















Asking Stem Cells for Complex Developmental Decisions: When Reprogramming and Pluripotentiality are Needed

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Bologna, VID (Visual Institute of Developmental Sciences)
National Institute of Biostructures and Biosystems (NIBB),
NIBB Laboratory of Molecular Biology and Stem Cell Engineering, <u>Strada Maggiore N. 42, 40125 Bologna</u>, Italy

Scientific Directors:

<u>Carlo Ventura</u> Full Professor of Molecular Biology Chief, Laboratory of Molecular Biology and Stem Cell Engineering – National Institute of Biostructures and Biosystems, University of Bologna, Italy <u>Nazzareno Galiè</u> Director, Pulmonary Arterial Hypertension Unit, Cardiovascular Department, University of Bologna, Italy

Programme

8:45 - 9:30 Participants' Registration

9:30 – 9:40 **Welcome** (S.E. Cardinale Carlo Caffarra, Arcivescovo di Bologna - S.E. Mons. Ernesto Vecchi, Pres. Fondazione Lercaro - Prof. Ivano Dionigi, Rettore Università di Bologna - Prof. Damiano Gustavo Mita, Presidente NIBB - Dr. Patrizio Bianchi, Assessore Università della Regione Emilia Romagna)

9:40 - 10:20 Hyaluronan, cellular niche(s) and stem cell dynamics

Vincent C. Hascall

Department of Biomedical Engineering, The Lerner Research Institute, The Cleveland Clinic Foundation, Cleveland, OH, USA

10:20 – 11:00 Stem cell signatures toward a renewable source of pancreatic beta-cells Camillo Ricordi

Cell Transplant Center and Diabetes Research Institute, University of Miami, Miami, FL, USA.

11:00 – 11:40 Cardiac progenitor cells: transcriptional control during proliferation and differentiation

Institute of Genetics and Biophysics (IGB) "Adriano Buzzati Traverso", Naples, Italy

11:40 – 12:20 Post-Mortem Adult Neural Stem Cells: Erythropoietin Dependency and Neuroregenerative Action in Spinal Cord Injury

Alfredo Gorio, Stephana Carelli, Giovanni Marfia

Clinical Pharmacology, IRCCS Humanitas, Milan, Italy

12:20 - 12:40 Questions, Answers and Discussion

12:40 - 13:40 Lunch

13:40 – 14:20 Stem cells and regenerative medicine for the central nervous system: unmet needs and new perspectives

Interdepartmental Center for Industrial Research (HST-ICIR), University of Bologna

14:20-15:00 Hyaluronan esters, Wi-Fi energy: chemical and physical strategies to optimize stem cell expression of pluripotentiality

Carlo Ventura

VID, NIBB Laboratory of Molecular Biology and Stem Cell Engineering, and Cardiovascular Department, University of Bologna, Italy

15:00 – 15:40 Pulmonary arterial hypertension (PAH): is it the right time for regenerative medicine? *Nazzareno Galiè*

Cardiovascular Department, University of Bologna, Italy

15:40 – 16:20 Lipogems: a novel device for mechanical harvesting of human adipose derived stem cells *Carlo Tremolada*

Istituto Image and San Paolo Hospital, Milan, Italy

16:20 – 17:00 Stem cell science and translational medicine: an unavoidable cross talk to touch the bed side *Vincenzo Lionetti*

Laboratory of Medical Science, Institute of Life Sciences, Scuola Superiore Sant'Anna, Pisa. Italy and VID, NIBB Laboratory of Molecular Biology and Stem Cell Engineering, and Cardiovascular Department, University of Bologna, Italy

17:00 – 17:30 Questions, Answers and Discussion