















Federation of Stem Cell Associations

First International StemNet Meeting Padua, September 22- 24, 2021

Wednesday, September 22, 2021

13:00 REGISTRATION

14:00 OPENING CEREMONY

SESSION1: ADVANCES AND PITFALLS OF CELL THERAPY AT BEDSIDE: WAS THE PROMISE FULFILLED? CHAIR: Antonella Viola (Padua), Massimo Dominici (Modena)

14.30 - 16.00

14.30-15.00

Genetically-engineered somatic cells to cure genetic disorders and cancer: a critical assessment Franco Locatelli (Rome)

15.00-15.30

From cell therapy to genes: regenerating the field of cardiac regeneration Mauro Giacca (London, UK)

15.30-16.00 Discussion

SESSION 2: LE ASPETTATIVE DEL PAZIENTE TRA BIOETICA, REGOLAMENTAZIONE E COMUNICAZIONE CHAIR: Augusto Pessina (Milan), Maurizio Muraca (Padua)

16.00 - 17.00

16.00-16.20

Turismo medico, cliniche offshore e cure compassionevoli: il punto di vista degli enti regolatori Daniela Melchiorri (Rome)

16.20-16.40

La bioetica tra vecchie e nuove sfide

Renzo Pegoraro (Rome)

16.40-17.00

Comunicare la scienza

Giovanni Carrada (Roma)

17.00-18.30

Dibattito – Tavola Rotonda Coordinator: Francesco Jori (Padua)

Franco Locatelli, Mauro Giacca, Renzo Pegoraro, Giovanni Carrada, Daniela Melchiorri, Gino Gerosa, Eugenio Baraldi

18.30-19.30 WELCOME COCKTAIL

Thursday, September 23, 2021

SESSION 3: BASIC AND APPLIED RESEARCH ON FOETAL AND ADULT STEM CELLS **CHAIR: Michela Pozzobon (Padua), Ornella Parolini (Rome)**

09.00 - 10.45

09.00-09.25

Modelling Amniotic Membrane healing effect on chronic and diabetic foot ulcers into an in vitro cell system to unravel the molecular mechanisms behind its therapeutic effect

Francisco J. Nicolás (Murcia, Spain)

09.25-09.50

Mesenchymal Stromal Cells in Crohn's disease

Rachele Ciccocioppo (Verona)

09.50-10.15

Where gene therapy meets cell therapy

Alessandra Biffi (Padua)

10.15-10.30

Clinical grade mesenchymal stromal cell-derived extracellular vesicles promote human cartilage recovery in vitro

Elisabetta Palamà (Genova)

10.30-10.45

Amniotic mesenchymal stromal cells inhibit CD8 T lymphocyte activation and memory commitment via mTOR signaling pathway

Andrea Papait (Brescia)

10.45-11.15 TECHNOLOGICAL SESSION

CHAIR: Alessandra Pelagalli (Naples)

10.45-10.55

Automated, closed manufacturing and sorting of PSCs and their derivatives

Claudia Maldini (Miltenyi Biotec, Bologna)

10.55-11.05

Isoplexis: the proteomics suite that brings secretomics at a single-cell level

Giulia Anselmi (Alfatest, Cinisello Balsamo)

11.05-11.15

Bioinks and bioprinting technologies to tailor cell microenvironment

Pierre-Alexandre Laurent (Cellink, Gothenburg, Sweden)

11.15- 11.30 COFFEE BREAK

SESSION 4: MESENCHYMAL STROMAL CELLS AND THE NERVOUS SYSTEM

CHAIR: Maria Harmati (Szeged, Hungary), Umberto Galderisi (Naples)

11.30 - 13.00

11.30-11.55

DNA damage response of neural stem and progenitor cells and neurodevelopmental pathologies François Boussin (Paris-Saclay, France)

11.55-12.20

Challenge to medical innovation by non-tumorigenic endogenous reparative Muse cells

Mari Dezawa (Sendai, Japan)

12.20-12.35

Role of amniotic membrane on endothelial cells from umbilical cord of women affected by gestational diabetes: new insights into the treatment of non-healing diabetic foot ulcers.

Caterina Pipino (Chieti)

12.35-12.50

Characterization of senescent vascular mesenchymal stromal cells and their role in the development of the abdominal aorta aneuruysm

Gabriella Teti (Bologna)

12.50-13.05

Equine freeze-dried secretome for joint regeneration in veterinary medicine: production process and in vitro efficacy

Priscilla Berni (Parma)

13.05-14.00 LUNCH TECHNOLOGICAL SESSION

13.00-.13.10

Celector the "cell chromatograph" to separate, characterize and collect living stem cells

Silvia Zia (Stem Sel srl, Bologna)

13.10-13.20

New technologies for aseptic production allow a faster and reliable access to in house ATMP manufacturing

Marco Fadda (Comecer, Castelbolognese RA)

13.20-13.30

Standardized Single Particle Measurement of Number, Size and Charge is required for Confidence in

Nanomedicine Engineering and Development

Stephane Mazlan (Izon Science LTD, France)

13.30-13.40

Cytoflex New Generation Flow Cytometry Analysis of Circulating Microvesicles and Exosomes

Claudia Maria Radu (Padua)

13.50-14.00

3D, Label-Free, Live Cell Imaging for Cell Morphology and Characterisation

Daniel Ghete, Tomocube Inc. (Daejeon, South Corea)

14.00-15.00 POSTER SESSION

SESSION 5: CANCER STEM CELLS AND TUMOR MICROENVIRONMENT

CHAIR: Krisztina Buzas (Szeged, Hungary), Enrico Lucarelli (Bologna)

15.00 - 16.30

15.00-15.25

Cancer stem cells and tumor microenvironment: a target for chemoprevention?

Adriana Albini (Milan)

15.25-15.50

An antitumor cellular viroimmunotherapy using mesenchymal progenitor cells

Javier-Garcia Castro (Madrid, Spagna)

15.50-16.05

Angiogenic properties of pericytes isolated from micro-fragmented fat tissue

Ekta Manocha (Brescia)

16.05-16.20

In-vivo evaluation of bimodal nanoparticle-loaded mesenchymal stromal cell for osteoarcoma treatment

Enrico Lucarelli (Bologna)

16.20-16.35

Primary glioblastoma gliospheres incorporate mesenchymal stem cells

Anna Andrzjewska (Warsaw, Poland)

16.35-17.00 COFFEE BREAK

SESSION 6: CELL FREE THERAPY

CHAIR: Barbara Lukomska (Warsaw, Poland), Maria Luisa Torre (Pavia)

17.00 - 18.30

17.00-17.25

First clinal experiences with MSC derived extracellular vesicles

Eva Rohde (Salzburg, Austria)

17.25-17.50

MSC-derived extracellular vesicles: perspectives in oncology and regenerative medicine

17.50-18.15

Functional heterogeneity of cellular and extracellular vesicle-based therapeutics: implications for the development of potency assays

Bernd Giebel (Essen, Germany)

18.15-18.30

Systemically but not locally injected Mesenchymal Stem Cell derived Extracellular Vesicles induce muscle recovery in a murine model of Volumetric muscle loss.

Fabio Magarotto (Padua)

18.30-20.00 SOCIETY ASSEMBLY

Friday, September 24, 2021

SESSION 7: ORGANOIDS

CHAIR: Lorenza Lazzari (Milan), Roberta Piva (Ferrara)

09.00 - 11.00

09.00-09.25

Organoids culture systems: unique tools for studying biological processes and creating the medicine of the future

Salvatore Simmini (Cambridge, UK)

09.25-09.50

Engineering organoids: four-dimensional control of the organoid environment

Nicola Elvassore (Padua)

09.50-10.15

Organoids in cancer research

Giulia Della Chiara (Milan)

10.15-10.30

3D Bioprinted Scaffolds Containing Mesenchymal Stem/Stromal Lyosecretome: Next Generation Controlled Release Device for Bone Regenerative Medicine

Franca Scocozza (Pavia)

10.30-10.45

3D bioprinted silk-gelatin ink system for cartilage regeneration

Gina Lisignoli (Bologna)

10.45-11.00

Treating induced pluripotent stem cells-derived β cells with monoclonal antibody Brentuximab reduces the risk of teratoma upon transplantation

Valentina Zamarian (Milano)

11.00-11.30 COFFEE BREAK

SESSION 8: OPPORTUNITIES FOR YOUNG RESEARCHER

CHAIR: Francesco Alviano (Bologna), Assunta Pandolfi (Chieti)

11.30 - 12.30

11.30-11.45

Opportunities in 2021-2022 for short-term fellowships in Europe

Filippo Piccinini (Meldola)

11.45-12.30

YOUNG INVESTIGATOR AWARDS AND CLOSING REMARK

STEMNET BOARD

President: Augusto Pessina (GISM)

Vice-President: Massimo Dominici (FIRST)

Secretary: Umberto Galderisi (SCRI)

Members: Enrico Lucarelli (GISM), Lorenza Lazzari (FIRST), Ornella Parolini (IPLASS), Francesco

Alviano (IPLASS), Roberta Piva (SCRI)

LOCAL ORGANIZING COMMITTEE

Maurizio Muraca, Michela Pozzobon

FACULTIES

Albini Adriana - Scientific Director MultiMedica Onlus, Milan.

Baraldi Eugenio - Department of Women and Children Health, Director of Intensive Care and

Neonatal Pathology Unit, University of Padua and Azienda Ospedaliera di Padova

Biffi Alessandra - Department of Women and Children Health, Director of Pediatric Oncohematology, University of Padua

Boussin François-Institut de biologie François Jacob DRF, Institut F. Jacob, CEA Paris-Saclay, France

Bussolati, Benedetta Department of molecular Biotechnology and Health Sciences, University of Torino.

Buzas Krisztina - Faculty of Medicine, University of Szeged Szeged, Hungary

Carrada Giovanni - Comunicatore della scienza e autore Superguark, Roma

Ciccocioppo Rachele - Gastroenterology Unit, Department of Medicine, University of Verona

Della Chiara Giulia - Molecular oncology and immunology Lab - IFOM, Department of Medical

Biotechnology and Translational Medicine, University of Milan

Dezawa Mari - Department of Stem Cell Biology and Histology, Tohoku University, Graduate School of Medicine, Japan

Elvassore Nicola - Department of Industrial Engineering, University of Padova

Garcia Castro Javer - Head of Cellular Biotechnology Unit, Instituto de Salud Carlos II, Spain

Gerosa Gino - Functional Department Artificial "organs and tissue regeneration", Azienda Ospedaliera-University of Padua

Giacca Mauro - Cardiovascular Department, Sciences in the School of Cardiovascular Medicine & Sciences, Kings College, London, UK

Giebel Bernd - Institute for Transfusion Medicine, University Hospital Essen, Germany

Jori Francesco - Journalist, Padua

Harmati Maria – Biological Research Centre, Hungary

Locatelli Franco- President of Consiglio Superiore di Sanità, Department of Oncohematology, Cell and gene therapy Department, IRCCS Pediatric Hospital Bambino Gesù, Rome

Lukomska Barbara-NeuroRepair Department, Mossakowski Medical Research Centre, Warsaw, Poland

Melchiorri Daniela - Department of Pharmacology, University of La Sapienza, Rome

Nicolás Francisco J. - Laboratorio de Regeneración, Hospital Universitario Virgen de la Arrixaca, Murcia, Spain

Pandolfi Assunta - Department of Medical, Oral and Biotechnological Sciences, University D'Annunzio, Chieti

Pegoraro Renzo - Chancellor of Pontifical Academy for Life, Rome

Piccinini Filippo - Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) IRCCS, Meldola, Italy

Rohde Eva - Paracelsus Medical, University Salzburg, Austria

Simmini Salvatore - Research & Development, STEMCELL Technologies, Cambridge Research Park

Torre Maria Luisa- Department of Drug Sciences, University of Pavia

Viola Antonella -Director of Foundation Institute of Pediatric Research Città della Speranza, Padua and Department of Biomedical Sciences, University of Padua