

Dear colleagues,

We are very happy to invite you to our 2nd BIOQIC Days, 2018. Quantitative medical imaging is a rapidly developing field of research, which can make a difference in future medicine by providing the urgently needed diagnostic tools for individualized and precisely targeted therapies. Development of quantitative medical imaging technologies need the expertise of scientists from different disciplines such as medicine, physics, mathematics, chemistry, biology and engineering sciences. Our research training group BIOQIC comprises exactly this mélange of both junior and senior scientists.

Our 15 BIOQIC PhD students work hard hand-in-hand in multidisciplinary projects to make medical imaging faster, better and more reliable. They will present results acquired over the past months to inspire open discussions about the way of addressing scientific problems, interpreting data and planning the next steps.

It is our honor to have leading international experts with us, who will present their groundbreaking research which is centered in medical imaging and medicine. You are warmly invited to join their lectures, discussions and take part in moving the field forward, together with our team of imaging experts from *The Present and Future*. We are very much looking forward to a fruitful event for everyone!

Welcome to the Charité Berlin, welcome to BIOQIC!

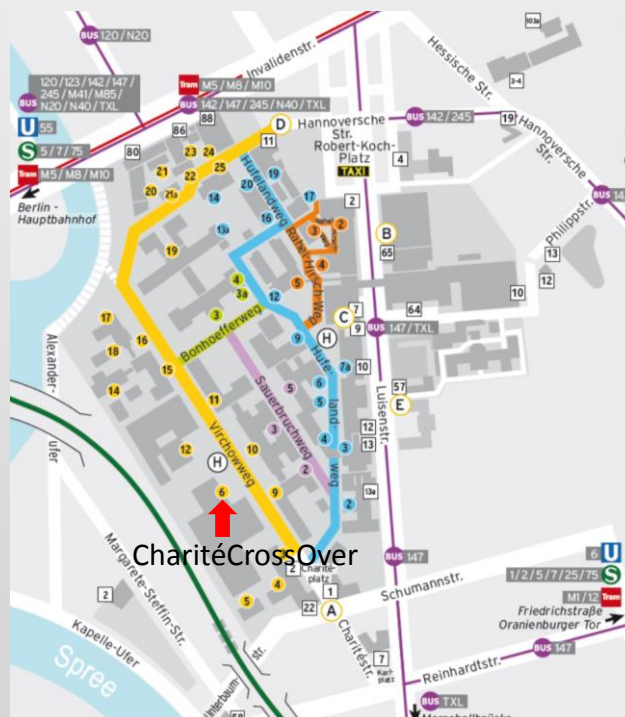
On behalf of the BIOQIC executive committee,

Judith Bergs  
(Scientific coordinator, BIOQIC)

## Venue:

26-27 Sept.: Auditorium of CharitéCrossOver,  
CCM, Virchowweg 6, Berlin

27-28 Sept.: Panorama Hotel am Oberuckersee,  
Quastweg 2, Oberuckersee OT Warnitz



## BIOQIC Days 2018 26-28 September



The dawn of an image, Ine Bergs-Geerlings, Swalmen, The Netherlands

## Advancements in Quantitative Medical Imaging

26-27 Sept. CharitéCrossOver, Berlin  
Retreat 27-28 Sept. Panorama Hotel am  
Oberuckersee, Warnitz

# PROGRAM OVERVIEW AND INVITED SPEAKERS

## Wednesday – September 26, 2018

9:00 – 10:00 Opening and keynote lecture

- Ingolf Sack, Judith Bergs, Charité Berlin
- *Compressed sensing in photoacoustic tomography*  
Markus Haltmeier - Universität Innsbruck

10:15 – 11:00 BIOQIC PhD student talks

*Deep learning and mathematical approaches*  
Andreas Kofler  
Nader Aldo  
Jan Macdonald

*Coffee & Snacks*

11:15 – 12:00 BIOQIC PhD student talks

*Simulation and reconstruction*  
Sebastian Dietrich  
Stephan Wäldchen  
Johannes Mayer

*Lunch buffet*

13:00 – 16:15 Seminars

- *Motion compensation*  
Marc Kachelrieß – DKFZ Heidelberg
- *Deep learning - application to cardiac MRI*  
Julia Schnabel, St. Thomas' Hospital, London
- *Cardiovascular imaging*  
Titus Kühne – Charité Berlin

16:30 – 17:30 BIOQIC PhD student talks

*Radiodiagnostics, reporters, and elastography*  
Anna Grunwald  
Patrick Werner  
Ledia Lilaj  
Felix Schrank

*Get-together with Pizza in restaurant Porta Nova*

## Thursday – September 27, 2018

8:00 – 9:00 BIOQIC Advisory board meeting

*Coffee & Snacks*

9:30 – 12:00 Seminars

- Axel Radlach Pries, dean of the Charité
- *Lymphoma biology and therapy*  
Clemens Schmitt - Charité Berlin
- *Novel MR-tools for neuroinflammatory disorders*  
Carmen Infante Duarte – Charité Berlin

*Lunch buffet*

13:00 – 14:00 BIOQIC PhD student talks

*MRI, flow and elastography*  
Jean Pierre Bassege  
Matteo Ippoliti  
Gergely Bertalan

*Coffee & Snacks*

14:15 – 14:45 BIOQIC PhD student talks

*Biology and magnetic particles*  
Yavuz Uca  
Azadeh Mohtashamdolatshahi

15:00 Depart to Uckermark

*Dinner*

20:00 – 21:00 Keynote lecture

*Advanced multiparametric MRE technology for assessing liver disease*  
Richard Ehman, Mayo Clinic Rochester, USA

*Panorama Award for best PhD presentation & get-together with Jazz music from the Acoustic Image Quartett*

## Friday – September 28, 2018

9:00 – 11:00 Seminars

- *Neural networks in CT image formation*  
Marc Kachelrieß, Deutsches Krebsforschungszentrum Heidelberg
- *New viscoelastic materials for more realistic cell biology*  
Paul Janmey, Institute for Medicine and Engineering University of Pennsylvania, USA

11:00 – 12:30 Discussion forum – The need of quantitative imaging for medical research and the role of BIOQIC: present & future

*Lunch buffet*

13:30 – 14:30 *Cruise with „Onkel Albert“ on lake Oberuckersee*

15:00 Depart to Berlin