



**International Summer School**  
*on*

# **Advanced Methods in Cell Biology**

*Piran, Slovenia, August 20- 28, 2010*

**Organized by**

*Cell and Tissue Engineering Society of Slovenia*

*Blood Transfusion Centre of Slovenia*

*National Institute of Biology, Slovenia*

*Faculty of Technology and Metallurgy, University of Belgrade, Serbia*

*Tissue Engineering and Regenerative Medicine International Society*



**International Summer School**  
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**Advanced Methods in Cell Biology**  
*Piran, Slovenia, August 20- 28, 2010*

**Invited lecturers:**

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- 3. Sarah Chan**  
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- 4. Tanja Dominko, DVM, PhD**  
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- 5. Peter Dovč, PhD**  
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- 6. Thomas Ektröm**  
Professor  
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- 7. Kristina Gruden, PhD**  
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**12. Marko Kreft, PhD**

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**13. Christopher Malcuit, PhD**

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**14. Darja Marolt, PhD**

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**15. Damijan Miklavčič, PhD**

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**20. Raymond L. Page, PhD**

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**25. Thomas Skutella, PhD**

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**26. Urban Švajger, MPharm, PhD**

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**+ nekdo za flow – nujno!!**

# PROGRAMME

## Friday, August 20

17:00 – 19:00 Registration  
19:00 – Welcome party

## Saturday, August 21

15:00 – 17:00 Symposium: **Frontiers in Stem Cell Research**  
17:00 – 18:00 Project assignment  
19:00 Wine cellar tour

## Sunday, August 22

8:15 – 9:45	<b>Darja Marolt</b> (Department of Biomedical Engineering, Columbia University, USA; Blood Transfusion Centre of Slovenia) <i>Stem cells in biomedical engineering</i>
9:45 – 10:00	Short Break
10:00 – 11:30	<b>Tanja Dominko</b> (CellThera, Inc., Southbridge in Bioengineering Institute, Worcester Polytechnic Institute, USA) <i>Cellular reprogramming: Current technology/perspectives and generation of induced pluripotent cells</i>
11:30 – 13:00	<b>Peter Dovc</b> (Biotechnical Faculty, University of Ljubljana, Slovenia) <i>In vitro differentiation of murine ESC and chimera formation</i>
13:00 – 15:00	Lunch break
15:00 – 16:30	<b>Stephen Minger</b> (R&D for Cell Technologies, GE Healthcare, London, UK) <i>Frontiers today and tomorrow</i>
16:30 – 18:30	Lab demonstrations – PCR & GFP
20:00 -	Social event

## Monday, August 23

8:15 – 9:45	<b>Damijan Miklavčič</b> (Laboratory of Biocybernetics, Department for Biomedical Engineering, Faculty of Electrical Engineering, University of Ljubljana, Slovenia) <i>Cell electroporation</i>
9:45 – 10:00	Short Break
10:00 – 11:30	<b>Gregor Serša</b> (Department of Experimental Oncology, Institute of Oncology Ljubljana, Slovenia) <i>Electroporation As A Tool for In Vitro drug and</i>
11:30 – 12:15	<b>??</b> (BD) <i>Flow cytometry, cell sorting</i>
12:15 – 13:00	<b>Branko Bugarski</b> (Faculty of Technology and Metallurgy, University of Belgrade, Serbia) <i>??</i>
13:00 – 15:00	Lunch break

15:00 – 16:30	<b>Bojana Obradovic</b> (Faculty of Technology and Metallurgy, University of Belgrade, Serbia) <i>Bioreactors for cell culture</i>
16:30 – 18:30	Lab demonstrations – <i>Flow cytometry, cell sorting</i>
20:00 -	Social event

## Tuesday, August 24

8:15 - 9:45	<b>Primoz Rozman</b> (Blood Transfusion Centre of Slovenia) <i>Cell biology methods in transfusion medicine</i>
9:45 – 10:00	Short Break
10:00 – 11:30	<b>Vincent Praloran</b> (UMR 5164 CNRS/ Bordeaux University, France) <i>The oxygen stem cell paradigm: oxygen and differentiation of stem and progenitor cells</i>
11:30 – 13:00	<b>Zoran Ivanovic</b> (Etablissement Francais du Sang, France) <i>The oxygen stem cell paradigm: self renewal from an evolutionary viewpoint</i> <i>Ex vivo expansion of hematopoietic cells: biological basis and pre-clinical development</i>
13:00 – 15:00	Lunch break
15:00 – 16:30	<b>Noel Milpied</b> (Haut Leveque University Hospital Pessac, France; Bordeaux University, France) <i>Ex vivo expansion of hematopoietic cells: clinical assays</i>
16:30 – 18:30	Lab demonstrations <b>Denis Kole</b> (Worcester Polytechnic Institute, USA) <i>Transgenesis and its use in cell biology</i>
20:00 -	Social event

## Wednesday, August 25

**6:15 am**                    **RUN FOR FUN** (organized by Darja Marolt)

"Run for Fun" is meant to socialize, exercise and wake up to a beautiful morning full of energy. We would like to encourage the participants of Summer School to join us in a short run that starts at 6:30 am (meeting 6:15am in front of the lecture hall, Marine Biology Station) for a 30-45 min run along the coast. We will head towards Tartini Square in Piran, hike up to the church and return.

8:15 - 9:45	<b>Thomas Skutella</b> (University Hospital of Tübingen, Germany) <i>Single cell PCR</i>
9:45 – 10:00	Short Break
10:00 – 11:30	<b>Matjaz Jeras</b> (Blood Transfusion Centre of Slovenia) <i>Cell biology methods in immunology</i>
11:30 – 12:15	<b>Urban Svajger,</b> (Blood Transfusion Centre of Slovenia; Faculty of Pharmacy, University of Ljubljana) <i>Cell biology methods in immunology</i>
12:15 – 13:00	<b>Matjaž Ravnikar</b> (Faculty of Pharmacy, University of Ljubljana) <i>Transfekcija</i>
13:00 – 15:00	Lunch break

15:00 – 16:30	<b>Kristina Gruden</b> (National Institute of Biology, Slovenia) <i>qPCR and microarrays</i>
16:30 – 18:30	Lab demonstrations <b>Chris Malcuit</b> (CellThera, Inc., USA) <i>Imaging in 2, 3 and 4 dimensions</i>
20:00 -	Social event

### Thursday, August 26

8:15 - 9:45	<b>Raymond Page</b> (CellThera, Inc., Southbridge in Bioengineering Institute, Worcester Polytechnic Institute, USA) <i>iPS derivation and molecular characterization</i>
9:45 – 10:00	Short Break
10:00 – 11:30	<b>Helena Motaln</b> (Department of Genetic Toxicology and Cancer Biology National Institute of Biology, Slovenia) ?
11:30 – 13:00	<b>Irma Virant-Klun</b> (Reproductive Unit, Department of Obstetrics and Gynecology, University Clinical Centre Ljubljana, Slovenia) ?
13:00 – 15:00	Lunch break
15:00 – 16:30	<b>Lidija Berke</b> (Theoretical Biology & Bioinformatics, Universiteit Utrecht, Netherlands) <i>Bioinformatics as a tool in cell biology</i>
16:30-18:30	Lab demonstrations - <b>Miltenyi</b>
20:00 -	Social event

### Friday, August 27

8:15 - 9:45	<b>Marko Kreft</b> (??) <i>Confocal microscopy in cell biology</i>
9:45 – 10:00	Short Break
10:00 – 11:30	<b>Sarah Chan</b> (School of Law, The University of Manchester) <i>Ethical issues in science and technology</i>
11:30 – 12:15	<b>Marco Traub</b> (??) ??
12:15 – 13:00	<b>Miomir Knezevic</b> (Unit for the Collection and Processing of Haematopoietic Stem Cells, Blood Transfusion Centre of Slovenia) <i>Clinical Trials Design and implementation</i>
13:00 – 15:00	Lunch break

Free afternoon.

### Saturday, August 28

9:00 – Exam  
14:00 – Closing ceremony

Social events (possible):

- Wine cellar tour and wine tasting

- Pancakes party
- Mussels
- Concert (dr. Ivanovic's daughter)
- Salt fields
- ...