

SOCIETA' ITALIANA DI RICERCHE CARDIOVASCOLARI

**23°
CONGRESSO
NAZIONALE
28-30 OTTOBRE 2021
Palazzo Sersanti, Imola**

PROGRAMMA



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STRUTTURA DEL CONGRESSO

Il Congresso si articola in 8 Macroaree di ricerca comprendenti specifici simposi:

1. NUOVE FRONTIERE NELLA MEDICINA RIGENERATIVA

Symposium #1: “Regenerative medicine: from paracrine therapy to genetic manipulation to achieve cardiac repair”

2. RUOLO PATOGENETICO DI CELLULE NON MUSCOLARI NEL CUORE

Symposium #2: “Non-cardiomyocyte contributions to heart disease”

3. CARDIOLOGIA COMPUTAZIONALE: IL CUORE *IN SILICO*

Symposium #3: “New fuel in computational cardiology: covering the road from prediction to treatment”

4. NUOVI MECCANISMI PATOGENETICI NELLE CARDIOMIOPATIE

Symposium #4: “The right ventricle in arterial pulmonary hypertension”

5. NUOVE STRATEGIE PER RIDURRE IL RISCHIO CARDIOVASCOLARE

Symposium #5: “Novel determinants and emerging strategies to mitigate the cardiovascular risk”

6. ASSE CUORE-CERVELLO

Symposium #6: “Heart-Brain Axis: an unexpected synthesis”

7. IPERTENSIONE POLMONARE

Symposium #7: “Unmasking new molecular determinants in familial cardiomyopathies”

8. RELAZIONI TRA PATOLOGIE CARDIOVASCOLARI E TUMORI

Symposium #8: “Exploring novel signalling pathways to unravel and target the relationship between cancer and the cardiovascular system”

DAY 1

14.00-14.30 Opening Ceremony & Welcome Messages from the President and the Authorities

14.30-15.50 SYMPOSIUM 1:

REGENERATIVE MEDICINE: FROM PARACRINE THERAPY TO GENETIC MANIPULATION TO ACHIEVE CARDIAC REPAIR

Chairs: R. Madonna (UNIFI, Italy) - S. Bollini (UNIGE, Italy)

14.30-14.55 Key Lecture:

Lucio Barile (Istituto Cardiocentro Ticino_EOC, Lugano, e Università Svizzera Italiana, Switzerland)

"Translational applications of exosomes in ischemic heart disease: where are we now?"

14.55-15.20 Key Lecture:

Daniele Torella (Magna Grecia University, CZ, Italy)

"Senescence-released cardiac tissue specific progenitors regain stemness and myocardial regeneration in aging."

15.20-15.35 Selected Oral Presentation

Sharon Negri (University of Pavia, Italy)

"Optical stimulation of endothelial colony forming cells plated on light-sensitive conjugated polymers induces a TRPV1-mediated increase in intracellular Ca²⁺ concentration"

15.35-15.50 Selected Oral Presentation

Fabiola Marino (Magna Grecia University, CZ, Italy)

"The piRNome of adult cardiac/progenitor cells: a novel procardiogenic piRNA promotes their specification and differentiation in cardiomyocytes in vitro"

15.50-16.10 Coffee Break

16.10-17.30 SYMPOSIUM 2:

NON-CARDIOMYOCYTE CONTRIBUTIONS TO HEART DISEASE

Chairs: A. Ghigo (UNITO, Italy) - G. Tocchetti (UNINA, Italy)

16.10-16.35 Key Lecture:

Milena Bellin (Leiden University Medical Center, the Netherlands & UNIPD, Italy)

"Engineered models of the human heart: directions and challenges"

16.35-17.00 Key Lecture:

Pietro Ameri (University of Genova, Italy)

"Cardiac fibroblasts in doxorubicin cardiotoxicity: just bystanders?"



17.00-17.15 Selected Oral Presentation

Rendon Angel Azucena (Istituto Cardiocentro Ticino_EOC, Lugano, e Università Svizzera Italiana, Switzerland)

"Doxorubicin-induced cardiotoxicity enhance SARS-CoV-2 infection susceptibility in human cardiomyocytes"

17.15-17.30 Selected Oral Presentation

Pawan Faris (University of Pavia, Italy)

"Nicotinic Acid Adenine Dinucleotide Phosphate (NAADP) induces intracellular Ca²⁺ signals through activation of endo-lysosomal two-pore channel (TPC) in cardiac mesenchymal Stromal Sells"

17.30-18.00 VALSALVA PRIZE LECTURE

introduced by the SIRC President, Prof. Tommaso Angelone

17.35-18.00 Valsalva Lecture

To be delivered by the Winner of the Valsalva Prize (supported by Fondazione Cassa di Risparmio di Imola)

18.00-19.30 Poster view

DAY 2

09.00-10.20 SYMPOSIUM 3: NEW FUEL IN COMPUTATIONAL CARDIOLOGY: COVERING THE ROAD FROM PREDICTION TO TREATMENT

Chairs: M. Miragoli (UNIPR, Italy) - A. Zaza e F. Lodola (UNIMIB, Italy)

09.00-09.25 Key Lecture:

Alfonso Bueno-Orovio (Oxford University, UK)

"Computational Modelling of Hypertrophic Cardiomyopathy"

09.25-09.50 Key Lecture:

Stefano Severi (University of Bologna, Italy)

"From lab animals to humans, from in vitro to in vivo: an update on computational models of human cardiac cells"

09.50-10.05 Selected Oral Presentation

Francesco Lo Muzio (University of Verona, Italy)

"Supervised machine learning classifiers and cardiac kinematics support decision-making during open-chest surgery of Tetralogy of Fallot patients"

10.05-10.20 Selected Oral Presentation

Massimiliano Zaniboni (University of Parma, Italy)

"A new harmonic model of cardiac excitation-contraction coupling"

10.20-10.35 Coffee break

10.35-11.05 STATE OF THE ART LECTURE:

Chair: F. Moccia (UNIPV, Italy)

Leonardo Sacconi (INO-CNR and LENS, Firenze)

"Advanced optical methods to monitor and control the cardiac electrical activity"

11.10-11.55 SYMPOSIUM 4:

THE RIGHT VENTRICLE IN ARTERIAL PULMONARY HYPERTENSION

Chairs: Rosalinda Madonna (UNIFI, Italy) - Valentina Mercurio (Federico II University, NA, Italy)

11.10-11.35 Key Lecture:

Roberto Badagliacca (UNIROMA1, Italy)

"Right ventricular adaptation to pulmonary hypertension: from pathobiology to ventricular-arterial coupling"

11.35-11.50 Selected Oral Presentation

Matteo Mazzola (University of Pisa, Italy)

"Isolated exercise-induced pulmonary hypertension is associated with clinical worsening and poor immunological control in HIV patients"



11.50-12.05 Selected Oral Presentation

Anunziata Laurino (University of Florence, Italy)

"Interleukin 6 rapidly modifies Hyperpolarization-activated Cyclic nucleotide-gated (HCN) channel expression in vitro and its level is linearly related to HCN isoforms in human atria"

12.05-12.30 GUIDO TARONE LECTURE

Chair: P. Pagliaro and Claudia Penna (UNITO, Italy)

Giulio Pompilio (Direttore Scientifico Centro Cardiologico Monzino, Milano – UNIMI, Italy)

"Cell Therapy for refractory angina: research&development path"

12.30-12.45 Sponsor Session

Dieter Fuchs (FUJIFILM VisualSonics, Inc.)

"Towards standardization of small animal cardio imaging"

12.45-13.45 Posterview and Lunch

14.15-16.00 SYMPOSIUM 5:

NOVEL DETERMINANTS AND EMERGING STRATEGIES TO MITIGATE THE CARDIOVASCULAR RISK

Chairs: G. Iaccarino (UNINA, Italy) – T. Pasqua (UNICZ, Italy)

14.15-14.40 Key Lecture:

Claudio Borghi (University of Bologna, Italy)

"Uric acid as determinant of cardiovascular risk: Evidence of the URRAH study"

14.40-15.05 Key Lecture:

Claudio Napoli (University of Campania "Luigi Vanvitelli", NA, Italy)

"Epigenetics of the cardiovascular risk"

15.05-15.30 Key Lecture:

Arrigo Cicero (University of Bologna, Italy)

"Nutraceutical in the handling of cardiovascular risk: The position of the SINUT"

15.30-15.45 Selected Oral Presentation

Matteo Sorge (University of Turin, Italy)

"An intrinsic mechanism of metabolic resilience influences the cardiac response to stress"

15.45-16.00 Selected Oral Presentation

Carmine Rocca (University of Calabria, CS, Italy)

"The chromogranin A₁₋₃₇₃ fragment exerts strong cardioregulatory effects by engaging neuropilin-1 through minimal changes in the protein sequence"

16:00-17.20 SYMPOSIUM 6:

HEART-BRAIN AXIS: AN UNEXPECTED SYNTHESIS

Chairs: V. Lionetti (SSSUP, Italy) – F. Moccia (UNIPV, Italy)

16:00-16.25 Key Lecture:

Vincenzo Lionetti (SSSUP, Italy)

"Can the brain help protect the heart?"

16.25-16.50 Key Lecture:

Federica Del Monte (UNIVERSITY OF SOUTH CAROLINA, USA, AND UNIBO, ITALY)

"The heart of Alzheimer's: A mindful view of HFpEF"

16.50-17.05 Selected Oral Presentation

Giulia Furini (Scuola Superiore Sant'Anna, Pisa, Italy)

"High postoperative plasma exosomal miRNAs 1, 21 and 133a depict LV reverse remodeling in patients undergoing mitral valve repair surgery"

17.05-17.20 Selected Oral Presentation

Marco Mongillo (University of Padova, Italy)

"Muscle RING finger-1 is required to prevent age-related cardiac hypertrophy and interstitial remodelling"

17.20-17.35 Coffee break

17.35-19.10 SYMPOSIUM 7:

UNMASKING NEW MOLECULAR DETERMINANTS IN FAMILIAL CARDIOMYOPATHIES

Chairs: R. Coppini (UNIFI, Italy) – A. Gerbino (UNIBA, Italy)

17.35-18.00 Key Lecture:

Andrea Barbuti (University of Milan, Italy)

"Cardiomyocytes caveolae: dynamic membrane microdomains linking mechanical dysfunction and arrhythmias"

18.00-18.25 Key Lecture:

Cecilia Ferrantini (University of Florence, Italy)

"Mutation-dependent and -independent mechanisms of myocardial dysfunction in hypertrophic cardiomyopathy: implications for targeted therapies"

18.25-18.40 Selected Oral Presentation

Tania Zaglia (University of Padova, Italy)

"Generation and phenotyping of a novel knock-in mouse model of"



desmoplakin-dependent arrhythmogenic cardiomyopathy”

18.40-18.55 Selected Oral Presentation

Jessica Gambardella (Federico II, Naples, Italy)

“Metabolic alterations of skeletal muscle and exercise intolerance in a mouse model of Fabry Disease”

18.55-19.10 Selected Oral Presentation

Carlotta Ronchi (IIT, Milan, Italy)

“Red light-absorbing conjugated polymer optically modulates Ca²⁺ dynamics in cardiomyocytes derived from human induced pluripotent stem cells

19.10-19.30 Meeting of the SIRC Assembly

DAY 3

09.00-10.10 SYMPOSIUM 8:

EXPLORING NOVEL SIGNALLING PATHWAYS TO UNRAVEL AND TARGET THE RELATIONSHIP BETWEEN CANCER AND THE CARDIOVASCULAR SYSTEM

Chairs: A. Parenti (UNIFI, Italy) – A. Fiorio Pla (UNITO, Italy)

09.00-09.25 Key Lecture:

Annarosa Arcangeli (UNIFI, Italy)

“Engineering anti-hERG antibodies for cancer treatment with high cardiac safety”

09.25-09.50 Key Lecture:

Annarita Cantelmo (University of Lille, France)

“Targeting endothelial cell plasticity in disease: role of mitochondrial calcium signaling and metabolism”

09.50-10.05 Selected Oral Presentation

Michele Russo (University of Turin, Italy)

“Phosphoinositide 3-kinase gamma at the crossroad between autophagy and metabolic control in doxorubicin-induced cardiomyopathy”

10.05-10.20 Selected Oral Presentation

Alessandro Fantin (University of Milan, Italy)

“KIT is required for fetal liver erythropoiesis but dispensable for angiogenesis”

10.20-10.30 Sponsor Session

Tommaso Sbrana (IVTech Srl)

“IVTech: the next generation of in-vitro models”

10.30-12.30 Poster view and Coffee Break

12.30-13.00 IN THE MEMORY OF PROF. GIANNI LOSANO, CO-FUNDER AND PAST PRESIDENT OF THE ITALIAN SOCIETY OF CARDIOVASCULAR RESEARCHES

A tale of heart, life, and science, by Prof. Pasquale Pagliaro (Unito, Italy)

13.00-13.30 CEREMONY RESEARCHER AWARDS

13.30

REMARKS & TAKE HOME MESSAGES