
JOINT
IPLASS-COMETA
SYMPOSIUM
Advanced Medicinal Therapies:
Research, Innovation, and Clinical Results

Scientific Program (day 1)

Day 1 — Monday, November 9, 2026

Time	Session / Event Description
08:00 – 08:30	**Registration** & **Welcome opening**
08:30 – 10:00	*Session 1*: **Enabling Technologies** (moderators: Valerio **Vellone**; Antonietta **Silini**)
08:30 – 09:00	*A match made in the womb: the molecular love story between amniotic membrane and chronic wounds.* Francisco J **Nicolas** *(Instituto de Investigación Biosanitaria de Murcia, Spain)*
09:00 – 09:30	*Engineering a Bioartificial Pancreas: The Promise of Placental Derivatives* Ekaterine **Berishvili** *(Geneva University Hospitals, Geneva, Switzerland)*
09:30 – 09:40	*A29: Smart materials for in vitro neuromodulation* Laura **Pastorino**, Andrea Andolfi, Donatella Di Lisa
09:40 – 09:50	*A16: Hyaluronic acid-based UC-MSC delivery for fistula regeneration: from biomaterial screening to in vivo translation in a pediatric patient* Laura **Zocca**, Daniela Catanzaro, Martina Bernardi, [...], Martina Piccoli
09:50 – 10:00	*A38: Integrated AFM-MEA functional phenotyping for preclinical evaluation of perinatal cell-derived therapeutics* Cecilia Beccari, Pietro Arnaldi, Sveva Bollini, Roberto **Raiteri**
10:00 – 10:30	*Coffee break and Poster set-up*
10:30 – 11:30	*Keynote Speaker#1:* *Engineering Regeneration in Otolaryngology: from Clinical Challenges to Translational Therapies* Riccardo **Gottardi** *(Penn University, Philadelphia, PA-USA)*
11:30 – 13:00	*Session 2*: **Cell-based Therapies** (moderators: Francesco **Alviano**; Pasquale **Marrazzo**)
11:30 – 12:00	*ATMP in clinical application: second valley of death*

Graziella **Pellegrini** *(University of Modena and Reggio Emilia, Italy)*

12:00 – 12:30 *From Cells to Solutions: Success Stories in Mesenchymal Stromal Cell Therapy.*

Massoud **Vosough** *(Royan Institute for Stem Cell Biology, Tehran, Iran)*

12:30 – 12:40 *A4: KLHL14/X1 isoform balance controls E-Cadherin stability and epithelial-mesenchymal plasticity through K63-linked ubiquitination*

Angelo **Canciello**, Verdiana Di Giulio, Maria Rita Citeroni, [...], Barbara Barboni

12:40 – 12:50 *A5: Novel 3D Method to Culture Primary Human Cytotrophoblasts*

Tiffany Edwards, Heather Decker, Savannah Lowe, Anna **Gray Smith**

12:50 – 13:00 *A28: 3D biomimetic PLGA scaffolds engineered with amniotic epithelial stem cells promote in vitro and in vivo tendon regeneration via paracrine and immunomodulatory mechanisms*

Valentina **Russo**, Annunziata Mauro, Mohammad El Khatib, [...], Barbara Barboni

13:00 – 14:00 *Networking Luncheon* (Villa Quartara Courtyard Garden) and Poster viewing

14:00 – 15:30 *Session 3*: **Preclinical Validation**

(moderators: Luca **Ramenghi**; Marco **Pistis**)

14:00 – 14:30 *How amniotic epithelial cells instruct recipient-cell decisions through secretome and microvesicles.*

Barbara **Barboni** *(University of Teramo, Italy)*

14:30 – 15:00 *The neuroimmune effects of amniotic cell therapy in neurodegenerative disease models.*

Heela **Sarlus** *(Karolinska Institutet, Stockholm, Sweden)*

15:00 – 15:10 *A15: Improving Islet transplantation efficiency by co-transplantation with human amniotic epithelial cells: current findings and future prospects*

Kaoru **Okada**, Kazuaki Tokodai, Masatoshi Saito, [...], Takashi Kamei

15:10 – 15:20 *A3: Development of a Standardized Preclinical Porcine Model for the Assessment of Regenerative Therapies for Cartilage Repair*

Andrea M. **Nebuloni**, Enrico Ragni, Michela M. Taiana, [...], Giuseppe M. Peretti

15:20 – 15:30 *A33: Culture-driven selection of SSEA3$^+$ pluripotent MUSE-like cells from human mesenchymal stem cells*

Alessia **Repetto**, Anita Muraglia, Gilberto Filaci, [...], Maddalena Mastrogiacomo

15:30 – 16:00 *Coffee break & Poster viewing*

16:00 – 17:00 *Session 4*: **COMETA selected talks**

(moderators: Laura **Pastorino**; Nicoletta **Pedemonte**)

16:00 – 16:10 *A7: Patient-specific neuronal models for rare genetic disorders: Mesenchymal Stromal/Stem Cells from Human Exfoliated Deciduous Teeth*

Chiara **Africano**, Marta Rusmini, Kaitlyn A. Victor, [...], Isabella Ceccherini

16:10 – 16:20 *A36: Monoaminergic Circuit Dysfunction and Altered Neurotransmitter Release in a Murine Model of Multiple Sclerosis*

Andrea Mastio, Paride Saccani, Anna Herres, Marco Pistis, [...], Claudia **Sagheddu**

16:20 – 16:30 *A27: Exploring Human Amniotic Epithelial Cells as a Potential Cell-Based Therapy for Cystic Fibrosis*

Valeria **Tomati**, Giulia Gorrieri, Mariateresa Lena, [...], Nicoletta Pedemonte.

16:30 – 16:40 *A37: My first 1,000 placentas: 15 years of perinatal cell isolation in agreement with cGMP requirements*

Margherita **Milani**, Carlotta Baghino, Walter Vencia, [...], Roberto Gramignoli

16:40 – 16:50 *A20: Proteomic profiling reveals long-term effects and inflammatory tuning of the amnion epithelial cell secretome under priming conditions*

Nicole **Grinovero**, Margherita Milani, [...], Andrea Petretto, Roberto Gramignoli

16:50 – 17:00 *A34: CLIC1 blockade by triamterene inhibits glioblastoma stem cell proliferation and invasion impairing stemness, and potentiating temozolomide cytotoxicity*

Beatrice Tremonti, Stefano Thellung, [...], Federica **Barbieri,** [...], Tullio Florio

Additional Activities

17:00 – 18:00 **A glimpse at the state-of-the-art technology** *(Sponsor Session)*

17:00 – 17:15 *Why the perinatal brain?*

Luca **Ramenghi (EU-Brain)**

17:15 – 17:30 *Bridging Innovation and GMP: Scaling iPSC-Derived Cell Manufacturing*

Cinzia **Brandoli**, Chiara **Zara (Miltenyi Biotech)**

17:30 – 17:42 *Your Strategic Partner for Scalable and Compliant ATMP Manufacturing*

Pietro **Bosi (IWT-Gruppo Tecniplast)**

17:42 – 17:54	*Engineering Human-Relevant Microenvironments: Organ-on-Chip Applications in Translational Medicine and drug testing* Elisa **Raboni (React4Life)**
17:54 – 17:59	TBC ***(EFMC)***
17:59 – 18:04	TBC ***(SIAL)***
19:00 – 21:00	*Congress Dinner:* Italian Dinner at AC Marriott Hotel

Scientific Program (day 2)

Tuesday, November 10, 2026

Time	Session / Event Description
08:30 – 10:00	*Session 5*: **CMC Manufacturing and Scalability for Cell-derived Secretome**.
	(moderators: Maurizio **Muraca**; Sveva **Bollini**)
08:30 – 09:00	*Umbilical cord mesenchymal stromal cell extracellular vesicles: The road to therapies for preterm brain injury.*
	Andreina **Schoeberlein** *(University of Bern, Switzerland)*
09:00 – 09:30	*Engineering scalable culture microenvironments of Wharton's jelly mesenchymal stromal cells to boost secretome production.*
	Jessica **Schiavi** *(University of Lorraine, Nancy, France)*
09:30 – 09:40	*A10: Expanded vs Point-of-Care Mesenchymal Stromal Cells Based Products for the Autologous Treatment of Knee Osteoarthritis: A Phase II Clinical Trial*
	Katia Mareschi, Laura Mangiavini, Alessandro Aprato, Michela Pozzobon, Enrico **Ragni**
09:40 – 09:50	*A13: A Cell-based Approach to Antibiotic Resistant Bacterial Peritonitis: Immunomodulatory and Antibacterial Effects of Human Amnion-derived Mesenchymal Stromal Cells*
	Mariangela Pampalone, Giandomenico Amico, Nicola Cuscino, [...], Giada **Pietrosi**
09:50 – 10:00	*A17: Purification of Extracelullar Vesicles from hAMSc; investigating its role in chronic-wounds healing*
	Marc **Alcaraz**, Tanja J. Kutzner, Tobias Tertel, Bernd Giebel, Francisco J. Nicolás
10:00 – 10:30	*Coffee break and Poster viewing*
10:30 – 11:30	*Keynote Speaker#2*:
	Engineering Cells to Transform Cancer Care
	Massimo **Dominici** *(Univ of Modena and Reggio Emilia, Italy)*
11:30 – 13:00	*Session 6*: **ATMP Clinical Trials**
	(moderators: Carlo **Dufour**; Manuela **Stella**)
11:30 – 12:00	*Non-Viral CAR-CIK Platform: From Preclinical Development to Clinical Translation.*
	Sarah **Tettamanti** *(IRCCS San Gerardo, Monza, Italy)*

12:00 – 12:30 *Adoptive Cell Therapy for Viral Infection after Hematopoietic Cell Transplantation.*

Maura **Faraci** *(IRCCS Gaslini Institute, Genoa, Italy)*

12:30 – 13:00 *Neural Precursor Cell Transplantation in Progressive Multiple Sclerosis: the STEMS experience.*

Angela **Genchi** *(San Raffaele Hospital, Milan, Italy)*

13:00 – 14:00 Networking Luncheon (Villa Quartara Courtyard Gardens) & Photo shooting

14:00 – 15:30 *Parallel Session 1:* **Cell Factories: Translating academic breakthroughs into certified GMP manufacturing realities** *(Italian language only)*

(moderators: Claudia **Cocco**; Cristina **Maccalli**)

14:00 – 14:30 *Transitioning from somatic cell therapy to gene therapy GMP lab: roadmap and challenges*

Patrizia **Comoli** (*IRCCS Policlinico San Matteo, Pavia, Italy)*

14:30 – 15:00 *Quality Operations Risk Based For The Production of ATMPS in an Academic Multipurpose GMP Facility*

Monica **Gunetti** *(IRCCS Bambin Gesu Hospital, Rome, Italy)*

15:00 – 15:30 *Vescicole Extracellulari: Aspetti Normativi e Produzione GMP per una innovativa applicazione clinica.*

Daniela **Lisini** (*IRCCS Istituto neurologico Besta, Milano, Italy)*

14:00 – 15:00 *Parallel Session 2:* **IPLASS board meeting**

15:00 – 17:00 *Parallel Session 3:* **IPLASS selected talks**

(moderators: Andreina **Schoeberlein**; Fabio **Marongiu**)

15:00 – 15:30 *Evaluation of the humoral immune response in patients transplanted with cryopreserved human amniotic membrane on the ocular surface*

Florelle **Gindraux** *(Université de Franche-Comté, Besançon, France)*

15:30 – 16:00 *From a decellularized extracellular matrix to a tissue-engineered product*

Martina **Piccoli** *(AULSS8, Vicenza, Italy)*

16:00 – 16:10 *A21: Perinatal MSC Source, Culture Duration and Oxygen Tension Shape Secretome-Mediated Modulation of Macrophage Differentiation and Polarisation*

Nikita **Camilleri**, Marta Magatti, Andrea Papait, [..], Antonietta R Silini, Ornella Parolini

16:10 – 16:20 *A11: Epigenetic and Antioxidant Preconditioning of Human Amniotic Epithelial Cells for Pancreatic Regenerative Strategies in Type 1 Diabetes*

Francesca **Paris**, Astrid Sodomaco, Aretha Rambaldi, [...], Francesco Alviano

16:20 – 16:30 *A22: hAMSC Secretome Attenuates the Pro-Metastatic Phenotype of Cancer-Associated Fibroblasts Derived from High-Grade Serous Ovarian Cancer Peritoneal Metastases*

Paola **Chiodelli**, Patrizia Signoroni Bonassi, [...], Antonietta Silini, Ornella Parolini

16:30 – 16:40 *AmnioSMART: defining the ideal human amniotic progenitor secretome formulation for implementing cardioprotective strategies*

Simona **Casarella**, Arnaldi P., Spanò A., Goel D., [...], Ornella Parolini, Sveva Bollini.

16:40 – 16:50 *Human Amniotic Epithelial Cells Display Donor Dependent RPE Like Priming Better Preserved within the Native Membrane*

Roberta **Pisu**, Stefania Saponara, Maurizio N. D'Alterio, [...], Fabio Marongiu

16:50 – 17:00 *The manufacturing process and storage affect the composition of the ready-to-use secretome from decidua mesenchymal stromal cells*

Paz **de la Torre**, Laura Sánchez-Carretero, Daniel Arenas-Gonzalez, [...], Ana I. Flores

15:30 – 17:00 *Parallel Session 4:* **Roundtable on ATMP manufacturing** (*Italian language only)*

(moderators: Federica **Sabatini**; Massimiliano **Petrini**)

Representative persons from all the Italian Cell Factories

17:00 – 18:30 *Session 7:* **Artificial Intelligence in ATMP Translation**

(moderators: Francisco J **Nicolas**; Enrico **Pieroni**)

17:040 – 17:30 *From Data Silos to Smarter Therapies: The Transformative Role of AI*

Alberto **Tozzi** *(IRCCS Bambino Gesu' Hospital, Rome, Italy)*

17:30 – 18:00 *Artificial Intelligence and Advanced Therapies: Emerging Bioethical Challenges*

Elena **Ricci** *(IRCCS Caslini Institute, Genoa, Italy)*

18:00 – 18:30 *Session 8:* **IPLASS Awards** and **Closing Remarks**

Poster	Title / Authors
P1	*Immunomodulatory properties of perinatal stem/stromal cell secretomes for potential application in cardiac disorders* Alessandra Spanò, Elsa Vertua, Pietro Romele, Patrizia Bonassi Signoroni, Antonietta Rosa Silini, Marta Magatti, Andrea Papait, Pietro Arnaldi, Deepika Goel, Sveva Bollini, Ornella Parolini
P2	*Perinatal MSC-Derived Secretomes Modulate T Cell Responses: Impact of Cell Source, Collection Time and Oxygen Tension* Apolline Fortun*1, Marta Magatti2, Andrea Papait1,3, Nikita Camilleri1, Alessandra Spanò3, Pietro Romele2, Elisabetta Giuzzi2, Alice Paini2, Patrizia Bonassi Signoroni2, Elsa Vertua2, Silvia De Munari2, Antonietta Rosa Silini2, Ornella Parolini1,4
P3	*Comparative Screening of Human Perinatal Secretomes for Cardioprotection* Deepika Goel, Apolline Fortun, Nikita Camilleri, Marta Magatti, Antonietta Silini, Ambra Costa, Pietro Ameri, Ornella Parolini, Sveva Bollini
P4	*A human organ-on-chip platform for preclinical evaluation of cell-based and nanoparticle-enabled cancer immunotherapies* Elisa Raboni, Silvia Scaglione, Elisabetta Palama, Maurizio Aiello
P5	*Can Decellularized Wharton's Jelly meet the specific requirements for intervertebral disc tissue engineering?* Anna Chierici, Gaia Garbin, Riccardo Nadalini, Claudio Nastruzzi, Elisabetta Lambertini, Letizia Penolazzi, Roberta Piva
P6	*Hyaluronic acid-based UC-MSC delivery for fistula regeneration: from biomaterial screening to in vivo translation in a pediatric patient* Laura Zocca, Daniela Catanzaro, Martina Bernardi, Elisa Zolpi, Francesca Trevisan, Alberto Trevisan, Luisa Galla, Anna Merlo, Olivia Marini, Elena Merotto, Edoardo Maghin, Francesca Elice, Alberto Tosetto, Cosimo Bleve, Piero Giovanni Pavan, Giuseppe Astori, Salvatore Fabio Chiarenza, Martina Piccoli

P7 *Epithelial amniotic membrane cells (hAEC) gain wound healing properties upon EMT.*

José M Puente Cuadrado, Ana Galvache, Marc Alcaraz Romero, Isabel Hernández Mármol, Francisco J Nicolás

P8 *Silencing the alarm: human amniotic mesenchymal stromal cell secretome targets NLRP3 inflammasome activation in M1 macrophages*

Marta Rossi, Marta Magatti, Pietro Romele, Elsa Vertua, Elisabetta Giuzzi, Antonietta Silini, Ornella Parolini

P9 *Maternal Immune Activation Alters Endocannabinoid Signaling and Cortical Function in a Rat Model of Schizophrenia*

Michele Santoni, Andrea Mastio, Luca Concas, Anna Herres, Roberto Frau, Claudia Sagheddu1, Rafaela Mostallino, Maria Paola Castelli, Erica Zamberletti, Marina Gabaglio, Tiziana Rubino, Anna Lisa Muntoni, Marco Pistis

P10 *Amniotic Membrane effects on TPH-1 macrophage gene expression*

Sergio Liarte, Coral Sánchez-Carrillo, Manuel J. Moreno, Pablo Mesa-del-Castillo, Francisco J. Nicolás

P11 *Culture duration remodels the surface glycome of human amniotic epithelial cells along a transcriptional axis of reduced cellular plasticity*

Sonia Spinelli, Sofia Gaudiano, Nicole Grinovero, Margherita Milani, Martina Della Lastra, Andrea Petretto, Roberto Gramignoli, Maurizio Bruschi

P12 *From Opes Free-Energy Landscapes to Anti-Aggregation Design: Bayesian-optimized Collective Variables Reveal Targetable Pre-Aggregative Hiapp States*

Antonio Laus, Graziella Tocco, Elsi Ferro, Antonella Fais, Rossano Atzeni, Maria Valentini, Enrico Pieroni, Massimo Pisu

P13 *Integrated Experimental and Computational Analysis of Benzimidazole α-Glucosidase Inhibitors for Pathway-Informed Design*

Ferro Elsi, Laus Antonio, Atzeni Rossano, Pieroni Enrico, Valentini Maria, Massimo Pisu

P14 *Data-driven Somatic Mutation Analysis in Cancer Genomics Leveraging Liquid Biopsy*

Rossano Atzeni, Elsi Ferro, Antonio Laus, Maria Valentini, Enrico Pieroni, Massimo Pisu

P15 *Therapeutic application of clinical grade extracellular vesicles secreted by iPSC-derived mesenchymal stromal cells (iMSC) and Induced chondrocyte for osteoarthritis*

Elisa Rosselli, Camilla Baronti, Matilde Balbi, Chiara Gentili

P16 *Development of a GMP-compliant pipeline for cord blood MSC-derived extracellular vesicles*

Edoardo Guida, Maria Chiara Iachini, Serena Scarpitta, Noemi Elia, Elisa Montelatici, Cristiana Lavazza, Silvia Budelli, Salvatore La Rosa, Emilio Carrino, Rosaria Giordano, Lorenza Lazzari

