and tricks in research management.

WORKSHOP 2:



Jelena Kalinić, mag. biol.

Vicepresident at CSO “Science and the world”

“Science Unplugged: how to communicate scientific discoveries with Public”

Join us in exploring the vital nexus of science communication and healthcare at our lecture tailored for students. Discover why effective science communication is paramount in combating health misinformation, empowering us as experts to engage and inform. Learn how leveraging social media can amplify our impact, ensuring accurate health information reaches those who need it most. Don’t miss out on shaping the future of healthcare communication!”

SPECIAL GUESTS:

Dr.Sc. Dario Lečić

Croatian Science Foundation

“Presentation of the Croatian Science Foundation”

Dr.Sc. Antonija Jurak Begonja

University of Rijeka, Rijeka, Croatia

“Presentation of the Croatian Society of Biochemistry and Molecular Biology”

POSTERS

Health and Environmental Engineering



- **Anđela V. Dragičević, Jelena S. Matejić, Marija T. Kostov, Dragana R. Pavlović:** *Phenolic constituents, antioxidant and anti-inflammatory properties of black goji berry ethanol extracts*
- **Tarik Hasibović:** *Influence of psychoactive substances (pas) on the behavior of mentally ill persons-pilot study*
- **Darja Puškadija, Maja Cvek, Mateo Jakac, Dijana Tomić Linšak, Dražen Lušić, Marina Šantić:** *The role of the geographic information system in the public health sector*

Public Health



- **Marin Bajek, Irena Tabain, Branko Kolarić:** *Non-Polio Enteroviruses Characteristics in Croatia 2010-2019*
- **Jovana Bajkanović, Vesna Vujasinović, Ivana Radosavljević:** *Familiarity of adolescents with the principles of balanced diet*
- **Anđela Bojanić, Aneta Stojmenovski, Mirjana Đermanović, Ljubica Bojanić:** *Observational analysis of outpatient consumption of oral antihyperglycemic agents during the period from 2020 to 2022*
- **Luis I. Brusco, Natividad Olivar, Fernando Carbonetti, Carlos Gomez-Restrepo, Francisco Diez-Canseco, Stefan Priebe:** *Risk and protective factors for depression and anxiety among young people from deprived urban neighbourhoods in South America: a case-control study in Bogotá, Buenos Aires and Lima.*
- **Ema Dejhalla, David Zahirović, Tatjana Čulina:** *Anxiety and obesity - what is the cause and what is the consequence?*
- **Martina Fišić Jurković, Roberta Marković:** *Why we must listen to our patients?*
- **Elena Krstevska-Kelepurovska, Kaftandzieva A., Naumovska J., Delova A., Kelepurovska I., Krstevski Z.:** *Correlation of Single and Multiple-type HPV infections and Age in Women with Cervical Cancer and Precancerous Lesions in the Republic of North Macedonia*
- **Katarina Milutinović, Marija Jeremić, Vukan Ivanović, Ana Petrović, Vladimir Nikolić, Petar Milovanović:** *Education of PhD supervisors at the Faculty of Medicine, University of Belgrade: Rationale, participant satisfaction, and relevance from the perspective of a PhD candidate*
- **Vladimir Nikolić, Katarina Milutinović, Marija Jeremić, Vukan Ivanović, Ana Petrović, Petar Milovanović:** *Evaluation of the success of PhD candidates at the Faculty of Medicine, University of Belgrade*

- **Natividad Olivar, Luis I. Brusco, Fernando Carbonetti, Carlos Gomez-Restrepo, Francisco Diez-Canseco, Stefan Priebe:** *Association between substance use with depression and anxiety in adolescents and young adults from deprived neighbourhoods in Bogotá, Buenos Aires and Lima: a cross-sectional study*
- **Ana Petrović, Vladimir Nikolić, Katarina Milutinović, Marija Jeremić, Vukan Ivanović, Petar Milovanović:** *Content overlap between the doctoral dissertation written in English and the candidates articles published in international journals: A case study with review of national and international regulations*
- **Mariska Slekovec:** *Impact of culture on perceptions of mental disorders, and characteristics of interventions to reduce mental health stigma among ethnocultural minority groups in high income countries: A systematic literature review*
- **Ivana Todorović, Feng Cheng, Stela Stojisavljević, Sonja Marinković, Stefan Kremenović, Pane Savić, Ana Golić-Jelić, Nataša Stojaković, Svjetlana Stoisavljević-Šatara, Rajko Igić, Ranko Škrbić:** *Prevalence of Cigarette Smoking and Influence of Associated Factors among Students of the University of Banja Luka: A Cross-Sectional Study*
- **Martina Trnčević, Aleksandar Racz, Ljerka Armano:** *The role of empathy in health care improvement*
- **David Zahirović, Ema Dejhalla, Ana Lesac Brizić, Vladimir Mozetič:** *Managing urinary incontinence in obese patients*

Dental Medicine



- **Matea Badnjević, Spalj S., Gobin I.:** *The effectiveness of chlorhexidine in control of adhesion of oral bacteria to polymeric materials and alloys for oral cavity*
- **Ana Domitrović, Janoš Kodvanj, Davor Vučinić, Višnja Katić, Sunčana Simonić-Kocijan, Petra Tariba Knežević:** *Comparative analysis of mechanical properties of metals for removable dentures bases*
- **Ana-Marija Laškarin, Stjepan Špalj, Gordana Laškarin, Antonija Ružić Baršić, Tatjana Kehler, Nikša Dulčić:** *Symptomatic and asymptomatic internal derangements of temporomandibular joints denote activity of spondyloarthritis*
- **Aleksandar Pupovac, Davor Kuiš, Ivana Mišković, Jelena Prpić:** *Impact of Periodontal Diseases on Oral Health-Related Quality of Life – a study in Croatian*
- **Ella Sever, Ema Saltović, Sonja Pezelj-Ribarić, Miranda Muhvić Urek, Irena Glazar:** *Correlation between oral mucosal diseases and systemic diseases in institutionalized and non-institutionalized elderly*



Clinical Medicine

- **Emma Ahel Ledić, Marko Velepich, Darko Ledić:** *Fibrous dysplasia - rare occurrence in the temporal bone*
- **Albin Beadini, Adelina Elezi, Albulena Beadini, Fitim Murati:** *The influence of biochemical parameters and urinary status on urogenital diseases*
- **Ana Brajdić Šćulac, Kristina Skroče, Ivana Peršić, Viktor Ivaniš, Dijana Travica Samsa, Viktor Peršić:** *Effects of 21 day altitude training camp in elite swimmers on lung diffusing capacity for carbon monoxide (DLCO)*
- **Maja Čusek-Šamec, Goran Hauser, Marina Šantić:** *Helicobacter pylori infection cross section General hospital Varaždin*
- **Vedran Dovčer, F. Vrban, A. Gojanović, M. Beus, P. Dolenc, N. Kalčec, N. Peranić, L.Božičević, B. Bakan, I. Mamić, P. Turčić, V. Micek, I. Vinković Vrček:** *Selenium nanoparticles as efficient drug delivery system for levodopa in the treatment Parkinson's disease*
- **Claudia Feitscherová, Simona Polakovičová, Ivan Varga:** *Immunohistochemical detection of the immune cells in human epididymis –comparison with human uterine tube*
- **Dimitar Galachev:** *Multidisciplinary approach in diagnosis and treatment of pituitary cystic macroadenoma*
- **Josip Hrabar, Kalousek V., Rotim K.:** *Advantages of the new generation of leading balloon occlusive catheters compared to leading catheters without balloons and clinical benefits in endovascular procedures of mechanical thrombectomy in acute ischemic stroke*
- **Ivona Jerković, Dean Markić, Christoph Štemberger:** *Clinical and pathological characteristics in high-risk localised prostate cancer patients who underwent radical prostatectomy*
- **Alexander Jerman, Vanja Peršić:** *Clinical and biochemical associations of latent infection with cytomegalovirus in patients with stage 5 chronic kidney disease*
- **Tihana Klarica Gembic, Tamara Gulić, Damir Grebić:** *Expression of glycoprotein 96 in breast cancer is hormone dependant*
- **Blagjica Lazarova, Gordana Petrushevska:** *Splenic artery aneurysm rupture in pregnancy*
- **Antun Lončarić:** *GLA-rich protein as a marker of vascular calcification in chronic kidney disease*
- **Silvija Miletić Gršković, Iva Uravić Bursać, Dijana Travica Samsa, Gordana Laškarin, Viktor Peršić:** *The effect of Klotho protein on vascular calcifications in patients with spondyloarthritis*

- **Lidija Petrovska, Tatjana Ruskovska:** *Diagnostic discrepancy between dermoscopic and histopathological findings in non-melanoma skin cancer, correlation with serum lipids*
- **Igor Rubinić, Dora Palčevski, Vera Vlahović-Palčevski:** *Antimicrobial Consumption and Carbapenem-Resistant *Acinetobacter baumannii*: A Retrospective Analysis*
- **Marta Treneva Nicevska:** *The impact of probiotics on postoperative course in colon cancer patients*
- **Mateo Tićac, Tanja Grubić Kezele, Marina Bubonja Šonje:** *Evaluation of the impact of appropriate empirical antibiotic treatment on mortality in patients with sepsis admitted to the intensive care unit*
- **Iva Žuža, Doris Dodig, Ivan Brumini, Dorian Tokmadžić, Lidija Orlić, David Zgrablić, Ivan Vukelić, Antun Gršković, Nataša Katalinić, Ante Jakšić, Damir Miletić, Sanjin Rački, Dean Markić:** *Pelvic calcification score as a potential predictor of graft and patient survival in kidney transplant recipients*

Biomedicine



- **Gaia Bruno, Gerardo R. Biella, Marco de Curtis, Laura Uva:** *The role of myelin in potassium buffering and regulating excitability*
- **Vedrana Drvar, Gordana Čanadi Jurešić, Dalen Legović, Gordana Laškarin, Božena Ćurko-Cofek:** *Lipid profile and lipid peroxidation in knee osteoarthritis patients*
- **Đorđe Đukanović, Milica Gajić Bojić, Ranko Škrbić, Žarko Gagić:** *The role of TRPA1 channels in vasodilation caused by carvacrol - design of novel TRPA1 agonists*
- **Adelina Elezi, Albin Beadini, Albulena Beadini, Fitim Murati:** *Hematological profile and effect of supplement during pregnancy*
- **Barbara Franović, Sanja Zoričić Cvek, Marko Blašković, Bojana Mohar Vitezić, Gabrijela Begić, Olga Cvijanović Pelozo:** *Identification of different bacterial species from the dental biofilm on high-density polytetrafluoroethylene membranes*
- **Nika Gržeta Krpan, Anja Harej Hrkać, Tamara Janković, Petra Dolenc, Elena Bekyarova, Vladimir Parpura, Kristina Pilipović:** *Effects of single-walled carbon nanotubes on the primary mouse astrocytes exposed to stretch injury*
- **Tamara Gulić, Alma Starčević, Damir Grebić, Manuela Avirović, Petra Valković Zujić, Danijela Veljković Vujaklija:** *Dynamic polarization of tumour-associated macrophages and NK cells in the triple negative breast cancer*
- **Vanna Imširović, Maja Lenartić, Felix M. Wensveen, Bojan Polić, Vedrana Jelenčić:** *Largely preserved functionality after the combined loss of NKG2D, NCR1 and CD16 demonstrates the remarkable plasticity of NK cell responsiveness.*

- **Natalia Jug Vučko, Valentino Pavišić, Hana Mahmutefendić Lučin, Igor Štimac, Pero Lučin, Gordana Blagojević Zagorac:** *Expression and intracellular localization of Arf guanine nucleotide exchange factors in Balb 3T3 fibroblasts infected with murine cytomegalovirus*
- **Lucia Juhásiková, Verona Buociková, Marína Cihová, Viera Horváthová Kajabová, Mária Urbanová, Laura Drndáková, Božena Smolková:** *Effect of epigenetic drugs on pancreatic ductal adenocarcinoma cells*
- **Dubravka Karner, Daria Kveštak, Paola Kučan Brlić, Maja Cokarić Brdovčak, Berislav Lisnić, Ilija Brizić, Vanda Juranić Lisnić, Mijo Golemac, Jelena Tomac, Giuseppe Legname, Hermann C Altmepfen, Milena Hasan, Stipan Jonjić, Tihana Lenac Roviš:** *Immunological role of cellular prion protein (PrP) during cytomegaloviral infection*
- **Maša Knežević, Ina Viduka, Andreja Zubković, Mirna Mihelčić, Marina Šantić:** *Establishing a method of lyophilization of fecal filtrates with the aim of improving the fecal biobank*
- **Mihaela Kordun, Željka Mačak Šafranko, Alemka Markotić, Lidija Cvetko Krajnović:** *Replication of different SARS-CoV-2 variants in cells of innate immune system*
- **Leo Kovač, Jonjić Nives, Babarović Emina, Zamolo Gordana:** *Role of MDM2 expression and BRAF mutation in advanced melanomas*
- **Ivo Krešić, M. Ikić Matijašević, S. Aničić, P. Planinić, K. Zrinski Petrović, D. Grčević, A. Šućur:** *Evaluation of phenotypic and functional polarization of peripheral blood monocytes*
- **Fran Krstanović, Andrea Mihalić, Katarzyna Sitnik, Zsolt Ruzsics, Luka Čičin-Šain, Stipan Jonjić, Ilija Brizić:** *IL-12 – CD4 T cell – IFN γ axis mediates suppression of cytomegalovirus replication and establishment of latency in cortical and hippocampal neurons*
- **Lucija Levstek, Irena Auersperger, Larisa Janžič, Andreja N. Kopitar, Katarina Reberšek, Barbara Jezeršek Novaković, Polona Novak, Njetočka Gredelj Šimec, Alojz Ihan, Samo Zver, Matjaž Sever:** *Predictive Scores for Adverse Events and Treatment Outcomes in CAR T Cell Therapy in Slovenia*
- **Ivan Lučić, Monika Mlinarić, Ana Čipak Gašparović, Lidija Milković:** *FOXO1 and Aquaporins in Breast Cancer: Exploring Regulatory Connections*
- **Dijana Majstorović, Anita Barišić, Andrea Stoccoro, Vanessa Nicoli, Marianna Giangreco, Fabio Coppedè, Jadranka Vraneković:** *Correlation of methylation status in the MTHFR promoter region with Congenital Heart Defects in Down syndrome*
- **Verner Marijančić, Gordana Starčević-Klasan, Stanislav Peharec, Tanja Grubić Kezele:** *Gender differences in spinal curvatures, and endurance and balance of the trunk muscles in college students*

- Jelena Materljan, Maja Cokarić Brdovčak, Marko Šustić, Sanda Ravlić, Tina Ružić, Berislav Lisnić, Karmela Miklič, Marina Pribanić Matešić, Beata Halassy, Federico Bertoglio, Maren Schubert, Luka Čičin-Šain, Ilija Brizić, Stipan Jonjić, Astrid Krmpotić: *Immunization against SARS-CoV-2 using alternative viral vector vaccines and alternative routes*
- Magdalena Medved, Jelena Železnjak, Vanda Juranić Lisnić: *Modulation of CD8+ t cell response mediated by mouse cytomegalovirus immunoevasins matp1 and m04 /gp34*
- Silvia Mešinová, Vanda Repiská, Petra Priščáková, Romana Šmidovičová, Katarína Stružová, Adriana Jariabková, Patrik Macášek: *Endogenous retroviral elements and their role in the development of preeclampsia*
- Sanja Mikašinić, Marko Šestan, Ante Benić, Felix M. Wensveen, Bojan Polić: *An IFN γ -dependent immune-endocrine circuit lowers blood glucose to potentiate the innate anti-viral immune response*
- Tina Miloš, Barbara Vuić, Marcela Konjevod, Lucija Tudor, Gordana Nedić Erjavec, Dubravka Švob Štrac, Neven Žarković, Matea Nikolac Perković: *Metabolic profiling of Alzheimer's disease: Untargeted metabolomics analysis of plasma samples*
- Karlo Mladenčić, Sonja Marinović, Maja Lenartić, Marko Šestan, Inga Kavazović, Ante Benić, Mia Krapić, Lukas Rindlisbacher, Maja Cokarić Brdovčak, Colin Sparano, Gioana Litscher, Tamara Turk Wensveen, Ivana Mikolašević, Dora Fučkar Čupić, Lidija Bilić-Zulle, Aleksander Steinle, Ari Waisman, Adrian Hayday, Sonia Tugues, Burkhard Becher, Bojan Polić, Felix M. Wensveen: *NKG2D-mediated detection of metabolically stressed hepatocytes by innate-like T cells is essential for initiation of NASH and fibrosis*
- Tea Mladenčić, Katarina Mance, Anita Barišić, Jasenka Wagner, Mirta Kadivnik, Saša Ostojić, Borut Peterlin, Sanja Dević Pavlić, Nina Perez: *Association between TNF-alpha -308 G/A polymorphism and familial spontaneous preterm birth*
- Alen Omerović, Ivona Viduka, Nikolina Morić, Manca Nikić, Pero Lučin: *Quantitative assessment of subcellular structures provided by digital holotomography*
- Maja G. Petrović, Tatjana P. Stanojković, Danijela D. Drakulić, Danijela D. Stanisavljević Ninković: *mir-219 as a potential radiosensitizer in glioblastoma cells*
- Barbara Radić, Igor Štimac, Marina Marčelić, Gordana Blagojević Zagorac, Pero Lučin, Hana Mahmutefendić Lučin: *Murine cytomegalovirus affects the activation of WASH1 protein for regulation of endosomal recycling by hiperubiquitination*
- Matea Rebrina, M. Stupnišek: *Diabetic wound healing using maresin-like lipid mediators*
- Carmen Rožmanić, Berislav Lisnić, Marina Pribanić Matešić, Andrea Mihalić, Lea Hiršl, Eugene Park, Ana Lesac Brizić, Daniela Indenbirken, Ina Viduka, Marina Šantić, Barbara Adler, Wayne M. Yokoyama, Astrid Krmpotić, Vanda Juranić Lisnić, Stipan Jonjić, Ilija Brizić: *Perinatal murine cytomegalovirus infection reshapes the transcriptional profile and functionality of NK cells*

- **Tomislav Smoljo, Hrvoje Lalić, Vilma Dembitz, Dora Višnjić:** *The Impact of Stromal Cells on AICAR-Induced Differentiation of AML Cells in Co-culture Experiments*
- **Katarína Stružová, Adriana Jariabková, Patrik Macášek, Romana Šmidovičová, Silvia Mešinová, Helena Gbelcová, Simona Humplíková:** *Impact of Local Anaesthesia On Different Cell Lines Viability in vitro*
- **Tanja Šimić Bilandžija, Katarina Vukojević, Anka Corić, Ivana Vuković Kekez, Ivana Medvedec Mikić, Lidija Lasić Arapović, Natalija Filipović, Jasminka Andelić, Mirna Saraga-Babić, Danijela Kalibović Govorko:** *Spatio-temporal expression pattern of Ki-67, pRB, MMP-9 and Bax in Human Secondary Palate Development*
- **Romana Šmidovičová, Adriana Jariabková, Patrik Macášek, Silvia Mešinová, Katarína Stružová, Helena Gbelcová:** *Targeted differentiation of stem cells by statins and their potential for regenerative medicine*
- **Igor Štimac, Matej Skočaj, Marina Marcelić, Ljerka Karleuša, Gordana Blagojević Zagorac, Barbara Radić, Ivona Viduka, Kristina Sepčić, Pero Lučin, Hana Mahmutefendić Lučin:** *Rab10 can be used as a reliable marker for the assembly compartment in fibroblasts infected with murine cytomegalovirus*
- **Marina Ugrin, María Fernandez Godoy, Ivana Restović, Jerko Hrabar, Nela Kelam, Anita Racetin, Nives Kević, Ivana Bočina:** *Expression of nephropathic markers dendrin and fibronectin in the kidneys of cage-reared brown trout *Salmo trutta* L. (Teleostei: Salmonidae)*
- **Ina Viduka, Maša Knežević, Mirna Mihelčić, Andreja Zubković, Marina Šantić:** *Autophagy mediated intracellular trafficking of *Francisella tularensis**
- **Ivona Viduka, Anastasija Panevska, Gordana Blagojević Zagorac, Matej Skočaj, Igor Štimac, Hana Mahmutefendić Lučin, Kristina Sepčić, Pero Lučin:** *Modulation of lipid composition of cell membranes during cytomegalovirus infection*
- **Barbara Vuić, Tina Miloš, Nikola Balić, Vladimir Farkaš, Lucija Tudor, Marcela Konjevod, Matea Nikolac Perković, Gordana Nedić Erjavec, Dubravka Švob Štrac:** *Potential therapeutic effects of brain-derived neurotrophic factor in cell cultures exposed to oxygen-glucose deprivation/reperfusion*
- **Tina Zavidić, Gordana Laškarin:** *Pulse wave velocity correlates with pain and functional disability in postmenopausal women with knee osteoarthritis*
- **Andreja Zubković, Mirna Mihelčić, Ina Viduka, Maša Knežević, Marina Šantić:** *Reduced replication of *Francisella tularensis* in starved iBMMs as an in vitro model of Atg5 upregulation*

immeasurable tension and inaudible fetal heart tones went under general anesthesia for emergent cesarean delivery. Massive bleeding was found in the peritoneal cavity, for which massive transfusion protocol was activated, and emergent exploring laparotomy was done during which splenectomy was performed. After a short period of stabilization, the patient continued to bleed, and due to haemorrhagic shock she has died.

The surgical material of spleen has been analysed at our Department. The spleen had a dimensions of 13.5x8x3 cm. Resected and cauterized splenic artery was seen in the hilus. At 1 cm from the resection margin on the upper side in the final part of the lienal artery and towards its upper terminal branch, an irregular fusiform aneurismal dilatation of the wall was detected, measuring 1.5 x 1 x 0.7 cm, with a rupture of the wall on the upper side with a diameter of 0.3 cm. Five tears of 1.5-3 cm length were present on the splenic capsule, which were not followed by subcapsular haematoma or parenchymal bleeding.

Microscopic examination showed a dilated arterial blood vessel, with a thinned and necrotic wall around the rupture site, followed by an acute inflammatory reaction.

CONCLUSION: Splenic artery aneurysm rupture in pregnancy is rare but life threatening obstetrical complication, associated with high rates of maternal and fetal morbidity and mortality and can be easily overlooked. Earlier awareness of its rupture may contribute to maternal and fetal survival based on successful multidisciplinary team efforts.

DIAGNOSTIC DISCREPANCY BETWEEN DERMOSCOPIC AND HISTOPATHOLOGICAL FINDINGS IN NON-MELANOMA SKIN CANCER, CORRELATION WITH SERUM LIPIDS

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INTRODUCTION: Non-melanoma skin cancer (NMSC) is the most common cancer in Caucasians. Non-melanoma skin cancer includes basal cell and squamous cell carcinoma with corresponding clinical and histological subtypes. Basal cell carcinoma (BCC) accounts for 75% of cases and is a slow-growing, locally invasive, epidermal tumor with a metastatic rate of <0.1%. Cutaneous squamous cell carcinoma (SCC) is the second most common skin cancer, with an increasing incidence in recent decades. Only about 2% of SCCs are lethal, while the

majority of SCCs have a generally favorable prognosis. In both BCC and SCC, mortality is low, but morbidity is high, leading to a significant burden on the healthcare system. The gold standard in establishing the diagnosis still remains the histopathological finding, but there are diagnostic methods that allow for almost precise establishment of the diagnosis, the selection of an appropriate therapeutic approach, which is of great importance for patients if we take into account that the main localization of tumors are the head and the neck.

OBJECTIVES OF THE STUDY: The main objective of the research is to determine the discrepancy between dermoscopy and histology in establishing the diagnosis of NMSC, as well as the influence of serum lipids on the development of NMSC.

MATERIALS AND METHODS: Our research is prospective, observational. It is planned to include about 100 patients with histopathologically proven non-melanoma skin cancer. The subjects will be people with non-melanoma skin cancer who will undergo a clinical and dermoscopic examination.

RESULTS: In this work, we describe three cases of patients with skin tumors, in which a clinical, dermoscopic examination, pathohistological verification of changes, as well as analysis of serum lipids, measurement of glycemia, weight, height, waist circumference and blood pressure. In these patients, the dermoscopic diagnosis corresponds to the pathohistological findings. Dermoscopic evaluation helps in recognizing specific features that guide dermatologists towards early detection, accurate diagnosis and appropriate management of NMSC.

KEYWORDS: dermoscopy, non-melanoma skin cancer (NMSC), basal cell carcinoma (BCC), squamous cell carcinoma (SCC), baso-squamous carcinoma (BSC)

ANTIMICROBIAL CONSUMPTION AND CARBAPENEM-RESISTANT ACINETOBACTER BAUMANNII: A RETROSPECTIVE ANALYSIS

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BACKGROUND: Antimicrobial resistance (AMR) represents one of the main global public health threats. The inappropriate use of antimicrobials is one of its main causes. This study aimed to assess antimicrobial consumption and determine its correlation with the rate of carbapenem-resistant *Acinetobacter baumannii* (CRAB) in a tertiary Croatian hospital.

Methods: Data collected from February 2015 to December 2021 in Clinical Hospital Centre