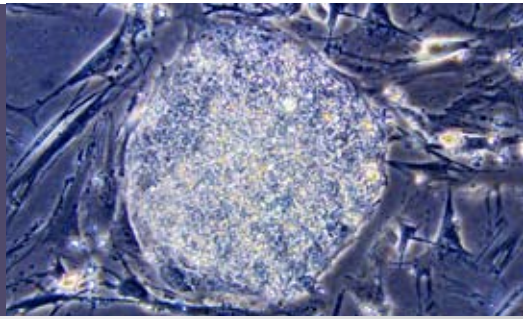
PRELIMINARY PROGRAM

3RD INTERNATIONAL CONGRESS ON RESPONSIBLE STEM CELL RESEARCH RSCR



VATICAN CITY, APRIL 25-28, 2012

WWW.STEMCELLSROME2012.ORG

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PONTIFICAL ACADEMY FOR LIFE
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Mr. Jean-Marie Le Méné

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IN COOPERATION WITH

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CONGRESS ON RESPONSIBLE STEM CELL RESEARCH

This Conference will review the present and perspective clinical use of stem cell, with emphasis onto ethical aspects of their applications. Recent progress in the study of induced pluripotent stem cells (iPSCs) obtained by reprogramming ordinary, differentiated cells of the adult organism will be discussed, including the creation of cellular models of diseases and potential developments in the field of regenerative medicine. Advances in umbilical cord blood stem cells will be also reviewed, together with the new sources of stem cells, including placenta, amniotic fluid and gingival fibroblasts. Additional topics will include pluripotency, maintenance, migration, differentiation, the niche, and the paracrine effect of adult stem cells.

PONTIFICAL ACADEMY FOR LIFE (PAV)
The Pontifical Academy for Life, founded by Pope John Paul II, exists for the promotion and defense of human life, especially regarding bioethics as it regards Christian morality. Its statute is defined by the motu proprio Vitae Mysterium of Pope John Paul II on 11 February 1994.

FONDATION JEROME LEJEUNE
The Jérôme Lejeune Foundation was established in 1996, two years after Jérôme Lejeune's death. While the foundation's principal area of research has been Down syndrome, it also conducts and funds research into other genetic intelligence disabilities such as cri du chat, Rett's syndrome, fragile X, and others. The Lejeune Medical Institute in Paris has a staff of eleven physicians of various specialties and manages a patient load of approximately 3,500 annually. The Jérôme Lejeune Foundation also maintains www.genethique.org, *the leading French-language website for daily information and analysis on developments in bioethics. Gènéthique offers a free monthly newsletter with analysis in French and English*

WORLD FEDERATION OF CATHOLIC MEDICAL ASSOCIATIONS (FIAMC)
The International Federation of Catholic Medical Associations (FIAMC) comprises approximately sixty national associations of Catholic physicians from throughout the world. The mission of the FIAMC focuses on safeguarding, defending and promoting human life in different cultures. Intelligent, well-planned, generous and ongoing group work is required in each country as well as on the international level. Worldwide coordination facilitates more effective defence of the Christian commitment of thousands of medical professionals in scientific research and in practising their profession.

SCIENTIFIC PROGRAM OVERVIEW

WEDNESDAY, APRIL 25, 2012

14:30 18:30	Welcome addresses
	Key lecture: **A GENERAL OVERVIEW OF STEM CELL RESEARCH, TODAY** *Stem cell therapeutics: from HSC to iPSCs*
	SESSION 1 STEM CELL BIOLOGY I
	STEM CELL NICHE
	Hematopoietic and mesenchymal stem cell niche | *Neural regulation of the cell stem niche*
	MESENCHYMAL STEM CELL BIOLOGY
	PARACRINE EFFECT *Paracrine effects of adult stem cells in heart repair*
	FACILITATION OF ADULT STEM CELL ENGRAFTMENT
	TRACHEA ENGINEERING *Restauration of trachea with stem cells engineering*

THURSDAY, APRIL 26, 2012

09:00 13:00	**SESSION 2 CELL REPROGRAMMING - IPSCS**			
	a) VARIOUS APPROACHES FOR OBTAINING iPSCs *Chemical approach, small molecules*			
	b) DIRECT REPROGRAMMING *Direct reprogramming of skin fibroblasts to dopaminergic neurons*			
	c) iPSCs FOR DISEASE MODELING *iPSCs for Parkinson's modeling*			
	d) iPSCs FOR CLINICAL APPLICATION			
	Using iPSCs to study and possibly treat diabetes 1	*iPScs derived photoreceptors for restauration of retinal structure and function*	*Production of function red blood cells from iPSCs*	*Zinc finger nucleases gene therapy with iPSCs for the treatment of sickle cell anemia*
	SESSION 3 CLINICAL APPLICATIONS OF SOMATIC STEM CELLS - I			
	a) THE HEART *Stem cells in angina pectoris refractory to conventional therapy*			
	b) LIMB ISCHEMIA *Stem cells in limb ischemia*			
14:00 18:00	**SESSION 4 CLINICAL APPLICATIONS OF SOMATIC STEM CELLS - II**			
	a) NEUROLOGY			
	Stem cell in multiple sclerosis | *Non embryonic stem cells in stroke*			
	b) LIVER *Stem cells for liver repair and regeneration*			
	c) SKIN *Stem cells in Epidermolysis bullosa*			
	d) BONE *Mesenchymal Stem Cells in osteogenesis imperfecta*			
	e) CORNEA *Stem cells for repair and re generation of human cornea*			
	f) GINGIVAL STEM CELLS *Gingival fibroblasts for the treatment of aneurisms*			
	g) BURNS *Stem cells for treatment of severe burns*			
	h) IMMUNOMODULATION			
	Immune capacities of mesenchymal stem cells	*Immunosuppressive capacities of mesenchymal stem cells for clinical applications*	*Mesenchymal stem cells in resistant tuberculosis*	

FRIDAY, APRIL 27, 2012

09:00 13:00	**SESSION 5** CLINICAL APPLICATIONS OF STEM CELLS			
	a) TISSUE ENGINEERING WITH SOMATIC STEM CELLS			
	Bone engineering *Bone engineering with stem cells*		Fetal tissue engineering *Fetal tissue engineering from amniotic mesenchymal stem cells*	
	b) CORD BLOOD STEM CELLS			
	Results of hematopoietic stem cell transplantation for haematological diseases: a comparison between cord blood HSCs and HSCs from other origine	*Umbilical cord blood stem cells in regenerative medicine*	*Umbilical cord blood stem cells in children with neurological diseases*	*Ethical issues in umbilical cord blood banking: a comparative analysis of documents from national and international institutions*
	SESSION 6 TRANSLATION TO CLINICS			
	a) REGULATIONS			
	Stem cells banking	*Italian biobanks network: ethical and legal aspects*	*European regulations on experimental and clinical use of stem cells*	HRS 14:00 *Networking advanced therapies*
14:00 18:00	**b)** INDUSTRY PERSPECTIVE			
	Human stem cells in translation and clinical trials		*The point of view of industry on human stem cells*	
	SESSION 7 ETHICS OF STEM CELL RESEARCH IN VIEW OF CLINICAL APPLICATIONS			
	ETHICS			
	Research ethics Committies and Ethical Review of clinical trials of stem cell therapy	*Ethics and recent trends in stem cell research*	*Stem cells and clinical ethics*	

SATURDAY, APRIL 28, 2012

09:00 10:30	SYNTHESIS	
	The lessons from stem cell biology	*Stem cells at bedside*
11:00 13:00	**AUDIENCE WITH THE HOLY FATHER**	

WEDNESDAY APRIL, 25

H R S
14:30
18:30

Welcome addresses

Pontifical Academy for Life
Fondation Jerome Lejeune
World Federation of Catholic Medical Associations
Comité Consultatif Bioéthique Monaco

KEY LECTURE

A general overview of stem cell research, today

Stem cell therapeutics: from HSC to iPSCs
G. Daley (Boston - USA)

SESSION 1 STEM CELL BIOLOGY I

Stem cell niche

Hematopoietic and mesenchymal stem cell niche
C. Verfaillie (Leuven - B)

Neural regulation of the cell stem niche
P.S. Frenette (New York - USA)

Notch signaling - wnt signaling in the regulation of stem cell self-renewal and differentiation

A.Wagners (Harvard - USA)

Mesenchymal stem cell biology

W.W. Fibbe (Leiden - NL)

Paracrine effect

Paracrine effects of adult stem cells in heart repair
M. Gnecchi (Pavia - I)

Facilitation of adult stem cell engraftment

H.E. Broxmeyer (Indianapolis - USA)

Trachea engineering

Restauration of trachea with stem cells engineering
P. Macchiarini, (Stockholm - SW)

HRS
09:00
13:00

SESSION 2 CELL REPROGRAMMING - iPSCs

a) Various approaches for obtaining iPSCs

Chemical approach, small molecules
S. Ding (La Jolla - USA)

b) Direct reprogramming

Direct reprogramming of skin fibroblasts to dopaminergic neurons
V. Broccoli (Milan - I)

c) iPSCs for disease modeling

iPSCs for Parkinson's modeling
T. Kunath (Edimburgh - UK)

d) iPSCs for clinical application

Using iPSCs to study and possibly treat diabetes 1
D. A. Melton (Boston - USA)

iPScs derived photoreceptors for restauration of retinal structure and fuction
M. Young (Boston - USA)

Production of functional red blood cells from iPSCs
L. Douay (Paris - F)

Zinc finger nucleases gene therapy with iPSCs for the treatment of sickle cell anemia
K. H. Joung (Boston - USA)

HRS 09:00 13:00

SESSION 3 CLINICAL APPLICATIONS OF SOMATIC STEM CELLS - I

a) The heart

Bone marrow cell mobilization in ST-segment elevation acute anterior myocardial infarction
M. Capogrossi (Rome -I)

b) Limb ischemia

Endothelial progenitor cell Therapy for organ regeneration
T. Asahara (Kobe - J)

HRS 14:00 18:00

SESSION 4 CLINICAL APPLICATIONS OF SOMATIC STEM CELLS - II

a) Neurology

Stem cell in multiple sclerosis
N. Scolding (Bristol - UK)

Non embryonic stem cells in stroke: from bench to bedside
C. D. Hess (Augusta - USA)

b) Liver

Stem cells for liver repair and regeneration
E. Sokal (Belgium -B)

c) Skin

Stem cells in Epidermolysis bullosa
J. Wagner (Minneapolis -USA)

d) Bone

Mesenchymal stem cells in osteogenesis imperfecta
EH. Horwitz (Philadelphia -USA)

HRS
14:00
18:00

e) Cornea

Stem cells for repair and regeneration of human cornea
P. Rama (Milan - I)

f) Gingival stem cells

Gingival fibroblasts for the treatment of aneurisms
A. Lafont (Paris -F)

g) Burns

Stem cells for treatment of severe burns
J. J. Lataillade (Clamart -F)

h) Immunomodulation

Immune capacities of mesenchymal stem cells
O. Rindgen (Stockholm - SW)

Immunosuppressive capacities of mesenchymal stem cells for clinical applications
K. Leblanc (Stockholm - SW)

Mesenchymal stem cells in resistant tuberculosis
M. Mauerer (Stockholm - SW)

HRS
09:00
13:00

SESSION 5 CLINICAL APPLICATIONS OF STEM CELLS

a) Tissue engineering with somatic stem cells

Bone engineering

Bone engineering with stem cells
R. Cancedda (Genova - I)

Fetal tissue engineering

Fetal tissue engineering from amniotic mesenchymal stem cells
D. Fauza (Boston - USA)

b) Cord blood stem cells

Results of hematopoietic stem cell transplantation for haematological diseases: a comparison between cord blood HSCs and HSCs from other origine
E. Gluckman (Paris - F)

Umbilical cord blood stem cells in regenerative medicine
C. Mc Guckin (Lyon - F)

Umbilical cord blood stem cells in children with neurological diseases
J. Kutzberg (Durham - USA)

Ethical issues in umbilical cord blood banking: a comparative analysis of documents from national and international institutions
C. Petrini (Rome - I)

SESSION 6 TRANSLATION TO CLINICS

a) Regulations

Stem cells banking
P. Rebulla (Milan - I)

Italian biobanks network: ethical and legal aspects
A. Nanni Costa (Rome - I)

European regulations on experimental and clinical use of stem cells
C. Pintus (Rome - I)

H R S
14:00
18:00

Networking advanced therapies
G. Migliaccio (Rome - I)

b) Industry perspective

Human stem cells in translation and clinical trials
Trounson (San Francisco - USA)

The point of view of industry on human stem cells
M. Hennig (Basel - CH)

SESSION 7 ETHICS OF STEM CELL RESEARCH IN VIEW OF CLINICAL APPLICATIONS

ETHICS

Research ethics committies and ethical review of clinical trials of stem cell therapy
A. G. Spagnolo (Rome - I)

Ethics and recent trends in stem cell research
J. Suaudeau (Rome - I)

Stem cells and clinical ethics
R. Pegoraro (Rome - I)

SATURDAY APRIL, 28

HRS
09:00
10:30

Synthesis

The lessons from stem cell biology
T. Brevini (Milan - I)

Stem cells at bedside
M. Muraca (Rome - I)

HRS
11:00
13:00

Audience with the Holy Father

FACULTY

ASAHARA T., *Kobe - Japan*
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HESS D. C., *Augusta - United States of America*
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KUTZBERG J., *Durham - United States of America*
LAFONT A., *Paris - France*
LATAILLADE J. J., *Clamart - France*
LEBLANC K., *Stockholm - Sweden*
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MAUERER M., *Stockholm - Sweden*
MCGUCKIN C., *Lyon - France*
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MURACA M., *Rome - Italy*
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PEGORARO R., *Rome - Italy*
PETRINI C., *Rome - Italy*
PINTUS C., *Rome - Italy*
RAMA P., *Milan - Italy*
REBULLA P., *Milan - Italy*
RINGDEN O., *Stockholm - Sweden*
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SPAGNOLO A. G., *Rome - Italy*
SUAUDEAU J., *Rome - Italy*
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WAGERS AJ., *Boston - United States of America*
WAGNER J., *Minneapolis - United States of America*
YOUNG M., *Boston - United States of America*

SCIENTIFIC INFORMATION

CME AND UEMS CREDITS

UEMS Credits
As in our previous congresses, an application will be made to the (EACCME) European Accreditation Council for Continuing Medical Education Institution of The European Union of Medical Specialists (UEMS). Further details will be made available on the congress web site.

CME for Italian delegates
The Congress will be accredited to the Ministry of Health for Continuing Medical Education, for the following professionals:
Medical doctor
Biologist
Psychologist
Nurse

ATTENDANCE CERTIFICATES
Attendance certificates will be delivered on request to all registered participants at the end of the Congress.

ABSTRACT SUBMISSION
Please contact the official web site to get more information.

Topics
BIOLOGY
TISSUE ENGINEERING
CLINICAL APPLICATION OF STEM CELLS
CORD BLOOD STEM CELLS
ETHICS
NETWORKING
ADVANCED THERAPIES

Deadline for submission: February 26, 2012

Venue
Aula Nuova del Sinodo - Vatican City

Language
The official languages will be English, French and Italian; simultaneous translation will be provided.

Visa & invitation letter
Participants are requested to check with the Italian Consulate or diplomatic mission in their home country for VISA requirements.
It is the responsibility of the participant to obtain a VISA if required.

Conference invitation letter
Please send an e-mail with your full name (as printed in your passport), full postal address and passport number to the 3rd RSCR Organizing Secretariat at:
stemcellsrome2012@keycongress.com and an official invitation letter (PDF) will be prepared and sent to your e-mail. Invitation letters are prepared solely for individuals and are mailed directly to them.

Press registration
All media representatives are kindly requested to register well in advance; please contact the official web site to get more information.

Sponsorship & exhibition
A professional exhibition will be held within the framework of the Congress.
For details regarding sponsorship opportunities and/or exhibition space, please contact:
Ms. Arianna Caldon, Industry Liaison & Sales
E-mail: a.caldon@keycongress.com
Tel: +39 049 8729511 Fax: +39 049 8729512

REGISTRATION FEES (Please contact the official web site to get more information)

	From October 1, 2011 up to March 31, 2012	From March 31, 2012 up to April 1, 2012
FIAMC, PAV, Fondation LEJEUNE Members	€ 200,00	€ 250,00
DELEGATES	€ 300,00	€ 400,00
DELEGATES FROM SPECIAL AREAS [1]	€ 100,00	€ 150,00
STUDENTS/NURSES [2]	€ 150,00	€ 150,00
SATURDAY APRIL 28, 2012 (one day participation) [3]	€ 100,00	€ 150,00

All registration fees are quoted in Euro and include 21% VAT.

[1] **Eastern European Countries and Specific Areas:** Poland, Hungary, Romania, Bulgaria, Albania, Serbia, Russian Federation, Moldova, Latvia, Ukraine, Lithuania, Estonia. **South Mediterranean Areas:** Libya, Tunisia, Morocco, Egypt, Algeria, Iran. **Specific Areas:** India, China and South America.

[2] Please provide a certificate - [3] Single day registration is available on Saturday

Delegate registration fee includes: Admission to all scientific sessions; Congress kit with Final Programme and Abstract book; Certificate of Attendance; Coffee breaks.

ORGANIZING SECRETARIAT

key congress& communication

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