

# International Stem Cell Conference

September 6-7, 2018, Auditorium Ettore Rossi, Inselspital Bern, Switzerland



## Dear Scientists,

It is our pleasure to welcome you to the International Stem Cell Conference and the 5th bi-annual meeting of the International Placenta Stem Cell Society (IPLASS) at the University Hospital in beautiful Berne, Switzerland.

The meeting brings together world-leading stem cell researchers and provides a unique opportunity to discuss basic science as well as new therapeutic approaches in the placenta stem cell field and beyond. As it was always a major goal of IPLASS to bridge the gap between basic research and clinical application, this meeting will cover a wide spectrum of topics including the different placental cell populations and protocols for their derivation as well as molecular mediators and mechanisms of disease and repair in various disease models and in clinical trials.

In the last decade, the stem cell field in general and placental stem cells in particular has made a great advance forward. The effect of paracrine factors and the epigenetic regulation of cellular functions have been recognized as therapeutic strategies. New tools like genome editing have emerged and personalized medicine as a tailor-made preventive or therapeutic approach is making its way into the clinics. At the same time, clinical application of stem cell-based treatments are increasing rapidly.

IPLASS meetings are always an excellent opportunity for networking, collaboration and exchange of ideas within the placenta stem cell community. Take the chance to meet new "family" members or strengthen existing collaborations during the scientific program, but also enjoy sharing some unforgettable moments in a relaxed atmosphere in our beautiful city of Berne.

Last but not least, the conference will host the launch of the Swiss Platform for Translational and Clinical Bio-Manufacturing (TCBM).

We sincerely hope that the program will meet your interest and are very much looking forward to a successful and fruitful International Stem Cell conference / 5th IPLASS meeting.

### **Andreina Schoeberlein**

Congress President

Scientific committee:

Daniel Surbek (Acting Chairman, Dept. of Obstetrics and Gynaecology, Insel Hospital & University of Bern, Switzerland)

Andreina Schoeberlein (Head of Research, Laboratory for Prenatal Medicine, Department of BioMedical Research, University of Bern, Switzerland)

Eliane J Müller (Head Molecular Dermatology and Stem Cell Research, Department of BioMedical Research, University of Bern, Switzerland)

# Conference Dinner Location

Thursday, September 6, 2018, 20:00

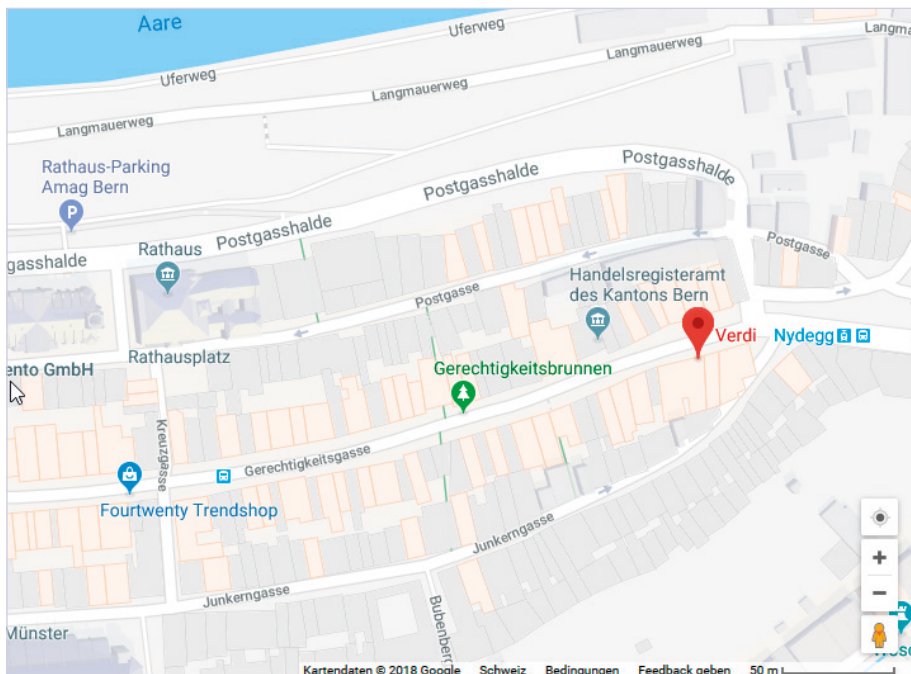
## Restaurant Verdi

Gerechtigkeitsgasse 17

3011 Bern

## How to get to Restaurant Verdi from Central Station?

Take the Bus Nr. 12 (Direction: Zentrum Paul Klee), get out at Station «Nydegg», go upwards, Restaurant Verdi is located at the beginning of the Gerechtigkeitsgasse.



## Scientific Program, Thursday, September 6, 2018

<b>8:00</b>	Registration, Poster Setup	
<b>Opening Ceremony &amp; Session I: Stem cell therapy in CNS disorders</b> (Chairs: Sveva Bollini, Andreina Schoeberlein)		
<b>9:00</b>	<b>Uwe E. Jocham</b> ( <i>President of the Board of Directors, University Hospital Bern</i> ) <b>Christian Leumann</b> ( <i>Rector University of Bern</i> ) Welcome Address University Hospital Bern & University of Bern	
<b>9:20</b>	<b>Ornella Parolini</b> ( <i>Catholic University of the Sacred Heart Rome, Italy</i> ) IPLASS President Welcome Address	
<b>9:30</b>	<b>Cesar V. Borlongan</b> ( <i>University of South Florida, Tampa FL, USA</i> ) Stem cells transfer healthy mitochondria into stroke cells	I01
<b>10:00</b>	<b>Raphael Guzman</b> ( <i>University of Basel, Switzerland</i> ) Stem cell transplantation for the regeneration after hypoxic-ischemic brain injuries	I02

<b>10:30</b>	<b>Coffee Break</b>	
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<b>Session II: The road to clinical applications</b> (Chairs: Antonietta Silini, Fabio Marongiu)		
<b>11:00</b>	<b>Racheli Ofir</b> ( <i>Pluristem Therapeutics Inc., Haifa, Israel</i> ) Clinical development of placenta-derived (PLX) cell products	I03
<b>11:30</b>	<b>Grazia Nicoloso</b> ( <i>Swiss Transfusion SRC</i> ) Hybrid cord blood banking from an unrelated donor registry point of view	I04
<b>12:00</b>	<b>Aur�lie Michel</b> ( <i>Tissue Bank of France, Mions, France</i> ) Human umbilical vessels as nerve regeneration chamber: a tissue engineering product	O1
<b>12:15</b>	<b>Ilya Eremin</b> ( <i>Moscow, Russia</i> ) Comparative analysis of therapeutic efficacy of placenta derived mesenchymal stromal cells with cells isolated from other sources on rat model of thermal skin burn	O2

12:30 Lunch Break

13:00 IPLASS Board Meeting (Board of Directors, Council Members; Room KKL A181)

Session III: Placenta Stem Cells in Disease and Regeneration  
(Chairs: Ornella Parolini, Ingrid Lang-Olip)

13:45	<b>Fabio Marongiu</b> ( <i>University of Cagliari, Italy</i> ) Amniotic epithelial cells in liver regeneration	105
14:15	<b>Florelle Gindraux</b> ( <i>University Hospital Besançon, France</i> ) Placenta tissue and bone repair: current state and perspectives	106
14:45	<b>Francisco J. Nicolás</b> ( <i>IMIB-Arrixaca, Murcia, Spain</i> ) Deciphering the molecular code behind amniotic membrane effect on wound-healing	107

15:15 Coffee Break

Session IV: Placenta Stem Cells in Disease and Regeneration  
(Chairs: Florelle Gindraux, Francesco Alviano)

15:45	<b>Ornella Parolini</b> ( <i>Catholic University of the Sacred Heart Rome, Italy</i> ) The role of inflammation in regenerative medicine: lessons learned from the placenta	108
16:15	<b>Roberto Gramignoli</b> ( <i>Karoliska Institutet, Stockholm, Sweden</i> ) Cellular mechanism in support of human amnion epithelial cell transplantation without immunosuppression	03
16:30	<b>Joanna James</b> ( <i>The University of Auckland, New Zealand</i> ) Differences in side-population trophoblasts in fetal growth restriction point to a role for inadequate trophoblast stem cell function in this pathology	04

16:45 Short Break

16:50 IPLASS General Assembly and Elections

20:00 Conference Dinner (Restaurant Verdi, Berne)



## Scientific Program, Friday, September 7, 2018

### Session V: The Paracrine Effect: Extracellular Vesicles and Epigenetics (Chairs: Cesar Borlongan, Anna Lange-Consiglio)

8:00	<b>Gerald Schwank</b> ( <i>ETH Zurich, Switzerland</i> ) Genome editing for therapeutic applications in human stem cells	I09
8:30	<b>Sveva Bollini</b> ( <i>University of Genova, Italy</i> ) Human amniotic fluid stem cell-extracellular vesicles as a powerful paracrine tool for endogenous repair and regeneration	I10
9:00	<b>Rebecca Lim</b> ( <i>Monash University, Clayton VIC, Australia</i> ) Allogeneic amniotic epithelial cells for established bronchopulmonary dysplasia in premature, low birthweight infants: A first-in-human safety trial	I11
9:30	<b>Gierin Thomi</b> ( <i>University Hospital Bern &amp; University of Bern, Switzerland</i> ) Immunomodulatory effects of exosomes derived from human Wharton's jelly mesenchymal stem cells in perinatal brain injury	O5
9:45	<b>Rae Ritchie</b> ( <i>Cook Biotech Inc., West Lafayette IN, USA</i> ) Preserving cell viability and pro-regenerative growth factors potential during 48 hours ex vivo maintenance of human amnion	O6

10:00 **Coffee Break**

### Session VI: New Therapeutic Approaches & Selected Oral Presentations (Chairs: Daniel Surbek, Roberto Gramignoli)

10:30	<b>Paolo de Coppi</b> ( <i>University College London, UK</i> ) Keynote lecture: New frontiers in regenerative medicine	I12
11:15	<b>Anna Lange-Consiglio</b> ( <i>Università degli Studi di Milano</i> ) Microvesicles from equine amniotic-derived MSC in inflammation	I13
11:45	<b>Asmita Banerjee</b> ( <i>Ludwig Boltzmann Institute for Experimental and clinical Traumatology, Vienna, Austria</i> ) Short term cultivation at atmospheric oxygen alters mitochondrial activity of human amniotic mesenchymal stem cells	O7
12:00	<b>Ingrid Lang</b> ( <i>Medical University Graz, Austria</i> ) Are Matriderm and PCL/PLA scaffolds appropriate carriers for stem cell application in wound healing?	O8
12:15	<b>Volodymyr Shablii</b> ( <i>National Academy of Sciences of Ukraine &amp; Kyiv, Ukraine</i> ) CK7low-subpopulation of placenta-derived multipotent cells possesses high proliferative potential	O9

12:30 **Lunch Break & Poster Session**

13:00

IPLASS Board Meeting (Board of Directors, Council Members; Room KKL E612)

### Session VII: Swiss TCBM Platform for Translational and Clinical Bio-Manufacturing (Chairs: Eliane J. Müller, Daniel Surbek)

14:00	<b>Thomas Geiser</b> ( <i>Inselspital University Hospital Bern, Switzerland</i> ) SCRM Bern Induced pluripotent stem cells and its secretome in chronic lung disease	T1
14:10	<b>Fabienne Hartmann-Fritsch</b> ( <i>ETH Zurich, University of Zurich, Switzerland</i> ) Wyss Zurich DenovoSkin: Personalized skin grafts to treat skin defects	T2
14:20	<b>Marie-Noelle Giraud</b> ( <i>University of Fribourg, Switzerland</i> ) Regenerative medicine cluster Cardiac cell-based therapy	T3
14:30	<b>Ivan Martin</b> ( <i>University of Basel, Switzerland</i> ) Basel Cell Therapy Network From the nose to the knee: engineered nasal cartilage for articular cartilage repair	T4
14:40	<b>Marisa Jaconi</b> ( <i>University of Geneva, Switzerland</i> ) Swiss Institute of Cell Therapies (SICT) Current and perspective clinical iPSC and ESC applications at SICT and worldwide	T5
14:50	Moderation: <b>Eliane J. Müller</b> ( <i>TCBM Platform co-Lead, SCRM Bern</i> ) <b>TCBM Steering Committee:</b> projects summary Official launch of the TCBM Platform	
15:00	<b>Mark A. Rubin</b> ( <i>Director DBMR, University of Bern &amp; SCRM</i> ) TCBM Strategic Board member Closing remarks	

### Award Ceremony & Closing remarks

15:05	<b>Poster Award Committee</b> Best Oral and Poster Presentation Award Ceremony
15:10	<b>Cesar V. Borlongan, Daniel Surbek</b> Closing Remarks, Farewell
15:20	TCBM Aperitif reception

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