ABTCEL

Associação Brasileira de Terapia Celular

Stem cells: from quality control to novel derivation procedures

Preliminary Program

(Buzios – 17-19 October) – Classes and Conferences

Day 1: Cell banking and quality control of clinical applications of adult stem cells

8:00-9:00 – iPS Cells: Where we started and where we are going

Prof. Stevens Rehen (Federal University of Rio de Janeiro, Brazil)

9:00-10:00 - Generations of iPS cell lines and differentiation toward specific tissue cell type

Prof. Fernando Pitossi (Instituto Leloir, Argentina)

10:00-10:30 – Discussion

10:30 – 11:00 – Coffee Break

11:00-12:00 - Promises and challenges of the first clinical grade induced pluripotent stem cell bank

Prof. Dusko Ilic (Guy's Hospital, UK)

12:10 – 12:15 - Discussion

Lunch

17:00-17:45 - Clinical grade cell line in Brazil – Legislation issues

Dr. Daniel Roberto Coradi (ANVISA, Brazil)

17:45-18:00 – Discussion

18:00-18:45 - How to support GMP clinical grade stem cell facilities in Brazil

Prof. Antonio Carlos C. Carvalho (DECIT, Brazil)

18:45-19:00 – Discussion

19:30 – Dinner

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Day 2: Mechanisms of action and clinical application of adult stem cells

8:00-9:00 – New insights into role and importance of exosomes

Prof. Niels Olsen Saraiva Câmara (USP, Brazil)

9:00-9:15 - Discussion

9:15 – 10:15 – The importance of mitochondrial transfer in adult stem cell therapy

Prof. Adalberto Vieyra (IBCCF, UFRJ, Brazil)

10:15-10:30 – Discussão

10:30-11:00 – Coffee Break

11:00-12:00 - Mitochondrial transfer from bone-marrow-derived stromal cells.

Prof. Jahar Bhattacharya (Columbia University, USA)

12:00-12:30 - Discussion

Lunch

16:00 –17:00 - Mechanisms that regulate stem cell aging and life span.

Dr. Robert Signer (Howard Hughes Medical Institute, USA)

17:00 – 17:45 - A nonhuman primate model of organ regeneration: detergent-mediated decellularization and initial in vitro recellularization with mesenchymal stem cells.

Prof. Daniel Weiss (University of Vermont, USA)

17:45 – 18:00 - Discussion

18:00-18:45 - Regulation of normal and leukemic human stem cell migration and development: stem cell interactions with the bone marrow microenvironment

Prof. Tsvee Lapidot (Weizmann Institute of Science, Rehovot, Israel)

18:45-19:00 - Discussion

19:30 - Dinner

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Day 3: Mechanisms of action and clinical application of adult stem cells

8:00-9:00 – Control of tumorigenicity in mesenchymal stem cells

Prof. Ofer Shoshani (Weizmann Institute of Science, Rehovot, Israel)

9:00-9:15 - Discussion

9:15-10:15 - Chromosomal characterization of cryopreserved mesenchymal stem cells

Prof. Silvia Batistuzzo (Federal University of Rio Grande do Norte, Brazil)

10:15-10:30 – Discussion

10:30-11:00 – Coffee Break

Day 3: Reprograming cells for direct differentiation

11:00-12:00 - Direct differentiation of fibroblasts into neurons

Prof. Marius Wernig (Stanford University, USA)

12:00-12:15 - Discussion

12:15 – 13:00 –Differentiation of stem cells into cardiomyocytes

Dr. Alejandro Correa Dominguez (Fiocruz-PR, Brazil)

13:00 – 13:15 - Discussion

13:15 - **Closing session**

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Practical course – October 21-23

Venue: Federal University of Rio de Janeiro

There will be approximately 20 people participating (5 groups of 4 and the following activities are planned):

		Practical course- 1	Practical course- 2	Practical course- 3	Practical course- 4	Practical course- 5
	8:30-10:00 AM	Group **A**	Group **B**	Group **C**	Group **D**	Group **E**
	10:30 -12:00 AM	Group **A**	Group **B**	Group **C**	Group **D**	Group **E**
Day 1	2:00-3:30 PM	Group **B**	Group **A**	Group **D**	Group **E**	Group **C**
	3:30 – 5:00 PM	Group **B**	Group **A**	Group **D**	Group **E**	Group **C**
	8:30-10:00 AM	Group **C**	Group **D**	Group **E**	Group **A**	Group **B**
Day 2	10:30 -12:00 AM	Group **C**	Group **D**	Group **E**	Group **A**	Group **B**
	2:00-3:30 PM	Group **D**	Group **E**	Group **B**	Group **C**	Group **A**
	3:30 – 5:00 PM	Group **D**	Group **E**	Group **B**	Group **C**	Group **A**
	8:30-10:00 AM	Group **E**	Group **C**	Group **A**	Group **B**	Group **D**
Day 3	10:30 -12:00 AM	Group **E**	Group **C**	Group **A**	Group **B**	Group **D**

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Practical Course:

Practical 1 – Isolation, culture and characterization of bone marrow and adipose tissue mesenchymal stem cells (Prof. Antonio Carlos C. Carvalho and Prof. Regina Goldenberg)

Practical 2 – Characterization of mesenchymal stem cells (FACS) (Profa. Tais Kasai)

Practical 3 – Cell homing analysis through bioluminescent and fluorescent assay platform (CENABIO – Emiliano Medei)

Practical 4 – Imaging approach through PET/SPECT/CT System (CENABIO-Sergio Sousa)

Practical 5 - Experimental model of neurological diseases (Prof. Rosalia M. Otero)

Practical 6 – Experimental model of lung diseases (Prof. Marcelo Morales and Prof. Patricia Rocco)