

Program

Thursday, July 21, 2011

DKFZ, Lecture Hall/Foyer

- 15:00 Poster set-up
- 16:30 Opening Ceremony**
Welcome and Greetings
Otmar D. Wiestler
Anthony D. Ho
Eckart Würzner
Thomas Rausch
Kiyoshi Yoshikawa
- 17:00 Keynote Lectures**
Ground rules for pluripotent stem cells
Austin Smith
Crossing boundaries from mesoscopic physics to biological functions:
Wetting transitions of living drops
Françoise Brochard-Wyart
- 18:30 Poster session & welcome reception

Friday, July 22, 2011

DKFZ, Lecture Hall

- Session I: Evolution of Stem Cell Systems**
Chairs: *Kiyokazu Agata, Thomas Holstein*
- 08:00 - 08:30 Registration
- 08:30 - 08:55 Hormonal control of a stem cell niche: lessons from plants
Jan Lohmann
- 08:55 - 09:20 Hydra stem cell system
Thomas Holstein
- 09:20 - 09:45 Purification and characterization of planarian adult pluripotent stem cells
Kiyokazu Agata
- 09:45 - 10:15 Coffee break & poster session

- 10:15 - 10:40 Stem cell niche in Drosophila
Bruce Edgar
- 10:40 - 11:05 Gene networks and stem cell system
Jochen Wittbrodt
- 11:05 - 11:15 Short break
- Session II: Pluripotency and Reprogramming**
Chairs: *Norio Nakatsuji, Jochen Wittbrodt*
- 11:15 - 11:40 Induction of pluripotency in stem cells
Hans Schöler
- 11:40 - 12:05 Generation of iPS cells for therapeutic treatment
Keisuke Okita
- 12:05 - 12:30 Germ cell specification in mice: signaling, transcription regulation, and epigenetic reprogramming
Mitinori Saitou
- 12:30 - 12:55 Reprogramming of immortalized and tumor cells
Jochen Utikal
- 12:55 - 13:45 Lunch break & poster session
- Session III: Niche and Polarity**
Chairs: *Petra Boukamp, Takashi Hiiragi*
- 13:45 - 14:10 Stochastic processes in the development of pluripotency in vivo
Takashi Hiiragi
- 14:10 - 14:35 Regulation of quiescent hematopoietic stem cells
Toshio Suda
- 14:35 - 15:00 Vascular regulation of stem cell function
Hellmut Augustin
- 15:00 - 15:20 Coffee break
- 15:20 - 15:45 Stress induced activation of HSCs
Andreas Trumpp
- 15:45 - 16:10 Leukemia stem cells and the marrow niche, clinical significance
Anthony D. Ho
- 16:10 - 16:20 Short break

- Session IV: Cell-Material Integration**
Chairs: *Susumu Kitagawa, Motomu Tanaka*

- 16:20 - 16:45 Porous coordination materials for biohybrid system
Shuhei Furukawa
- 16:45 - 17:10 Porous materials and bioactive gas delivery
Russell Morris
- 17:10 - 17:35 Phospholipid nanodisc engineering for drug delivery systems
Tatsuya Murakami
- 17:35 - 17:45 Short break
- 17:45 - 18:10 Physics-cell biology fusion
Motomu Tanaka
- 18:10 - 18:35 Designer biomaterials and surface engineering
Jörg Lahann
- 18:35 - 20:00 Poster discussion with beer & bretzels

Saturday, July 23, 2011

DKFZ, Lecture Hall

- Session V: Meso-Bio Single Molecule Imaging**
Chairs: *Yoshie Harada, Hellmut Augustin*
- 08:30 - 08:55 Diamond particle probe for cell function analysis
Yoshie Harada
- 08:55 - 09:20 High throughput single molecule approaches and synthetic genetic networks
Michael Boutros
- 09:20 - 09:45 Single molecule imaging studies of meso-scale raft domains: how do they exist and transform to work?
Kenichi Suzuki
- 09:45 - 10:00 Coffee break

- 10:00 - 10:25 Using modern electron microscopy to elucidate cellular architectures that are built on mesoscopic principles
John Heuser
- 10:25 - 10:50 Single molecule imaging to understand BRAIN function
Daniel Choquet
- 10:50 - 11:00 Short break
- Session VI: Chemical Biology and Nano-/Meso-/Micro-Engineering**
Chairs: *Motonari Uesugi, Michael Boutros*
- 11:00 - 11:25 Small molecule tools for cell biology and cell therapy
Motonari Uesugi
- 11:25 - 11:50 Synthetic transcription factors for stem cell control
Hiroshi Sugiyama
- 11:50 - 12:15 Chemical biology and model cell production using pluripotent stem cells
Norio Nakatsuji
- 12:15 - 12:40 Nano-engineered substrates in conjunction with microfluidic devices for controlling cell behaviors
Yong Chen
- 12:40 - 13:05 Electrophysiological tools to analyse stem cell function and integration
Elke Günther
- 13:15 Poster Prize Award Ceremony**
Petra Boukamp

Speakers

Welcome Addresses

Prof. Dr. Otmar D. Wiestler, *Chairman and Scientific Director, German Cancer Research Center (DKFZ)*
Prof. Dr. Anthony D. Ho, *Speaker SFB 873, Medical Director, Department of Medicine V, University of Heidelberg*
Dr. Eckart Würzner, *Lord Mayor, City of Heidelberg*
Prof. Dr. Thomas Rausch, *Vice Rector for Research and Structure, University of Heidelberg*
Prof. Dr. Eng. Kiyoshi Yoshikawa, *Executive Vice President Research, Kyoto University*

Scientific Lectures

Kiyokazu Agata, *Kyoto*
Hellmut Augustin, *Heidelberg*
Petra Boukamp, *Heidelberg*
Michael Boutros, *Heidelberg*
Françoise Brochard-Wyart, *Paris*
Yong Chen, *Kyoto and Paris*
Daniel Choquet, *Bordeaux*
Bruce Edgar, *Heidelberg*
Shuhei Furukawa, *Kyoto*
Elke Günther, *Tübingen*
Yoshie Harada, *Kyoto*
John Heuser, *Kyoto and St. Louis*
Takashi Hiiragi, *Kyoto and Heidelberg*
Anthony D. Ho, *Heidelberg*
Thomas Holstein, *Heidelberg*
Susumu Kitagawa, *Kyoto*
Jörg Lahann, *Karlsruhe and Ann Arbor*
Jan Lohmann, *Heidelberg*
Russel Morris, *St. Andrews*
Tatsuya Murakami, *Kyoto*
Norio Nakatsuji, *Kyoto*
Keisuke Okita, *Kyoto*
Mitinori Saitou, *Kyoto*
Hans Schöler, *Münster*
Austin Smith, *Cambridge*
Toshio Suda, *Tokyo*
Hiroshi Sugiyama, *Kyoto*
Kenichi Suzuki, *Kyoto*
Motomu Tanaka, *Heidelberg*
Andreas Trumpp, *Heidelberg*
Motonari Uesugi, *Kyoto*
Jochen Utikal, *Mannheim*
Jochen Wittbrodt, *Heidelberg*

Organizers – Venues – Sponsors

Organizers

Kyoto University: Takashi Hiiragi Susumu Kitagawa Akihiro Kusumi Norio Nakatsuji Motonari Uesugi	Heidelberg University: Petra Boukamp Anthony D. Ho Thomas Holstein Andreas Trumpp Jochen Wittbrodt
--	--

Venue

German Cancer Research Center (DKFZ)
Communication Center / Lecture Hall
Im Neuenheimer Feld 280, 69120 Heidelberg, GERMANY

Registration, Abstract Submission and Information

www.sfb873.de/hdku-symp11

Contact

Collaborative Research Center SFB 873
University of Heidelberg, Department of Medicine V
Im Neuenheimer Feld 410, 69120 Heidelberg, GERMANY
Email: sfb.873@med.uni-heidelberg.de
Phone: +49 6221 56 - 37042

Supported by

CellNetworks
International Relations Office, University of Heidelberg
Amgen
Becton Dickinson
Celgene
Chugai
Genzyme
Miltenyi Biotec
Mitsubishi Pharma
Nikon
Roche
Wiley-Blackwell

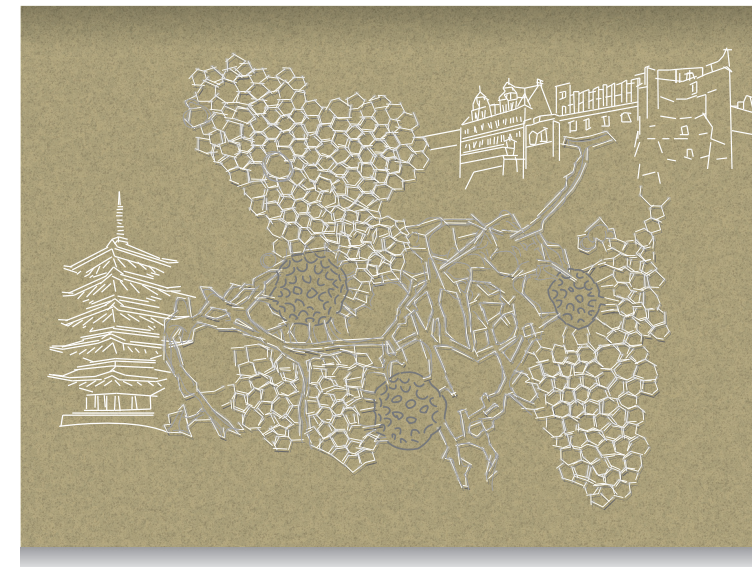
UNIVERSITÄT
HEIDELBERG
Zukunft. Seit 1386.

625 Jahre
Ruperto Carola



Heidelberg-Kyoto Joint Symposium

Crossing Boundaries: Stem Cells, Materials, and Mesoscopic Sciences



21–23 July 2011
DKFZ Lecture Hall



日独交流150周年
Jahre Freundschaft
Deutschland - Japan



UniversitätsKlinikum Heidelberg

Welcome

Dear Colleagues and Friends,

May we extend a cordial invitation to the symposium **Crossing Boundaries: Stem Cells, Materials, and Mesoscopic Sciences**, to be held July 21-23, 2011 in Heidelberg, Germany. The Institute for Integrated Cell-Material Sciences (iCeMS) of Kyoto University, Japan, and the Collaborative Research Center SFB 873 of the University of Heidelberg, Germany, have jointly organized this conference on cross-disciplinary research, aiming to break through boundaries between the life and material sciences. The emphasis will be on innovations in the creation of novel approaches for stem cell technologies.

This scientific symposium is part of the activities within the Collaborative Agreement between the University of Kyoto and the University of Heidelberg. The conference will also constitute a part of the events associated with the anniversary year “150 Jahre Freundschaft Deutschland - Japan”, and the 625th anniversary of the University of Heidelberg, founded in 1386.

We greatly look forward to welcoming you to Heidelberg.

With kindest regards,

Norio Nakatsuji

Director and Professor
Institute for Integrated Cell-Material Sciences (iCeMS)
Kyoto University

Anthony D. Ho

Speaker for the Collaborative Research Center SFB873
Chair and Professor
Department of Medicine V
University of Heidelberg