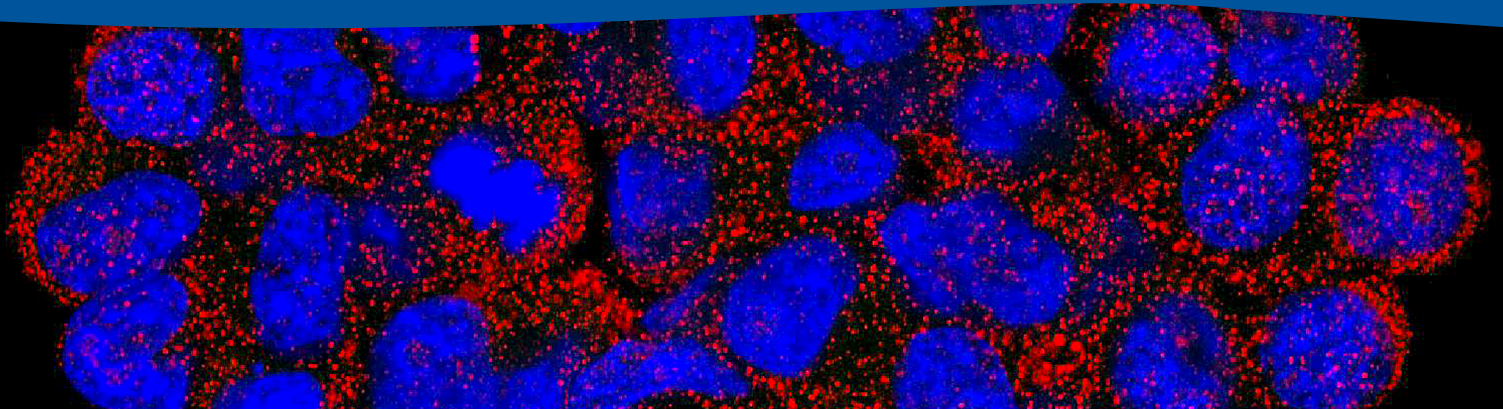


EuSARC 2025

7th Annual Meeting



The Biology of Sarcoma: from Basic Mechanisms to Innovative Therapies



5-7 June 2025

Venezia, Italy



EuSARC

EUSARC 2025 7 ANNUAL MEETING

5-7 June 2025 Venice, Italy



Welcome to Venice!

Eusarc 2025 will be dedicated to science, knowledge exchange, and human interaction, with the purpose to shape a network of scientists and clinicians that strongly wish to further improve outcome for patients affected with sarcomas. Sarcomas differ in many ways from other, more common, types of cancer. They are relatively rare, their histogenesis is often unclear, and many of them show an aggressive course.

Despite great advances in the treatment of localized disease have been achieved in past decades, the outcome for patients with metastatic or relapsed disease still remains unacceptably low.

We believe that further advancements and in particular the development of less toxic and targeted therapies should be based on a thorough understanding of the underlying biology of sarcomas.

In accordance, the EuSARC 2025 conference shall provide a forum to help bridging the gap between molecular discoveries and clinical translation.

To improve the outcome of sarcoma patients, a joint effort of many disciplines is required, and we are confident that the EuSARC 2025 conference will contribute to this aim.

Nicola Baldini
Sofia Avnet
Margherita Cortini

EuSARC 2025
Chairs

INVITED LECTURER

**JAKOB NIKOLAS
KATHER**



Professor of Clinical Artificial
Intelligence
Else Kröner Fresenius Center for
Digital Health
TU Dresden, Germany

Director of Research
Laboratory of Tissue Engineering
National Council for Research-IEIT
Genoa , Italy

**SILVIA
SCAGLIONE**



**MARIA
RESCIGNO**



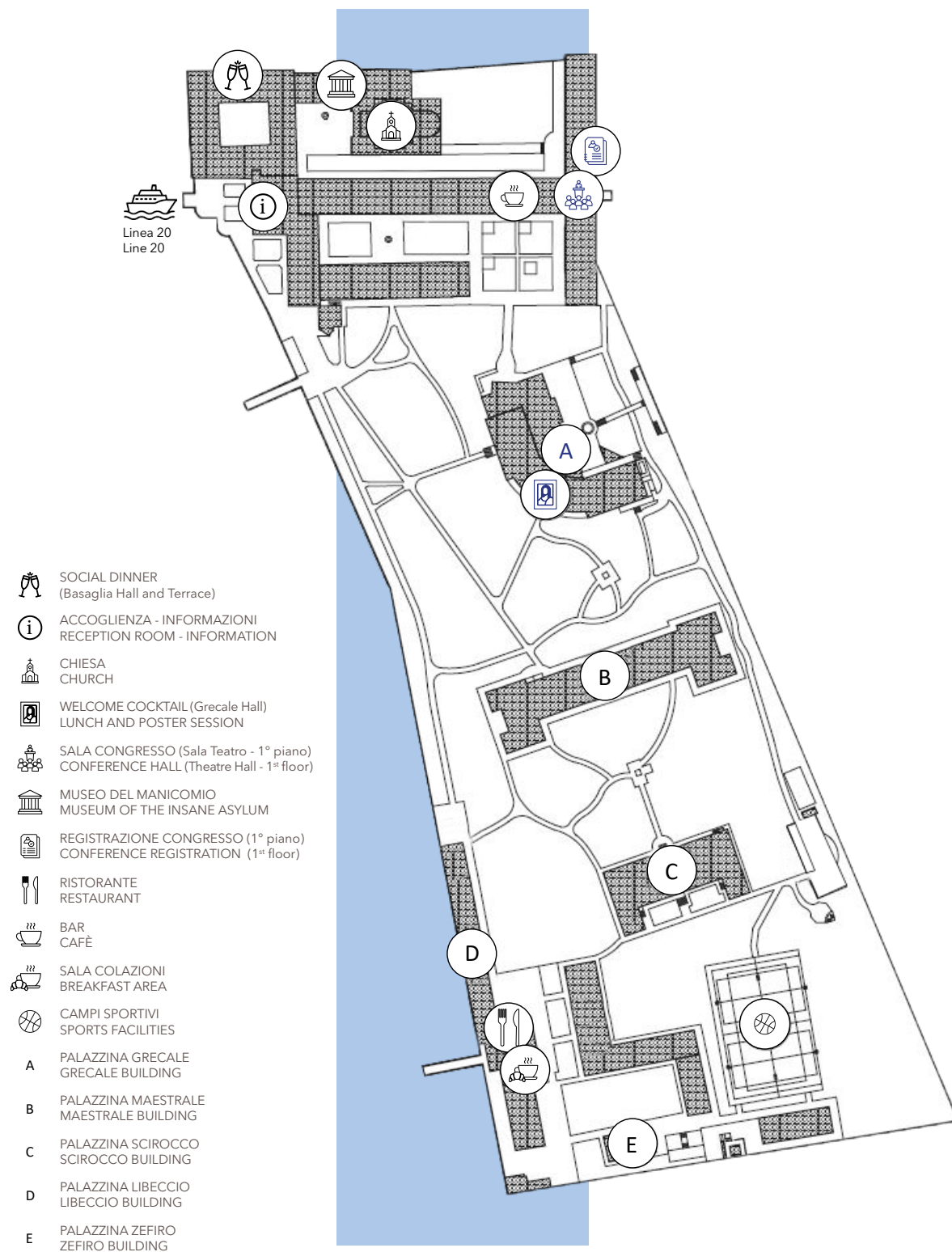
Professor of General Pathology
Mucosal immunology and
Microbiota Unit
Humanitas University
Milano, Italy

Professor of Experimental Pathology
University of Southampton
Southampton, United Kingdom

**THOMAS
GARETH**



SAN SERVOLO MAP



SCIENTIFIC COMMITTEE

Sofia Avnet - University of Bologna - Bologna, Italy

Nicola Baldini - University of Bologna and Istituto Ortopedico Rizzoli - Bologna, Italy

Margherita Cortini - University of Bologna - Bologna, Italy

Gemma Di Pompo - Istituto Ortopedico Rizzoli - Bologna, Italy

Dominique Heymann - Nantes Université - Nantes, France

Javier Muñoz-Garcia - Nantes Université - Nantes, France

Thomas Grünewald - German Cancer Research Center
- Heidelberg, Germany

Fernando Lecanda Cordero - University of Navarra - Navarra,
Spain

Eleni Thomazou - St. Anna Children's Cancer Research Institute
- Vienna, Austria

Agamemnon Grigoriadis - King's College London - London,
United Kingdom

Sébastien Wälchli - Oslo University Hospital - Oslo, Norway

SECRETARIAT

Fondazione CEUB
Ms. Monica Michelacci
ph: +39 0543 446555
mmichelacci@ceub.it

DAY 1 - THURSDAY, 5 JUNE 2025

OPENING

13:00-15:00 Registration

15:00-15:10 Opening

15:10-16:00 OPENING LECTURE- Jakob Nikolas Kather

AI in precision oncology
(Dresden, Germany)

SESSION 1 - PRECISION ONCOLOGY

MODERATORS: NICOLA BALDINI, JAVIER MUÑOZ-GARCIA

- 16:00-16:15 Deciphering the canine STS landscape – spatially defined transcriptomic and proteomic profiling of canine soft-tissue sarcoma subtypes and matched normal tissue
Fuchs D., Ech-Cherif H., Aghaabbasi S., Pöschel A., Beebe E., Guscetti F., Nolff MC., Markkanen E., (Zürich, Switzerland)
- 16:15-16:30 Establishing classification and characteristics of RB1-D in sarcoma using routine clinical FFPE tissue preparations
El Hashemi A., Davies C., Pillay N. and Mitnacht S.
(London, United Kingdom)
- 16:30-16:45 Distinguishing sarcoma entities via protein signatures in extracellular vesicles
Veizovic D., Strunk D., Wolf M., Darnhofer B., Birner-Grünberger R., Rinner B. (Graz, Austria)
- 16:45-17:00 FT-IR Spectral signature of sensitive and multidrug-resistant osteosarcoma cell-derived extracellular nanovesicles
Perut F., Graziani G., Roncuzzi L., Avnet S., Baldini N. (Bologna, Italy)
- 17:00-17:15 TOP2A expression as a biomarker for treatment effect of anthracyclines
Wessman S., Diaz de Ståhl T., Naserhojati Rodsari H., Herold N.
(Stockholm, Sweden)

DAY 1 - THURSDAY, 5 JUNE 2025

SESSION 2 - NOVEL TARGETS

MODERATORS: AGAMEMNON GRIGORIADIS, FRANCESCA PERUT

- 17:15-17:30 **Loss of SMARCB1 evokes targetable epigenetic vulnerabilities in epithelioid sarcoma**
Jin.J.X., Fuchslocher F., Carreno-Gonzalez M., Zahnow F., Ceranski K., Will R., Helm D., Bestvater F., Banito A., Imle R., Ohmura S., Cidre-Aranaz F., Grünewald T. (Heidelberg, Germany)
- 17:30-17:45 **The biological role, diagnostic value and therapeutic potential of pannexin 3 in osteosarcoma**
Obermeier D.F., Grünewald T.G.P., Ohmura S. (Heidelberg, Germany)
- 17:45-18:00 **Study of glypican 3 as new target to prevent cell migration and proliferation in rhabdomyosarcoma**
 Bacchiega M., D'Agostino S., Grigoletto A., Poli E., Bonvini P., Bisogno G., Pasut G., Pozzobon M. (Padova, Italy)
- 18:00-18:15 **Deciphering YAP1/TAZ roles using WRAP-based nanoparticles in gastrointestinal stromal tumors (GIST)**
Pezzati L., Faure S., De Santa Barbara P., Serrano C., Deshayes S., Boissguérin P. (Montpellier, France)
- 18:15-18:30 **Targeting the S6K2-hnRNPA1 signalling pathway to overcome chemoresistance and sensitise osteosarcoma cells to immunotherapy**
 Chirackal Manavalan A.P., Pryke E., Munoz-Garcia J. (London, United Kingdom)
- 18:30-18:45 **Chimeric DNA vaccination against the chondroitin sulfate proteoglycan 4: a potential ally in combinatorial approaches for the treatment of osteosarcoma**
 Tarone L., Giacobino D., Ferraris E., Maniscalco L., D'Achille F., Riccardo E., Morello E., Cavallo F. (Torino, Italy)
- 18:45-19:00 **Glutamine supports malignant peripheral nerve sheath tumor growth by promoting collagen biosynthesis**
La Spina M., Sbuelz F., Vercellone S., Komarov D., Ferrone L., Laquatra C., Cescon M., Calabrò S., Andolfo A., Drago D., Fantuz M., Bonaldo P., Rasola A. (Padova, Italy)
- 19:00-20:30 **Welcome Cocktail**
 ☺ Sala Grecale

DAY 2 - FRIDAY, 6 JUNE 2025

SESSION 3 - CELL THERAPIES

MODERATORS: SEBASTIEN WÄLCHLI, KIMBERLY HANSSEN

9:00-9:30

INVITED LECTURE - Maria Rescigno

The intratumoral microbiota in treatment efficacy
(Milano, Italy)

9:30-9:45

Dynamic fluid flow in a custom bioreactor modulates growth and chemoresistance in a 3D osteosarcoma model

Zywicki W., Humble W., Onofrillo C., Brandt M., O'Connor A.J., Duchi S.
(Melbourne, Australia)

9:45-10:00

Anti-tumoral effect of osteoblasts-derived extracellular vesicles loaded with methotrexate, doxorubicin, and cisplatin for osteosarcoma treatment

Giacchi L., Pucci E., Ucci A., Puri C., Clementi L., Maggi M., D'Archivio A., Angelucci A., Rucci N. (L'Aquila, Italy)

10:00-10:15

Enhancing CAR-T cell therapy with radiotherapy-driven TME modulation

Laspidea Ustés V., Ahmad R., del Carmen Rodríguez M., Pule M., Straathof K. (London, United Kingdom)

10:15-10:30

Understanding the tumor microenvironment towards next-generation CAR-T cells for osteosarcoma

del Carmen Rodríguez M., Laspidea Ustés V., Flanagan A.M., Pule M., Straathof K. (London, United Kingdom)

10:30-10:45

Armoured-CAR T cell-redirecting immunotherapy for metastatic and refractory Ewing sarcoma

Panisello C., Mañogil-Millán R., Roca-Ho H., Castilla C., Álava E., Carcaboso A.M., Bueno C., Menéndez P. (Barcelona, Spain)

FLASH TALKS SESSIONS

MODERATOR: CARLA PANISELLO

10:45-10:50

Advancing precision oncology in soft tissue sarcomas: The role of iTRAC in metastatic risk stratification and treatment personalization

Benhaddou A., Pérot G., Rochaix P., Valentin T., Ferron G., Chibon F.
(Toulouse, France)

10:50-10:55

The effects of bisphosphonates and vitamin D in preventing bone loss in a soft tissue sarcoma mouse model undergoing chemotherapy

Nakanishi M., Tsuchie H., Nagasawa H., Murata S., Miyakoshi N.
(Akita, Japan)

DAY 2 - FRIDAY, 6 JUNE 2025

10:55-11:00 *Photothermal therapy for osteosarcoma based on magnetite nanoparticles: a proof-of-concept*
Mountford J., Lozano-Pedraza C., Valle-Pastor M.J., Özel S., Teran F.J., Heymann D. (Nantes, France)

11:00-11:30 **Coffee Break and Poster Session**

SESSION 4 - EWING SARCOMA

MODERATORS: MARGHERITA CORTINI, DARIA KLUSA

- 11:30-11:45 **Functional characterization of CXADR as a potential key regulator of metastasis in Ewing sarcoma**
Ritter A., Zimmermann M., Geyer F.H., Carreno Gonzalez M.J., Outon P.T., Obermeier D., Faehling T., Siebenlist J., Imle R., Banito A., Li J., Ohmura S., Grünewald T. G.P., Cidre-Aranaz F. (Heidelberg, Germany)
- 11:45-12:00 **Transcription factor HES6 acts as a potential key regulator of metastasis in Ewing sarcoma**
Zimmermann M., Ritter A., Geyer F.H., Carreno Gonzalez M.J., Outon P.T., Obermeier D., Faehling T., Siebenlist J., Imle R., Banito A., Li J., Ohmura S., Grünewald T. G.P., Cidre-Aranaz F. (Heidelberg, Germany)
- 12:00-12:15 **Dissecting the role of the kynurenine pathway and aryl hydrocarbon receptor in Ewing sarcoma**
Carreño-Gonzalez M.J., Ceranski A.K., Sadik A., Knott M.M.L., Faehling T., Henneberg A., Geyer F.H., Ritter A., Hanssen K., Ohmura S., Ehlers A.C., Cidre-Aranaz F., Opitz C.A., Grünewald T. G.P. (Heidelberg, Germany)
- 12:15-12:30 **Exploring metabolic heterogeneity and vulnerabilities in Ewing sarcoma**
Hanssen K., Carreño-Gonzalez M., Siebenlist J., Cidre-Aranaz F., Zahnow F., Klinke G., Poschet G., Grünewald T.G.P. (Heidelberg, Germany)

DAY 2 - FRIDAY, 6 JUNE 2025

FLASH TALKS SESSION

MODERATOR: CARLA PANISELLO

- 12:30-12:35 *Osteosarcoma development in Opg^{-/-} mice: deciphering their origin and high metastatic dissemination capacity*
 Lessa A., Levergeois A., Muñoz-Garcia J., Cochonneau D., Giurgea I., Heymann D., Lézot F. (Paris, France)
- 12:35-12:40 *Interleukin-34 orchestrates bone formation through its binding to bone morphogenic proteins*
Muñoz-Garcia J. (Nantes, France)
- 12:45-12:50 *A comprehensive analysis of the molecular landscape in atypical fibroxanthoma and pleomorphic dermal sarcoma*
 Cani O., Vanni S., De Vita A., Gallo G., De Luca G., Pieri F., Capelli L., Chiadini E., Liverani C., Spadazzi C., Miserocchi G., Cocchi C., Calabrese C., Gabellone S., Dellavalle S., Savoia F., Medri M., Recine F., Fausti V., Bassi M., Campobassi A., De Vita A. (Meldola, Italy)

13:00-14:15 **Lunch and Poster session**
 ☺ Sala Grecale

SESSION 5 - ADVANCED MODELS

MODERATORS: SOFIA AVNET, EMMA PRYKE

14:15-14:45 INVITED LECTURE - Silvia Scaglione

From bench to bedside: leveraging 3D cancer models and organ-on-chip technology for drug discovery
 (Genoa, Italy)

- 14:45-15:00 Development of a 3D bone-on-a-chip model to investigate osteosarcoma progression in a tumour-mimetic microenvironment
Pasquarelli A., Lipreri M.V., Molaschi J., Avnet S., Baldini N. (Bologna, Italy)
- 15:00-15:15 Rapid tumor spheroid formation by encapsulation of osteosarcoma cells in collagen microdroplets
Panez-Toro I., Griscom L., Heymann D., Muñoz-Garcia J. (Nantes, France)
- 15:15-15:30 Design and development of a custom platform for osteosarcoma spheroids suitable for confocal and time-lapse microscopy
Lipreri M.V., Totaro M.T., Raimondi I., Cortini M., Baldini N., Avnet S. (Bologna, Italy)

DAY 2 - FRIDAY, 6 JUNE 2025

- 15:30-15:45 Impact of proton and carbon ion irradiation on endochondral ossification: insights from an ex vivo femur organotypic culture model
Etschmaier V., Schäfer U., Leithner A., Georg D., Lohberger B.
(Graz, Austria)
- 15:45-16:00 Preclinical evaluation of hits from high throughput screening using osteosarcoma patient derived cells
Tattersall L., Tippet V.L., Higginbottom A., Rankin K.S., Stevenson J., Gartland A. (Sheffield, United Kingdom)
- 16:00-20:00 Freetime
- 20:00-23:00 **Social Dinner**
📍 Sala Basaglia

DAY 3 - SATURDAY, 7 JUNE 2025

SESSION 6 – TUMOR MICROENVIRONMENT - PART 1

MODERATORS: GEMMA DI POMPO, DOMINIQUE HEYMANN

9:00-9:30	INVITED LECTURE - Gareth Thomas Understanding fibroblast in cancer (Southampton, United Kingdom)
9:30-9:45	Assessment of stromal contribution identified EFNA4-BMP4 tumor-stroma vicious cycle in osteosarcoma preclinical models Giordano G., Tucciarello C., Russo N., Comparato S., Wesche J., Myklebost O., Meza Zepeda L.A., Cutrupi S., <u>Pignochino Y.</u> (Torino, Italy)
9:45-10:00	Weakly supervised deep learning for predicting tumor from histopathology images in soft tissue sarcomas <u>Bonetti A.</u> , Ligerio M., El Nahhas O.S.M., Carrero Z., Kather J.N. (Dresden, Germany)
10:00-10:15	Spatiotemporal profiling reveals heme oxygenase-1- macrophages as a potential target in osteosarcoma metastasis <u>Dack M.R.G.</u> , Arnold J.N., Grigoriadis A.E. (London, United Kingdom)
10:15-10:30	Exploring ERK5 signalling and its relationship with the immune contexture of paediatric osteosarcoma to develop new biomarkers and therapeutic options <u>Frampton C.</u> , Williams K., Babur M., Finegan K. (Manchester, United Kingdom)
10:30-10:45	Emergence of recurrent osteosarcoma through selective phenotypic advantage <u>Perepelkina P.</u> (Vienna, Austria)
10:45-11:00	Functional impact of the tumor microenvironment on osteosarcoma development <u>Golias M.</u> , Muñoz-Garcia J., Fradet L., Heymann MF., Heymann D. (Nantes, France)
11:00-11:30	Coffee Break ☕ Cafè

DAY 3 - SATURDAY, 7 JUNE 2025

SESSION 7 – TUMOR MICROENVIRONMENT - PART 2

MODERATORS: THOMAS GRUNEWALD, MICHAEL DACK

- 11:30-11:45 **Innervation drives osteosarcoma aggressiveness via cancer-associated stromal cells**
Di Pompo G., Avnet S., Mitsiadis T.A., Pagella P., Pasquarelli A., Bettini G., Sabattini S., Baldini N. (Bologna, Italy)
- 11:45-12:00 **Nerve injury as a trigger in the development of malignant peripheral nerve sheath tumors: a novel genetic mouse model**
Ciscato F., Negro S., Pirazzini M., Tomasoni S., Finotti P., Verin R., Zappulli V., Persico G., Giorgio M., Rasola A., Masgras I. (Padova, Italy)
- 12:00-12:15 **Tumour microenvironment acidosis drives S1P/S1PR3-mediated angiogenesis in osteosarcoma: Therapeutic potential of S1PR3 antagonists**
Bozzini N., Cortini M., Avnet S., Mizushima E., Severino B., Lipreri M.V., Scognamiglio A., Corvino A., Baldini N. (Bologna, Italy)
- 12:15-12:30 **Atg5/Autophagy inactivation in bone microenvironment promotes tumor development**
Trojani MC., Nollet M., Camuzard O., Santucci-Darmanin S., Pierrefite-Carle V. (Nice, France)
- 12:30-12:45 **Modulatory effect of osteosarcoma cells on osteoclast formation**
Klusa D., Fradet L., Cochonneau D., Blin-Wakkach C., Muñoz-García J., Heymann D. (Nantes, France)
- 12:45-13:30 **Award Ceremony and Adjourn**
- 13:30 **Lunch and Departure**
📍 Sala Teatro

POSTERS

- 1.** Photothermal therapy for osteosarcoma based on magnetite nanoparticles: a proof-of-concept
Mountford J., Lozano-Pedraza C., Valle-Pastor M.J., Özel S., Teran F.J., Heymann D. (Nantes, France)
- 2.** Osteosarcoma development in Opg^{-/-} mice: deciphering their origin and high metastatic dissemination capacity
Lessa A., Levergeois A., Muñoz-Garcia J., Cochonneau D., Giurgea I., Heymann D., Lézot F. (Paris, France)
- 3.** A comprehensive analysis of the molecular landscape in atypical fibroxanthoma and pleomorphic dermal sarcoma
Cani O., Vanni S., De Vita A., Gallo G., De Luca G., Pieri F., Capelli L., Chiadini E., Liverani C., Spadazzi C., Miserocchi G., Cocchi C., Calabrese C., Gabellone S., Dellavalle S., Savoia F., Medri M., Recine F., Fausti V., Bassi M., Campobassi A., De Vita A. (Meldola, Italy)
- 4.** Interleukin-34 orchestrates bone formation through its binding to bone morphogenic proteins
Muñoz-Garcia J. (Nantes, France)
- 5.** Advancing precision oncology in soft tissue sarcomas: the role of iTRAC in metastatic risk stratification and treatment personalization
Noel K., Benhaddou A., Pérot G., Rochaix P., Valentin T., Ferron G., Chibon F. (Paris, France)
- 6.** The effects of bisphosphonates and vitamin D in preventing bone loss in a soft tissue sarcoma mouse model undergoing chemotherapy
Nakanishi M., Tsuchie H., Nagasawa H., Murata S., Miyakoshi N. (Akita, Japan)
- 7.** Inhibiting DNA repair systems enhances the sensitivity of human chondrosarcoma cells to carbon ion particle
Lohberger B., Barna S., Glänzer D., Leithner A., Georg D. (Graz, Austria)

POSTERS

- 8.** Optimizing CAR-T therapy for solid tumors through genetic screening in sarcoma GEMMs
Blösel D., Imle R., Scheuermann S., Seitz C., Banito A. (Heidelberg, Germany)
- 9.** Numbers matter: the role of cell dose in the treatment of osteosarcoma using mesenchymal stromal cells as cellular vehicles
Martella E., Ferroni C., Guerrini A., Ballestri M., Fini M., Lucarelli E., Varchi G., Duchi S.
(Melbourne, Australia)
- 10.** Crizotinib and carbon ion therapy: a combined strategy to increase radiosensitivity in sacral chordoma cells
Lohberger B., Glänzer D., Trajanoski S., Leithner A., Georg D.
(Graz, Austria)
- 11.** Identifying novel therapeutics for osteosarcoma: a high-throughput drug screening approach
Alam M., Virinder Kaur S., Salo T. (Helsinki, Finland)
- 12.** Matrix-specific invasion dynamics of osteosarcoma spheroids in different gels
Sarker A., Sarhadi Kaur V., Salo T. (Helsinki, Finland)
- 13.** Cancer stem cells in soft tissue sarcoma: fact or fiction
Vidova L., Valluru M.K., Sisley K. (Sheffield, United Kingdom)
- 14.** Elucidating the role of the histone variant macroH2A2 in Ewing sarcomaization
Blickenberger J., Farkas F., Hanssen K., Corujo D., Sánchez S., Tirado O.M., Grünewald T.G.P., Buschbeck M. (Barcelona, Spain)
- 15.** Establishment and characterization of a novel human Ewing's sarcoma cell line, OIRM_ES_01
Divincenzo E., Marini E., Mareschi K., Tirtei E., Fagioli F. (Torino, Italy)

POSTERS

- 16.** AKR1C3: the way to overcome drug resistance in osteosarcoma models
Tucciarello C., Giordano G., Oliaro Bosso S., Boschi D., Pippione A., Vigato C., Pignochino Y. (Torino, Italy)
- 17.** Establishment and characterization of two novel chondrosarcoma cell lines: MUG-EMCS and MUG-ChoSA as preclinical models
Vejzovic D., Karner C., Szkandera J., Liegl-Atzwanger B., Rinner B. (Graz, Austria)
- 18.** Point-of-care diagnostic device for early detection of circulating biomarkers of sarcoma from blood sample
Totaro M.T., Pasquarelli A., Lipreri M.V., Baldini N., Trusso G., Avnet S. (Bologna, Italy)
- 19.** Lipid droplet accumulation plays a crucial role in protecting osteosarcoma cells from acid-induced oxidative stress and cell death
Ilieva E., Cortini M., Massari S., Bettini G., Avnet S., Baldini N. (Bologna, Italy)
- 20.** Cell Adhesion and EMT Markers as Downstream Effectors of CKB Signaling in Metastatic Process
Pokludová J., Lapčík P., Bouchal P., Souček K., Knopfová L., Beneš P. (Brno, Czech Republic)
- 21.** Tropomyosin isoform Tpm2.3 inhibits osteosarcoma progression and metastasis
Rousová A., Pokludová J., Knopfová L., Navrátil J., Kahounová Z., Souček K., Moraczewska J., Beneš P. (Brno, Czech Republic)

EuSARC 2025

UNDER THE PATRONAGE OF



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

DEPARTMENT
OF BIOMEDICAL AND
NEUROMOTOR SCIENCES



SPONSORED BY



EuSARC 2025

Generously funded by the
Bone Cancer Research Trust



10 TRAVEL
GRANTS

for
YOUNG
INVESTIGATORS

1 AWARD

for the
BEST ORAL
COMMUNICATION

1 AWARD

for the
BEST POSTER
COMMUNICATION

Generously funded by **AIRC**



2 AWARDS

for
EARLY-CAREER
RESEARCHERS

Generously funded by
MICROMACHINES JOURNAL (MDPI)



1 AWARD

for the
BEST COMMUNICATION
IN 3D MINIATURIZED
CANCER MODELS AND
MICROENVIRONMENT