

# TMF Workshop

## Omics in Medical Research 2nd edition

The workshop will address important topics from omics-based medical research, with a sideways glance at their potential relevance to clinical care. Presentations will highlight the role of omics in cardiovascular disease and oncology in particular, and will also address the emerging use of artificial intelligence in the clinic.

As a special focus, the workshop will take a look at the role of Germany in current international efforts to establish omics-based medical research as a driver of 'next generation medicine' (e.g. Human Cell Atlas, ICGC-ARGO, GA4GH). Distinguished speakers will present the visions underlying these initiatives and examine Germany's readiness to meet the challenges of future medicine.

Since all the above efforts depend upon access to, and use of, high-quality clinical data, the workshop will also explore how systems medicine and bioinformatics may benefit from the 'Medical Informatics Initiative', a recent national funding program by BMBF. More specifically, the workshop will contour the links required between clinical data standards (HL7, LOINC etc.) and the omics world.

The workshop will also address the prerequisites to integrate and responsibly share large amounts of sensitive medical data for research. Since international cooperation is paramount for the translation of basic research into clinical practice, special attention will be paid to the legal framework of collaborative research in genetics and genomics.

Of note, the day after the workshop, the 7th National Biobanking Symposium will take place at the same venue and open under the headline "Fit for purpose – Omics and novel medical models and materials", pinpointing the great demand for high-quality human biomaterial for omics-based research.

Further information:

- Workshop flyer, 1st Edition

[www.biobanken.de/Portals/0/News/TMF\\_Flyer\\_WS-Omics\\_2017-12-05\\_v07-web.pdf](http://www.biobanken.de/Portals/0/News/TMF_Flyer_WS-Omics_2017-12-05_v07-web.pdf)

- Workshop summary, 1st Edition (in German)

[www.tmf-ev.de/News/articleType/ArticleView/articleId/4205.aspx](http://www.tmf-ev.de/News/articleType/ArticleView/articleId/4205.aspx)

## TMF – Infrastructures for Medical Research

TMF is the umbrella organisation for networked medical research in Germany. It is a platform for interdisciplinary exchange, cross-project and multi-site collaboration – with the aim of identifying and resolving the organisational, legal/ethical and technological issues encountered in today's medical research. It makes a number of resources available free of charge to the general public – such as expert opinions, generic concepts, software applications, checklists, practical guides, training, and consulting services.

[www.tmf-ev.de](http://www.tmf-ev.de)

TMF – Technologie- und Methodenplattform  
für die vernetzte medizinische Forschung e.V.

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# TMF Workshop

## Omics in Medical Research 2nd edition

December 10, 2018 | Berlin



TMF – Technology, Methods, and Infrastructure  
for Networked Medical Research



# Programme

(Last update: 24.10.2018)

## 10:00 Welcome - Introduction

Michael Krawczak (CAU Kiel, UKSH)

## 10:15 Session 1: Omics perspectives in the clinic

Chair: Michael Krawczak (CAU Kiel, UKSH)

- Genomics in cardiovascular diseases  
Jeanette Erdmann (DZHK Lübeck)
- Molecular diagnostics of cancer using third-generation sequencing  
Philipp Euskirchen (Charité Berlin)
- Tracking down cancer drivers  
Philipp Greif (DKTK LMU München)
- Master study at NCT  
Benedikt Brors (DKTK DKFZ Heidelberg)

## 11:35 Coffee Break

## 11:55 Session 1 (continued)

- The omics data integration center within HiGHmed  
Jürgen Eils (UKL-HD Heidelberg & BIH Berlin)
- Challenges - cooperation between industry and academic clinics IT  
Dirk Evers (Evers Consulting Enger)
- Big omics data integration and management at DKFZ  
Ivo Buchhalter (DKFZ Heidelberg)

## 12:55 Lunch

## 13:55 Session 2: Interoperability, data sharing and performance in bioinformatics

Chair: Holger Hennig (IBM Hamburg)

- Bridging the gap between medical informatics and bioinformatics  
Sylvia Thun (BIH Berlin)
- Optimization - essential for bioinformatics in genomic medicine  
Pascal Costanza (imec Leuven, Belgium)

- Responsible data sharing in international genomic medicine co-operations  
Jan Korbel (EMBL Heidelberg)

## 15:00 Coffee Break

## 15:20 Session 3: Future of medical omics - A role for Germany?

Chair: Jürgen Eils (UKL-HD Heidelberg & BIH Berlin)

- International initiative - Human Cell Atlas (HCA)  
Roland Eils (BIH Berlin)
- International initiative - ICGC-ARGO  
Andrew Biankin (ICS Glasgow, Scotland)
- International initiative - Global Alliance for Genomics and Health (GA4GH)  
Peter Goodhand (OICR Toronto, Canada)

## 16:55 Coffee Break

## 17:15 Session 4: AI challenges in patient care

Chair: Roman Siddiqui (TMF Berlin)

- AI in medicine: trends and perspectives  
Holger Hennig (IBM Hamburg)
- AI for diagnostics in retina  
Antonia Jousen (Charité Berlin)
- AI and omics  
Naveed Ishaque (BIH Berlin)
- Addressing the future of healthcare now  
Annette Großmüller (SAP Walldorf)

## 18:40 Resumé

- Discussion - Outlook - Closing remarks  
Jürgen Eils (UKL-HD Heidelberg & BIH Berlin)

## 19:00 End of Workshop and Get Together

# Organisation

## Date

December 10, 2018

## Venue

Mercure Hotel MOA Berlin  
Stephanstraße 41  
10559 Berlin | Germany

## Arrival

The hotel is located in Berlin's central Tiergarten district, in the Moabit quarter. The nearest U-Bahn station for line 9 (Birkenstraße) is in short walking distance.

You can use the Deutsche Bahn event offer for TMF workshops. For further information please check [www.tmf-ev.de/Termine/DBTicket](http://www.tmf-ev.de/Termine/DBTicket).

## Scientific Organisation

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## Registration

The participation fee will be 30€ including refreshments. Please note, however, travel costs cannot be reimbursed. Please register online at: [www.tmf-ev.de/anmelden](http://www.tmf-ev.de/anmelden).