



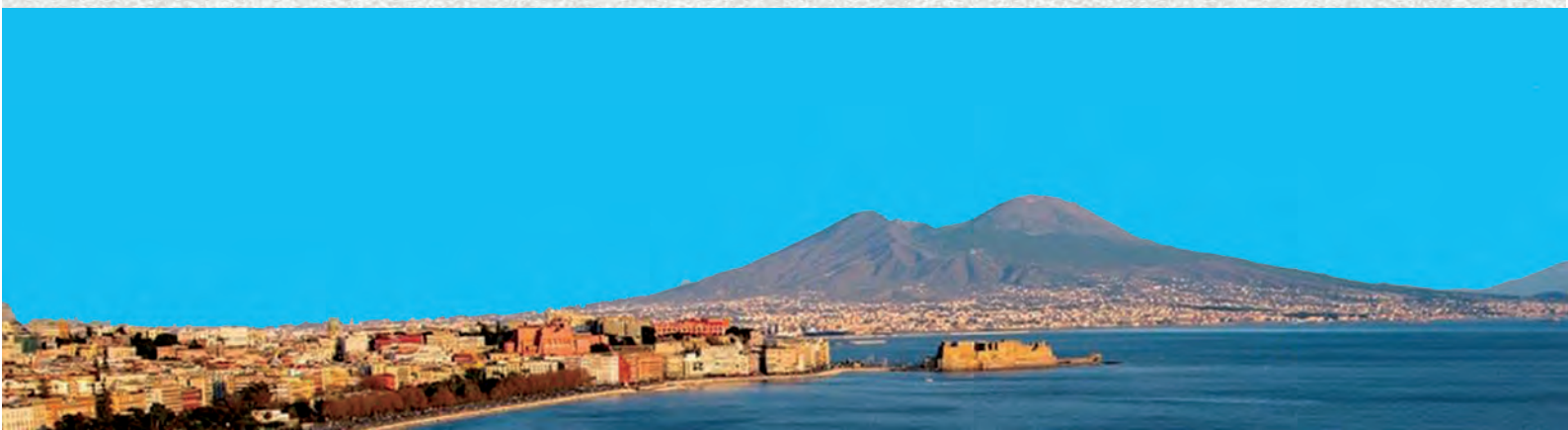
41^a CONFERENZA NAZIONALE DI CITOMETRIA

**AGGIORNAMENTI E INNOVAZIONI DELLA CITOMETRIA
NELLE APPLICAZIONI CLINICHE E DI RICERCA:
ANALISI, GESTIONE DEI DATI E LORO INTERPRETAZIONE**

17-19 maggio 2023

**Auditorium Biotecnologie - Università degli Studi di Napoli Federico II
Via Tommaso De Amicis, 95, 80131 Napoli**

PROGRAMMA



COMITATO SCIENTIFICO

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A. Battaglia (*Roma*)
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I. D'Agnano (*Milano*)
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MERCOLEDÌ 17 MAGGIO

12:00 Registrazione e Allestimento Poster

13:00 **WORKSHOP** Giovani Citometristi (Aula Informatica)
Ricerche e Applicazioni Innovative

Moderatori: Claudio Pioli (Roma), Giulia Scalia (Napoli), Antonella Minutolo (Roma)

COMUNICAZIONI ORALI

Identification of HERV-K expression in pathological lymphocytes subpopulation of Chronic Lymphocytic Leukaemia

Vita Petrone¹, Alessandro Giovinazzo², Roberta Laureana³, Chiara Cipriani¹, Marialaura Fanelli¹, Antonella Minutolo¹, Giovangiaco Paterno³, Elisa Buzzatti³, Sandro Grelli¹, Giovanni Del Poeta³, Emanuela Balestrieri¹, Maria Ilaria Del Principe³, Claudia Matteucci¹.

1. Department of Experimental Medicine, University of Rome "Tor Vergata", Rome, Italy; 2. Institute of Biochemistry and Cell Biology, CNR, Monterotondo, Rome, Italy; 3. Department of Biomedicine and Prevention, University of Rome "Tor Vergata", Rome, Italy.

Dysplasia rate in Myelodysplastic Syndromes correlates with highly suppressive Tregs expressing Foxp3-E2 isoform

Stefania Leone¹, Giulia Scalia², Annamaria Vincenzi¹, Flavia Carriero³, Francesco Grimaldi¹, Giuseppe Cerciello¹, Fabrizio Pane¹, Giuseppina Ruggiero⁴, Giuseppe Terrazzano³, Valentina

1 Hematology Unit, Department of Clinical Medicine and Surgery, University of Naples "Federico II", 80131 Naples, Italy.

2 CEINGE-Biotechnologie Avanzate, Scarl, Naples, Italy. 3 Department of Science, University of Basilicata, Potenza, Italy.

4 Department of Translational Medical Sciences, University of Naples "Federico II", Naples, Italy.

Development of a novel robust flow cytometry approach for identification of peripheral myeloid-derived suppressor cells of granulocyte origin in cancer patients

Cimmino CA¹, Fossati M¹, Buzzonetti A¹, Zampetti N¹, Scambia G¹, Fattorossi A¹, Battaglia A²

1 Cytometry Facility, Fondaz Policlinico Gemelli, IRCCS, and 2Sci and Public Health Dept, UCSC, Rome Italy.

Evaluating the AdipoRon efficacy in sensitive and Gemcitabine resistant Pancreatic ductal adenocarcinoma MiaPaCa-2 cells

Salzillo A.¹, Ragone A.¹, Spina A.¹, Sapio L.¹ and Naviglio S.¹

1. Department of Precision Medicine, University of Campania "Luigi Vanvitelli", Naples, Italy.

A multicenter study of the effects of interstitial lung diseases on the alveolar extracellular vesicle profile

Miriana d'Alessandro^{1#}, Sara Gangi¹, Piera Soccio^{2,3}, Elisabet Cantó⁴, Ruben Osuna⁴, Laura Bergantini¹, Paolo Cameli¹, Gaia Fabbri¹, Sara Croce¹, Giulia Scioscia^{2,3}, Giusy Montuori¹, Matteo Fanetti¹, Giorgia Moriondo^{2,3}, Fabrizio Mezzasalma⁵, Diego Castillo⁶, Donato Lacedonia^{2,3}, Silvia Vidal⁴, Elena Bargagli¹

1. Respiratory Diseases and Lung Transplantation Unit, Department of Medical and Surgical Sciences & Neuro-sciences, University of Siena, 53100 Siena, Italy; 2. Department of Medical and Surgical Sciences, University of Foggia, Foggia 71122, Italy; 3. Institute of Respiratory Diseases, "Policlinico Riuniti di Foggia", Foggia 71122, Italy; 4. Inflammatory Diseases, Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau, Biomedical Research Institute Sant Pau (IIB Sant Pau), 08041 Barcelona, Spain. 5. Diagnostic and Interventional Bronchoscopy Unit, Cardio-Thoracic and Vascular Department, University Hospital of Siena (Azienda Ospedaliera Universitaria Senese, AOUS), Siena, Italy; 6. Respiratory Department, Hospital de la Santa Creu i Sant Pau, Sant Pau Biomedical Research Institute (IIB-Sant Pau). Barcelona, Spain

Analysis and Sorting of Extracellular Vesicle Subpopulations by High-Resolution Flow Cytometry

Barreca Valeria¹, Galli Lorenzo¹, Polignano Deborah¹, Tirelli Valentina², Sanchez Massimo², Sargiacomo Massimo¹, Fiani Maria Luisa¹.

1. Istituto Superiore di Sanità, National Center for Global Health; 2. Istituto Superiore di Sanità, Lab. Area Citometria, ISS Core Facilities

14:00 **APERTURA DELLA CONFERENZA**

R. Chianese (Varese), G. D'Arena (Salerno), R. De Vita (Roma), S. Loffredo (Napoli), G. Mazzini (Pavia), G. Scalia (Napoli)

SESSIONI PARALLELE

14:15-15:30 **SESSIONE PARALLELA** (Aula Magna)

LA CITOMETRIA IN EMATOLOGIA CLINICA E TRASLAZIONALE

Moderatori: Rachele Amodeo (Roma), Giuseppe Coppola (Salerno)

Malattia Residua misurabile nella Leucemia Acuta Mieloide: come monitorare e refertare

Giovanni Rossi (San Giovanni Rotondo)

COMUNICAZIONI ORALI

Optimization of a 10-color staining for circulating neutrophil and monocyte subsets immunophenotyping

Marisa Gorrese¹, Angela Bertolini¹, Francesca Picone¹, Annapaola Campana², Paola Manzo², Anna Maria Della Corte¹, Giuseppe Coppola³, Bianca Serio², Carmine Selli^{1,2}, Valentina Giudice^{1,2}

1 Department of Medicine, Surgery, and Dentistry, University of Salerno, Baronissi, Italy; 2 Hematology and Transplant Center, University Hospital "San Giovanni di Dio e Ruggi d'Aragona", Salerno, Italy; 3 Transfusion Medicine, University Hospital "San Giovanni di Dio e Ruggi d'Aragona", Salerno, Italy

Flow cytometry analysis application in residual disease monitoring of a case of acute myeloid leukemia evolving from VEXAS myelodysplastic syndrome

Annamaria Vincenzi 1, Giorgia Battipaglia^{1,2}, Giulia Falconi 3, Alessia Fiore 1, Francesco D'Agostino¹, Raffaella Iannotta¹, Francesco Grimaldi^{1,2}, Carmelo Gurnari^{3,4}, Elisa Galossi³, Elena Crisa⁵, Francesca Bonello⁵, Giulia Scalia⁶, Barbara Izzo^{6,7}, Maria Teresa Voso³, Fabrizio Pane².

¹Hematology and Bone Marrow Transplantation Unit, Federico II University of Naples, Hematology Department, Naples, Italy; ²Department of Clinical Medicine and Surgery, Hematology Unit, University Federico II, Naples, Italy; ³ Department of Biomedicine and Prevention, University of Rome Tor Vergata, Rome, Italy; ⁴ Department of Translational Hematology and Oncology Research, Taussig Cancer Institute, Cleveland Clinic, Cleveland, OH, USA; ⁵ Medical Oncology, Candiolo Cancer Institute, FPO-IRCCS, Candiolo (Torino), Italy; ⁶ Centre for Advanced Biotechnology (CEINGE), Naples, Italy; ⁷ Department of Molecular Medicine and Medical Biotechnologies, University Federico II and Centre for Advanced Biotechnology (CEINGE), Naples, Italy

I RAPPOREUR: PRESENTANO E INVITANO ALLA LETTURA DEI POSTER

E1 16-color multiparametric immunophenotyping to determine identity, purity, and maturation of specific multivirus T cells expanded in vitro for clinical use

Amico G.^{1,2}, Di Bella M.^{1,2}, Timoneri F.^{1,2}, Di Bartolo C. ^{1,2}, Conaldi PG.², Miele M.^{1,2}

¹IRIMED Foundation, Palermo; ² Department of Laboratory Medicine and Advanced Biotechnologies, IRCCS-ISMETT (Mediterranean Institute for Transplantation and Advanced Specialized Therapies), Palermo

E2 PIG-A gene sequencing study in a cohort of patients with paroxysmal nocturnal hemoglobinuria showing different size and distribution of the PNH clone in flow cytometry

Laura Gentile¹, Vincenza Cerbone¹, Lucia Mauriello¹, Rosa Manganiello¹, Antonia Fiore¹, Imma Andolfo^{1,2}, Roberta Russo^{1,2}, Luana Marano³, Antonio Risitano³, Giulia Scalia¹, Maddalena Raia¹

¹CEINGE - Biotechnologie Avanzate Franco Salvatore, Naples, Italy; ²Department of Molecular Medicine and Medical Biotechnology, University Federico II, Naples, Italy; ³AORN San Giuseppe Moscati, Hematology and Hematopoietic Stem Cell Transplantation Unit, Avellino, Italy

E3 Hematogone expansion after allogeneic stem cell transplantation might be a sensible and early biomarker of normal hemopoiesis recovery

P. Manzo, A. Campana, A. Bertolini, F. Picone, M. Gorrese, B. Serio, D. De Novellis, F. D'Alto, D. Morini, M. Rizzo, A.M. Della Corte, F. Verdesca, A.M. Sessa, F. Velino, E. Selleri, V. Giudice

Department of Medicine, Surgery, and Dentistry, University of Salerno, Baronissi, Italy; Hematology and Transplant Center, University Hospital "San Giovanni di Dio e Ruggi d'Aragona", Salerno, Italy

E4 Human bone marrow 3D niche immunophenotyping

Paola Manzo ^{1,2}, Pasqualina Scala ¹, Marisa Gorrese ¹, Angela Bertolini ¹, Francesca Picone ¹, Annapaola Campana ², Denise Morini ¹, Anna Maria Della Corte ¹, Bianca Serio ², Giovanna Della Porta ^{1,3}, Carmine Selleri ^{1,2}, Valentina Giudice ^{1,2}

¹Department of Medicine, Surgery, and Dentistry, University of Salerno, Baronissi, Italy; ²Hematology and Transplant Center, University Hospital "San Giovanni di Dio e Ruggi d'Aragona", Salerno, Italy; ³Interdepartment Centre BIONAM, University of Salerno, Fisciano, Italy

E5 High-throughput blood analysis using spiral microfluidics tested by imaging flow cytometry Amnis

Mugnano M.^{1,2}, Cerbone V.², Montella A.^{2,3}, Scalia G.², Miccio L.¹, Capasso M.^{2,3}, Iolascon A.^{2,3}, Serra A.⁴, Mari S.⁵, Ferranti F.⁵ and Maffettone P.L.¹

¹ Department of Chemical, Materials and Production Engineering, University of Naples Federico II, Napoli, Italy; ² CEINGE—Advanced Biotechnologies, Napoli, Italy ; ³ DMMBM, Department of Molecular Medicine and Medical Biotechnology, University of Naples 'Federico II', Napoli, Italy ; ⁴ Luminex B.V., Het Zuiderkruis 1, 5215 MV 's-Hertogenbosch, The Netherlands ; ⁵ Italian Space Agency (ASI), Rome, Italy

E6 Flow Cytometry as a useful diagnostic tool in PNH rare disorder – a case report

Pascariello C.¹, Cimmino I.¹, Frieri C.², Risitano A.M.², Raimondi S.A.¹.

¹Immunohematology and Transfusion Medicine, AORN Caserta, Italy; ²Hematology Unit, AORN San Giuseppe Moscati Hospital, Avellino, Italy

E7 Normalized blast count: a flow cytometry standardized index for quick evaluation of normal residual hemopoiesis

Francesca Picone ¹, Angela Bertolini ¹, Annapaola Campana ², Marisa Gorrese ¹, Bianca Cuffa ², Francesca D'Alto ¹, Michela Rizzo ³, Roberto Guariglia ², Serena Luponio ², Idalucia Ferrara ², Bianca Serio ², Carmine Selleri ^{1,2}, Valentina Giudice ^{1,2}

¹Department of Medicine, Surgery, and Dentistry, University of Salerno, Baronissi, Italy; ²Hematology and Transplant Center, University Hospital "San Giovanni di Dio e Ruggi d'Aragona", Salerno, Italy; ³Transfusion Medicine, University Hospital "San Giovanni di Dio e Ruggi d'Aragona", Salerno, Italy

E8 Evaluation of WBC concentration in leukoreduced products by flow cytometry with LeukoSure Enumeration Kit

Sabetta R.¹, Cafaro L.2, Cirillo N.1, Cristiano F.1, D'Aiuto A.1, D'Andrea G.1, Di Spirito B.1, Doddato A.2, Guida A.1, Luongo G.1, Maiese D.1, Mautone L.1, Miccoli C.1, Pagano A.1, Palladino C.1, Peccerillo O.1, Polito A.1, Tarasco A.1, Tolgetto G.1, D'Arena G.1

¹U.O.S.D. di Immunoematologia e Medicina Trasfusionale-Ospedale "San Luca" di Vallo della Lucania-ASL Salerno ; ²U.O.S. Servizio Trasfusionale-Ospedale "Dell'Immacolata" di Sapri-ASL Salerno

14:15-15:30 **SESSIONE PARALLELA** (Aula Informatica)

LA CITOMETRIA IN IMMUNOLOGIA CLINICA E TRASLAZIONALE

Moderatori: Alessandra Battaglia (Roma), Daniela Fenoglio (Genova)

Reindirizzare una immunità non-tumorale contro il tumore mediante nanoparticelle: modello "Cavallo di Troia"

Daniela Fenoglio (Genova)

COMUNICAZIONI ORALI

Identification of a novel Cord Blood NK cell subpopulation expressing functional Programmed Death receptor-1

1Marco Greppi, 1Valentina Obino, 1Rayan Goda, 1Federico Rebaudi, 2Laura Maulicino, 2Giancarlo Abregal, 1,3Simona Carlomagno, 1Mariella Della Chiesa, 1,4Simona Sivori, 4Gianluca Ubezio, 4Vanessa Agostini, 4Alessandra Bo, 1Silvia Pesce, 1, 4Emanuela Marcenaro
1Department of Experimental Medicine, University of Genoa, Genoa, Italy; 2 Dipartimento di Emergenza, Servizio Sanitario Ligure ASL1, Italy; 3Department of Medicine (DAME), University of Udine, Udine, Italy; 4IRCCS Ospedale Policlinico San Martino, Genova, Italy

Phenotypic and functional study of CD8+ tissue-resident memory cells in the bone marrow of new diagnosed multiple myeloma patients

Marco P. La Manna^{1,2}, Melania Carlisi³, Giusto D. Badami^{1,2}, Valentina Orlando⁴, Mojtaba Shekarkar Azgomi^{1,2}, Bartolo Tamburini^{1,2}, Francesco Dieli^{1,2}, Nadia Caccamo^{1,2}
1 Central Laboratory of Advanced Diagnosis and Biomedical Research (CLADIBIOR), University Hospital of Palermo, 90129 Palermo, Italy; 2 Department of Biomedicine, Neuroscience and Advanced Diagnosis, University of Palermo, Italy; 3 Haematology, Biomedical Department of Internal Medicine and Medical Specialties, University of Palermo, Palermo, Italy; 4 Division UOC C.Q.R.C. Ospedali Riuniti Villa Sofia Cervello, Palermo, Italy;

Age-matched reference values for circulating Natural Killer T (NKT)-like cells

Tornese M.¹, Guarino R.¹, Colombo F.S.¹, Cattaneo A.¹, Ceriotti F.¹, Prati D.², Porretti L.¹, Trombetta E.¹
1IRCCS Fondazione Ca' Granda Ospedale Maggiore Policlinico di Milano, Flow Cytometry Service, Clinical Pathology; 2IRCCS Fondazione Ca' Granda Ospedale Maggiore Policlinico di Milano, Transfusion Medicine Department.

I RAPPORTEUR PRESENTANO E INVITANO ALLA LETTURA DEI POSTER

I 1 Analysis of the interactions between T cells and non-viral nanovectors for gene delivery by flow cytometry

De Stradis C.^{1,*}, Maiorano G.², Gigli G.^{1,2} and Palamà I. E.²

¹Department of Mathematics and Physics, University of Salento, Lecce; ²Nanotechnology Institute, CNR-NANOTEC, Lecce.

I 2 Effects of probiotics on functional activities of THP-1-derived macrophages in combination with Moringa oleifera aqueous extract

Di Placido D.¹, El Degwy N. ¹, Roglia V. ¹, Minchella A. ¹, Potestà M. ¹, and Montesano C. ^{1,2}

¹ Department of Biology, University of Roma Tor Vergata, Rome, Italy; ² UNESCO Interdisciplinary Chair in Biotechnology and Bioethics, Rome, Italy.

I 3 Biomimetic proteolipid leucosome vesicle characterization by flow cytometry immunophenotyping

Marisa Gorrese ¹, Pasqualina Scala ¹, Angela Bertolini ¹, Francesca Picone ¹, Erwin P. Lamparelli ¹, Bianca Serio ², Paola Manzo ², Annapaola Campana ², Giovanna Della Porta ^{1,3}, Carmine Selleri ^{1,2}, Valentina Giudice ^{1,2}

¹Department of Medicine, Surgery, and Dentistry, University of Salerno, Baronissi, Italy; ²Hematology and Transplant Center, University Hospital "San Giovanni di Dio e Ruggi d'Aragona", Salerno, Italy; ³Interdepartment Centre BIONAM, University of Salerno, Fisciano, Italy

I 4 DNA damage in circulating hematopoietic progenitor stem cell: a possible marker of frailty?

Chiara Grasselli ¹, Silvia Bombelli ², Andrea Panfili ¹, Paolo Mazzola ^{3,4}, Valerio Leoni ^{3,5}, Giuseppe Bellelli ^{3,4}, Roberto Peregò ³.

¹ Immunopharmacology Unit, Department of Oncology, Mario Negri Institute for Pharmacological Research IRCCS, Milan, Italy; ² Flow Cytometry Core Facility, Neurogenomics, Human Technopole, Milan, Italy; ³ School of Medicine and Surgery, University of Milano-Bicocca, Monza, Italy; ⁴ Acute Geriatric Unit, San Gerardo Hospital, ASST-Monza, Monza, Italy; ⁵ Laboratory of Clinical Chemistry, Hospital of Desio, ASST-Brianza, Desio, Italy

I 5 A novel Basophil Activation Test for diagnosis of immediate hypersensitivity reactions totaxane and platinum

La Sorda M1, Fossati M2, Graffeo R1, Buzzonetti A2, Zampetti N2, Ferraironi M1, Sanguinetti M1, Scambia G3, Fattorossi A2, Battaglia A3

¹ Lab Sci & Inf Diseases, ²Cytometry Facility and ³Gynecol Oncology Dept, Fondazione PoliclinicoGemelli, IRCCS and ³Life Sci & Public Health Dept, UCSC, Rome Italy

I 6 Spatial profiling of tumor-infiltrating immune cell subpopulations in childhood ependymoma

Lucchetti D^{1,2}, Servidei T³, Colella F², Artemi G¹, Ruggiero A^{3,4}, Sgambato A¹.

¹Translational Med. Surg. Dept - Faculty Med. Surg., Sacred Heart Catholic Univ.; ²Fondazione Pol.Univ. A. Gemelli IRCCS; ³Pediatric Oncol. Unit, Fondazione Pol. Univ. A. Gemelli IRCCS; ⁴Dip. Sci. Salute Donna, Bambino e Sanità Pubblica, Sacred Heart Catholic Univ., Rome Italy

I 7 Flow cytometry characterization of tumor associated macrophages

S. Romano, L. Marrone, V. Di Giacomo, S. Urzini, M.P. Gammella, C. Malasomma, M.F. Romano.

University of Naples Federico II - Department of Molecular Medicine and Medical Biotechnology, Naples, Italy

I 8 Both down-regulation and in vivo blockade of mGluR5 receptors reduce the reactive phenotype of spinal-cord astrocytes and improves the disease progression in a mouse model of amyotrophic lateral sclerosis

C. Usai¹, M. Milanese^{2,3}, T. Bonifacino², C. Torazza², F. Provenzano², S. Ravera², C. Rebosio², M. Balbi², G. Bonanno^{2,3}

¹Inst. of Biophysics, Nat. Res. Council, Genoa, Italy; ²Dept. of Pharmacy, Unit of Pharmacology and Toxicology, University of Genoa, Genoa, Italy; ³Centre of Excellence for Biomed. Res., University of Genoa, Genoa, Italy

SESSIONI PARALLELE

15:30-16:45 **SESSIONE PARALLELA** (Aula Magna)

LA CITOMETRIA IN ONCOLOGIA SPERIMENTALE E TRASLAZIONALE

Moderatori: Igea D'Agnano (Milano) Virginia Tirino (Napoli)

Approccio epigenetico per potenziare la terapia anticancro mirando al compartimento delle cellule staminali tumorali e meccanismi di resistenza nei tumori solidi

Elena Di Gennaro (Napoli)

COMUNICAZIONI ORALI

Characterization of biomimetic nanoparticles and analyses of their homotypic tumoral targeting capability by flow cytometry

Baldari C.1,2*, Maiorano G. 2, Gigli G.1,2, Palamà I.E.2

1. Department of Mathematics and Physics, University of Salento, Monteroni Street, 73100 Lecce, Italy; 2. CNR-Nanotechnology Institute, CNR-NANOTEC, Monteroni Street, 73100 Lecce, Italy

DNA-PK inhibition sustains immunotherapy response inducing non-canonical activation of STING pathway through MAVS signaling in SCLC

De Rosa C.1, Tuccillo C.1, Amato L.1, Tirino V.2, Iommelli F.3, Papaccio F.4, Ciardiello F.1, Morgillo F.1 and Della Corte CM.1

1 Department of Precision Medicine, University of Campania Luigi Vanvitelli, Italy; 2 Department of Experimental Medicine, University of Campania Luigi Vanvitelli, Italy; 3 Institute of Biostructures and Bioimaging, National Research Council, Naples, Italy; 4 Department of Medicine, Surgery and Dentistry, "Scuola Medica Salernitana", University of Salerno, Baronissi, Italy

I RAPPORTEUR PRESENTANO E INVITANO ALLA LETTURA DEI POSTER

01 Guadecitabine increases response to combined anti-CTLA-4 and anti-PD-1 treatment in mouse melanoma in vivo by controlling the responses of T-cells, myeloid derived suppressor cells and NK cells

Adriana Amaro, Francesco Reggiani, **Daniela Fenoglio**, Rosaria Gangemi, Anna Tosi, Alessia Parodi, Barbara Banelli, Valentina Rigo, Luca Mastracci, Federica Grillo, Fabio Sallustio, Laura Emionite, Antonio Daga, Tiziana Altosole, Gilberto Filaci, Antonio Rosato, Michele Maio, on behalf of EPigenetic Immune-oncology Consortium Airc (EPICA) investigators, Ulrich Pfeffer and Michela Croce.

IRCCS Ospedale Policlinico San Martino, Genova, Italy¹, Department of Internal Medicine, University of Genova, Genova, Italy², Immunology and Molecular Oncology Diagnostics, Veneto Institute of Oncology IOV-IRCCS, Padova, Italy³, Department of Interdisciplinary Medicine, University of Bari "Aldo Moro", Bari, Italy⁶, Department of Surgery, Oncology and Gastroenterology, University of Padova, Padova, Italy⁷, University of Siena, Siena, Italy⁸.

02 Characterization of heterogeneous stem-like cells coexisting in single GBMs

Elena Casanova¹, Francesca De Bacco^{1,2}, Francesca Orzan¹, Marta Prelli^{1,2}, Pietro Zeppa³, Diego Garbossa³ and Carla Boccaccio^{1,2}

¹Laboratory of Cancer Stem Cell Research, Candiolo Cancer Institute, FPO-IRCCS, 10060 Candiolo, Turin, Italy; ² Department of Oncology, University of Turin Medical School, 10060 Candiolo, Turin, Italy; ³Città della Salute e della Scienza, 10126 Turin, Italy

03 Analysis of extracellular vesicle cargo secreted by glioblastoma cancer cell models in vitro and in vivo

Cifola I.1, Vilardo L.1, Gatti G.2, Panini N.3, Orsini T.4, Fratini F.5, Papi M.6, Falcone G.4, Cenciarelli C.7, Blandino G.8, De Santa F.4, Catalano M.9, Raspa M.4 and **D'Agnano I.1**

1. CNR, Institute for Biomedical Technologies, Segrate. 2. BIOMETRA Department, University of Milan. 3. Flow Cytometry Application Resource Service Unit, Neurogenomics Research Centre, Human Technopole, Milan. 4. CNR, Institute of Biochemistry and Cell Biology, Rome. 5. Proteomics Core Facility, Istituto Superiore di Sanità (ISS), Rome. 6. Fondazione Policlinico Universitario A. Gemelli IRCCS/Dipartimento di Neuroscienze, Sez. Fisica, Università Cattolica del Sacro Cuore, Rome. 7. CNR, Institute of Translational Pharmacology, Rome. 8. Translational Oncology Research Unit, IRCCS Regina Elena National Cancer Institute, Rome. 9. Department of Physiology and Pharmacology, Sapienza University, Rome. Italy

04 The potential role of pomegranate extract obtained by hydrodynamic cavitation as adjuvant in cancer therapies

Rossella Chirico¹, Gabriele Di Marco², Christian Maracchioni¹, Vita Petrone¹, Marialaura Fanelli¹, Alessia D'agostino², Antonella Canini², Sandro Grelli^{1,3}, Angelo Gismondi², Claudia Matteucci¹, Francesco Meneguzzo⁴, Antonella Minutolo¹

1. Department of Experimental Medicine, University of Rome Tor Vergata, Rome, 00133, Italy; 2. Department of Biology, University of Rome 'Tor Vergata', via della Ricerca Scientifica 1, 00133, Rome, Italy; 3. Virology Unit, Policlinic of Tor Vergata, Rome, 00133, Italy; 4. Istituto per la Bioeconomia, via Madonna del Piano 10, Sesto Fiorentino, 50019, Italy

05 Circulating CD137+ T cell levels are correlated with response to Pembrolizumab treatment in advanced head and neck cancer patients

Alessio Cirillo^{1,2*}, Ilaria Grazia Zizzari^{2*}, Andrea Botticelli¹, Lidia Strigari³, **Angela Asquino**², Hassan Rahimi², Simone Scagnoli¹, Fabio Scirocchi², Angelina Pernazza⁴, Angelica Pace², Bruna Cerbelli⁴, Giulia d'Amati⁴, Paolo Marchetti⁵, Marianna Nuti², Aurelia Rughetti² and Chiara Napoletano² **equally contributed*

¹ Division of Oncology, Department of Radiological, Oncological and Pathological Science, Policlinico Umberto I, "Sapienza" University of Rome, 00161 Rome, Italy; ² Laboratory of Tumor Immunology and Cell Therapies, Department of Experimental Medicine, "Sapienza" University of Rome, 00161 Rome, Italy; ³ Medical Physics Unit, "Sant'Orsola-Malpighi" Hospital, 40138 Bologna, Italy; ⁴ Department of Radiology, Oncology and Pathology, "Sapienza" University of Rome, 00161 Rome, Italy; ⁵ Istituto Dermopatico dell'Immacolata (IDI-IRCCS), 00161 Rome, Italy

06 Glioblastoma Multiforme: study of cell alterations due to platinum compounds and phytotherapy in T98G and U251 human glioblastoma cell lines

Gaiaschi L. 1*, Casali C. 1*, Gola F. 1, De Luca F. 1, Favaron C. 1, Ravera M. 2, Rossi P. 3, Mazzini G. 4, Bottone M.G. 1

¹Laboratory of Cell Biology and Neurobiology, Department of Biology and Biotechnology "L. Spallanzani", University of Pavia, Via Ferrata 9, 27100 Pavia, Italy; ²Department of Sciences and Technological Innovation (DiSIT), University of Piemonte Orientale "A. Avogadro", Viale Teresa Michel 11, 15121 Alessandria, Italy; ³Laboratory of Neurophysiology and Integrated Physiology, Department of Biology and Biotechnology "L. Spallanzani", University of Pavia, Via Ferrata 9, 27100 Pavia, Italy; ⁴Institute of Molecular Genetics, National Research Council (IGM-CNR), Italy - *Co-first authors

07 Proapoptotic effect of three different species of Moringa oleifera Lam. Leaves extracts on THP-1 cell line

Minchella A.1, Roglia V.1, El Degwy N.1, Di Placido D.1, Potestà M.1,2 and Montesano C.1,2

1. Department of Biology, University of Rome Tor Vergata, Rome, Italy; 2. UNESCO Interdisciplinary Chair in Biotechnology and Bioethics

08 Effects of Moringa oleifera Lam. microvesicles on endogenous miRNAs involved in tumorigenesis in HeLa cell line

Marina Potestà^{1,2*}, **Valentina Roglia**^{1*}, Federico Iacovelli¹, Marco Ciotti³, Anna Criscuolo⁴, Antonella Minutolo⁵ and Carla Montesano^{1,2}.

1. Department of Biology University of Rome Tor Vergata, Rome, Italy. 2. UNESCO Interdisciplinary Chair in Biotechnology and Bioethics. 3. Virology Unit, Polyclinic Tor Vergata, Rome, Italy. 4. Department of Gynecology, University of Rome Tor Vergata, Rome, Italy. 5. Department of Experimental Medicine, University of Rome Tor Vergata, Rome, Italy. *These authors contributed equally to this work

15:30-16:45 **SESSIONE PARALLELA** (Aula informatica)
**CITOMETRIA E AMBIENTE: NUOVE SFIDE ANALITICHE
PER APPLICAZIONI NON BIOMEDICHE**
Moderatori: Stefano Amalfitano (Roma), Raffaella Casotti (Napoli)

Fast-screening flow cytometry method for detecting nanoplastics in human peripheral blood
Jordi Petriz (Barcellona)

COMUNICAZIONI ORALI

Fluorescence-guided detection of micro- and nano-plastics in environmental samples

Silvia Morgana¹, Barbara Casentini², Valentina Tirelli³, Felicia Grasso³, Stefano Amalfitano²

¹ Istituto per lo studio degli impatti Antropici e Sostenibilità in ambiente marino (IAS-CNR), Via della Vasca Navale, 00146 Roma; ² Istituto di Ricerca Sulle Acque (IRSA-CNR), Via Salaria Km 29.300, 00015 Monterotondo, Roma; ³ Istituto Superiore di Sanità, Area di Citometria, Servizio Grandi Strumentazioni e Core facilities, Viale Regina Elena 299, 00161 Roma

Culturability vs viability: advanced monitoring of the antimicrobial and anti-biofilm activity of natural compounds to be incorporated in active packaging

Poscente V. ^{1,2}, Di Gregorio L. ¹, Costanzo M. ¹, Bindo A. ^{1,3}, Del Fiore A. ¹, Nobili C. ¹, Bernini R. ², Garavaglia L. ⁴, Bevivino A. ¹

¹ ENEA, Italian National Agency for New Technologies, Energy and Sustainable Economic Development; Biotechnologies and Agroindustry Division, Department for Sustainability, Rome, Italy; ² University of Tuscia, Department of Agriculture and Forest Sciences, Viterbo, Italy; ³ University Campus Bio-Medico, Rome, Italy; ⁴ I.L.P.A. Group, Valsamoggia, Italy

I RAPPORTEUR PRESENTANO E INVITANO ALLA LETTURA DEI POSTER

A1 Cancer induces very high levels of sperm oxidative stress

Costanza Calamai¹, Oumaima Ammar¹, Viktoria Rosta¹, Salvatore Zimmitti², Lisa Giovannelli³, Linda Vignozzi^{1,4}, Csilla Krausz ^{1,4},

Monica Muratori¹

¹ Department of Experimental and Clinical Biomedical Sciences "Mario Serio", University of Florence, Florence, Italy; ² Medical Specialization School of Hygiene and Preventive Medicine, University of Florence, Florence, Italy; ³ Department NEUROFARBA, University of Florence, Florence, Italy; ⁴ Andrology, Women's Endocrinology and Gender Incongruence Unit, AOU Careggi, Florence, Italy.

A2 Epigenetics of Thermal Stress: a Flow Cytometry and Electron Microscopy Approach

Casali C.¹, Gaiaschi L. ¹, Zannino L. ¹, Cavallo M. ¹, Milanese G. ¹, Mazzini G. ², Biggiogera M. ¹

¹ Laboratory of Cell Biology and Neurobiology, Department of Biology and Biotechnology "L. Spallanzani", University of Pavia, Via Ferrata 9, 27100 Pavia, Italy. ² Institute of Molecular Genetics, National Research Council (IGM-CNR), Italy.

A3 A potion of eternal youth: the anti-aging effect of Voghera Sweet Pepper

Fabrizio De Luca^{1*}, Federica Gola^{1*}, Claudio Casali¹, Ludovica Gaiaschi¹, Giuliano Mazzini², Riccardo Vicini³, Elisa Roda^{1,4}, Paola Rossi ¹ and Maria Grazia Bottone¹

¹ Department of Biology and Biotechnology, University of Pavia, Via Ferrata 9, 27100 Pavia, Italy; ² Institute of Molecular Genetics, National Research Council (IGM-CNR), Italy; ³ Bio Basic Europe S.R.L., Via Taramelli 24, 27100 Pavia, Italy; ⁴ Laboratory of Clinical and Experimental Toxicology, Pavia Poison Centre—National Toxicology Information Centre, Toxicology Unit, Istituti Clinici Scientifici Maugeri, IRCCS Pavia, 27100 Pavia, Italy - *Co-first authors

A4 Microbial community profiles and antibiotic resistance potential in a marine aquaculture system

Marco Melita¹, Grazia M. Quero², Naomi Massaccesi^{2,3}, Marco Basili^{2,3}, Elena Manini², Gian Marco Luna², Stefano Amalfitano^{1,4}

¹ Istituto di Ricerca Sulle Acque (IRSA-CNR, Roma); ² Istituto per le Risorse Biologiche e le Biotecnologie Marine (CNR-IRBIM, Ancona); ³ Alma Mater Studiorum - Università di Bologna (Bologna); ⁴ National Biodiversity Future Center (NBFC, Palermo)

A5 Planktonic microbial community patterns in waters of an East African soda lake (Sonachi, Kenya)

Agnese Piacentini¹, Stefano Amalfitano¹, Stefania Venturi^{2,3}, Nic Pacini⁴, Lydia A. Olaka⁵, Jacopo Cabassi³,

Francesco Capecchiacci^{2,3}, Franco Tassi^{2,3}, Orlando Vaselli^{2,3}, Andrea Butturini⁶, Stefano Fazi¹

¹ Water Research Institute, National Research Council of Italy (IRSA-CNR), Monterotondo, Rome, Italy. ² Department of Earth Sciences, University of Florence, Florence, Italy. ³ Institute of Geosciences and Earth Resources, National Research Council of Italy (IGG-CNR), Florence, Italy. ⁴ Department of Environmental Engineering, University of Calabria, Arcavacata di Rende, Rende, Italy. ⁵ Department of Geology, University of Nairobi, Nairobi, Kenya. ⁶ Department of Evolutionary Biology, Ecology and Environmental Sciences, University of Barcelona, Barcelona, Spain.

16:45 **LETTURA MAGISTRALE DI APERTURA** (Aula Magna)
Moderatori: Rosa Chianese (Varese), Daniela Fenoglio (Genova)

Capire e sfruttare la funzione anti tumorale dei linfociti iNKT
Paolo Dellabona (Milano)

17:30 Brindisi di Benvenuto

SESSIONI PARALLELE

08:30-10:00 **SESSIONE PARALLELA** (Aula Magna)

LA CITOMETRIA IN EMATOLOGIA SPERIMENTALE E TRASLAZIONALE

Moderatori: Giovanni D'Arena, (Salerno), Silvestro Volpe (Avellino)

La Citometria nella valutazione dei Linfomi B sottoposti a target therapy

Antonella Aiello (Milano)

COMUNICAZIONI ORALI

Consensus for Flow Cytometry Clinical Report on Multiple Myeloma: A Multicenter Harmonization Process Merging Laboratory Experience and Clinical Needs

Iole Cordone^{1*}, Rachele Amodeo², Silvia Bellesi³, Fiorella Bottan⁴, Francesco Buccisano⁵, Maria Stefania De Propriis⁶, Serena Masi¹, Valentina Panichi⁷, Maria Cristina Scerpa⁸, Ombretta Annibaldi⁹, Velia Bongarzone¹⁰, Tommaso Caravita di Toritto¹¹, Ugo Coppetelli⁸, Luca Cupelli¹², Paolo de Fabritiis¹², Luca Franceschini⁵, Mariagrazia Garzia¹³, Alessia Fiorini¹⁴, Giacinto Laverde¹⁵, Andrea Mengarelli¹⁶, Tommaso Za3 and Maria Teresa Petrucci¹⁷.

¹Dep. of Research, Advanced Diagnostic and Technological Innovation, IRCCS Regina Elena National Cancer Institute, Rome; ²Clinical Pathology and Biochemistry, Sant'Andrea University Hospital, Rome; ³Dep. of Diagnostic Imaging, Oncological Radiotherapy and Haematology, IRCCS Foundation A. Gemelli University Hospital, Rome; ⁴Clinical Pathology, San Giovanni Addolorata Hospital, Rome; ⁵Dep. of Biomedicine and Prevention, Haematology and Stem Cell Transplant Unit University of Rome 'Tor Vergata', Rome; ⁶Dep. of Translational and Precision Medicine, Immunophenotype Laboratory, 'Sapienza' University, Rome; ⁷Dep. of Oncology and Haematology, Microbiology and Virology Unit, Belcolle Central Hospital, Viterbo; ⁸Haematology and Stem Cell Unit, Santa Maria Goretti Hospital, ASL Latina; ⁹Haematology and Stem Cell Transplant Unit, Campus Bio-Medico University, Roma; ¹⁰San Giovanni Addolorata Hospital, Haematology, Rome; ¹¹Haematology, ASL Roma 1, Rome; ¹²Haematology, Sant'Eugenio Hospital, ASL Roma 2, Rome; ¹³Haematology and Stem Cell Transplant Unit, San Camillo Forlanini Hospital, Rome; ¹⁴Dep. of Oncology and Haematology, Belcolle Central Hospital, Viterbo; ¹⁵Haematology Unit, Sant'Andrea University Hospital, Rome; ¹⁶Dep. of Research and Clinical Oncology, IRCCS Regina Elena National Cancer Institute, Rome; ¹⁷Dep. of Translational and Precision Medicine, Haematology, 'Sapienza' University, Rome, Italy

A new RNA-based flow cytometric method to assess post-transplant chimerism in pediatric patients undergoing allogeneic hematopoietic stem cell transplantation

M.M. Sindoni^{1,2}, S. Nucera^{1,2}, C. Bugarin¹, T. Villa¹, A. Balduzzi^{2,3}, G. Gaipa¹

¹Tettamanti Research Center, IRCCS San Gerardo dei Tintori, Monza, Italy; ²University of Milano Bicocca, Monza, Italy; ³Pediatrics, School of Medicine and Surgery, IRCCS San Gerardo dei Tintori, Monza, Italy

I RAPPORTEUR PRESENTANO E INVITANO ALLA LETTURA DEI POSTER

E9 CD79b expression in diffuse large B cell lymphoma as assessed by flow cytometry of lymph node biopsies

S. Bellesi¹, E. Maiolo¹, C. Iacovelli¹, R. Malafronte¹, F. Campana¹, Puggioni P.L1, S. D'Innocenzo¹, A. Toscano¹, E. Alma¹, F. Bellisario¹, L.M. Larocca², F. D'Alò¹, S. Hohaus¹.

¹ Dipartimento di Diagnostica per Immagini, Radioterapia Oncologica ed Ematologia Fondazione Policlinico Universitario A. Gemelli, IRCCS Roma; ² Divisione di Anatomia Patologia e Istologia, Fondazione Policlinico Universitario A. Gemelli, IRCCS Roma

E10 A single flow cytometry 8-color tube may be useful to define the cell of origin in follicular lymphoma

S. Bellesi¹, E. Maiolo¹, C. Iacovelli¹, A. Mosca¹, R. Malafronte¹, Puggioni P.L1, S. D'Innocenzo¹, A. Toscano¹, E. Alma¹, F. Bellisario¹, L.M. Larocca², F. D'Alò¹, S. Hohaus¹.

¹ Dipartimento di Diagnostica per Immagini, Radioterapia Oncologica ed Ematologia Fondazione Policlinico Universitario A. Gemelli, IRCCS Roma; ² Divisione di Anatomia Patologia e Istologia, Fondazione Policlinico Universitario A. Gemelli, IRCCS Roma

E11 Evaluation of CD4+ and CD8+ T cells count and ratio in chronic lymphocytic leukemia

Giulia Bivona^{1,2} Marco Pio La Manna^{1,2} Roberta Migliore^{1,2} Nadia Caccamo^{1,2} and Francesco Dieli^{1,2}

¹Central Laboratory of Advanced Diagnosis and Biomedical Research (CLADIBIOR), University of Palermo, Palermo, Italy. ²Department of Biomedicine, Neurosciences and Advanced Diagnostics, University of Palermo, Palermo, Italy

E12 A three-marker based immunophenotype scoring system (ISS) for risk stratification of chronic lymphocytic leukemia patients

Angela Bertolini¹, Francesca Picone¹, Marisa Gorrese¹, Annapaola Campana², Luca Pezzullo², Matteo D'Addona¹, Bianca Cuffa², Francesca D'Alto¹, Giuseppe Coppola³, Bianca Serio², Carmine Selleri^{1,2}, Valentina Giudice^{1,2}

¹Department of Medicine, Surgery, and Dentistry, University of Salerno, Baronissi, Italy; ²Hematology and Transplant Center, University Hospital "San Giovanni di Dio e Ruggi d'Aragona", Salerno, Italy; ³Transfusion Medicine, University Hospital "San Giovanni di Dio e Ruggi d'Aragona", Salerno, Italy

E13 Rapid evaluation of T cell clonality in the diagnostic work-up of mature T cell neoplasms:

TRBC1-based flow cytometric assay experience

Capone M.¹, Peruzzi B.², Palterer B.², Bencini S.², Sanna A.³, Puccini B.³, Nassi L.³, Statello M.², Carraresi A.², Stefanelli S.², Caporale R.², Annunziato F.^{1,2}

¹Department of Clinical and Experimental Medicine, University of Florence, Florence, Italy; ²Flow Cytometry Diagnostic Center and Immunotherapy (CDCI), AOU Careggi, Florence, Italy; ³Hematology, Unit AOU Careggi, Florence, Italy; ⁴General Laboratory, AOU Careggi, Florence, Italy; ⁵Genetic Diagnostic Unit of Careggi University Hospital

E14 Concomitant cutaneous composite lymphoma and biclonal B-cell lymphoproliferative disease

Mestice A.¹, Derosa C.², Perrone T.¹, Giordano A.¹, Filotico R.³, Tabanelli V.⁴, Ingravallo G.⁵, Ruga L.¹, Grande D.¹, Magazzino O.¹, Specchia G.¹, Musto P.¹

¹. Hematology Section, Department of Precision and Regenerative Medicine and Ionian Area (DiMePre-J), University of Bari. ². Cytometry

E15 Concomitant diagnosis of hairy cell leukemia and chronic lymphocytic leukemia: a rare association

Valvano L.1, D'Auria F.2, Grieco V. 1, Statuto T.1, Nozza F.1, Pietrantuono G.3, Villani O.3, D'Arena G.4 and Lamorte D.5
1Laboratory of Clinical and Advanced Diagnostics, Centro di Riferimento Oncologico della Basilicata (IRCCS CROB), Rionero in Vulture, Italy; 2Laboratory of Clinical Pathology, Centro di Riferimento Oncologico della Basilicata (IRCCS CROB), Rionero in Vulture, Italy; 3Hematology and Stem Cell Transplantation Unit, Centro di Riferimento Oncologico della Basilicata (IRCCS CROB), Rionero in Vulture, Italy; 4Hematology, P. O. S. Luca, ASL, Salerno, Italy; 5Laboratory of Preclinical and Translational Research, Centro di Riferimento Oncologico della Basilicata (IRCCS CROB), Rionero in Vulture, Italy; 5Laboratory of Preclinical and Translational Research, Centro di Riferimento Oncologico della Basilicata (IRCCS CROB), Rionero in Vulture, Italy.

E16 DNT, DPT and NKT-LIKE cells cytofluorimetric identification in B-Chronic lymphocytic leukemia

Luciana Valvano¹, Filomena Nozza¹, Giovanni D'Arena², Fiorella D'Auria³, Luciana De Luca³, Giuseppe Pietrantuono⁴, Giovanna Mansueto⁴, Oreste Villani⁴, Simona D'Agostino⁴, Daniela Lamorte⁵, Giovanni Calice⁵ and Teodora Statuto¹.
1Laboratory of Clinical Research and Advanced Diagnostics, Centro di Riferimento Oncologico della Basilicata (IRCCS-CROB), Rionero in Vulture, Italy. 2Hematology, "S. Luca" Hospital, ASL Salerno, Italy. 3Laboratory of Clinical Pathology, Centro di Riferimento Oncologico della Basilicata (IRCCS-CROB), Rionero in Vulture, Italy. 4Hematology and Stem Cell Transplantation Unit, Centro di Riferimento Oncologico della Basilicata (IRCCS-CROB), Rionero in Vulture, Italy. 5Laboratory of Preclinical and Translational Research, Centro di Riferimento Oncologico della Basilicata (IRCCS-CROB), Rionero in Vulture, Italy.

08:30-10:00 **SESSIONE PARALLELA** (Aula Informatica)

LA CITOMETRIA IN IMMUNOLOGIA SPERIMENTALE E TRASLAZIONALE

Moderatori: Chiara Agrati (Roma), Claudio Pioli (Roma)

Studio della risposta immunitaria al vaccino SARS-CoV2: ruolo della citometria a flusso

Chiara Agrati (Roma)

COMUNICAZIONI ORALI

Sample preparation affects fluorescence signal in multicolor flow cytometry

Simona Di Terlizzi¹, Chiara Villa¹, Daniela Boselli¹, Emanuele Canonico¹, Monica Romanò¹, Achille Anselmo¹.

1Flow Cytometry Resource, Advanced Cytometry Technical Applications Laboratory (FRACTAL) Istituto Scientifico San Raffaele, Milano, Italy.

Characterization of CD169 expression on blood cells and circulating microvesicles as a potential marker in development, and progression of COVID-19 and post-acute sequelae

Marialaura Fanelli¹, Vita Petrone¹, Rossella Chirico¹, Christian Maracchioni¹, Martina Giudice¹, Elisabetta Teti², Luigi Coppola², Chiara Sorace³, Marco Iannetta^{2,3}, Marta Zordan^{2,3}, Pietro Vitale³, Loredana Sarmati^{2,3}, Emanuela Balestrieri¹, Sandro Grelli^{1,4}, Claudia Maria Radu⁵, Antonella Minutolo¹, Claudia Matteucci¹.

1. Department of Experimental Medicine, University of Rome Tor Vergata, Rome, 00133, Italy; 2. Infectious Diseases Clinic, Tor Vergata Hospital, Rome 00133, Italy; 3. Department of Systems Medicine, University of Rome Tor Vergata, Rome 00133, Italy; 4. Virology Unit, Policlinic of Tor Vergata, Rome, 00133, Italy. 5. Thrombotic and Hemorrhagic Diseases Unit Department of Medicine – DIMED University of Padua, Italy.

Benralizumab affects NK cell maturation and proliferation in severe asthmatic patients

Laura Bergantini¹, Miriana d'Alessandro¹, Tommaso Pianigiani¹, Behar Cekorja¹, Elena Bargagli¹ and Paolo Camelli¹

1 Respiratory Disease Unit, Department of Medical Sciences, University Hospital of Siena (Azienda Ospedaliera Universitaria Senese, AOUS), Viale Bracci, 53100 Siena, Italy

I RAPPORTEUR PRESENTANO E INVITANO ALLA LETTURA DEI POSTER

I 9 An innovative flow cytometry test for early diagnosis of invasive bacterial and viral infection

La Sorda M, De Lorenzis D, Spanu T, D'Inzeo T, Fiori B, Graffeo R, Sali M, *Battaglia A, Sanguinetti M, **Fattorossi A.

Dip. Sci. Lab. Infettivol. and **Facility di citometria, Fondazione Policlinico Gemelli, IRCCS, Roma, *Dip. Scienze della Vita e Sanità Pubblica, UCSC, Roma, Italy

I 10 A Rapid and Simple Multiparameter Assay to Quantify Spike-Specific CD4 and CD8 T Cells after SARS-CoV-2 Vaccination

Mojtaba Shekarkar Azgomi, Marco Pio La Manna, Giusto Davide Badami, Francesco Dieli, **Nadia Caccamo**

1 Department of Biomedicine, Neurosciences and Advanced Diagnostic (Bi.N.D.), University of Palermo, 90127 Palermo, Italy;

2 Central Laboratory of Advanced Diagnostic and Biomedical Research (CLADIBIOR), University of Palermo, 90127 Palermo, Italy;

I 11 Immunophenotypic Characterization of Peripheral Blood-Derived B Lymphocytes of Patients With Systemic Lupus Erythematosus During B-Cell Targeted Therapy With Anti-Blys

Clara Di Mario¹, Luca Petricca², Valentina Varriano³, Annamaria Paglionico³, Maria Rita Gigante², Simone Perniola³, Dario Bruno³, Barbara Tolusso¹, Elisa Gremese^{1,3}

1 Immunology Research Core Facility – Gemelli Science and Technology Park (GSTeP) - Fondazione Policlinico Universitario A. Gemelli IRCCS - Roma; 2 UOC di Reumatologia – Fondazione Policlinico Universitario A. Gemelli IRCCS - Roma; 3 UOSD di Immunologia Clinica – Fondazione Policlinico Universitario A. Gemelli IRCCS - Roma

I 12 Evaluation of basophils subsets in patients with severe eosinophilic asthma and their response to the anti-IL5R monoclonal antibody Benralizumab

C. De Falco¹, F. Perna², D.F. Mariniello³, F. Massaro³, M. Balestrino³, A. Sola³, **F. Garziano**¹, R. Boenzi¹, C. Calabrese³

1. U.O.C. Clinical Biochemistry, A.O.R.N. Ospedali dei Colli, 80131 Napoli, Italy; 2. Department of Clinical Medicine and Surgery, University Federico II, A.O.R.N. Ospedali dei Colli, 80131 Napoli, Italy; 3. Department of Translational Medical Sciences, University of Campania 'Luigi Vanvitelli', A.O.R.N. Ospedali dei Colli, 80131 Napoli, Italy

I 13 In depth characterization of human CMV-driven adaptive NK cells through mass spectrometry and flow cytometry analyses

Giordano Chiara¹, Petretto Andrea², Del Zotto Genny³, Antonini Francesca³, Lavarello Chiara², Bartolucci Martina², Muccio Letizia¹, Mauri Pierluigi⁴, Di Silvestre Dario⁴, Sivori Simona¹, Della Chiesa Mariella¹
1 Department of Experimental Medicine (DIMES), University of Genoa, Genoa, Italy; 2 Core Facilities, Clinical Proteomics and Metabolomics, IRCCS Istituto Giannina Gaslini, Genoa, Italy; 3 Core Facilities, Dipartimento Integrato Sevizzi e Laboratori Citometria e Imaging, IRCCS Giannina Gaslini, Genoa, Italy; 4 Istituto di Tecnologie Biomediche, Consiglio Nazionale delle Ricerche (ITB-CNR), Milan, Italy

I 14 Multiparameter flow cytometry for evaluation of mouse and human eosinophils as potential immune biomarkers

Iole Macchia^{1*}, Francesca Urbani^{1*}, Valentina La Sorsa², Francesco Noto¹, Adriana Rosa Gambardella¹, Giovanna Schiavoni¹.
1. Department of Oncology and Molecular Medicine, Italian National Institute of Health, Rome, Italy; 2. Research Coordination and Support Service, Italian National Institute of Health, Rome, Italy; * These authors equally contributed to this work

I 15 Single-Cell Analyses and Immunological Patterns in IBD Patients

Petito V, Rumi G, Scalfaferrì F
Dipartimento di Scienze Mediche e Chirurgiche, Fondazione Policlinico Universitario A.Gemelli IRCCS, Rome, Italy. Dipartimento di Medicina e Chirurgia Traslazionale, Scuola di Medicina e Chirurgia, Università Cattolica del Sacro Cuore, Rome, Italy.

I 16 T cell response to viral peptides of vaccinated and recovered from mild COVID-19 subjects may contribute to define host-pathogen relationship

Macchia I.1#, La Sorsa V.2#, Ciervo A.3, Borghi M.3, Ruspantini I.4, Taglieri S.1, Durastanti V.5, Altavista M.C.5, Mancini F.3* and Urbani F.1*
Istituto Superiore di Sanità, Dipartimento di Oncologia e Medicina Molecolare, Roma, Italy; Istituto Superiore di Sanità, Servizio tecnico scientifico di coordinamento e supporto alla ricerca, Roma, Italy; Istituto Superiore di Sanità, Dipartimento di Malattie Infettive, Roma, Italy; Istituto Superiore di Sanità, Servizio tecnico scientifico grandi strumentazioni e core facilities, Roma, Italy; San Filippo Neri Hospital – ASL RM1, UOC Neurologia, Roma, Italy; # These authors contributed equally to this work * Project co-Principal Investigator.

10:00 Pausa caffè

10:30-13:00 **SESSIONE PLENARIA** (Aula Magna)
NUOVE FRONTIERE DELLA CITOMETRIA
IL CONTRIBUTO DELLE NANOPARTICELLE COME NUOVI BIOMARCATORI DI MALATTIA
Moderatori: Alessandra Battaglia (Roma), Igea D'Agnano (Milano)

Antigeni di superficie delle vescicole extracellulari come biomarcatori di malattie cardiovascolari
Lucio Barile (Lugano)

Nanoparticelle e Citometria convenzionale
Andrea Fattorossi (Roma)

L'IMMUNOLOGIA NELLA DIAGNOSTICA E NELLA TERAPIA
IL CONTRIBUTO DELL'IMMUNOFENOTIPIZZAZIONE NEL MONITORAGGIO DEI PAZIENTI
ONCOLOGICI E NELLO DEI MARCATORI PREDITTIVI DI EFFICACIA
Moderatori: Giuseppe Coppola (Salerno), Andrea Fattorossi (Roma)

Staminalità e memoria dei linfociti T CD8 in risposta a vaccini antitumorali
Luigia Pace (Candiolo)

La profilazione immunologica nel percorso terapeutico del paziente oncologico
Ilaria Zizzari (Roma)

13:00 Colazione di lavoro

14:00-15:30 **SESSIONE PLENARIA** (Aula Magna)
LA CITOMETRIA NELLE NEOPLASIE LINFOLDI
RUOLO ATTUALE E PROSPETTIVE FUTURE
Moderatori: Rachele Amodeo (Roma), Giovanni D'Arena (Salerno)

La citometria nella diagnosi delle malattie linfoproliferative croniche T ed NK
Pietro Bulian (Aviano)

L'immunofenotipo nella Leucemia Linfoblastica Acuta e nel Linfoma a precursori T dell'età pediatrica
Barbara Buldini (Padova)

15:30 Pausa caffè

15:45-17:00 **SESSIONE PLENARIA** (Aula Magna)
LE SFIDE DELLA CITOMETRIA IN EMATOLOGIA
LA CITOMETRIA APPLICATA AI LIQUIDI BIOLOGICI E L'INTEGRAZIONE CON LE ALTRE TECNICHE
Moderatori: Maddalena Raia (Napoli), Giulia Scalia (Napoli)

Analisi citofluorimetrica dei liquidi biologici: dal campione al referto
Paolo Doretto (Pordenone)

LETTURA IN MEMORIA DI LUIGI DEL VECCHIO

Integrazione tra immunoistochimica e Citometria nella tipizzazione dei linfomi

Luigi Panico (Napoli)

LA CITOMETRIA AVANZATA IN ONCO-IMMUNOLOGIA

Moderatori: Stefania Loffredo (Napoli)

Citometria multidimensionale applicata al sistema immunitario

Enrico Lugli (Milano)

17:00 Assemblea GIC Aperta a Tutti

17:30 Sapere i Sapori a km 0 "degustazioni campane"

VENERDÌ 19 MAGGIO

08:30-09:30 **SESSIONE PLENARIA** (Aula Magna)

Moderatori: Rosa Chianese (Varese), Silvestro Volpe (Avellino)

I peptidi di Spike di SARS-CoV2 inibiscono le risposte NK con un meccanismo HLA-E dipendente: studio citofluorimetrico

Alice Laroni (Genova)

LA CITOMETRIA NELLE LEUCEMIE MIELOIDI ACUTE EVOLUZIONE DELLA DIAGNOSTICA

Terapie a bersaglio molecolare e immunoterapia nella Leucemia acuta: cosa cambia nell'algoritmo diagnostico?

Francesco Lanza (Ravenna)

09:30-11:00 **SEMINARI DI IMMUNO-ONCO-EMATOLOGIA E METODOLOGIE ANALITICHE**

Moderatori: Ruggero De Maria (Roma), Francesco Lanza (Ravenna)

Ruolo dei monociti nella risposta a CAR T nei linfomi aggressivi

Cristiana Carniti (Milano)

supported by Myltenyi Biotec

Il ruolo centrale della citometria a flusso nella medicina personalizzata: focus sullo studio dei retrovirus endogeni umani nella COVID-19

Antonella Minutolo (Roma)

supported by Beckman Coulter

The new frontiers of Flow Cytometry and Image-based cell sorting"

Jens Fleischer (Heidelberg)

supported by BD Biosciences

11:00 Pausa caffè

11:30-12:00 **SESSIONE PLENARIA** (Aula Magna)

Moderatori: Raffaele De Vita (Roma), Virginia Tirino (Napoli)

La Citometria nel campo delle CAR-T: identificazione, monitoraggio e timing di analisi

Concetta Quintarelli (Roma)

12:00 **LETTURA MAGISTRALE CONCLUSIVA** (Aula Magna)

Sviluppo di nuove terapie contro le cellule staminali dei tumori

Ruggero De Maria (Roma)

12:45 Conclusioni

R. Chianese (Varese), G. D'Arena (Salerno), R. De Vita (Roma), S. Loffredo (Napoli), G. Mazzini (Pavia), G. Scalia (Napoli)

*Premiazione delle Schede di Valutazione della Conferenza

13:00 Light Lunch di Saluto

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