## LOCATIONS EVENING PROGRAM

#### DAY 1 – DEUTSCHES THEATER GÖTTINGEN



Theaterplatz 11, 37073 Göttingen www.dt-goettingen.de

# DAY 2 – MAX PLANCK INSTITUTE FOR SOLAR SYSTEM RESEARCH



Justus-von-Liebig-Weg 3, 37077 Göttingen https://www.mps.mpg.de/institut

## **VENUE**



#### **Lecture Hall**

Max-Planck-Institute for Multidisciplinary Sciences City Campus Hermann-Rein-Str. 3, 37075 Göttingen Germany

## AIMS

This symposium provides a multidisciplinary platform for discussing the integration of emergent artificial intelligence (AI) - based technologies into clinical practice. We aim to develop best practices and educational guidelines for the responsible and effective use of AI in healthcare, with a focus on diagnostics, monitoring, surgery, precision medicine, and ethical, social, and legal considerations. Additionally, participants will explore the intersection of entrepreneurship and healthcare, with a focus on taking innovations from concept to market. The symposium will feature interactive discussions, World Cafe session, and panel debates, involving diverse stakeholders, including clinicians, researchers, ethicists, policymakers, and patient advocates.

In cooperation with:





## ORGANISATIONAL INFORMATION

#### **ORGANISING COMMITTEE**

#### Frauke Alves

University Medical Centre, Göttingen

#### Andrea Markus

Max-Planck-Institute for Multidisciplinary Sciences, Göttingen

#### Anne Schwerk

International University of Applied Sciences, Berlin

#### CONTACT

#### Wiebke Timner

Max-Planck-Institute for Multidisciplinary Sciences City Campus, Hermann-Rein-Str. 3, 37075 Göttingen, Germany Ph: +49-(0)551-20131615; email: timner@mpinat.mpg.de

#### OTHER INFORMATION

#### Talks and Posters

Students and Postdocs are invited to apply for a short talk or poster with their own work. There will be a poster exhibition in the hall of the Max-Planck-Institute, which can be viewed during the breaks.

#### **ACCOMODATION**

You can find an overview of accommodation options here: https://www.goettingen-tourismus.de/uebernachten/hotel-uebersicht/

#### REGISTRATION

#### Registration fees:

Students: € 100

Academics and others: € 150

Registration covers admission to all scientific sessions, coffee breaks, lunches and social events/dinners. Accommodation and travel costs are not included in the registration. Early career resear chers working in a field related to AI in Healthcare are encouraged to submit an abstract. Of all submitted abstracts, six will be selected for oral presentation. Poster presentations are possible during coffee breaks. The number of participants will be limited to 100. Priority will be given to early registration.

The **registration deadline is 07.9.2025.** Applicants please fill in the registration form available at https://gccc.umg.eu/ai-in-healthcare/and send it to Wiebke Timner by email: timner@mpinat.mpg.de





## A Symposium on AI in Healthcare

# SHAPING THE FUTURE OF MEDICAL DECISIONS



## 06.-08.10.2025

Max-Planck-Institute for Multidisciplinary Sciences

City Campus - Lecture Hall Hermann-Rein-Str. 3, 37075 Göttingen Germany





PRC	OGRAMM, DAY 1, PART 1			
Al's current role in Diagnostics and Decision-Support Chairs: Frauke Alves and Anne Schwerk				
8:15	Registration and coffee			
9:00	Welcome by representatives of MPI-NAT and UMG Holger Stark, MPI-NAT   Wolfgang Brück, UMG Göttingen			
9:10	Welcome Frauke Alves, UMG/MPI-NAT			
9:15	Keynote: Multimodal Medicine: A New Era of Intelligence in Health Jackie Ma, Fraunhofer HHI, Berlin			
	Al in Diagnostics and Decision Support Chairs: Ramin Yahyapour, Christine von Arnim			
0:00	Clinical Digital Twins for Al-driven Medical Decision Support Björn Eskofier, FAU Erlangen			
0:30	Coffee break			
1:00	Al Decision Support in Nephrology, Telemedicine, and Chatbots Klemens Budde, Charité, Berlin			

#### 11:30 Predictive Deep Learning for Medicine and Healthcare Anne Christine Hauschild, JLU Gießen 11:55 Towards Trustworthy Al: Concept Bottlenecks and **Uncertainty in Clinician-Centred Decision Support** Christopher Banerji, King's College London, UK

12:20 Synthetic Data in Medical Diagnostics Frauke Wilm, MIRA vision microscopy GmbH, Erlangen

12:35 Lunch & Foto

13:45 Rising Voices in Al

## **Innovation through Data Integration**

Chairs: Constanze Schmidt, Jana Zschüntzsch

- Sara Kaviani, Indiscale Gö; Riccardo Scodellaro, MPI-NAT 14:15 Future Data Integration: Experience from Screen4Care Josef Schepers, BIH Berlin
- 14:45 Impact of Medical Informatics Dagmar Kefting, UMG, Göttingen
- 15:15 Empowering Health Data in Hospitals for Al-based Clinical Decision Support Systems and Data-driven Research Moritz Augustin, Tiplu GmbH, Berlin

Coffee break 15:45

Walk to Aula am Wilhelmsplatz, Göttingen

## Shaping the future of medical decisions

Chair: Inga Bergen

Welcome by the President of the University of Göttingen Axel Schölmerich, Univ. Göttingen

## PROGRAMM, DAY 1, PART 2

17:05 Greeting: Al from a Political Perspective

	Joachim Schachtner, Staatssekretär Nds. Ministerium für Wissenschaft und Kultur
17:10	<b>Keynote: The Future of Inclusive AI Technologies</b> Mei Lin Fung, People Centered Internet, Palo Alto, CA
17:40	Keynote: Privacy by Design: Support for Patients and Families on the Rare Disease Diagnostic Journey in the Age of Ubiquitous Al Liz Goodman, Univ. College Dublin, IRE   Huw Williams, SMARTlab, Dublin, IRE
18:10	Panel Discussion: The Future and Current State of Medical Decision Making Moderation: Inga Bergen Panelists: Klemens Budde, Björn Eskofier Pedro Kringen, Dagmar Kefting, Gulcin Gumus
19:00	Dinner/Evening program Deutsches Theater

## PROGRAMM, DAY 2, PART 1

## **Regulation and Ethical AI-driven Medicine**

Chairs: Silke Schicktanz, Monika Rimmele

-	<b>Keynote:</b> Al and Sustainability, Risk and Security Pedro Kringen, Trustworthy Al Lab HiØ, Fredrikstad, N
---	---

09:45 Regulatory Challenges for Artificial Intelligence Andreas Propp, Dierks+Co, Berlin

10:15 Rising Voices in Al Janek Gröhl, ENI Gö; Motiur Sagar, UMG

10:45 Coffee break

Chairs: Nils Grabe, Lena Illert

- 11:15 Conversational and Voice Al Solutions Iulia Hoxha, Zana, Berlin
- 11:45 Explainable AI in Medical Decision-Making Anne Schwerk, IU - International University of Applied Sciences, Berlin
- 12:15 Keynote: Al to Propose Personalized Therapies for Cancers Peter Horvath, Helmholtz Munich
- 12:45 Lunch Collaboration and Partnership

#### **Patient-centricity**

Chairs: Lena Conradi, Friederike Braulke

- 13:45 Is Regulatory Science Ready for Adaptive AI? A manufacturer's perspective on generalizability, fine-tuning, and trust in medical devices Kay Brosien, x-cardiac, Berlin
- 14:15 QSHIFT: Decision-Making in the Age of Quantum AI Faisal Khwaileh, Charité, Berlin

## PROGRAMM, DAY 2, PART 2

14:30	Towards a Patient-Centric Research: Steps for Patient Involvement Juan-José Ventura, Cancer Patients Europe, Brussels, BEL
15:00	Panel discussion: Impact of New Digital Technologies on Medical Practice, e.g. Social, Ethical, and Regulatory Aspects
	Rik Van Heijningen, Brussels, BEL   Ferdinand Knieling, Erlangen   Liz Goodman, Dublin, IRE   Stefan Rieken, Göttingen   Juan-José Ventura, Brussels, BEL   Monika Rimmele, Capgemini, Berlin   Julia Hoxha, Berlin

15:45 Breakout session

- Match making for collaborative research Frauke Alves, MPI-NAT Göttingen
- Workshop: White paper on guidelines for best practice Anne Schwerk, IUB, Berlin

16:15 Coffee break

and walk to MPI Sonnensystemforschung

17:00 Guided tour through the institutes of Campus Göttingen/ MPI Sonnensystemforschung

18:00 **Evening program:** 

- Speed Dating
- Note of Caution on Machine Learning in Pattern **Recognition: Lessons from PLATO's Exoplanet Search** Rene Heller, MPS Göttingen
- · Dinner at MPI Sonnensystemforschung Pink Fluid – Jazz Band of the MPI-DS, Open End Party

## PROGRAMM, DAY 3, PART 1

#### From invention to market – Entrepreneurship in the medical field

Chairs: Holger Stark, Sven Wagner

09:00 Keynote: Innovation, Technology-Management & Entrepreneurship Stefanie Heiden, LU Hannover

09:30 A Life Science Start-up Journey Tim Witney, King's College London, UK

10:00 Clinical Translation of Innovative Therapies Emmet McCormack, UiB Bergen, N

10:30 LLMs in Clinical Practice Nils Schweingruber, UKE Hamburg

10:50 Coffee break

## From invention to clinic application

Chairs: Felipe Opazo, Tim Salditt

11:20 Optogenetic Restoration of Hearing Tobias Moser, UMG Göttingen

## PROGRAMM, DAY 3, PART 2

11:30	Al in Advanced Cancer Research and Cell Therapies Heinrich Spiecker, Miltenyi Biotec	
11:50	Perspectives: "Life Science Valley Niedersachsen" Elizabeth Zeisberg, UMG Göttingen	
12:10	Discussion round All speakers   chairs   Liat Nissimov-Brück, Göttingen	
13:00	Lunch – Collaboration and Partnership	
Innovative technologies for the medical future		

## Chairs: Susan Boretius, Philipp Ströbel

14:00 4D Imaging: Extended Reality in Surgical Practice Moritz Queisner, Charité, Berlin

14:25 Shedding Light and Sound on Rare **Pediatric Diseases** Ferdinand Knieling, University Clinic Erlangen

14:50 Novel Imaging Strategies for the Diagnosis of **Gastrointestinal Disease** Stephan Rogalla, Stanford, US

15:15 SWIM to Go Deep and SLIDE to Go Fast: **Nonlinear Optical Strategies for Bioimaging** Luigi Bonacina, Univ. Geneva, CH

15:40 Coffee break

## Translational AI and Imaging Innovation -**Expert Pitches and Panel**

Clinicians from UMG: Hanibal Bohnenberger, Stefan Rieken, Christine Stadelmann, Anna Hell, Christiane Lex, Ali Seif

#### 16:00 **Topics**:

- Multiphoton microscopy for 3D imaging
- High Throughput Tomography
- Lifetime imaging for image-guided surgery
- Automated Spatial Omics Landscape Analysis
- · Deep Learning-Based Methods for Advanced Bioimages
- Learning Quantitative Imaging Biomarkers

Imaging experts: Luigi Bonacina, Geneva, CH | Fernanda Ramos Gomes, Göttingen | Christian Dullin, Göttingen | Angelika Svetlova, EMBL Hamburg

Al experts: Constantin Pape, Göttingen | Philipp Wieder, Göttingen | Riccardo Scodellaro, Göttingen | Dagmar Krefting, Göttingen

17:00 Discussion on FUTURE Innovations ALL speakers

Concluding remarks/Farewell Frauke Alves