



BSRT International Summer School on Innovative Approaches in Regenerative Medicine

Scientific Lectures, Seminars and Practical Demonstrations are Black

Complementary Scientific Program is Green

Cultural and Social Program is Blue

Saturday 18th July 2009

Pegasus Hostel Berlin

16:00 to 18:00 Registration

Berliner Prater Garden

from 19:00 Social get together

Sunday 19th July 2009

Gendarmenmarkt

Schiller monument

10:30 to 12:30 Guided walking tour – Berlin's old city

Monday 20th July 2009

Charité - Campus Virchow Klinikum

BCRT, Südstraße 2, Lecture Hall

08:30 to 10:00 **Lecture**
Introduction into regenerative medicine
The musculoskeletal system
(*PD Dr. Georg Matziolis*)
The cardiovascular system
(*Dr. Christof Stamm*)
The immune system
(*Prof. Dr. Petra Reinke*)

Mittelallee 11, 2nd Floor in Front of Ward 45

10:30 to 12:00 **Demonstration**
Insights into the clinical life, internal medicine and transplantation
(*Prof. Dr. Petra Reinke*)



German Heart Center Berlin, Brunnenhof 2-4, Reception

13:00 to 15:00 **Demonstration**
Insights into the clinical life, cardiac diseases
(*Dr. Christof Stamm*)

Charité - Campus Mitte

Clinic for Orthopedia, Bettenhochhaus, Luisenstraße 65, Orthopaedics, E16

16:00 to 17:30 **Demonstration**
Insights into the clinical life, musculoskeletal system
(*PD Dr. Georg Matziolis*)

Tuesday 21st July 2009

German Parliament

Visitor entrance of the Bundestag

08:15 to 11:00 [Visit of the German Parliament](#)

Charité - Campus Virchow Klinikum

This part is split in two. Participants with a background in chemistry, physics and engineering will go to seminar room 1. Participants with a background in life sciences will go to seminar room 2.

Lehrgebäude, Forum 3, Seminar Room 1

14:00 to 15:45 **Seminar**
Biology for engineers
(*Dr. Lutz Schomburg, Prof. Dr. Roland Lauster*)

14:00 to 14:45 The ageing Bone: Endocrinology meets regenerative Medicine
15:00 to 15:45 Stem cells, extracellular matrix and the stem cell niche

Lehrgebäude, Forum 3, Seminar Room 2

14:00 to 15:45 **Seminar**
Engineering for life scientists
(*Prof. Dr. Kay Raum, Dr. Richard Weinkamer*)

14.00 to 14:45 Functional imaging of musculoskeletal tissue regeneration
15:00 to 15:45 Mechanobiological simulations – bone healing and bone remodelling

BCRT, Südstraße 2, Laboratory for Quantitative B-mode sonography and Acoustic Microscopy

16:00 to 16:30 **Practical Demonstration**
Acoustic Microscopy and ultrasound spectroscopy with demonstration at the machines
(*Prof. Dr. Kay Raum*)

BCRT, Südstraße 2, Lecture Hall

17:00 to 18:30 **Keynote Lecture**
Vitamin D in health and disease - molecular biology and clinical issues
(*Prof. Dr. Franz Jakob, University of Würzburg*)



Wednesday 22nd July 2009

Teltow

GKSS, Kantstraße 55, Lecture Hall

09:30 to 10:15 Visit of the GKSS
(Prof. Dr. Andreas Lendlein)

10:45 to 12:00 **Practical Demonstrations**

- Polymer chemistry including shape-memory polymers
- Polymer processing: extrusion
- Polymer characterization e.g. GPC and rheology
- Polymer physics: modeling of polymers
- Cell biology: biomaterial testing

(Prof. Dr. Andreas Lendlein, Dr. Michael Schröter)

The afternoon is split in two parts. Participants with a background in life sciences will stay at the GKSS. Participants with a background in chemistry, physics and engineering will go to the MPI for molecular Genetics.

13:00 to 17:00 **Practical Demonstrations**

Engineering for life scientists

- Atomic Force Microscopy (AFM) with introduction (lecture hall) and demonstration at the machine
- SEM with introduction (lecture hall) polymeric and biologic samples
- Demonstrations and experiments with shape-memory polymers and demonstration of the magnetic induced shape-memory effect

(Prof. Dr. Andreas Lendlein, Dr. Michael Schröter)

Campus Dahlem

Max Planck Institute for Molecular Genetics, Ihnstraße 63-73

14:00 to 17:30 **Practical Demonstrations**

Biology for engineers: introducing the chicken as a model organism to study human diseases

- Development of the chicken
- Manipulation of the chicken embryo
- Studying human diseases using the chicken

(Prof. Dr. Petra Seemann, Dr. Sigmar Stricker, Dr. Jochen Hecht)



Thursday 23rd July 2009

Charité - Campus Virchow Klinikum

BCRT, Südstraße 2, Lecture Hall

- 09:00 to 10:15 **Keynote Lecture**
Bone regeneration and molecular background
(*Prof. Dr. Jill Helms, Stanford University*)
- 10:30 to 11:15 **Lecture**
Development of the skeleton
(*Prof. Dr. Petra Seemann*)
- 11:30 to 12:30 **Visit of the BCRT**
(*Prof. Dr. Hans-Dieter Volk*)

Julius Wolf Institut, Forum 4, Lecture Hall

- 14:00 to 15:00 **Visit of the Julius Wolff Institute**
(*Prof. Dr. Georg Duda*)

BCRT, Südstraße 2, Lecture Hall

- 15:30 to 16:45 **Keynote Lecture**
Biofunctional polymer matrices for regenerative therapies
(*Prof. Dr. Carsten Werner, Leibniz Institute of Polymer Research Dresden*)
- From 17:00 **Poster Session**
(*Participants Poster, BSRT Students Poster*)

Friday 24th July 2009

Charité - Campus Mitte

Luisenstraße 56, Humboldt Graduate School, Room 144

- 09:30 to 10:15 **Lecture**
Understanding endogeneous mechanisms of bone healing as “blueprint” to accelerate healing
in critical clinical cases
(*Prof. Duda*)

CSSB, Philippstraße 13, House 11

- 10:15 to 10:45 **Visit of Centrum for Sport Science and Sport Medicine Berlin**
(*Dr. Markus Heller*)
- 10:45 to 12:15 **Practical Demonstrations**
Musculoskeletal biomechanics
(*Dr. Markus Heller, Dr. William Taylor*)



Campus Dahlem

Zuse Institute Berlin, Takustraße 7, Lecture Hall

14:00 to 14:45	Lecture Systems biology modelling at ZIB (<i>Prof. Dr. Peter Deufhard</i>)
14:45 to 15:30	Visit of the Da Vinci Studio – 3D visualization (<i>Hon-Prof. Hans-Christian Hege</i>)
15:30 to 16:15	Lecture Mathematical modelling in medicine (<i>Dr. Martin Weiser, Dr. Stefan Zachow</i>)

Saturday 25th July 2009

Science Park Golm

10:30 to 12:00	Visit of the Science Park Golm and guided tour of the Max Planck Institute of Colloids and Interfaces (<i>Dr. Richard Weinkamer</i>)
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Potsdam Luisenplatz

14:00 to 16:00	Guided tour through the park Sansoucci
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Sunday 26th July 2009

All Day	Free time
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Monday 27th July 2009

Charité - Campus Virchow Klinikum

BCRT, Südstraße 2, Lecture Hall

09:00 to 10:15	Keynote Lecture Embryonic and induced pluripotent stem cells for basic research and regenerative medicine (<i>Prof. Dr. Jürgen Hescheler, University of Cologne</i>)
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BCRT, Südstraße 2, Seminar Room

10:45 to 12:15	Seminar Cardiac cell therapy (<i>Dr. Christof Stamm</i>)
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Charité - Campus Benjamin Franklin

Hauptgebäude, Bettenhaus 1, 3rd Floor, Seminar Room 3118

14:30 to 16:00 **Seminar**
Stem cells for cardiac repair: reality or dream?
(*Prof. Dr. Carsten Tschöpe*)

Tuesday 28th July 2009

Charité - Campus Virchow Klinikum

BCRT, Südstraße 2, Lecture Hall

09:00 to 10:30 **Keynote Lecture**
Biomaterials in tissue regeneration
(*Prof. Dr. Anita Ignatius, Universität Ulm*)

BCRT, Südstraße 2, Seminar Room

10:45 to 12:15 **Seminar**
New glucocorticoids on the horizon – teaching old drugs new tricks
(*Dr. Paula Kolar*)

Charité - Campus Mitte

Deutsches Rheumaforschungszentrum, Virchowweg 12

14:15 to 15:00 **Lecture**
Innovative techniques in cell handling
(*Dr. Alessandro Serra*)

15:00 to 17:00 **Practical Demonstrations**
FACS analysis
(*Dr. Alessandro Serra*)

Schloß Charlottenburg

20:30 to 22:00 **Berlin Palace Concert**

Wednesday 29th July 2009

Charité - Campus Virchow Klinikum

BCRT, Südstraße 2, Lecture Hall

09:00 to 10:15 **Keynote Lecture**
Health-economic concepts for tissue regeneration
(*Dr. Jan Pietzsch, Cons. Asst. Professor, Stanford University*)



BCRT, Südstraße 2, Seminar Room

- 10:45 to 12:15 **Seminar**
Introduction into biopharmaceutical development
(*Dr. Barbara Pfüller*)
- 13:30 to 15:00 **Seminar**
Case studies in regenerative therapies
(*Dr. Barbara Pfüller*)

Competence Center for Clinical Trials, Ostring 1, Mittelflügel

- 15:30 to 17:00 **Visit of the Competence Center for Clinical Trials of the Charité**
(*Dr. Barbara Pfüller*)

Thursday 30th July 2009

Friedrichstraße

- 10:00 to 13:30 **Boat trip on the Spree**

Pergamon Museum

- 17:45 to 19:00 **Guided tour through the Pergamon Museum**

Friday 31st July 2009

Charité - Campus Virchow Klinikum

BCRT, Südstraße 2, Lecture Hall

- 09:00 to 10:15 **Keynote Lecture**
Challenges for stem cell banks: research and clinical applications
(*Dr. Glyn Stacey, UK Stem Cell Bank*)

BCRT, Südstraße 2, Lecture Hall

- 10:30 to 11:45 **Keynote Lecture**
Multipotent stem cells in neurodegenerative diseases
(*Prof. Kyung-Sun Kang, Adult Stem Cell Research Center Korea*)

BCRT, Südstraße 2, Seminar Room

- 12:30 to 14:00 **Seminar**
Newest applications in regenerative medicine
(*Prof. Andreas Kurtz*)

Forschungshaus, Forum 4

- 14:30 to 16:00 **Practical Demonstrations**
Stem cell culture
(*Dr. Katrin Zeilinger*)



Saturday 1st August 2009

BCRT, Südstraße 2, Seminar Room

10:00 to 15:00 Paper chase through the research landscape of Berlin

Berliner Prater Garden

From 18:00 Farwell

Sunday 2nd August 2009

All day Departure