

1st Leopoldina-KAST Joint Conference “Current Trends in Stem Cell Research and Regenerative Medicine”

Joint Academies' Symposium by
the German National Academy of Sciences Leopoldina and
the Korean Academy of Science & Technology (KAST)

Seoul, 14 – 15 October 2013

Preliminary Program

Monday, 14 October 2013

8:30	Registration
9:00	Welcome addresses
9:15	KOREAN KEY NOTE (incl. Q&A session) <i>Chair: Il-Hoan OH (Catholic University of Korea)</i>
9:15	The RNA-Binding Protein Repertoire of Embryonic Stem Cells - V. Narry KIM (Seoul National University)
10:15	Session 1 : Cell Fate Decision and Reprogramming <i>Chairs: Kye-Seong Kim (Hanyang Univ.)/Henning M. BEIER (RWTH University of Aachen)</i>
10:15	To Repress or not to Repress: Stem Cell Regulation by Polycomb Repressors - Albrecht MÜLLER (MSZ University of Würzburg)
10:45	Coffee Break
11:00	Reprogramming of Cell Fate - Jeong Beom KIM (Ulsan National Institute of Science and Technology, Ulsan)
11:30	Session 2 : Stem Cells for Neurological Disorders <i>Chairs: Choen-Ki Joo (Catholic Univ. of Korea) & Albrecht MÜLLER (MSZ University of Würzburg)</i>
11:30	Neural Stem Cells and Translational Research - Kook In PARK (Yonsei University)
12:00	Pluripotent Stem Cell-based Modeling of Neurological Disease - Oliver BRÜSTLE ML (University of Bonn)
12:30	Lunch Break
13:30	SESSION 3: STEM CELLS & BIOENGINEERING <i>Chairs: Young-Keun Kwon (Yonsei Univ) & Oliver BRÜSTLE ML (University of Bonn)</i>
13:30	Biofunctional Polymer Matrices for Stem Cell Bioengineering - Carsten WERNER (Technische Universität Dresden)
14:00	Vascularization of Organ-on-Chip: Engineering Perfusable 3D Blood Vessels In Vitro - Noo Li JEON (Seoul National University)
14:30	Session 4: Hematopoietic Stem Cells & Leukemia <i>Chairs: Byung-Soo Kim (Korea Univ) & Carsten WERNER (Technische Universität Dresden)</i>
14:30	Leukemic Stem Cells & Hematopoietic Stem Cells; Do Niche Play a Role? - Il-Hoan OH (The Catholic University of Korea, Seoul)

- 15:00 **Hematopoietic Stem Cells and Cellular Engineering**
- Martin ZENKE (RWTH University of Aachen)
- 15:30 Coffee Break
- 16:00 Session 5: Genetic & Epigenetic Approaches to Stem Cells**
Chairs: Kook In Park (Yonsei Univ) & Martin ZENKE (RWTH University of Aachen)
- 16:00 **Epigenomics in Stem Cells: From Maps to Function**
- Jörn WALTER (Saarland University, Saarbrücken)
- 16:30 **Genetic Modification of MSCs for Neural Diseases**
- Haeyoung SUH-KIM (Ajou University, Suwon)
- Q&A**
- 17:00 Wrap-up Day 1**
Moderators: Il-Hoan OH and Henning M. BEIER
- 17:30 Preparation for Meet-the-Expert Sessions
- 18:00 Meet-the-Expert Sessions (Pre-resistant Only)**
- 19:00 Conference Dinner (Invitee Only)**

Tuesday, 15 October 2013

- 9:00 GERMAN KEY NOTE (incl. Q & A session)**
Chair: Henning M. BEIER (RWTH University of Aachen)
- 9:00 **Reprogramming to Toti-, Pluri- and Multipotency**
- Hans SCHÖLER ML (Max-Planck Institute for Molecular Biomedicine, Münster)
- 10:00 Session 6 : Pluripotent Stem Cells and Therapy**
Chairs: Ho Jae Han (Seoul Natl. Univ.) & Anthony D. Ho (Univ. Clinic of Haematology and Oncology)
- 10:00 **iPS Cells for Treatment of Cardiorespiratory Diseases**
- Ulrich MARTIN (Leibniz Research Labs for Biotechnology and Artificial Organs, Hannover)
- 10:30 **The Experience of Preclinical and Clinical Experiences of Human Pluripotent Stem Cell Derivatives**
- Hyung Min CHUNG (CHA University College of Medicine)
- 11:00 Coffee Break
- 11:15 Session 7: Stem Cells in Clinical and Translational Research**
Chairs: Sung-Soo Kim (Ajou Univ.) & Jörn WALTER (Saarland University, Saarbrücken)
- 11:15 **Stem Cell Mobilization and Microenvironment Control for Tissue Repair**
- Youngsook SON (Kyung-Hee University, Suwon)
- 11:45 **Clinical Translation of Stem Cell Technology – Lessons Learned Since 1983**
- Anthony D. HO (University Clinic of Haematology and Oncology, Heidelberg)
- 12:15 Lunch Break
- 13:15 SESSION 8: iPSCs for Disease Modeling**
Chairs: Pann-Ghill Suh (UNIST) & Ulrich MARTIN (Leibniz Research Labs for Biotechnology and Artificial Organs, Hannover)
- 13:15 **Modeling of Human Menkes Disease via Cellular Reprogramming**
- Yong-Mahn HAN (KAIST)
- 13:45 **Disease-specific iPS Cells for Modeling Metabolic Liver Disorders**
- Tobias CANTZ (Hannover Medical School)
- 14:15 Discussion Panel: Regulatory Framework for Stem Cell Research in Korea and Germany – Facts and Background**
Moderators: Il-Hoan OH and Henning M. BEIER
**Panelists: Hans SCHOELER (Max-Planck Institute), Oliver BRUESTLE (Univ. of Bon),
Byung Hyune Choi (Inha Univ.), Kyungsuk Choi (Ewha Womans Univ.)**
- 15:00 Concluding Remarks

Venue:

K Seoul Hotel

70, Baumoe-ro 12-gil, Seocho-gu, Seoul

http://www.thek-hotel.co.kr/e_seoul/main.asp

Participants:

(1) German Delegation:

- Baerbel FRIEDRICH, Professor of Microbiology, Vice President of the Leopoldina, Halle (Saale)
- Henning M BEIER ML, Professor of Anatomy and Reproductive Biology, Institute of Molecular and Cellular Anatomy, RWTH University of Aachen
- Oliver BRUESTLE ML, Professor of Reconstructive Neurobiology, Institute of Reconstructive Neurobiology, Bonn
- Tobias CANTZ, Regenerative Biology and Reconstructive Therapy (Excellence Cluster), Hannover Medical School
- Anthony HO, Professor of Internal Medicine, University Clinic of Haematology and Oncology, Heidelberg
- Ulrich MARTIN, Professor of Molecular Biotechnology and Stem Cell Research, Leibniz Research Labs for Biotechnology and Artificial Organs (LEBAO), Department of Cardiac-, Thoracic-, Transplantation and Vascular Surgery, Hannover
- Albrecht MUELLER, Professor of Stem Cell Biology, MSZ University of Würzburg
- Hans SCHOELER ML, Professor of Molecular Biomedicine, Max-Planck Institute for Molecular Biomedicine, Münster
- Jörn WALTER, Professor of Genetics, Department of Biosciences, Saarland University, Saarbrücken
- Carsten WERNER, Professor of Biofunctional Polymer Materials, Technische Universität Dresden (tbc)
- Martin ZENKE, Professor of Cell Biology, Institute of Biomedical Technologies, RWTH University of Aachen
- Marina KOCH-KRUMREI, Head of the Department of International Relations, Leopoldina, Halle (Saale)
- Ruth NARMANN, Senior Officer, Department of International Relations, Leopoldina, Halle (Saale)

(2) Korean Delegation:

- Il-Hoan OH, Director, Catholic High Performance Cell Therapy Center, The Catholic University of Korea, Seoul
- Hyung Min CHUNG, Professor of Biomedical Science, CHA University College of Medicine, Gyeonggi-do
- Yong-Mahn HAN, KAIST
- Noo Li JEON, Seoul National University
- Jeong-Beom KIM, Assistant Professor, School of Nano-Bioscience and Chemical Engineering, Ulsan National Institute of Science and Technology (UNIST), Ulsan
- V. Narry KIM, Seoul National University
- Kook In PARK, Yonsei University
- Youngsook SON, Professor of Tissue Engineering, Musculoskeletal Bioorgan Center, Kyung-Hee University, Suwon
- Haeyoung SUH-KIM, Ajou University

Conference Organisers:

Prof. Dr Henning M. Beier ML, Aachen/Germany

Prof. Dr Il-Hoan Oh, Seoul/Korea

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