



Italian Association  
Of Cell Cultures  
(AICC)

ASSOCIAZIONE ITALIANA DI CULTURE  
CELLULARI  
Associazione di Promozione Sociale

**June, 7<sup>th</sup> - 8<sup>th</sup> 2021**

**III International AICC  
Exosome meeting**

**Cell to cell delivery in  
cancer and therapy:  
a matter of carriers  
and messages**

**Virtual Meeting, will be held online**  
**More info <https://www.aicc.website>**

**FINAL PROGRAM**



**SAPIENZA**  
UNIVERSITÀ DI ROMA

**III International AICC  
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## CONFERENCE AIMS

Exosomes are extracellular vesicles of variable diameter between 30 and 200 nm, secreted by the cells in biological fluids. These vesicles can carry within or on their surface lipids, membrane and soluble proteins, mRNA, microRNA and transposons, acting as "signal" transporters between cells. Exosomes can also be characterized by common molecules defined as "exosomal markers" useful for their identification and purification and can be used as "indicators" of the presence or activity of specific cell types or tumor cells. The presence of circulating biomarkers, such as exosomes, can allow the development of non-invasive diagnostic tests, constant monitoring of disease progression and responses associated with the different therapeutic approaches used. The "Exosome meetings" underline the need, for researchers and clinicians, to understand the growing complexity of cell-cell communication mechanisms mediated by exosomes and other microvesicles, both physiological and pathological, and to exploit and modify these mechanisms to ensure innovative therapeutic approaches for effective translation from preclinical outcomes to clinical approaches.

This year's conference focuses in particular on:

- 1) exosomes, microvesicles and their role in tumorigenesis and metastasis
- 2) role of exosomes in immunity, immuno-evasion and tumor microenvironment
- 3) potential use and application of exosomes for diagnostic purposes.
- 4) use of modified exosomes and microvesicles or sintetic nanoparticles for the delivery of drugs or chemotherapy.

Young investigators are especially invited to participate and take advantage of the dedicated initiatives, including the awards that AICC and Sapienza University will offer for the best posters (flash presentation) and the best oral presentation.

Really hoping you will appreciate the meeting, we look forward to seeing you all!

The meeting President  
Enrico De Smaele

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June, 7<sup>th</sup>

**Monday June, 7<sup>o</sup>**

2:00 pm **Welcome from the organizers and from the AICC President**

2:10 pm **OPENING LECTURE: "Exosomes and Microvesicles: Integrators of Homeostasis, players in diseases"**

**Graca Raposo, CNRS/Institut Curie, Paris**

**SESSION I: Tumour-microenvironment Interactions And Immunology**

*Chairs: Alessandra Zingoni and Aurelia Rughetti, Sapienza University*

3:00 pm "Intercellular communication in the immune response: Transfer of genetic information by EVs during synapsis"

**Francisco Sánchez Madrid, Universidad Autónoma de Madrid**

3:45 pm "Adipocyte-derived exosomes and immune education"

**Antony Ferrante Jr, Columbia University, NY, USA**

4:25 pm **Technical Talk: "3D, Label-Free, Live Cell Imaging for Cell Morphology and Phenotyping."**

**Daniel Ghete, Tomocube Inc**

4:45 pm short break

5:00 pm "Unveiling a pro-inflammatory role for mast cell-derived exosomes"

**Rosa Molfetta, Sapienza University of Rome**

5:25 pm "Unconventional cell-to-cell regulation by exosomal miRNAs "

**Valentina Salvi, University of Brescia**

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June, 7<sup>th</sup>

5:50 pm -6:40 pm **Selected talk/flash presentations:**

(5:50 pm) Oral communication: "Identification of Chitinase 3-like 1 (CHI3L1) as a therapeutic target for pancreatic cancer present in large extracellular vesicles from human macrophages"

**Cristina P.R. Xavier, University of Porto**

(6:02 pm) Oral communication: "Anti-osteoblastogenic, pro-inflammatory and pro-angiogenic effect of extracellular vesicles isolated from the human osteosarcoma cell line MNNG/HOS"

**Argia Ucci, University of L'Aquila**

(6:14 pm) Oral communication: "Metabolically labeled exosomes for biogenesis and functional studies"

**Valeria Barreca, Istituto Superiore di Sanità, Rome**

(6:25 pm) Flash presentation: "Involvement of microRNAs and extracellular vesicles in human papillomavirus induced carcinogenesis"

**Marco Iuliano, Sapienza University of Rome**

(6:32 pm) Flash presentation: "Unraveling the role of tumor-derived exosomal Alu RNAs in colorectal cancer"

**Sara Magliacane Trotta, CNR, Napoli**

6:40 pm "Tumor EV heterogeneity and functional consequences"

**Lorena Martin-Jaular, Institut Curie, PARIS**

7:20 pm End of session

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June, 8<sup>th</sup>

Tuesday June 8<sup>th</sup>

**Session II: CIRCULATING SIGNALS AND CANCER**

*Chairs: Massimo Donadelli, University of Verona and Chiara Riganti, University of Turin*

8:45 am "Proteomic insights into extracellular vesicle composition & cellular reprogramming"

**David W. Greening, Baker Institute and La Trobe University, Australia**

9:35 am "microRNA loading signatures"

**Cecilia Battistelli, Sapienza University of Rome**

10:15 am **Technical Talk:** "Rapid, accurate isolation and quantitation of nano biological particles"

**Stephane Mazlan, Izon Science Ltd/Schaefer SEE**

10:35 am **Short Break**

10:50 am "Glioma-Derived miRNA-Containing Extracellular Vesicles Induce Angiogenesis by Reprogramming Brain Endothelial Cells"

**Valentina Zappulli, University of Padua**

11:15 am "Ewing Sarcoma derived exosomes mirror insulin-like growth factor 2 binding protein 3 (IMP3) cellular levels, modulating invasiveness of the receiving cells"

**Veronica Giusti, Istituto Ortopedico Rizzoli, Bologna**

11:35 am **Technical Talk:** "Extracellular vesicles and Lipid nanoparticles: Recent updates on matrix-free separation and characterization of novel drug carriers"

**Lutz Ehrhardt, Beckman Coulter**

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11:55 am-1:00 pm **Selected talks/short communications**

(11:55 am) Oral communication: "BCLAF1 Functionalization in relapsed/refractory cancers"

**Giulia Sgueglia, Campania University "Luigi Vanvitelli"**

(12:07 pm) Oral communication: "Colorectal cancer-derived small extracellular vesicles induce epithelial to mesenchymal transition of normal hepatocytes: new insights on the hepatic pre-metastatic niche formation"

**Marzia Pucci, University of Palermo**

(12:20 pm) Oral communication: "Anaplastic thyroid cancer derived microvesicles promote epithelial to mesenchymal transition (EMT) in papillary cancer cells "

**Michele Aventaggiato, Sapienza University of Rome**

(12:35 pm) Flash presentation: "Circulating extracellular vesicles in individuals at high-risk for lung cancer induce stromal cells pro-tumorigenic conversion by miR-126 and miR-320 transfer"

**Francesca Pontis, IRCCS- Istituto Nazionale dei Tumori, Milan**

(12:42 pm) Flash presentation: "The still undisclosed role of FZD10 delivering exosomes in cancer cell proliferation"

**Federica Rizzi, University of Bari, CNR Bari**

(12:50 pm) Flash presentation: "Dermal mesenchymal stem cell-derived exosomes drive melanoma progression towards quiescence "

**Deborah Magarre, Istituto Superiore di Sanità, Rome**

1:00 pm end of session

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### SESSION III - CLINICAL POTENTIAL OF EXOSOMES AND VESICLES

*Chairs: Katia Scotlandi, IOR Bologna, Michele Caraglia, Univ. of Campania "Luigi Vanvitelli", Naples, Stefania Meschini, ISS Rome*

2:00 pm "Anti-tumor activity of stem cell-derived extracellular vesicles"  
**Benedetta Bussolati, University of Turin**

2:30 pm "The interplay between platelet-derived microvesicles and cancer cells"  
**Mauro Torti, University of Pavia**

3:00 pm "Single Vesicle characterization using a new customizable array: access size, concentration, cargo and surface protein marker"  
**Roberto Santoliquido, ALFATEST**

3:20 pm -4:05 pm **Selected talks/short communications**

(3:20 pm) Oral communication: "Tumor-targeting niosomes for phenformin brain delivery in medulloblastoma therapy"  
**Laura Di Magno, Sapienza University of Rome**

(3:32 pm) Oral communication: "Nanotech revolution: miRNA delivery in glioblastoma as a new strategy to overcome temozolomide resistance by targeting O6-methylguanine methyl transferase (MGMT)"  
**Marianna Abate, Univ. of Campania "Luigi Vanvitelli", Naples**

(3:45 pm) Flash presentation: "Analysing leukaemia-derived EVs in the peripheral blood of Acute Myeloid Leukaemia patients: a reliable source of residual disease biomarkers?"  
**Hugo R. Caires, University of Porto**

(3:52 pm) Flash presentation: "Next generation sequencing analysis reveals distinct transcripts and microRNAs in tumor multidrug resistant cells and extracellular vesicles when compared with their drug-sensitive counterparts"  
**Diana Sousa, University of Porto**

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(6:32 pm) Flash presentation: "NGB Exosomal Enrichment As A Novel Inter-Cellular Mechanism Of Neuroprotection"  
**Virginia Solar Fernandez , Roma Tre University**

4:05 pm **Short break**

4:15 pm "Liposome-Protein Corona: New Opportunities for Targeted Drug Delivery and Early Disease Detection"  
**Giulio Caracciolo, Sapienza University of Rome**

4:45 pm "Exosomes for delivery of therapeutic molecules"  
**Stefano Fais, Italian National Institute of Health, Rome**

5:15 pm "Genotoxic stress affects the extracellular vesicle-mediated communication between Multiple Myeloma and Natural Killer cells"  
**Elisabetta Vulpis, Sapienza University of Rome**

5:40 pm **Short break**

5:55 pm **AWARD CEREMONY**  
Best oral presentation and flash presentation awards

6:20 pm **CLOSING LECTURE** - "Exosome and exomere biomarkers for diagnosing cancer and determining prognosis"  
**David C. Lyden, Weill Cornell Medicine, New York, USA**

7:05 pm **CLOSING REMARKS**

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## AICC Scientific Board

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## SCIENTIFIC AND ORGANISING COMMITTEE

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## Awards

AICC will award at least three prizes for best oral presentation by authors younger than 35 years of age. Each award is worth 250 euros.

AICC will also award at least six prizes for best poster (flash presentations) by authors younger than 35 years of age. Each award is worth 125 euros.

### *Under the patronage and sponsorship of:*

*Sapienza University of Rome (2021 meeting grant)*

### *Under the patronage of :*



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## Registration fees

Registration fees	Meeting fee (VAT included)
Regular members	120.00 €
<b>Undergraduate and PhD Students</b>	50.00 €
Sapienza PhD Students from conventioned PhD programs	Free admission

Registration to the meeting includes:

- Admission to all meeting sessions and meeting online material
- Abstract book file (PDF)
- Attendance certificate

Registration without payment is not considered valid.

**To participate to the meeting is required a valid AICC membership.**

Membership request forms are attached to this program and are available at the following link: <https://www.aicc.website/wp-content/uploads/2021/04/membership-request-2021.doc>

2021 AICC membership is free of charge.

### Meeting secretariat

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