2026

CONFERENCE & SCHOOL ON EXTRACELLULAR VESICLES AND NANOPARTICLES (CSEVP-2026)

CONFERENCE: VILLA TUSCOLANA - FRASCATI (ROME) FEBRUARY 16TH - 17TH, 2026

SCHOOL: ROME - UNIVERSITY OF ROME TOR VERGATA FEBRUARY 18TH - 20TH, 2026



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Conference Organization Committee

Prof. Massimo **Bottini**, University of Rome Tor Vergata, Rome, Italy Prof. Claudia **Matteucci**, University of Rome Tor Vergata, Rome, Italy Prof. Antonella **Minutolo**, University of Rome Tor Vergata, Rome, Italy Prof. Annalisa **Radeghieri**, University of Brescia, Brescia, Italy Prof. Giovanni **Chillemi**, University of Rome Tor Vergata, Rome, Italy and National Institute for Infectious Diseases Lazzaro Spallanzani, Rome, Italy Prof. Lucia **Paolini**, University of Brescia, Brescia, Italy Prof. Simone **Dinarelli**, Institute for the Structure of Matter, CNR, Rome, Italy Prof. Pietro Ciancaglini, Universidade de São Paulo, Ribeirão Preto, Brazil Dr. Seungmin **Kim**, Korea University, Seoul, Republic of Korea

School Organization Committee

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BACKGROUND

All cells release extracellular vesicles and nanoparticles into the extracellular environment during physiological and pathophysiological processes. Extracellular vesicles are nanosized particles enclosed in a lipid bilayer that are released from cells into the extracellular environment and cannot replicate. They are of two types: vesicles that are free to migrate to other regions of a tissue, or even to other tissues, after their release (media EVs), and vesicles that bind to the extracellular matrix and are less inclined to migrate (matrix-bound EVs). The current model describes the main function of media EVs as participation in paracrine and endocrine cell-cell communication processes, while the main function of matrix-bound EVs as participation in mineralization processes. Recent studies have shown that matrix-bound EVs can also mediate local cell-cell communication processes, opening new perspectives on their biological role. Extracellular nanoparticles include not only well-known entities, such as lipoprotein particles, nucleosomes, and vaults, but also two recently discovered nanoparticles, exosomes and supermeres. Although their biological function is still unclear, exosomes and supermeres are thought to be exclusively capable of migration and their main function is described as participation in cell-cell communication.

DESCRIPTION OF THE EVENT

Due to the success of the 2024 - Conference and School on Extracellular Vesicles and Nanoparticles (CSEVP-2024), the committee has decided to reschedule the event in February 2026. The new event (CSEVP-2026) will have the same format as the previous event, a **Conference (February 16-17**, Villa Tuscolana, Rome) followed by a **School (February 18-20, University of Rome Tor Vergata, Rome).**

During the **Conference**, senior experts will highlight recent advances in understanding the role of extracellular vesicles and nanoparticles in physiological and pathological processes.

Afterwards, ample space will be given to young scientists (the "rising stars") to discuss their discoveries in the field with oral contributions and posters. There will also be interventions by private companies.

In the following three days, there will be the **School with theoretical lectures and practical lesson**s in the laboratory.

The theoretical lectures will cover general aspects, including the classification of extracellular vesicles and isolation techniques, but also more specific and innovative aspects, including MISEV rules and how to study vesicle membrane proteins with innovative techniques (for instance, proximity barcoding assay). Practical lessons will be organized to show students the entire chain of processes needed to isolate and characterize vesicles with equipment brought by private companies. Regarding vesicle isolation, both "classic" techniques (e.g., SEC and TFF) and techniques based on automated equipment/kits (e.g., EXODUS and EXoPERT) will be shown. Regarding vesicle characterization, the School will show students how to characterize physical, biochemical and physicochemical properties using both "classical" techniques (e.g., NTA, TRPS and flow cytometry) and more "innovative" techniques (high resolution microscopy and AFM-based imaging and non-imaging techniques). Compared to the 2024 event, the 2026 event aims to expand the space dedicated to young scientists to allow them to create an international network, which is the basis of a scientific culture without borders. Awards will be made available by the National Societies on extracellular vesicles for the best talk and poster.

Preliminary PROGRAM

Frascati, Villa Tuscolana - February 16th-17th, 2026

Conference

FEBRUARY 16TH

07:30 - 09:00 Registration

09:00 - 09:10 Prof. Nathan Levialdi Ghiron - Rector of the University of Rome Tor Vergata

WELCOME TALK TO THE 2026 CONFERENCE & SCHOOL ON EXTRACELLULAR VESICLES AND NANOPARTICLES

09:10 - 09:40

CHAIRMEN: Prof. Massimo Bottini & Prof. Claudia Matteucci

Keynote Speaker

Prof. Josè Louis Millán - Sanford Burnham Prebys, La Jolla, USA

HYPOPHOSPHATASIA - LOOKING BEYOND THE SKELETON

09:40 - 10:30

SESSION 1 - GENERAL

CHAIRMEN: Prof. Massimo Bottini & Prof. Claudia Matteucci

09:40 - 10:00 Prof. Colin Farquharson - University of Edinburgh, Edinburgh, Scotland

THE FUNCTIONAL CO-OPERATIVITY OF TNAP AND PHOSPHOI DURING MATRIX VESICLE MEDIATED SKELETAL MINERALIZATION

10:00 – 10:20 Senior Speaker

10:20 - 10:40 Senior Speaker

10:40 – 10:55 Dr. Maria Cavarlez – Sanford Burnham Prebys, La Jolla, USA (speech title to be defined)

10:55 - 11:05 Sponsor Talk

11:05 – 11:25 COFFEE BREAK //POSTER VISIT //SPONSOR NETWORKING

11:25 - 12:20

SESSION 2 - GENERAL

CHAIRMEN: Prof. Massimo Bottini & Prof. Claudia Matteucci

11:25 – 11:45 Prof. Maurizio Fraziano - University of Rome Tor Vergata, Rome, Italy

11:45 – 12:05 Senior Speaker - TBD - Bambin Gesù Hospital - Rome, Italy

12:05 – 12:20 Rising Star 🛨

12:20 - 12:30 Sponsor Talk

12:30 – 12:40 Sponsor Talk

12:40 - 13:30

BUFFET LUNCH & SPONSOR SHOW

13:30 - 14:30

SESSION 3 - EV FLOW CYTOMETRY

Chairman: Prof. Antonella Minutolo

13:30 – 13:50 Prof. Estefania Lozano Andres - Utrecht University, Utrecht, Netherlands

13:50 – 14:05 Dr. Marialaura Fanelli - University of Rome Tor Vergata, Rome, Italy

14:05 – 14:20 Rising Star 🛨

14:20 - 14:30 Sponsor Talk

14:30 - 15:45

SESSION 4 - EV PROTEIN CORONA

Chairman: Prof. Annalisa Radeghieri

14:30 – 14:50 Prof. Edit Buzás - Semmelweis University, Budapest, Hungary

14:50 – 15:05 Dr. Angelo Musicò - SCITEC-CNR, Milan, Italy

15:05 – 15:20 Dr. Heikki Kyykallio - Institute of Biomedicine, University of Eastern Finland

15:20 – 15:35 Rising Star 🛨

15:35 - 15:45 Sponsor Talk

15:45 - 16:00 COFFEE BREAK // POSTER VISIT // SPONSOR NETWORKING

16:00 - 17:40

SESSION 5 - SOLID TISSUE AND MATRIX EVS

Chairman: Prof. Lucia Paolini

16:00 – 16:20 Prof. Rossella Crescitelli – University of Gothenburg, Gothenburg, Sweden

16:20 – 16:35 Dr. Giada Corti - University of Rome Tor Vergata, Rome, Italy

16:35 – 16:50 Dr. Sarah Tassinari - IRCCS - Istituto Romagnolo per lo Studio dei Tumori "Dino Amadori"

16:50 – 17:05 Dr. Juçara G. Cominal - Universidade de São Paulo, Ribeirão Preto, Brazil

TIME-SPECIFIC PROPERTIES OF MATRIX VESICLES DURING OSTEOBLAST MINERALIZATION

17:05 - 17:20 Rising Star 🛨

17:20 – 17:30 Sponsor Talk

17:30 - 17:40 Sponsor Talk

FEBRUARY 17TH

09:00 – 10:00 Session 6 - EV AFM

Chairman: Prof. Simone Dinarelli

09:00 − 09:20 Prof. Pietro Parisse - CNR-IOM-Istituto Officina dei Materiali, Consiglio Nazionale delle Ricerche, Trieste, Italy 09:20 − 09:35 Rising Star ★

09:35 – 09:50 Rising Star 09:50 – 10:00 Sponsor Talk

10:00 – 11:15 SESSION 7 - MILK EVS

Chairman: Prof. Giovanni Chillemi

10:00 – 10:20 Prof. Martijn van Herwijnen - Utrecht University, Utrecht, Netherlands

MILK'S TINY MESSENGERS: HOW MILK-DERIVED EVS SHAPE THE INFANT'S IMMUNE SYSTEM

10:20 – 10:35 Dr. Samanta Mecocci - University of Tuscia, Viterbo, Italy

ANTI-INFLAMMATORY AND IMMUNOMODULATING POTENTIAL OF EXTRACELLULAR VESICLES FROM

ANIMAL MILK

10:35 – 10:50 Dr. Marco Blasioli - Utrecht University, Utrecht, Netherlands

10:50 − 11:05 Rising Star ★ 11:05 − 11:15 Sponsor

11:15 – 11:30 COFFEE BREAK & SPONSOR SHOW

11:30 – 12:55

Session 8 - Plant/Fungi EVs

Chairman: Prof. Almeida

11:30 – 11:50 **SENIOR SPEAKER**

11:50 – 12:05 Dr. Lucas Fabricio Bahia Nogueira - University of Sao Paulo, Ribeirao Preto, Brazil

12:05 – 12:20 Dr. Alessandra Minchella - University of Rome Tor Vergata, Rome, Italy

12:20 – 12:35 Rising star ★
12:35 – 12:45 Sponsor Talk
12:45 – 12:55 Sponsor Talk

12:55 – 15:00 POSTERS - BUFFET LUNCH & SPONSOR SHOW

15:00 – 16:00 AWARDS & CONCLUDING REMARKS

REGISTER HERE - QRCODE



VENUE

PARTICIPATION

SCHOOL on Extracellular Vesicles and Nanoparticles February 18th-20th

Finazzi Agro' Hall University of Rome Tor Vergata

The school will be held at the laboratories of the University of Rome Tor Vergata and the National Research Council (CNR) from February 18 to 20, 2026.

The school's aim is to demonstrate to young scientists the entire process of vesicle isolation and characterization using both traditional and more modern techniques. This will allow them to develop critical thinking skills when choosing future techniques for working with vesicles. Academic professors and scientists from private companies will illustrate the following techniques with theoretical and/or practical lectures.

General lectures on EVs

- * Introduction to extracellular vesicles
- * MISEV minimal information for studies of extracellular vesicles
- * Liposomes and proteoliposomes
- * 2D and 3D Cell Culture Techniques (FIBERCELL SYSTEMS)

EV isolation

- * Size Exclusion Chromatography (IZON)
- * Tangential Flow Filtration (IZON)
- * Ultracentrifugation (Eppendorf)
- * Automated EV isolation technique developed by EXODUS Bio
- * EV isolation kits developed by Targeted Bioscience and EXoPERT

EV characterization

- * Nanoparticle Tracking Analysis (Particle Matrix)
- * Leprechaun system (Alfatest)
- * Tunable Resistive Pulse Sensing (IZON)
- * High-resolution microscopy (ONI)
- * Atomic Force Microscopy
- * Proximity Barcode Assay (SECRETECH)
- * Flow cytometry (Beckman)

Lessons will vary in length.