

RESCUES 2008 Conference

“What is new in Europe in the field of regenerative medicine? “

&
Workshop

“Toward MSC/MAPCs harmonization”



Stockholm, photographed by Lasse Skog

29 September – 1 October 2008



Conference 2008 “What is new in Europe in the field of regenerative medicine? “

Venue: Karolinska Institutet, Stockholm, Sweden

Organizer: National contacts of Research Experience of Stem Cells in EUrope Society (R.E.S.C.U.E.S.),
A society dedicated to European stem cell science & education, www.RESCUE-Society.org

Dates: Monday-Wednesday, 29 September – 1 October, 2008

Contact & Conference Secretary: Ms. Katrin Walek, Tel&Fax: +49-641-490-244,
rescue.society@gmx.de, Kerkrader Str. 11, Rm. 22, AG Chen, D-35394 Giessen, Germany

Local Organizers: Outi Hovatta (coordinator), Katerina Le Blanc, Ernest Arenas, Urban Lendahl, Rachael Sugars, Lisbeth LÖfstrand, Pontus Blomberg

Speakers*: nominated-invited by/ and, national contacts of the society

Preliminary programme:

Monday, 29 September, 2008

Location: Jacob Nobel lecture hall, Solna campus

16:00 - 16:30

Opening ceremony:

Announcement: “Stem Cells for All“ - [Una Chen & the team, Giessen, DE](#)

Welcome and Introduction to Karolinska Institutet-Solna:

16:30 - 17:30

Keynote Speech 1:

“Nuclear transfer and cell reprogramming” [Sir Ian Wilmut, Edinburgh, UK](#)

17:30 - 18:15

Keynote Speech 2:

“Adult stem cells” [Catherine Verfaillie, Leuven, BE](#)

18:30 - 19:30

Public Education Program:

Open to the public, free of charge

(Chairpersons: [Mariana Resnicoff, London, UK](#) and [Goran Hermaeren, Lund, SE](#) (re-confirming))

Public education with layman- understandable talks:

-hES cells, Germ cells: [Karim Nayernia, Henrik Semb, Outi Hovatta, Veronique Azuara](#)

-Neural injury and diseases: [Almudena Ramon-Cueto, Anders Björklun, Fanie Barnabé-Heider](#)
(confirming)

-Nuclear transfer: [Sir Ian Wilmut](#)

-Transdifferentiation, induced Pluripotent Stem (iPS) cells: [Ulrich Martin](#) (confirming)

-Stem cells of adult vs fetal vs embryonic origin: [Catherine Verfaillie, Katerina Le Blanc, Anthony Atala](#)-colleague

-Other issues: [Other speakers and participants](#) of the scientific program

Scientific program:

Tuesday 30 September 2008

Location: Hörsalen Novum 4th floor, Karolinska Institutet Science Park, AB, Huddinge campus
Dates: 30 September – 1 October 2008

8:45 - 9:00

Introduction to Karolinska Institutet-Huddinge Hospital:
[One Representative of Karolinska Institutet-Huddinge Hospital](#)

9:00 - 12:30

1. New developments during the year 2007-8 (Part 1 of 2):
[\(Chairperson: Sir Ian Wilmut, Edinburgh, UK\)](#)

09:00 - 09:15 Introduction of the topic

09:15 - 10:00 Artificial gametes from stem cells: [Karim Nayernia, Newcastle, UK](#)

10:00 - 10:45 Chromatin and Pluripotency: [Veronique Azuara, London, UK](#)

10:45 - 11:05 Coffee break

11:05 - 11:35 Endoderm and pancreas developmental biology: key to future hESC-based cell-replacement therapy in diabetes: [Henrik Semb, Lund, SE](#)

11:35 - 12:05 Notch/hypoxia on stem cells: [Lorenz Poellinger, Stockholm, SE](#)

12:05 - 12:35 ES cells for cell therapy in Parkinson's disease: problems and prospects: [Anders Björklun, Lund, SE](#)

12:35 -13:30 Lunch break, Poster view

13:30 -14:15 Society member assembly and standardization of scientific terms

2. Communication with peer and the public

Towards standardization of scientific terms used in the community:

-NT, SCNT, hybrid, chimeric, mosaic, etc.,

-MAPC, MSC, Miami cells, etc. (Part 2 of 2)

Q: What are the criteria? Target: scientists, journalist, and more

WHO standardization unit: [Sheryl Vanderpoel, WHO, Geneva, CH \(invited\)](#)

[\(Chairpersons: Umberto Galderisi, Napel, IT and Bernard Mahon, Kildare, IR\)](#)

14:15 -18:30

3. Potential clinical application of cells and know-how for cell therapy:

Clinical grade hES cells and other stem cells

(Chairpersons: Outi Hovatta, Stockholm, SE and Philip Vanek, Lonza-MD, USA)

What is GTP/GXP?

How is a GTP/GMP facility operated?

What is the criteria for clinical grade stem cells?

How many clinical grade cell lines exist already?

Who is establishing the lines?

What are the concerns of the existing cell lines, and of new ones to be established?

Instability of chromosomes in cultured stem cells.

14:15 - 14:30 Introduction of the topic

14:30 - 15:15 Beyond Clinical Results: An Exploration of Commercial-Scale Therapeutic Cell Manufacturing

Philip Vanek, Lonza-MD, USA

15:15 - 15:45 Moving forward to clinical grade hES cells in Newcastle:

Nillendran Prathalingam*, Alison Murdoch, Linda Ferguson, Marry Herbert,
Newcastle, UK

15:45 - 16:15 Towards clinical grade stem cells in Finland:

Kristiina Rajala* - Heli Skottman, Tampere, FI

16:15 - 16:30 Coffee break

16:30 - 17:10 Autologous HSC for treating severe autoimmune diseases

Hannes Lorenz*, Norbert Blank, Anthony Ho, Heidelberg, DE

17:10 - 17:40 GMP facility in Huddinge campus: Pontus Blomberg, Stockholm, SE

17:40 - 18:00 Introduction to panel discussion section of reagents – products for (potential) clinical usage:

Cecilia Anneren-colleague, Uppsalla SE and Stephan Zeisberger, Zürich CH

18:00 - 23:00 Conference Reception

1 October, 2008

9:00 - 12:30

4. Application of existing cell lines/banking related issues

Industrial as well as academic applications: drug discovery, drug testing and drug screening

(Chairpersons: Clemente Cillo, Basel CH and Ben Bowen, Hayward-CA, USA (confirming))

Q: What kinds of cells, technology and read out are available?

Q: Who has what and who can do what?

Q: Intellectual Property (IP) issues

Available cell lines for screening:

09:00 - 09:15 Introduction of the topic

Available cell lines for screening and the criteria:

Candidate stem cells for drug discovery:

09:15 - 09:45 Modelling hepatic endoderm development: Highly efficient differentiation of hESCs to

functional hepatic endoderm requires ActivinA and Wnt3a signalling:

Dave Hay*, Judy Fletcher, Catherine Payne, John Terrace, Ronald Gallagher, Jan Snoeys, Jim Black, Davina Wojtacha, Kay Samuel, Zara Hannoun, Anne Pryde, Celine Filippi, Ian Currie, Stuart Forbes, James Ross, Philip Newsome, John Iredale
Edinburgh, UK

09:45 - 10:15 Application of tetracycline responding mouse stem-progenitor cell lines for drug screening: Una Chen, Giessen, DE

10:15 - 10:35 Coffee break

10:35 - 10:55 Drug screening and discovery (using stem cells):

Ian Cotgreave, AstraZeneca, Södertälje, SE

10:55 - 11:40 Patenting of stem cells – impediments to research or economic incentives? Novelty and inventive step. Ethical considerations and ownership.

Marianne Levin and Åsa Hellstadius, Stockholm, SE

11:40 - 12:00 Monitoring of stem cell behaviour by a transcription factor multiplex assay:

Veronique Mainfroid; Christel Plennevaux, Margit Stadler*, Eppendorf BiochipSystemsAG-Hamburg, DE

12:00 – 12:20 Paralogous group 13 HOX gene deregulation in liver and pancreas carcinogenesis as reversion of a common progenitor cell gene program. Clemente Cillo, Basel, CH

12:20 – 12:45 Phenotype MicroArrays™: a new cell-based platform for characterization, manipulation

and validation of stem cell fate Ben Bowen, Hayward CA, USA (no CME credits)

12:45 - 13:30 Lunch break, Poster award announcement

13:30 - 14:30 **Last-minute breakthroughs, new developments (Part 2 of 2) and other topics**
(Chairperson: Almudena Ramon-Cueto, Valencia, ES)

13:30 - 14:00 Generation of induced pluripotent stem (iPS) cells and differentiation into functional cardiomyocytes

C. Mauritz, M. Reppel, K. Schwanke, G. Kensah, K. Katsirntaki, I. Gruh, H. Zaehres, G. Wrobel, Jurgen Hescheler, Hans Schoeler, Ulrich Martin*, Hannover, DE

14:00 - 14:30 Amniotic Fluid- and Chorionic Villi-derived cells could be new stem cell sources for cell therapy

in neurodegenerative disease?

Cinzia Calzarossa*, Lidia Cova, Alessandra Folci, Maria Pina Manca, Daniela Giardino, Vincenzo Silani, Milan, IT

14:30 - 15:00 Identification and characterization of stem/progenitor cells upon spinal cord injury

Fanie Barnabé-Heider*, Konstantinos Meletis, Marie Carlén, Emma Evergren, Nikolay Tomilin, Oleg Shupliakov and Jonas Frisén, Stockholm, SE

15:00 - 15:30 Autologous transplantation of olfactory bulb ensheathing glia: clinical perspectives for spinal cord repair
[Almudena Ramón-Cueto*](#), [Cintia Muñoz-Quiles](#), [Mari-Paz Rubio](#), [M Beatriz Llamusi](#), [Fernando-Fidel Santos-Benito](#), Valencia, ES

16:15 – 16:30 Coffee break

Keynote Speech 4

16:30 - 17:15 Adult stem cells: [Katarina Le Blanc](#), Stockholm, SE

17:15 - 18:30

5. Potential cross talk project for stem cell community, toward global harmonization, an extension of Preconference Workshop “Toward MSC/MAPCs harmonization” (announced below)

(Chairpersons: [Katarina Le Blanc](#), Stockholm, SE and [Ruurd Torensma](#), Nijmegen, NL)

17:15 - 17:35 Introduction of the topic, and summary of Pre-conference Workshop “Toward MSC/MAPCs harmonization”

17:35 - 18:00 Panel discussion and presentation of co-ordinators of potential collaborative teams derived from the conference and workshop

18:00 - 18:30

Keynote Speech Amniotic fluid / membrane, Chorial villi- stem cells:
[Anthony Atala-colleague](#), [Winston-Salem, NC, USA](#) (reconfirming)

Concluding remarks and the future direction of stem cells in regenerative medicine 2009

Coordinator: [Katarina Le Blanc](#), Stockholm, SE, and all chairpersons

18:30 - 23:00 After conference events

Communicating with peers and the public

- Improving personal communication skill:

A course by professional coaches

(Coordinator: [Raju Pareek, Glasgow, UK](#))

Dates: 29 September – 1 October 2008

Location: In KI Solna campus, the exact location is to be announced

Target: scientist, group leader, teachers, public speech lecturer, etc

- How to give a good interview: [Mariana Resnicoff, London, UK](#) (Monday a-1-2 hour course)

- How to design a powerpoint presentations: colour and composition: [Pia Mobouck, Brussels, BE](#) (by appointment only)

- How to deliver a good talk

- How to give a better first impression,

How to improve your appearance during presentation: [Raju Pareek, Glasgow, UK](#)

Monday Pre-conference Workshop “Toward MSC/MAPCs harmonization”

Date: 8:15 - 12:00 Monday 29 September 2008

Location: Strixsalen of KI Solna campus

(**Chairpersons:** [Catherine Verfailli, Leuven, BE](#) and [Ruurd Torensma, Nijmegen, NL](#))

Q: How do MSC/MAPCs obtained from different origins and different laboratories behave?

Q: What is the criteria?

Q: What is the reference cell type and undertaken effort involving? hES cells?

Q: What can your lab and institution offer?

Q: Can a cross-talk among scientific community be established?

Q: What is the funding source for collaborative projects?

Target: All academic and industrial researchers-workers active in the field of MSC/MAPCs

Presentation style of the workshop: One ppt with 5-10 minutes oral presentation / speaker / laboratory

Q: Communication with peer and the public

Towards standardization of scientific terms used in the community:

-MAPC, MSC, Miami cells, etc. (Part 1 of 2):

How is the outcome of scientific term standardization from the MSC community?

Q: Who offers reagents/products/cell lines essential for standardization?

Speakers (ABC Family name order): Chairpersons will make the new order

1. Human MSC research in the Orthopaedic Research Unit at University of Turku, Finland

[Jessica J. Alm*](#), [Terhi J. Heino](#), [Teuvo A. Hentunen](#), [H. Kalervo Väänänen](#), [Hannu T. Aro](#), Turku, FI

2. Human fetal bone marrow derived MSC lines and other stroma cell lines for growth of adult (stem) cells

Katrin Walek, Jonathan Dando, Una Chen*, Giessen, DE

3. Mesenchymal stem cells effectively reduce surgically-induced stenosis in rat carotids

Amalia Forte*, Tiziana Squillaro, Nicola Alessio, M. Finicelli, Giovanni Di Bernardo, Marilena Cipollaro, Marisa De Feo, Maurizio Cotrufo, Antonino Cascino, A. Giordano and Umberto Galderisi, Naples, IT

4. Senescence of mesenchymal stem cells: the role of MeCP2 gene

Tiziana Squillaro^{1,2}, Nicola Alessio¹, Giovanni Di Bernardo¹, Marilena Cipollaro¹, A. Giordano³ and Umberto Galderisi^{1,3*}, Naples, IT

5. Human hematopoietic stem cell therapy

A colleague of Anthony Ho*, Heidelberg, DE on HSC

6. Allogeneic human mesenchymal stem cells induce CD4⁺CD25^{high}Foxp3⁺ T cells with suppressor activity through production of prostaglandin E2, transforming growth factor beta 1 and by direct cell contact

Karen English, Jennifer M. Ryan, Laura Tobin, Frank Barry and Bernard Mahon*, Kildare, IR

7. Characterization of embryonic- and adult-like multipotent progenitors isolated from murine skeletal muscle and bone marrow

Zhuqing Qu-Petersen*, Peter Schjerling, Jesper L Andersen and Shi Zhou, Copenhagen, DK

8. Stem Cells and Biomaterials for the Treatment of Spinal Cord Injury

A colleague of Eva Syková*, Prague, CZ

9. Toll-like receptor triggering shows restricted cytokine secretion and alters differentiation kinetics of cord blood derived mesenchymal stem cells

Lieke C.J. van den Berk*, Bastiaan J.H. Jansen, Kim G.C. Siebers-Vermeulen, Mihai G. Netea, Talia Latuhihin, Saskia Bergevoet, Reinier A. Raymakers, Gesine Kögler, Carl C. Figdor, Gosse J. Adema, and Ruurd Torensma, Nijmegen, NL

10. Critical parameters for serum-free culture of human adult progenitor cells

Stephan Zeisberger*, Semenov O, Krenning G, Mallek A, Harmsen MC, and Zisch AH, Zürich, CH

On the waiting list:

- Human CD4⁺ T Precursor cells (designated JKP after author's name) expansion for regeneration of tissue, using bio-compatible materials and cells

Jacob Pietrzak*, Nowy Sacz, PO

Monday 29 September 2008

12:00-13:00 Lunch KI Solna Campus, Jöns Jacob Restaurant

13:30-14:30 RESCUES Board Meeting:

National contacts, local hosts, and others by invitation only

Location: Strixsalen KI Solna campus, (to be confirmed by local hosts)



15:00- 16:00 Preparation for the Opening Ceremony and Public Education, Press Interview and Release

Location: Jacob Lecture Hall

ATTENTION:

All participants including invited speakers must make one's own insurance for travel and accidents. The meeting organization committee is not responsible for the risk.

All participants including invited speakers must make one's own travel arrangement.

All participants are welcome to present a poster.

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