

## Program

### 22. June 2015

- 11.00 - 12.30 Registration & Reception
- 13.30 - 14.30 Welcome
- 14.30 - 18.00 Hydrogels
- 18.30 - 19.30 Dinner
- 19.30 - 22.00 Poster session & Get together

### 23. June 2015

- 08.30 - 12.00 Tissue engineering
- 12.30 - 13.30 Lunch
- 13.30 - 17.00 Plant viruses, Biomineralization I
- 17.00 - 18.30 Poster session
- 18.30 Barbecue

### 24. June 2015

- 08.30 - 10.30 Biomineralization II
- 11.00 - 12.00 Biosensors
- 12.00 Closing remarks
- Summer School ends with lunch at around 12.30 p.m.

## Confirmed Speakers

- Dr. Leonie Barner (KIT, Karlsruhe)
- Dr. Nadja Benkirane-Jessel (Université de Strasbourg)
- Prof. Dr. Helmut Cölfen (Universität Konstanz)
- Dr. Yuri Gleba (Icon Genetics, Halle)
- Prof. Dr. Jürgen Groll (Universität Würzburg)
- Dr. Cornelia Lee-Theedieck (KIT, Karlsruhe)
- Prof. Dr. Robert Lisika (TU Wien)
- Prof. Dr. George Lomonossoff (John Innes Centre, Norwich)
- Dr. Frédéric Marin (UMR CNRS, Université de Bourgogne)
- Prof. Dr. Michael Schöningh (FH Aachen)
- Prof. Dr. Renko de Vries (Wageningen University)
- Prof. Dr. Cordt Zollfrank (TU München)

## Registration

### Please register until 30<sup>th</sup> of April !

Fees include scientific program, boarding, lodging and non-alcoholic beverages during the day.

### External participants:

- Regular: 330 €
- Students: 220 €

### Members of NanoBioMater (Uni Stuttgart):

- Regular : 200 €
- Students: 150 €

We offer **12 grants** to students seeking financial support for attendance (please send an informal application including your motivation to join, and your curriculum vitae).

**6 grants** are awarded to external students to provide a 120 € fee reduction, and **6 grants** to M.Sc. students of the University of Stuttgart (participation free of charge).

### For more information on registration, please visit:

[www.uni-stuttgart.de/nanobiomater/summer\\_school\\_2015/](http://www.uni-stuttgart.de/nanobiomater/summer_school_2015/)

### Sandra Müller

Universität Stuttgart / Projekthaus NanoBioMater  
 Allmandring 5B  
 70569 Stuttgart  
 Tel +49 (0711) 685-69153,  
 Fax +49 (0711) 970-4200  
 E-Mail: [nanobiomater@igvp.uni-stuttgart.de](mailto:nanobiomater@igvp.uni-stuttgart.de)

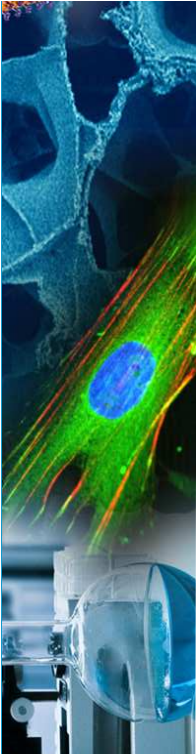
# Summer School 2015

June 22-24, 2015

CarlZeissStiftung



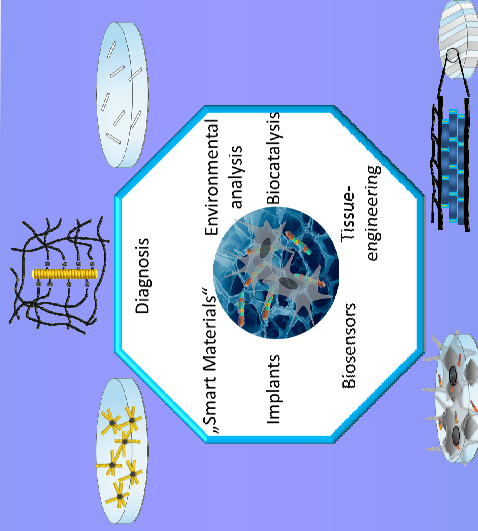
Projekthaus NanoBioMater, Universität Stuttgart



## Dear Students & NanoBioMater Friends,

we like to invite you to join our **interdisciplinary summer school** taking place **June 2015** in Bad Herrenalb / Black Forest.

Biohybrid materials based on **hydrogels**, **plant virus scaffolds** and **biomineralization** processes are in the focus. Their individual components, combinations of those as well as analytics and possible **applications from medical to biosensing** will be discussed in the talks and during poster sessions.



Participants are asked to present a **poster** on their present or upcoming work, to stimulate **fruitful discussions** and **novel developments** in the field of research on biohybrid materials.

We are looking forward to a meeting with international scientists experienced in various working areas, and numerous young researchers, to establish a forum for the interdisciplinary exchange of **scientific information** and a critical **dialogue** on both limitations and future prospects of bio/inorganic hybrids.



## NanoBioMater

The cross-faculty research focus "**Projekthaus NanoBioMater**" was implemented in 2014 with the financial support of the **Carl-Zeiss Stiftung** and the **University of Stuttgart**.

The **Projekthaus NanoBioMater** allows and stimulates **interdisciplinary research** of biologists, chemists, physicists, engineering and material scientists for the development of novel types of bio-inorganic hybrid materials.

Three main components will be combined to yield new materials to find applications e.g. in miniaturized **biosensors** or "**Lab-on-a-Chip**" systems for environmental, food and medical analytics, new **biocatalysis** supports or substrates for **tissue engineering**.

**Hydrogels** pose as an ideal matrix for biochemical detection and catalysis reactions as they may be biocompatible, and both their structure and shape can be designed.

The plant virus **tobacco mosaic virus** and its engineered non-infectious derivatives exhibit multivalence on the nanoscale and can be addressed either genetically or chemically. It yields robust scaffold architectures for arranging functionalities in hydrogels.

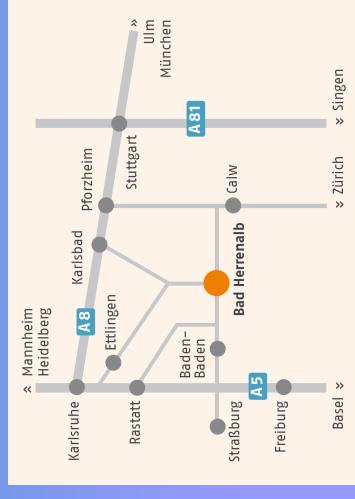
**Mineralization-promoting peptides** which mimic protein functions of biomineralizing marine organisms (e.g. sea urchins) will be applied in pre-defined regions of hydrogel formulations, to synthesize stabilizing inorganic materials or to interconnect products with biological or technical environments.

## Carl Zeiss Stiftung



## Location and Travel

The summer school will take place in Bad Herrenalb, in the Black Forest, located 30 km south of Karlsruhe and 80 km east of Stuttgart.



## Haus der Kirche - Evangelische Akademie Baden

Dobler Str. 51

76332 Bad Herrenalb

<http://www.hdk.ev-akademie-baden.de/>

## Public Transportation

From **Stuttgart** main station to either Karlsruhe or Pforzheim, then see below

From **Karlsruhe** main station take the "S-Bahn" S1 to Bad Herrenalb Bahnhof (further information at "Deutsche Bahn")

From **Pforzheim, Baden-Baden** and **Wildbad/Calw** take the bus. For detailed information see "Elektronische Fahrplanauskunft EFA (Nahverkehr) Baden-Württemberg".

