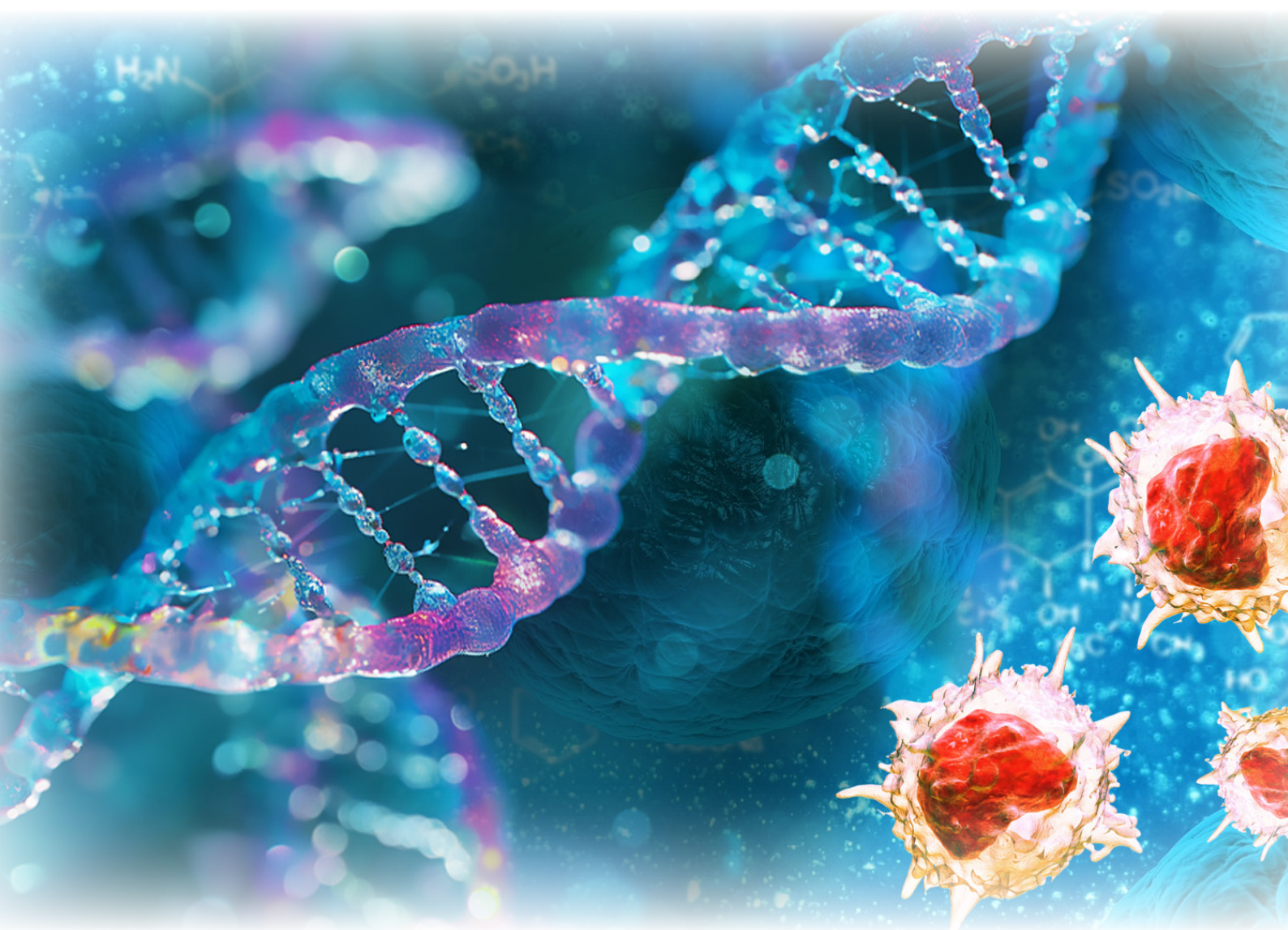


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Official Journal of the Serbian Association for Cancer Research



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CONTENTS

ONCOLOGY INSIGHTS INFO	I
AUTHOR GUIDELINES.....	II
LEGACY INSIGHTS.....	1
PATIENT POINT OF VIEW	7
FUTURE HORIZONS IN CANCER	13
ORIGINAL ARTICLES	23
PERSONAL POINT OF VIEW.....	31
PROCEEDINGS BOOK	37
POSTER SESSION	85
SESSION 1: <i>Benefits of combination therapies in cancer treatment</i>	85
SESSION 2: <i>Personalized anticancer treatment through targeting signaling pathways</i>	88
SESSION 3: <i>Tumor microenvironment - friend of foe</i>	99
SESSION 4: <i>Immunooncology</i>	104
SESSION 5: <i>Exploring the role of mdr mechanisms and stem cell biology in cancer and cancer treatment strategies</i>	107
SESSION 6: <i>Cancer epidemiology- strategies for prevention and early detection</i>	108
SESSION 7: <i>Advancements in molecular diagnostics and cancer biomarkers in oncology</i>	114
SESSION 8: <i>Liquid biopsy</i>	120
SESSION 9: <i>Clinical oncology - bridging patients and researchers</i>	126
SESSION 10: <i>Bioinformatics and cancer genomics</i>	132
SESSION 11: <i>Novel cancer therapies and drug development strategies</i>	139
SESSION 12: <i>Toxic triggers: enviromental chemicals and cancer risk</i>	154
SESSION 13: <i>Tumor metabolism</i>	155
SESSION 14: <i>Innovative models and approaches in cancer research</i>	162

ONCOLOGY INSIGHTS

Aims and Scope

Oncology Insights is an annual oncological open-access peer-reviewed journal that publishes new research from different areas of oncology. It strives to provide a platform for the exchange of cutting-edge research and knowledge in the field of oncology. This journal aims to advance the understanding, prevention, diagnosis, and treatment through the dissemination of high-quality scientific discoveries.

The journal applies a fair and accurate peer review process, employing double-blind review methodologies. Acceptance of manuscripts is based on their scientific merit, originality, clarity, and contribution to the field.

Topics

Oncology Insights covers a wide spectrum of topics within the field of oncology, including but not limited to:

- Basic and Translational Research
- Clinical Oncology
- Radiation Oncology
- Surgical Oncology
- Pediatric Oncology
- Hematologic Oncology
- Palliative Care
- Epidemiology and Public Health
- Cancer Genetics
- Immunotherapy and Targeted Therapies
- Experimental Therapeutics
- Computational Biology and Artificial Intelligence

About/Information

Oncology Insights welcomes various types of contributions, including original research articles, review articles, case reports, case studies, clinical trials, registered reports, comments, brief communications, editorials, letters to the editor, perspectives, and conference papers from a wide range of disciplines related to cancer research.

Through encouraging interdisciplinary collaborations, the journal welcomes contributions that integrate oncology with related fields such as immunology, genetics, biochemistry, radiology, and other relevant disciplines. The journal places a special emphasis on publishing research that highlights emerging trends, novel technologies, and innovative approaches in cancer research and clinical practice.

Oncology Insights is intended for a diverse readership, including oncologists, researchers, clinicians, nurses, allied healthcare professionals, patients, patient advocates, policymakers, and all stakeholders involved in the prevention, diagnosis, and treatment of cancer. It adopts a global perspective, encompassing research from diverse regions addressing oncological challenges that may vary across different populations.

The journal is committed to upholding the highest ethical standards in research and publication provided by established international guidelines.

Periodically, Oncology Insights may publish special issues focusing on specific topics to highlight particular areas of interest or emerging needs.

Authors are provided with clear and comprehensive guidelines for manuscript preparation, including structure, formatting, and other specific requirements.

AUTHOR GUIDELINES

Manuscript submission

By submitting a manuscript, authors affirm that their contribution to Oncology Insights journal is entirely original, has not been published before, is not under consideration for publication elsewhere, and has received approval for publication from all co-authors. Additionally, tacit or explicit consent must be obtained from the responsible authorities at the institution where the research was conducted.

Authors bear sole responsibility for the content of their submissions, and the accuracy of the experimental findings, and must ensure they possess proper permission from all involved parties to disseminate the data.

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The manuscript should contain the title, authors' names and affiliations, abstract, keywords, the text of the manuscript:

- Introduction
- Materials and methods¹
- Results¹
- Discussion
- Conclusion
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Dear colleagues,

The third volume of *Oncology Insights*, the Official Journal of the Serbian Association of Cancer Research (Srpsko društvo istraživača raka, SDIR) nicely depicts the advancements in oncology today, with a glimpse of efforts invested into broadening the scope of our research. We insist on excellence and integrity, bringing innovative approaches into our community with an open view of the specific needs of our patients.

The third volume of *Oncology Insights* features Original Research articles, Review Future Horizons articles, and Personal Points of View from researchers and patient advocates highlighting publishing integrity and advocating for wider access to oncological care.

Oncology Insights also serves as a venue for new original data from the first Regional Congress of EACR-affiliated Serbian, Croatian and Turkish societies SDIR, HDIR, and MOKAD (SHM1RC) held in Belgrade, Serbia, from October 8 to 10, 2025. The congress addressed key topics in cancer research and enhanced collaboration and the exchange of new ideas within the EACR national communities.

Lectures and short abstracts from the fields of Combination anti-cancer therapies, Clinical oncology, Molecular diagnostics in oncology, Stem cells and cancer, MDR in cancer treatment, Liquid biopsy, Cancer epidemiology, (Epi)genetics, Cancer biomarkers, New cancer therapies, Signaling pathways, Anticancer drug development, Personalized anticancer treatment, Translational oncology and Cancer radiobiology among others, are published as official Congress material.

Oncology Insights offers a platform aimed at challenging our comfort zone, discussing topics which are sometimes avoided in the everyday struggle to publish articles and prepare new projects. We invite researchers, physicians, nurses, laboratory technicians, as well as patients, survivors, caregivers, and patient advocates to offer their valuable expert insights to our journal on topics you consider important. Offering your tailored point of view stimulates the progress of oncology by collaborative efforts. We invite you to join us in shaping the future by providing evidence-based, unbiased multidisciplinary content for our future volumes, thus inspiring new lines of interest for our readers.

During these challenging times, we invite you to strive for personal and collective scientific integrity and hold on to your knowledge as your superpower. Please enjoy exploring the third volume of our journal - we hope it brings you numerous moments of intellectual freedom.

With kind regards,



Milena Čavić, SDIR President

Editor-in-Chief

Oncology Insights

Official Journal of the Serbian Association for Cancer Research





The third number of Oncology Insights includes
PROCEEDINGS BOOK of
The 1st Regional SDIR-HDIR-MOKAD Congress



The 1st SDIR-HDIR-MOKAD regional congress

October 8-10, 2025, Belgrade, Serbia
Nobel Zira Hotel

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Dear Colleagues,

The organization of the 1st Regional Congress of the three national societies is now complete. It is an understatement to say that this has been an extremely demanding task, requiring the involvement of all of us over the past few months. We believe we have fulfilled our responsibilities well.

We set ourselves two important goals. The first was to create a welcoming atmosphere for every participant, allowing them to expand their knowledge, present their results, establish new collaborations, and develop new scientific ideas. The second goal was to provide ample free time for participants to enjoy our beautiful city, which is especially inspiring this autumn.

We hope you will make the most of the time ahead. We also want you to take wonderful memories from Belgrade, share them with us, and inspire us to continue pursuing such initiatives. Scientific inquiry knows no boundaries; it should flourish for the benefit of all, especially for those who come after us.

Sincerely,

on behalf of the Organizing Committee



A handwritten signature in blue ink, consisting of stylized initials and a surname.

Dr sc Ana Damjanović Veličković
Senior research associate
Institute for Oncology and Radiology of Serbia
Belgrade, Serbia



A handwritten signature in blue ink, featuring a stylized first name and a surname.

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Circulating extracellular vesicles in liver and pancreatic cancer: an initial assessment of sialylation

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Keywords: Extracellular vesicles, hepatocellular carcinoma, nanoparticle tracking analysis, pancreatic cancer, sialic acid

Background: Extracellular vesicles (EVs) are cell-derived, membrane-surrounded vesicles that carry various bioactive molecules and deliver them to recipient cells. They are considered mini-maps of their cells of origin. Altered tissue/cell glycosylation is a hallmark of different cancers but little is known about how these changes affect circulating EVs. One of the most prevalent changes is sialylation, the addition of sialic acid (Sia) to galactose or N-acetylgalactosamine at the terminal position of glycan chains. Starting from data on the changes in sialylation of liver and pancreatic cancer tissues, this study aimed to assess whether these changes are mirrored in related circulating EVs, specifically within large EV populations, previously indicated to comprise cancer-derived vesicles. This is important issue regarding designation of introductory studies of the functional and biomarker potential of these EVs.

Materials and Methods: Serum samples were collected from patients with hepatocellular carcinoma (HCC, n = 5), pancreatic cancer (PC, n = 10), and healthy donors (HD, n = 10). Circulating EVs were isolated by differential centrifugation and ultracentrifugation. Their size distribution was analyzed using nanoparticle tracking analysis (NTA). Surface sialylation was assessed by fluorescent NTA (f-NTA) using Sambucus nigra agglutinin (SNA) and wheat germ agglutinin (WGA), which have distinct requirements for binding Sia residues. Statistical analyses were performed through GraphPad Prism 8.0 applying the Kruskal-Wallis test.

Results: Median (IQR) EV sizes from HCC (146 nm (144.5-150.8 nm)) and PC (155.5 nm (151.5-160.4 nm)) were significantly higher than those from HD (126.4 nm (123.3-128.9 nm)) (P < 0.001). Large EVs (>200 nm) were more abundant in cancers (~30%) compared to HD (~10%). There was no statistically significant difference (P > 0.05) in the sizes of SNA- and WGA-reactive EVs between cancers and HD. The proportion of SNA-reactive large EVs was similar between cancer patients and HD (~40%), whereas the proportion of WGA-reactive large EVs was similar between HCC and HD (~30%), but reduced in PC (~20%).

Conclusions: The median EVs size and the ratio of large EVs were increased in both HCC and PC in comparison to HD. This increase is accompanied by the changes in surface sialylation seen as decrease in sialic acid-binding lectins reactivity, notably in PC. The changes in EVs sialylation were opposite to those detected in liver and pancreatic cancer tissue.

Acknowledgments and funding: This work was supported by the Ministry of Science, Innovation and Technological Development of the Republic of Serbia [Grant No. 451-03-136/2025-03/200019].

The association of baseline concentrations of circulating tumor DNA with clinical course of advanced melanoma

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Keywords: circulating tumor DNA, melanoma, prognosis

Background: Immune checkpoint inhibitors (ICI), applied as a monotherapy or in combination regimens, demonstrated significant survival benefits in patients with advanced melanoma, However, a significant proportion of patients fail to respond to ICI or experience relapse after an initially successful response. Detection and quantification of circulating tumor DNA (ctDNA) has been considered a promising prognostic biomarker in melanoma patients treated with ICI.