# Palermo, 6-8 November 2019 - 1\textsuperscript{st} EVIta Symposium

**PROGRAM**

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<tr>
<th>Nov 6\textsuperscript{th}</th>
<th>18:00</th>
<th>Registration to the 1\textsuperscript{st} EVIta Symposium</th>
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<tr>
<td></td>
<td>18:30</td>
<td>Opening remarks</td>
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<td>Institutional welcome</td>
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<td>Welcome by the Local Organizing Committee</td>
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<td>19:00-19:30</td>
<td>Opening Lecture: Dolores Di Vizio</td>
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<td>CEDARS-Sinai Medical Center, USA</td>
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<td>“Cancer-Derived Extracellular vesicles and Large Oncosomes: From Biology to Biomarkers”</td>
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<td>Chairs:</td>
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<td>Riccardo Alessandro - University of Palermo, Italy</td>
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<td>Antonella Bongiovanni – IRIB, CNR, Italy</td>
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<td></td>
<td>19:30</td>
<td>Welcome Cocktail</td>
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<td>21:00</td>
<td>Jazz Time</td>
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<tr>
<th>Nov 7\textsuperscript{th}</th>
<th>08:00-8:45</th>
<th>Registration to the 1\textsuperscript{st} EVIta Symposium</th>
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<tr>
<td></td>
<td>08:45-9:00</td>
<td>Welcome Remarks</td>
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<td>Benedetta Bussolati, EVIta President</td>
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<td>University of Turin, Italy</td>
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<td>09:00-10:15</td>
<td>Session I - EVs as Therapeutics (I)</td>
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Chairs:

Lorenza Lazzari - Policlinico of Milan, Italy
Lucio Barile - Cardiocentro Ticino Foundation, Switzerland

09:00-09:15 Roberta Tasso, University of Genoa
“Mesenchymal stromal cell-derived extracellular vesicles (EVs) as mediators of anti-inflammatory effects: endorsement of macrophage polarization”.

09:15-09:30 Elia Bari, University of Padua
“MSC extracellular vesicles for treatment of alpha-1-antitrypsin deficiency pulmonary diseases”.

09:30-09:45 Papadimitriou Elli, University of Turin
“Urinary extracellular vesicles carrying klotho improve the recovery of renal function in acute tubular injury model”.

09:45-10:00 Giorgia Adamo, IRIB, CNR, Palermo
VES4US, a Horizon 2020-Future and Emerging Technology project: Selection and characterization of natural source derived extracellular vesicles (EVs).

10:00-10:15 Federica Collino, University of Padua
“Extracellular vesicles from adipose mesenchymal stromal cells promote cardio-renal protection in DOCA-salt hypertensive model”.

10:15-10:45 Morning Lecture: Kenneth Witwer, ISEV Board Member
Johns Hopkins University, USA
“Direct from the source: can we separate tissue EVs to inform the biomarker search?”

Chairs:

Benedetta Bussolati - University of Turin, Italy
Dolores Di Vizio - CEDARS-Sinai Medical Center, USA

10:45-11:00 Coffee break

11:00-13:15 Session II – EVs as Biomarkers

Chairs:

Massimiliano Bonafè - University of Bologna, Italy
Italia Di Liegro - University of Palermo, Italy

11:00-11:15 Chiara Castellani, University of Padua
“Extracellular vesicles surface protein profile as biomarkers to characterize allograft rejection in heart transplanted patients”.

11:15-11:30 Celeste Caruso Bavisotto, University of Palermo
“Exosomal HSP60 levels and related miRNAs in brain tumors”.

11:30-11:45 Silvia Picciolini, Don Gnocchi Foundation, Milan
“Biophotonics-based biosensor for the detection of circulating extracellular vesicles as biomarkers in personalized neurorehabilitation”.

11:45-12:00  **Emanuela Mensà, Marche Polytechnic University, Ancona**

“MicroRNA signatures loaded on small vesicles spread some features of senescent phenotype from senescent to younger endothelial cells”.

12:00-12:15  **Vito D’Agostino, CIBIO - University of Trento**

“Quantitative assessment of RNA targets on NBI-isolated extracellular vesicles from the blood of metastatic colorectal cancer patients”.

12:15-12:30  **Laura Cantone, University of Milan**

“Maternal-placental messaging through extracellular vesicles is influenced by particulate air pollution exposure”

12:30-12:45  **Burrello Jacopo, University of Turin**

“Circulating extracellular vesicles as biomarkers in patients after ST-segment elevation myocardial infarction”.

12:45-13:00  **Federica Anastasi, Scuola Normale Superiore, Pisa**

“Microproteomics workflow for exosome biomarker discovery: enabling single mouse analysis on longitudinal models”.

13:00-13:15  **Daniele D’Arrigo, Ente Ospedaliero Cantonale, Bellizona**

“Characterization of the whole profile of extracellular vesicles isolated from synovial fluid from different load-bearing joints”.

13:15-14:30  Light Lunch and Poster Sessions:

“EVs as Therapeutics” and “EVs as Biomarkers”

14:30-15:00  **Biotech Sponsored Session I**

**Chairs:**
- Marina Cretich – Scitec (ICRM), CNR, Italy
- Francesco Valle - University of Bologna, Italy
- Alfatest
- Nanoview
- Beckman Coulter

15:00-15:30  **Afternoon Lecture: Selim Ünlü**

*University of Boston, USA*

“High-throughput, high-resolution interferometric light microscopy of biological nanoparticles”.

**Chair:**
- Marcella Chiari - Scitec (ICRM), CNR, Italy

15:30-18:00  **Session III – EV Biology and Tools**

**Chairs:**
Maria Felice Brizzi - University of Turin, Italy
Marco Tripodi - University of Rome, Italy

15:30-15:45  Felice Maria Accattatis, DISFEB - University of Milan
“Size-dependent Extracellular Vesicles lipid composition. In vitro studies from a lymph-node metastatic melanoma cell line”.

15:45-16:00  Italia di Liegro, Bi.N.D., University of Palermo
“Potential roles of extracellular vesicles in brain cell-to-cell communication”.

16:00-16:15  Mauro Manno, IBF, CNR, Palermo
“VES4US, a Horizon 2020 Future and Emerging Technology project: Biophysical experimental tools for EVs structural characterization”.

16:15-16:30  Paolo Bergese, DMMT, University of Brescia
“Projecting extracellular vesicles in two dimensions”.

16:30-16:45  Marina Cretich, IGM, CNR, Milan
“Membrane sensing peptide microarrays for Extracellular Vesicles”.

16:45-17:00  Serena Maggio, University of Urbino
“The Possible role of Extracellular Vesicles in Neuromuscular Junction pre-patterning”.

17:00-17:15  Marta Brambilla, Centro Cardiologico Monzino IRCCS, Milan
“Differential contribution of microvesicles derived from platelets and monocytes of coronary artery disease patients to endothelial dysfunction”.

17:15-17:30  Cecilia Battistelli, Sapienza, University of Rome
“RNA binding proteins (RBPs) control sequence-specific miRNAs sorting in extracellular vesicles (EVs)”

17:30-17:45  Christopher Stanly, IBBR, CNR, Naples
“Preparative and Analytical ultracentrifugation of EVs”.

17:45-18:00  Marco Brucale, ISMN, CNR, Rome
“Nanomechanics of individual extracellular vesicles”.

20:00  Gala Dinner at Massimo Theatre Bistro
Nov 8th 08:15-09:45 Session IV - EVs as Therapeutics (II)

Chairs:
Anna Berardi - Santo Spirito Hospital of Pescara, Italy
Simona Fontana - University of Palermo, Italy

08:15-08:30 Chiara Gai, University of Turin
“Improved loading of plasma-derived extracellular vesicles to encapsulate antitumour miRNAs”.

08:30-08:45 Roberta Angioni, University of Padua
“CD73+ extracellular vesicles inhibit angiogenesis through adenosine A2B receptor signaling”.

08:45-09:00 Valentina Di Felice, University of Palermo
“Physiactisome: a new drug from engineered muscle cells that mimics physical exercise”.

09:00-09:15 Mario Barilani, IRCCS Foundation, Milan
“Pluripotent EV as carriers of regenerative prompts in aged cells”

09:15-09:30 Carolina Balbi, Cardiocentro Ticino Foundation, Lugano
“Cardiac progenitor cell exosome-associated periostin triggers reentry of cardiomyocytes into cell cycle”.

09:30-09:45 Cansu Gorgun, University of Genoa
“Mesenchymal stromal cell secretory activity: the role of extracellular vesicles in angiogenesis”.

09:45-10:15 Morning Lecture: Peter Nejsum
University of Aarhus, Denmark
“A new level of complexity in host-parasite interaction – extracellular vesicles”.

Chairs:
Paolo Bergese - University of Brescia, Italy
Annalisa Radeghieri - University of Brescia, Italy

10:15-10:30 Coffee break

10:30-11:00 Biotech Sponsored Session II

Chairs:
Mauro Manno - IBF, CNR, Italy
Stefania Bruno - University of Turin, Italy
Izon
NanoFCM
Particle Metrix GmbH

11:00-13:00 Session V - EVs in pathogenesis of diseases (I)

Chairs:
11:00-11:15  **Goffredo Arena**, *McGill University, Montreal*
“Cancer EVs convey metastatic traits through horizontal gene transfer”

11:15-11:30  **Vanessa Biemmi**, *Cardiocentro Ticino Foundation, Lugano*
“Cardiac dysfunction after myocardial infarction: role of pro-inflammatory extracellular vesicles”.

11:30-11:45  **Manuela Basso**, *University of Trento*
“Intercellular miscommunication in the brain and periphery: characterization of extracellular vesicle in Amyotrophic Lateral Sclerosis”.

11:45-12:00  **Stefania Raimondo**, *University of Palermo*
“Role of multiple myeloma exosomal miRNAs in the inhibition of osteoblast differentiation”.

12:00-12:15  **Alessia Brossa**, *University of Turin*
“Extracellular vesicles from liver stem cells inhibit renal cancer stem cell-derived tumor growth in vitro and in vivo”.

12:15-12:30  **Pina Fusco**, *University of Padua*
“Microscale technologies to decode the role of hypoxia-derived exosomes in determining Neuroblastoma dissemination and aggressiveness”.

12:30-12:45  **Chiara Ciardiello**, *IRCCS, G. Pascale Foundation, Naples*
“Large Oncosomes detection in diverse solid tumors showed a priming effect on tumor engraftment *in vivo*”.

12:45-13:00  **Valentina Zappulli**, *BCA Department, University of Padua*
“Glioma-derived miRNA-containing extracellular vesicles induce angiogenesis by reprogramming brain endothelial cells”.

13:00-14:15  Light Lunch and Poster Sessions:
“EV Biology and Tools” and “EVs in pathogenesis of diseases”

14:15-16:00  **Session VI - EVs in pathogenesis of diseases (II)**
Chairs:
**Goffredo Arena** - McGill University, Canada
**Marina Camera** - University of Milan, Italy

14:15-14:30  **Domenica Giannandrea**, *University of Milan*
“Targeting extracellular vesicles in multiple myeloma: a new role for the Notch pathway”.

14:30-14:45  **Andrea Caccioppo**, *DMS, University of Turin*
“Role of exosomes in Acute Coronary Syndrome”.

14:45-15:00  Alessandra De Feo, *Sapienza, University of Rome*
“Exosomes enriched for miR-199a-3p reverse tumor malignancy in Ewing sarcoma cells”

15:00-15:15  Verderio Claudia, *IN, CNR, Pisa*
“Glial microvesicles in motion at the neuron surface: implication in Alzheimer’s disease”.

15:15-15:30  Daisy Sproviero, *IRCCS Mondino Foundation, Padua*
“Distinct microRNA signature in exosomes of neurodegenerative diseases”.

15:30-15:45  Donatella Lucchetti, *Cattolica, University of Rome*
“CD147 promotes cell exosome release during colon cancer stem cells differentiation and triggers cellular changes in recipient cells”.

15:45-16:00  Leggio Loredana, *BIOMETEC, University of Catania*
“Ultrastructural and molecular characterization of astrocyte-derived extracellular vesicles from nigrostriatal brain regions: implications for dopaminergic neuroprotection”.

16:00-16:30  Afternoon Lecture: *Stefano Pluchino*
*University of Cambridge, UK*
“Signaling Properties of Stem Cells and their Cargo Vesicles”.
**Chairs:**
*Francesco Cappello* - *University of Palermo, Italy*
*Valentina Di Felice* - *University of Palermo, Italy*

16:30-17:00  Closing Remarks and Awards
*Vincenza Dolo, EVIta Vice-President*
*University of L’Aquila, Italy*

18:00-19:30  EVIta Annual Assembly with closing cocktail at
*Ridotto dello Spasimo-Blue Brass* (*Chiesa di Santa Maria dello Spasimo*)