

PRESENTATION

We are pleased to announce that the Department of Women's and Children's Health of the University of Padua in collaboration with The Pontifical Academy for Life of the Roman Catholic Church is organizing the

Third International Congress on Responsible Stem Cell Research

that will be held in

Padua, 16-18 November 2016

at Congress Center Papa Luciani, via Forcellini 170/a, 35128

Regenerative Medicine has emerged as a new discipline based on progress in cell and molecular biology allowing isolation, characterization, expansion and engineering of cells as potential therapeutic tools. Experience in the last decade yielded significant results in the reconstruction of relatively simple tissues, such as skin or cornea. However, the use of cells for regeneration of more complex organs, such as the heart or the brain, has encountered more difficulties, probably due to a still limited knowledge of mechanisms underlying cell grafting and integration in the host tissue. In other words, knowledge in tissue biology did not parallel progress in cell and molecular biology. The concept of “replacing” diseased or aged tissues and organs with younger and more active cells, such as stem cells, has dominated the field for some years. Experimental and clinical evidence now indicates that repopulation of host tissue with exogenous cells is generally inconsistent, supporting an indirect primary mechanism other than structural integration of transplanted cells at injured tissue, and it is generally accepted that such underlying mechanisms can be mostly characterized as paracrine effects.

The traditional view of paracrine communication, based on diffusion of soluble factors among neighboring cells, has been recently revolutionized by recognizing that cells send signals via secretion extracellular vesicles. These nanoparticles, exhibiting distinct structural and biochemical properties according to their intracellular site of origin, can play a pivotal role in intercellular signaling by exchanging mRNA, microRNA, second messengers, cytokines and proteins among cells within a defined microenvironment. Extracellular vesicles can be isolated from cultured cells in sufficient amounts for clinical use, and are the object of extensive investigation for several therapeutic applications, ranging from adoptive immunotherapy to anticancer and anti-

inflammatory therapy. The above advancements bear important practical, economical and ethical implications. Moving from cells to cell products could enormously simplify clinical grade production, reducing costs and bringing such innovative tools closer to more extensive clinical use. Tumorigenic risk due to transplantation of live manipulated cells should also be significantly reduced. The role of pluripotent stem cells could also be reconsidered. The Third International Congress on Responsible Stem Cell Research will address these issues thanks to the participation of international qualified speakers, providing a unique opportunity of learning and exchanging ideas in this emerging field of translational Medicine.

Nobel Prize **Shinya Yamanaka** will join on video conference, many others important guests will participate.

«The Pontifical Academy for Life of the Roman Catholic Church is proud to sponsor the 3rd International Congress on Responsible Stem Cell Research (RSCR) in Padua, on 16-18 November 2016 on “From Cells to Cell Products. Development of New Therapeutic Tools»

Organizing Secretariat:

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SCIENTIFIC COMMITTEE

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Prof. Katarina LE BLANC (Hematologiska kliniken, Huddinge Universitetssjukhus, Stockholm, Sweden)

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Prof. Mark MAEURER (Head of the Division of Therapeutic Immunology, LabMed and MTC, Karolinska Institute, Stockholm, Sweden)

Rev. Renzo PEGORARO (Chancellor of the Pontifical Academy for Life)

Prof. Augusto PESSINA (President of the Gruppo Italiano Staminali Mesenchimali, Italian Association for the study of Mesenchymal Stem Cells)

Prof. Peter QUESENBERRY (Director of Hematology/Oncology Research, The Warren Alpert Medical School of Brown University, Rhode Island USA)

Mons. Jacques SUAUDEAU (Corresponding Member of the Pontifical Academy for Life)

ABSTRACT SUBMISSION DEADLINE: 15 SEPTEMBER 2016

ABSTRACT SUBMISSION INSTRUCTIONS

Abstract submission is encouraged, in order to take advantage of this unique opportunity of **exchanging results, experiences and opinions**.

Information about the status of the abstract will only be sent to the Contact Person's e-mail address.

THE PRESENTATION OF THE ACCEPTED SCIENTIFIC CONTRIBUTION IS BOUND TO THE REGISTRATION OF ITS AUTHOR TO THE CONGRESS

Main topics: • Induced Pluripotent Stem Cells and Epigenetics • Paracrine signaling and Extracellular vesicles (EVs) • Mesenchymal stem/stromal cells • Tissue and organ reconstruction • Cancer Stem Cells and Stem cell-based therapies for cancer • Bioethics of Stem Cell research and clinical application • Cell therapy for myocardial repair • Cell Therapy of neurological diseases • Cell Therapy of liver diseases

DISPATCH INSTRUCTIONS

Please read carefully the instructions and fill all the required fields available at the Congress website http://www.stemcellspadua.org/site/wp-content/uploads/2016/07/paper-for-abstracts-d3_1.pdf

during the dispatch procedure /from the OnlineCongress operating system.

Abstracts should be written in English and should not exceed 2500 characters, including spaces. Abstracts should be divided into 5 paragraphs: Introduction - Materials and Methods - Results - Discussion - Conclusions.

Abbreviations in the title are not accepted. If used throughout the text, abbreviations must be indicated in their extended version the first time they are used. Please do not include images, tables or attachments. Abstracts sent via e-mail will not be accepted. The uploaded abstract can be saved and submitted later on using the online procedure. A confirmation email will be sent for receipt to the Contact Person.

ASSESSMENT PROCESS

The abstracts for oral or poster presentation will be assessed by the Scientific Committee according to the following criteria: 1. Validity and relevance of hypotheses 2. Validity of experimental setup 3. Validity of statistical analysis 4. Conclusions supported by results 5. Novelty of the work Notice on the reception of the paper and technical instructions for the oral exposition or the creation of e-posters will only be communicated to the CONTACT PERSON by **15 September 2016**.

PROCEEDINGS OF THE MEETING

The five best communications will be published free of charge as full papers in a Special Issue entitled “Selected Papers from 3rd International Congress on Responsible Stem Cell Research” of the International Journal of Molecular Sciences (IF: 3.257 <http://www.mdpi.com/journal/ijms>). All other attendees wishing to publish their manuscripts will benefit of a 20% discount on Article Processing Charges. Submissions will be peer-reviewed, and accepted papers will be published immediately. The deadline for submission for participants in the conference is March 31st, 2017. All submitted abstracts will be published free of charge in the same Journal as Meeting Report.

ITALIAN CME ACCREDITATION CME (CME ITALIAN CERTIFICATE)

Zip Travel Group, as the Standard Provider No. 4729, follow the CME accreditation procedures for Medico Chirurgo category, Biologist, Nurse, Healthcare Assistant, Chemist, Midwife. To be eligible for CME credits you must attend 100% of the hours of training and pass the tests of learning .

OFFICIAL LANGUAGE: ENGLISH

3RD INTERNATIONAL CONGRESS ON RESPONSIBLE STEM CELLS RESEARCH

FROM CELLS TO CELL PRODUCTS: DEVELOPMENT OF NEW THERAPEUTIC TOOLS

DRAFT PROGRAM

WEDNESDAY 16 NOVEMBER AFTERNOON: OPENING

Opening Session

14.00: Opening Address

14.30: Regenerative Medicine: meeting the expectations?

K. LeBlanc (Sweden)

15.00: Significance of paracrine signaling in cell therapy

J. Frisen (Sweden)

15.30: Stem Regenerative Medicine as tissue/organ replacement: the challenge of Tissue Engineering. *P. De Coppi (UK)*

16.00: Stem cell based therapies for cancer

Khalid Shah, (USA)

16.30: Impact of the “Disease-in-a-Dish” model on the management of genetic diseases

G.Tiscornia, (Spain)

17.00: Overview of the bioethical issues on stem cells

Henk ten Have (USA)

17.30: Discussion

18.00: Coffee Break

18.30: Nobel Prize Lecture (video conference):

Dissecting human reprogramming towards pluripotency

S. Yamanaka (Japan)

19.00: Welcome drink

THURSDAY 17 NOVEMBER MORNING: CLINICAL

I Plenary Session: Clinical advances in cell therapy and tissue engineering

- 09.00: Cell Therapy of Multiple Sclerosis at bedside. *A Uccelli (Italy)*
09.25: Regenerative Medicine as tissue/organ regeneration: the new approach of extracellular vesicles. *G. Camussi (Italy)*
09.50: Tissue engineering at bedside: the paradigm of corneal reconstruction. *P. Rama (Italy)*
10.15: Mesenchymal Stem/stromal Cells from biology to clinical use. *S. Scheding (Sweden)*
10.40: Bioethics of clinical applications. *C. Petrini (Italy)*
11.05: Coffee Break

II Plenary Session : Mesenchymal stem/stromal cells (MSCs)

- 11.30: Opinion and evolving concept on MSCs. *L. Sensebè (France)*
11.55: Mechanisms of immune modulation by MSCs . *A. Viola (Italy)*
12.20: The potential of MSCs as vehicles for drug delivery. *A. Pessina (Italy)*

Focus on Cell Factories

Moderators: M. Krampera, Italy; A Pessina (Italy)

- 12.45: GMP facilities for cell therapy: comparing challenges for a private company and a public hospital. *M. Jurga, (Belgium), L. Lazzari, (Italy)*
13.20: End of Sessions
13.30: Lunch

THURSDAY 17 NOVEMBER AFTERNOON: RESEARCH

III Plenary Session: Paracrine signaling

- 14.30: Extracellular vesicles: biology and characterization . *P.J. Quesenberry, (USA)*
14.55: Regulation of immune responses by extracellular vesicles and potential applications for immunotherapy of cancer and infectious diseases. *PD Robbins,(USA)*
15.20: Mesenchymal stromal cell-derived extracellular vesicles as immune modulators. *M. Muraca (Italy)*
15.45: Bioethics of research. *M. Condic, (USA)*
16.10: Coffe Break

16.40 – 18.30: First Parallel Sessions

Session A: Liver. Key lecture: Cell Therapy of inherited liver metabolic diseases. *E. Sokal (Belgium)*

Free Communications

Session B: Immunotherapy. Key lecture: Immunotherapy of Cancer. *M. Dominici (Italy)*

Free Communications

Session C: Cardiovascular diseases

Free Communications

Social Dinner

FRIDAY 18 NOVEMBER MORNING: RESEARCH

IV Plenary Session: Cell Reprogramming and Epigenetics

09.00: Epigenetic and mechano-sensing related control of cell fate. *N. Elvassore (Italy)*

09.25: Epigenetic conversion of cell lineage. *T. Brevini (Italy)*

09.50: Direct cell reprogramming for the study of hereditary neurological diseases.
M. Stromme (USA)

V Plenary Session: Bioartificial organs and organ reconstruction

10.15: Bioartificial organs: dead or alive? *Z. Pitkin (USA)*

10.40: Tissue engineering of the gastrointestinal tract. *T.C. Grikscheit (USA)*

11.00: Coffee Break

11.30 – 13.30: Second Parallel Session

Session A: Key lecture: Stem cell treatment of multiple sclerosis. *N. Scholding (UK)*

Free Communications

Session B : Key lecture: Neural stem cells and neurogenesis in the adult. *C. Göritz, (Sweden)*

Free Communications

Session C: Tissue engineering

Free Communications

13.30: Lunch

FRIDAY 18 NOVEMBER AFTERNOON: SOCIAL

VI Plenary Session: Resources, regulations, media

14.30: Trends in EU regulations – EMA. *D. Melchiorri (Italy, EMA-CHMP member)*

14.55: Trends in EU regulations – Tissue/organ transplantation. *C. Pintus (Italy)*

15.20: Industry perspective. *A. Vertes (UK)*

15.45: Discussion

16.15: Coffee break

16.40: The pivotal role of media in the advancement of therapeutic tools. *R. Stutzki (CH)*

17.05: The role of patient organizations

17.30: Cord blood banking. *A. Nanni Costa (Italy)*

18.00: Bioethics of resources. *S. Semplici (Italy)*

18.30: End of Session

21.00: Concert

<http://www.stemcellspadua.org/>



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