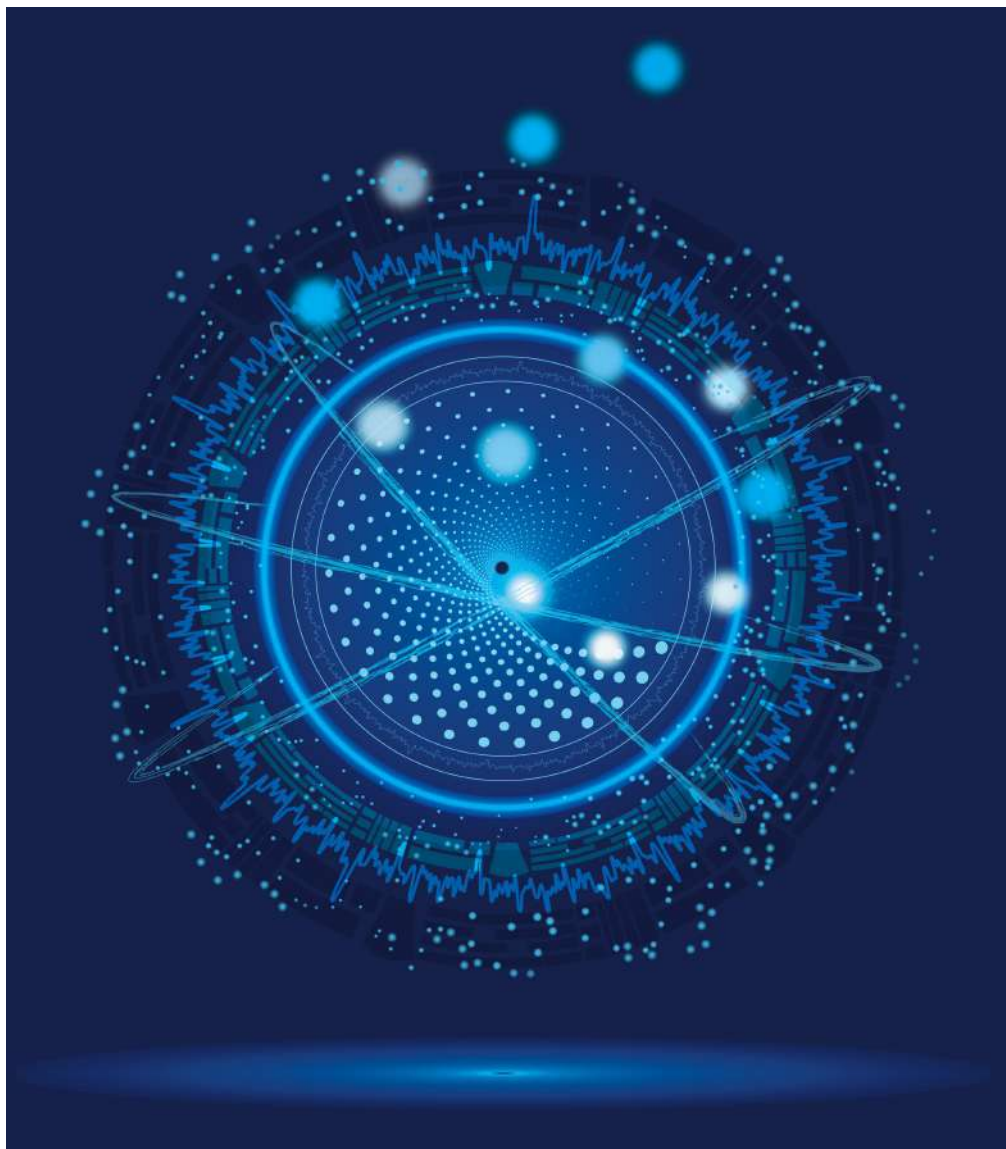


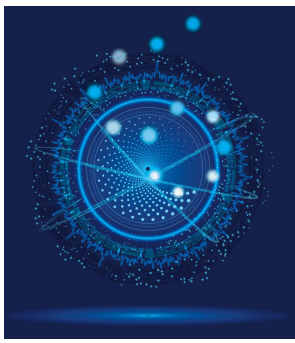
# Small New World 2.0

4-5 September 2023

## Abstract Book



Medical University Graz, Austria



# Small New World 2.0

4-5 September 2023., Graz, Austria

Joint Meeting of



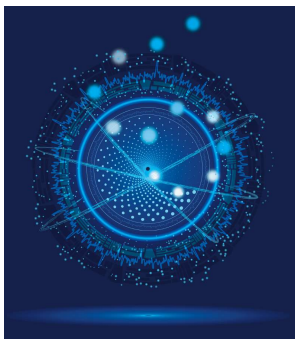
Austrian Society for Extracellular Vesicles - ASEV  
Hungarian Section for Extracellular Vesicles - HSEV  
Slovenian Network for Extracellular Vesicles - SiN-EV  
Serbian Society Extracellular Vesicles - SrbEVs

## Organizing committee:

Beate Rinner, ASEV  
Wolf Holnthoner, ASEV  
Edit Buzas, HSEV  
Metka Lenassi, SiN-EV  
Maja Kosanović, SrbEVs

## Scientific committee:

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**Wolf Holnthoner**, Ludwig Boltzmann Institute for Traumatology, Austria;  
**Edit Buzas**, Semmelweis University, Hungary;  
**Metka Lenassi**, Faculty of Medicine, University of Ljubljana, Slovenia;  
**Maja Kosanović**, Institute for the Application of Nuclear Energy, INEP, Serbia;  
**Zoltan Giricz**, Semmelweis University, Hungary;  
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# Small New World 2.0

4-5 September 2023., Graz, Austria

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# PROGRAM

## for Monday, 4th September 2023

8:30 - 10:00	Registration and poster placement												
10:00-10:15	Welcome note from the Presidents of ASEV, HSEV, SiN-EV, SrbEV Welcome note from the local organizers & organizational introduction												
10:15-12:00	<b>EV therapeutics - regenerative medicine and beyond</b> Chairs: Wolf Holnthoner (Austria) + Zala Jan (Slovenia)												
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12:00-13:30      Lunch break / General assembly of ASEV													
13:30-15:00	<b>Methodology advances in EV analysis</b> Chairs: Beate Rinner (Austria) + Sofija Glamočlija (Serbia)												
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15:00-15:30      Coffee break													

# PROGRAM

## for Monday, 4th September 2023

15:30-16:40	<b>News from industry and development - "Rising projects"</b> Chairs: Dirk Strunk (Austria) + Pia Siljander (Finland)	
	<b>Clemens Helmbrecht</b> ParticleMetrix	NTA goes colocalization: Characterization of Multi-labelled bionanoparticles
	<b>Mehdi Madi and Quentin Lubart</b> Abbelight	Quantitative analysis of single EV and their subpopulations with super-resolution solutions
	<b>Core Facilities MedUni Graz</b>	EV technologies at the MedUni Graz
	<b>BioTechMed consortium</b> "iNterAcD+"	Extracellular vesicle in exercise: sporty messengers in interorgan communication
	<b>Christian Wadsack</b> <b>and Michaela Klaczynski</b>	Fetal immune priming by placenta-derived small extracellular vesicles
	<b>Beate Rinner</b> <b>and Mariangela Garofalo</b>	Patient-derived tumor models, EVs and oncolytic viruses
16:40-16:45	Short break	
16:45-17:30	<b>Special guest lecture: Translation of EV into the clinics - Eva Rohde (Austria)</b>	
17:30-23:00	Poster party and Social evening	

# PROGRAM

## for Tuesday, 5th September 2023

09:00–10:45	<b>EV numbers and cargo</b> Chairs: Maja Kosanović (Serbia) and Nicole Maeding (Austria)	
	<b>Keynote:</b> <b>Paolo Bergese</b> (Italy)	Extracellular vesicles by the numbers
	<b>Hargita Hegyesi</b>	Cardioprotective role of extracellular vesicle-mediated mir-sponge transfer
	<b>Christa Noehammer</b>	Small RNA biomarker profiling from extracellular vesicles in immune-mediated inflammatory diseases
	<b>Tasvilla Sonallya</b>	Systematic investigation and classification of membrane active peptides based on their affinity for interaction with extracellular vesicles
	<b>Ilona Barbara Csordás</b>	Extracellular Vesicles (EVs) miRNA-cargo loading and alterations after ionizing radiation induced cellular stress
	<b>Marija Holcar</b>	Characterization and Interindividual Variability of Plasma Extracellular Vesicles in Healthy Adults
10:45–11:30	Coffee break	
11:30–12:30	<b>NETWORK SESSION + MOVE</b> Chairs: Beate Rinner and Wolf Holnthoner	
	<b>Wolf Holnthoner</b>	ASEV - Austrian Society for Extracellular Vesicles
	<b>Edit Buzas/Zoltan Giricz</b>	HSEV - Hungarian Society for Extracellular Vesicles
	<b>Metka Lenassi</b>	SiN-EV - Slovenian Network for Extracellular Vesicles
	<b>Maja Kosanović</b>	SrbEVs - Serbian Society for Extracellular Vesicles
	<b>Johannes Oesterreicher</b>	MOVE news from Finland
	<b>Martin Wolf</b>	MOVE news from Sweden
12:30–13:30	Lunch break	

# PROGRAM

## for Tuesday, 5th September 2023

13:30-15:00	<b>Diversity of EV sources</b> Chairs: Edit Buzas (Hungary) + Djenana Vejzovic (Austria)	
	<b>Keynote:</b> <b>Pieter Vader</b> (The Netherlands)	Extracellular vesicle-mediated RNA delivery: from mechanistic insights towards therapeutic applications
	<b>Astrid Laimer-Digruber</b>	Unraveling the pathogenic and pro-inflammatory potential of extracellular vesicles secreted by <i>Bacillus cereus</i>
	<b>Vendula Pospíchalová</b>	Proteomic analysis of ascitic extracellular vesicles describes tumor microenvironment and predicts patient survival in ovarian cancer
	<b>Kaja Ujčič</b>	Effects of placental extracellular vesicles on maternal hematopoiesis
	<b>Veronika Kralj-Iglič</b>	Mechanisms of formation of extracellular particles in diverse samples from human, animal, plant and microalgae
15:00-15:30	Coffee break	
15:30-17:00	<b>Purity meets function</b> Chairs: Metka Lenassi (Slovenia) + Krisztina Nemeth (Hungary)	
	<b>Keynote:</b> <b>Saara Laitinen</b> (Finland)	To EV, or not to EV: that is the question
	<b>Martin Wolf</b>	Functional implications of protein EV corona
	<b>Johannes Grillari</b>	EV therapeutics - regenerative medicine and beyond
	<b>Maria Cavinato</b>	Alternative mechanisms of mitochondria quality control elicited by EVs in skin aging and disease
	<b>Irma Schabussova</b>	Outer membrane vesicles of the probiotic <i>E. coli</i> O83 activate innate immunity and prevent allergic airway inflammation in mice
17:00-17:15	Awards: Best poster & Best oral presentation Farewell notes	
18:00	City tour Graz	

## Surface-Associated Glycans as a Possible Distinct Factor for Establishing the Molecular Properties of Prostatosomes

Jelena Danilović Luković; Tamara Janković; Sanja Goč, Filip Janjić, Ninoslav Mitić

University of Belgrade, Institute for the Application of Nuclear Energy, INEP, Belgrade, Serbia

Glycans, complex carbohydrates bound to lipids and proteins, play important roles in biological processes. Prostatosomes, extracellular vesicles from prostate epithelial cells, have a glycan composition influenced by their cellular origin and by the composition of the seminal plasma into which they are secreted. We hypothesized that the membrane-associated glycans could be used as selective targets for separation of prostatosomes and as relevant parameter for distinction of their populations.

Prostatosomes from seminal plasma of normozoospermic and oligozoospermic men were separated by ion-exchange- and lectin-affinity chromatography using concanavalin A (ConA) lectin, specific for mannosylated structures, and wheat germ agglutinin (WGA), specific for sialic acid. The presence of tetraspanins (CD63, CD9 and CD81), galectin-3 (gal-3) and gamma-glutamyl transferase (GGT) as known vesicle markers were monitored in association with distinct glycans. Their distribution was also analysed upon treatment of prostatosomes with non-ionic detergent.

Membrane-associated GGT in the context of Con A- and WGA-reactive glycans mark prostatosome populations from normozoospermic and oligozoospermic men. The assembly of tetraspanins, gal-3, and distinct N-glycans defines the solubilisation signature of prostatosomes. WGA-reactive glycoproteins co-localize with CD9 and gal-3 in detergent-resistant domains, whereas ConA-reactive glycoproteins were distributed in detergent-sensitive domains along with CD63 and GGT. Subtle differences in the composition/presentation of examined molecules made difference among vesicles sharing the same physical properties in each group as well as between them.

The results obtained suggest the potential of glyco-parameters as reference markers for EVs populations.



**Publishers:**

Serbian Society for Extracellular Vesicles (SrbEVs) with  
Austrian Society for Extracellular Vesicles (ASEV),  
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**Editors:**

Wolf Holnthoner, ASEV;  
Edit Buzas, HSEV;  
Metka Lenassi, SiN-EV;  
Maja Kosanović, SrbEVs

**Technical Editor and Design:**

Maja Kosanović

**ISBN** 978-86-905626-0-2

**Year:** 2023.

**Disclaimer:** The authors are responsible for the contents  
of their abstracts and warrant that their abstract is original.

