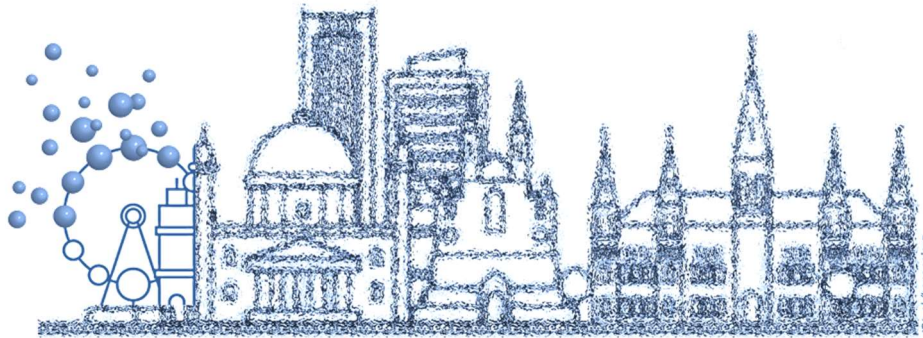




Austrian Society for  
Extracellular Vesicles



UNIVERSITY CLINIC OF DENTISTRY  
MEDICAL UNIVERSITY OF VIENNA



## ASEV-CzeSEV

A joint meeting of the Extracellular Vesicles Societies  
in Austria and Czech Republic

### Meeting Agenda



*Medical University Vienna, University Clinic of Dentistry, Sensengasse 2a,  
1090, Vienna, Austria*



*16-17 September 2024*

Dear friends and colleagues working on these tiny bubbles, which we call „EVs“,

Last autumn we, Wolf and Vendula, firstly met at the SmallNewWorld2.0 meeting in Graz, when she – again for the first time – announced the recent founding of a new society: The Czech Society for Extracellular Vesicles. This was the „ignition“ for the idea of organizing a joint EV meeting in Vienna.

Extracellular Vesicles gained tremendous scientific interest in the last decade. From the basic understanding of the biology, the recent technological advances in the purification and characterization of EVs, straight to the application in diagnostic and therapeutic areas. Here at the Medical University in Vienna we come together in the joint meeting of the Austrian Society for Extracellular Vesicles (ASEV) and our neighbours, the recently founded Czech Society for Extracellular Vesicles (CzeSEV) and share our thoughts on all these aspects of EVs. This congress is a continuation of several joint meetings of ASEV with other European Societies. Together, we strongly believe in the success of EV research, based on cooperation and synergies. The tight programme offers presentations from invited international keynote speakers, introductions of research groups, presentations of original scientific work, and updates from our company sponsors.

The modern facilities at the University Clinic for Dentistry at the Medical University of Vienna will for sure be the perfect surrounding and sparkle exchange of EV research of our communities in Austria, Czech Republic, and participants from over 10 other countries worldwide.

Especially young scientists are encouraged to get in contact with experienced researchers and of course with our international keynote speakers. In addition, we are grateful to our sponsors, who will update us on new EV technologies.

Together we will not only have fun and learn to know each other better on a personal level, but also extend our knowledge of these fascinating tiny bubbles.

On behalf of the organizing committee, we heartly welcome you here in Vienna, and we wish us all an inspiring great time!



Wolfgang Holnthoner  
*President of the Austrian Society  
for Extracellular Vesicles (ASEV)*



Vendula Hlaváčková Pospíchalová  
*President of the Czech Society for  
Extracellular Vesicles (CzeSEV)*

**IRG - Introduction of research group**

**OP - Oral presentation of original scientific work**

**RP - Rising projects in Austria and Czech Republic**

**Monday, 16 September, 2024**

|                             |  |  |
|-----------------------------|--|--|
| 9:00                        | <b>Start of registration</b>   |  |
| 10:00 - 10:15               | <b>Welcome Notes</b> from the Presidents of ASEV and CzeSEV<br><b>Welcome Notes</b> from the local organizers & organizational introduction  |  |
| <b>SCIENTIFIC SESSION 1</b> |  |  |
| 10:15 - 12:00               | <b>Morning Session</b><br>Chairs: I. Schabussová (ASEV) + M. Sandanusová (CzeSEV)  |  |
| 10:15 - 10:45               | <b>Keynote Lecture: Marca Wauben (The Netherlands)</b><br><i>"Deciphering the physiological role of milk-derived extracellular vesicles"</i> |  |
| 10 min                      | V. Hlaváčková<br>Pospíchalová<br>(Czech Republic)  | IRG1: <i>"Ascitic extracellular vesicles: unveiling insights into ovarian cancer pathogenesis from the Laboratory of Cellular Communication, Masaryk University"</i> |
| 10 min                      | A. Otahal<br>(Austria)   | IRG2: <i>"Paving the way for cartilage regeneration - Introducing research at the Center for Regenerative Medicine, University for Continuing Education Krems"</i>   |
| 10 min                      | J. Balvan<br>(Czech Republic)  | IRG3: <i>"Masarik Team: focus on extracellular vesicles in head and neck cancer"</i>   |
| 8 + 2 min                   | K. Hánělová<br>(Czech Republic)  | OP1: <i>"The importance of extracellular vesicles as potential biomarkers of head and neck cancer"</i>   |
| 8 + 2 min                   | N. Chaves Solano<br>(Austria)  | OP2: <i>"Pro-regenerative miRNAs from human amniotic membrane as a potential source for tissue regeneration"</i>   |
| 8 + 2 min                   | M. Quyen Nguyen<br>(Austria)   | OP3: <i>"Laminin-binding extracellular vesicles derived from adipose-derived stem cells for targeted enhancement of peripheral nerve regeneration"</i>               |
| 8 + 2 min                   | M. Härtinger<br>(Austria)  | OP4: <i>"Small extracellular vesicles derived from multipotent adipose stromal cells in peripheral nerve regeneration: jack of all trades, master of none?"</i>      |
| 5 min                       | N. Meisner-Kober<br>(Austria)  | RP1: <i>"A new Ludwig Boltzmann Institute dedicated to translational EV research: the LBI for Nanovesicular Precision Medicine in Salzburg"</i>                      |
| 12:00 - 13:30               | <b>Lunch Break / General Assembly of ASEV</b>  |  |

## SCIENTIFIC SESSION 2

|  |  |  |
|--|--|--|
| <b>13:30 - 15:00</b>   |  |  |
| <b>Afternoon Session 1</b>   |  |  |
| Chairs: A. Gálisová (CzeSEV) + A. Klepe (ASEV)   |  |  |
| <b>13:30 - 14:00</b>   |  |  |
| <b>Keynote Lecture: Carlos Salomon (Australia)</b>   |  |  |
| <i>“Translational Biomarkers from Circulating Extracellular Vesicles (EV): Results from the EV Ovarian Cancer Study (OCR-F-7)”</i> |  |  |
| 10 min   | G. Ambrožová<br>(Czech Republic)               | IRG4: <i>“Extracellular vesicles in inflammation-connected pathologies”</i>  |
| 8 + 2 min  | M. Sandanusová<br>(Czech Republic)             | OP5: <i>“Growth phase matters: immunomodulatory potential of Lacticaseibacillus-derived membrane vesicles”</i>   |
| 10 min   | I. Schabussová<br>(Austria)                    | IRG5: <i>“Extracellular vesicles from probiotic bacteria and host cells for mucosal application in allergic disease prevention and treatment”</i>                  |
| 8 + 2 min  | V. Černý<br>(Austria)                          | OP6: <i>“Extracellular vesicles of probiotic Escherichia coli O83:K24:H31 decorated with allergens using the SpyCatcher-SpyTag system for testing in allergy”</i>  |
| 10 min   | J. Klimentová<br>(Czech Republic)              | IRG6: <i>“Outer membrane vesicles and nanotubes in Francisella tularensis”</i>   |
| 8 + 2 min  | T. V. Edelbacher<br>(Austria)                  | OP7: <i>“Transcriptional and translational profiling of Bacillus cereus extracellular vesicles reveals insights into their versatile landscape and plasticity”</i> |
| <b>15:00 - 15:20</b>   |  |  |
| <b>Coffee Break</b>  |  |  |
| <b>15:20 - 17:10</b>   |  |  |
| <b>Afternoon Session 2: News from Industry</b>   |  |  |
| Chairs: V. Hlaváčková Pospíchalová and W. Holnthoner   |  |  |
| 10 + 5 min   | Beckman Coulter Life Sciences                  |  |
| 10 + 5 min   | EVscale™ (by Evercyte, Phoenestra and TAmiRNA) |  |
| 7 + 3 min  | Particle Metrix                                |  |
| 7 + 3 min  | Eppendorf Austria                              |  |
| 7 + 3 min  | Cytek Biosciences                              |  |
| 7 + 3 min  | ONI  |  |
| 7 + 3 min  | Quanterix                                      |  |
| 7 + 3 min  | Unchained Labs                                 |  |
| 7 + 3 min  | Sartorius BIA Separations                      |  |
| 7 + 3 min  | Bartelt  |  |

|               |   |   |
|---------------|---|---|
| 17:10 - 17:30 | Coffee Break  |   |
| 17:30 - 18:50 | <b>Afternoon Session 3</b><br>Chairs: S. Kau-Strebinger (ASEV) + K. Hánělová (CzeSEV) |   |
| 5 min         | D. Strunk<br>(Austria)  | RP2: <i>"MISEV2023 - update"</i>  |
| 10 min        | M. Bobbili<br>(Austria)   | IRG7: <i>"Engineering extracellular vesicles for targeted drug delivery"</i>  |
| 8 + 2 min     | N. Lingg<br>(Austria)   | OP8: <i>"Functionalized non-woven fibers for enhanced DNA removal in extracellular vesicle downstream processing"</i>   |
| 5 min         | V. Weber<br>(Austria)   | RP3: <i>"EVison" PhD Project Joint Doctoral Programme"</i>  |
| 8 + 2 min     | T. Eichhorn<br>(Austria)  | OP9: <i>"Characterization of extracellular vesicle release upon shockwave therapy"</i>  |
| 8 + 2 min     | C. Niesler<br>(South Africa)  | OP10: <i>"Isolation and characterization of human umbilical cord blood serum small extracellular vesicles (hUCBS sEVs)"</i>   |
| 8 + 2 min     | J. Jacak<br>(Austria)   | OP11: <i>"Single-molecule sensitive studies of actin in extracellular vesicles during cellular uptake"</i>  |
| 8 + 2 min     | M. Kosanović<br>(Serbia)  | OP12: <i>"Investigating the effect of extracellular vesicles from Trichinella spiralis on reduction of respiratory allergy induced by ovalbumin in BALB/c mice"</i> |
| 8 + 2 min     | S. Rohringer<br>(Austria)   | OP13: <i>"Perivascular adipose tissue-derived extracellular vesicles and their role in vascular graft healing"</i>  |
| 19:00 - 23:00 | Poster Party and Social Evening with Snacks and Drinks 😊                              |   |

**Tuesday, 17 September, 2024**

**SCIENTIFIC SESSION 3**

|  |                                 |   |
|--|---------------------------------|---|
| <b>09:00 - 10:30</b>   |                                 |   |
| <b>Morning Session 1</b>   |                                 |   |
| Chairs: D. Strunk (ASEV) + K. Turková (CzeSEV)                     |                                 |   |
| <b>09:00 - 09:30</b>   |                                 |   |
| <b>Keynote Lecture: Samir EL Andaloussi (Sweden)</b>               |                                 |   |
| <i>“Targeted delivery of biotherapeutics using engineered EVs”</i> |                                 |   |
| 10 min   | B. E. Benediktsdóttir (Iceland) | IRG8: <i>“Engineering and isolating EVs for targeted cancer therapy: achievements and future directions”</i>  |
| 8 + 2 min  | D. J. Santos (Austria)          | OP14: <i>“Genetic engineering of the CD81 large extracellular loop for targeted delivery of mesenchymal stem cell derived vesicles for spinal cord injury repair”</i>                       |
| 8 + 2 min  | K. Kollmann (Austria)           | OP15: <i>“CDK6 regulates vesicle trafficking in AML”</i>  |
| 10 min   | O. Janoušková (Czech Republic)  | IRG9: <i>“Conventional and nonconventional sources of exosomes – isolation/production methods and consequential biomedical application – exosome research in CENAB-UJEP-Czech Republic”</i> |
| 10 min   | W. Holnthoner (Austria)         | IRG10: <i>“EV research in the Vascular Biology Group at LBI Trauma”</i>   |
| 8 + 2 min  | J. Oesterreicher (Austria)      | OP16: <i>“Engineered extracellular vesicles for targeting and activation of lymphatic VEGFR-3”</i>  |
| <b>10:30 - 10:50</b>   |                                 |   |
| <b>Coffee Break</b>  |                                 |   |
| <b>10:50 - 12:15</b>   |                                 |   |
| <b>Morning Session 2</b>   |                                 |   |
| Chairs: C. Tripisciano (ASEV) + M. Smolko (CzeSEV)                 |                                 |   |
| 10 min   | D. Strunk (Austria)             | IRG11: <i>“Cell Therapy Institute Salzburg: EV or not EV”</i>   |
| 8 + 2 min  | M. Wolf (Austria)               | OP17: <i>“EV source and isolation method correlate with phenotype and function”</i>   |
| 8 + 2 min  | R. Poupardin (Austria)          | OP18: <i>“EV-Zone: Empowering EV research with comprehensive method reporting and advanced search tools”</i>  |
| 10 min   | A. Galisová (Czech Republic)    | IRG12: <i>“MRI tracking of targeted EVs”</i>  |

|   |  |  |
|---|--|--|
| 8 + 2 min   | A. M. Dehghani<br>(United States)            | OP19: <i>"The importance of established and optimized analytical capabilities to develop end to end and scalable therapeutic extracellular vesicles processing"</i>  |
| 8 + 2 min   | V. U. Weiss<br>(Austria)                     | OP20: <i>"Gas-phase electrophoresis (nES GEMMA instrumentation) in extracellular vesicle (EV) research"</i>  |
| 5 min   | J. Přibyl<br>(Czech Republic)                | RP4: <i>"Methods to study the structure, mechanics, chemistry of EVs, and track EVs in tissues"</i>  |
| 8 + 2 min   | M. Schürz<br>(Austria)                       | OP21: <i>"EVAnalyzer2 and ImageC: moving from in vitro to in vivo high content single vesicle imaging for quantitative serum and tissue pharmacokinetics of extracellular vesicles using C++ and artificial intelligence-based image analysis"</i> |
| 10 min  | C. Nöhammer<br>(Austria)                     | IRG13: <i>"AIT Molecular Diagnostics - Multi-omics and extracellular vesicles"</i>   |
| <b>12:15 - 13:45 Lunch Break</b>  |  |  |
| <b>SCIENTIFIC SESSION 4</b>   |  |  |
| <b>13:45 - 15:15 Afternoon Session 1</b><br>Chairs: J. Balvan (CzeSEV) + J. Oesterreicher (ASEV)  |  |  |
| <b>13:45 - 14:15 Keynote Lecture: Alireza Fazeli (Estonia)</b><br><b><i>"Future Generations Are Created and Shaped by Extracellular Vesicles"</i></b> |  |  |
| 10 min  | H. Kupcová<br>Skalníková<br>(Czech Republic) | IRG14: <i>"Characterization of protein composition of extracellular vesicles in the Laboratory of Proteomics, First Faculty of Medicine, Charles University"</i>   |
| 10 min  | S. Kau-Strebinger<br>(Austria)               | IRG15: <i>"Vetmeduni of Vienna – a multidisciplinary EV research hub"</i>  |
| 8 + 2 min   | C. Preußner<br>(Germany)                     | OP22: <i>"Extracellular vesicles from primary tumor spheroids: a proteomic approach to understanding ovarian cancer microenvironment"</i>  |
| 10 min  | B. Rinner<br>(Austria)                       | IRG16: <i>"The Core Facility alternative biomodels &amp; preclinical imaging"</i>  |
| 8 + 2 min   | M. B. Arteaga<br>(Austria)                   | OP23: <i>"Comparative therapeutic efficacy fetal MSC-derived secretome fractions on inflamed chondrocytes in vitro"</i>  |
| 8 + 2 min   | K. Menck<br>(Germany)                        | OP24: <i>"Syntenin controls the expression of adhesion proteins on small extracellular vesicles"</i>   |
| <b>15:15 - 15:35 Coffee Break</b>   |  |  |

| 15:35 - 17:05  |  |  |
|--|--|--|
| Afternoon Session 2  |  |  |
| Chairs: J. Přebyl (CzeSEV) + M. Stoiber (ASEV)               |  |  |
| 8 + 2 min  | J. Zipperle<br>(Austria)               | OP25: <i>“Diagnostic significance and clinical utility of extracellular vesicles in critical illness”</i>  |
| 10 min   | L. Plecítá-Hlavatá<br>(Czech Republic) | IRG17: <i>“The role of exosomes in patho-/physiology of pancreatic islets”</i>   |
| 8 + 2 min  | C. Tripisciano<br>(Austria)            | OP26: <i>“Coagulant extracellular vesicles in saliva from persons with hemophilia A expose complexes of tissue factor and activated factor VII”</i>                  |
| 10 min   | B. Hirschmugl<br>(Austria)             | IRG18: <i>“Placenta-derived small extracellular vesicles - empirical knowledge and methodological expertise”</i>   |
| 8 + 2 min  | M. Stoiber<br>(Austria)                | OP27: <i>“Exploring the role of feto-placental small extracellular vesicles in fetal immune development in preeclampsia”</i>   |
| 10 min   | B. Ukropcová<br>(Slovakia)             | IRG19: <i>“The role of extracellular vesicles in the systemic adaptive response to exercise”</i>   |
| 8 + 2 min  | J. Ukropec<br>(Slovakia)               | OP28: <i>“Circulating extracellular vesicles are modulated by acute exercise &amp; 3-month complex lifestyle intervention in sedentary individuals with obesity”</i> |
| 8 + 2 min  | M. Maľys<br>(Austria)                  | OP29: <i>“Small extracellular vesicles (sEV) are released ex vivo from residual leukocytes and platelets remaining in plasma”</i>                                    |
| 8 + 2 min  | K. Tarasova<br>(Austria)               | OP30: <i>“Comparative therapeutic efficacy of EVs from perinatal MSCs, fetal MSCs, and fetal chondrocytes on inflamed chondrocytes”</i>                              |
| 17:05 - 18:00  |  |  |
| Awards: Best Poster & Best Oral Presentation, Farewell notes |  |  |

## WORKSHOP

### *Analysis of Extracellular Vesicles by Flow Cytometry*



**Vienna One Vision Center, Hernalser Hauptstraße 219, 1170 Vienna**

**18 September 2024**

The workshop is part of the joint meeting of ASEV & CzeSEV, hosted and supported by Beckman Coulter Life Sciences



We are thankful to our sponsors:

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----- **NOTES** -----