

Symposium on  
**Quantitative imaging and image-based modeling  
in Neuro-Oncology**

27th April 2020, Sitem-Insel, Bern

## Program

### 14:00 – Glioma surgery: New challenges in an old fight

Prof. Dr. med. Philippe Schucht  
*Chief of Service, Neurosurgery, University Hospital Bern*

### 14:30 – The challenge of brain tumor imaging in the clinical routine

Dr. med. Urspeter Knecht  
*Head of Diagnostic Radiology and Neuroradiology, Hospital Emmental-Burgdorf*

### 15:00 – Radiotherapy planning based on glioma growth models

Prof. Dr. Jan Unkelbach  
*Head of Medical Physics Research, Radiation Oncology, University Hospital Zürich*

### 15:30 – Coffee & Poster Session

### 16:30 – AI technologies in Neuro-Oncology

Prof. Dr. Mauricio Reyes  
*Head of Healthcare Imaging A.I., University of Bern*

### 17:00 – If you have mathematical models, then you have biomarkers

Prof. Dr. Víctor M. Perez-García  
*Head of Mathematical Oncology Laboratory, University of Castilla - La Mancha*

### 17:30 – Using imaging and mathematics to break down anatomical, biophysical, and physiological barriers to successful cell-based therapies for glioma

Prof. Dr. Russell C. Rockne  
*Director of Division of Mathematical Oncology, Beckman Research Institute at City of Hope*

### 18:00 – Apéro

## Welcome

Medical imaging plays a fundamental role in the non-invasive diagnosis and surveillance of many neurological conditions. This symposium provides an opportunity to **discuss applications of artificial intelligence and mathematical modeling techniques** for extracting, synthesizing and analyzing quantitative imaging information **in the context of Neuro-Oncology**.

In two sessions, experts in neuro-surgery, neuro-radiology, medical physics, artificial intelligence and mathematical modeling will present the state of the art in their fields and highlight domain-specific challenges, as well as strengths, weaknesses and potential synergies of different modeling approaches.

## Information

### When

Monday, 27th April 2020  
14:00-20:00

### Venue

Swiss Institute for Translational and Entrepreneurial  
Medicine, Freiburgstrasse 3, 3010 Bern, Room O2.214

## Registration

Attendance is free of charge. To facilitate organisation, **please register by 17th April**. For more information and registration, refer to or contact:  
<http://glims.ch/symposium-2020-04-27-bern/> or [daniel.abler@artorg.unibe.ch](mailto:daniel.abler@artorg.unibe.ch).

## Posters & Travel Awards

We strongly encourage active participation of PhD students and Post-docs. A limited number of travel grants is available to support attendance for poster presenters.  
**To apply for a travel award, please submit your poster abstract by 10th April.**

## Organization & Contact

Dr. Daniel Abler [daniel.abler@artorg.unibe.ch](mailto:daniel.abler@artorg.unibe.ch)  
Prof. Dr. Philippe Büchler [philippe.buechler@artorg.unibe.ch](mailto:philippe.buechler@artorg.unibe.ch)  
ARTORG Center for Biomedical Engineering Research



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