### 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 researchers 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 31.08.2025.** 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





## PROGRAMM, DAY 1, PART 1

Al´s current role ir	Diagnostics and	<b>Decision-Support</b>
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Chairs: Frauke Alves and Anne Schwerk

08:15 Registration and coffee

09:00 Welcome by representatives of MPI-NAT and UMG Holger Stark, MPI-NAT | Wolfgang Brück, UMG Göttingen

09:10 Welcome

Frauke Alves, UMG/MPI-NAT

09:15 **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

10:00 Clinical Digital Twins for Al-driven Medical **Decision Support** Björn Eskofier, FAU Erlangen

10:30 Coffee break

11:00 Al Decision Support in Nephrology, **Telemedicine, and Chatbots** Klemens Budde, Charité, Berlin

11:30 Predictive Deep Learning for Medicine and Healthcare Anne Christine Hauschild, ILU 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

## Innovation through Data Integration

Chairs: Constanze Schmidt, Iana Zschüntzsch

13:45 Selected young scientists Rising voices in Al

14:15 Future Data Integration: Experience from Screen4Care Josef Schepers, BIH Berlin

14:45 Impact of Medical Informatics Dagmar Krefting, 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

15:45 Coffee break

Walk to Aula am Wilhelmsplatz, Göttingen

## Shaping the future of medical decisions

Chair: Inga Bergen

17:00 Welcome by the President of the University of Göttingen Axel Schölmerich, Univ. Göttingen

## PROGRAMM, DAY 1, PART 2

Greeting: Al from a Political Perspective Joachim Schachtner, Staatssekretär Nds. Ministerium für Wissenschaft und Kultur Keynote: The future of Inclusive AI technologies Mei Lin Fung, People Centered Internet, Palo Alto, CA 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 Escofier, Pedro Kringen, Dagmar Krefting 19:00 Dinner/Evening program Deutsches Theater

## PROGRAMM, DAY 2, PART 1

### Regulation and Ethical Al-driven Medicine

Chairs: Silke Schicktanz, Monika Rimmele

09:00 Keynote: 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 Selected young scientists

Coffee break 10:45

Chairs: Nils Grabe, Lena Illert

11:15 Conversational and voice AI solutions Iulia Hoxha, Zana, Berlin

**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

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

## PROGRAMM, DAY 3, PART 1

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

Chairs: Holger Stark, Elisabeth Zeisberg

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: N.N., Tim Salditt

Optogenetic restoration of hearing Tobias Moser, UMG Göttingen

11:30 Tim Salditt, Univ. Göttingen

### PROGRAMM, DAY 3, PART 2

11:40 Miltenyi Biotec, Bergisch-Gladbach

11:50 Perspectives: "Life Science Valley Niedersachsen" Sven Wagner, Sartorius, 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 Oueisner, 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 cancer 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**:

 Automatised light sheet microscopy as diagnostic tool

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

17:30 Concluding remarks/Farewell Frauke Alves