LMU AIM

LMU LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

# SYMPOSIUM ON

# ARTIFICIAL INTELLIGENCE IN HEALTHCARE

## 12. & 13. November 2021 in Munich, Germany

At Biomedical Center LMU | Großhaderner Str. 9 | 82152 Planegg

And via ZOOM

## Symposium Booklet

| Friday, November 12, 2021 | | |
|---|---|---|
| 3:00 - 3:15 pm | AIM Team Welcome | On-site |
| 3:15 - 5:15 pm | **Introduction** | |
| 3:15 - 3:45 pm | Prof. Christian Hinske | On-site |
| 3:45 - 4:15 pm | Dr. Franz Pfister | On-site |
| 4:15 - 4:45 pm | Prof. Frederik Klauschen | On-site |
| 4:45 - 5:15 pm | Dr. Andre Esteva | Virtual |
| 5:15 - 5:45 pm | Break | |
| 5:45 - 6:45 pm | **Medical AI I** | |
| 5:45 - 6:15pm | Prof. Sumit Chopra | Virtual |
| 6:15 - 6:45 pm | Prof. Krzysztof Geras | Virtual |
| 6:45 - ... pm | Evening Reception | On-site |

| Saturday, November 13, 2021 | | |
|---|---|---|
| 9:00 - 9:15 am | AIM Team Welcome | On-site |
| 9:15 - 11:15 am | **Medical AI II** | |
| 9:15 - 9:45 am | Prof. Nassir Navab | On-site |
| 9:45 - 10:15 am | Prof. Boulesteix | On-site |
| 10:15 - 10:45 am | PD. Dr. Bastian Sabel | On-site |
| 10:45 - 11:15 am | Dr. Carsten Marr | Virtual |
| 11:15 - 11:45 am | Break | |
| 11:45 am - 12:45 pm | **Medical AI III** | |
| 11:45 am - 12:15 pm | Tobias Seraphin | Virtual |
| 12:15 - 12:45 pm | Dr. Enise Lauterbach | Virtual |
| 12:45 - 2:00 pm | Lunchbreak | |
| 2:00 - 4:00 pm | **Ethics and Economy** | |
| 2:00 - 2:30 pm | Dr. Peter Körte | On-site |
| 2:30 - 3:00 pm | Theresa Willem | Virtual |
| 3:00 - 3:30 pm | Jan Brauner | Virtual |
| 3:30 - 4:00 pm | Tariq Rashid | Virtual |
| 4:00 - 4:30 pm | Break | |
| 4:30 - 5:30 pm | **Start-Up Booth I** | |
| 4:30 - 4:45 pm | Viktor Matyas, Aignostics | On-site |
| 4:45 - 5:00 pm | Dr. Simon Sonntag, Virtonomy | On-site |
| 5:00 - 5:15 pm | Julia Rackerseder, ImFusion | On-site |
| 5:15 - 5:30 pm | Konstantin Mehl, Kaia Health | On-site |
| 5:30 - 5:45 pm | Break | |
| 5:45 - 6:45 pm | **Start-Up Booth II** | |
| 5:45 - 6:00 pm | Nico Meissner, Ada Health | On-site |
| 6:00 - 6:15 pm | Dr. Sebastian Krammer, Avelios Medical | On-site |
| 6:15 - 6:30 pm | Nils Krüger, cognote.ai | On-site |
| 6:30 - 6:45 pm | Prof. Alexander Leber, iATROS | On-site |
| 6:45 - 7:00 pm | Dr. Nicole Humble | On-site |
| 6:45 - … pm | Closing Ceremony and Evening Reception | On-site |

| Friday, 3:15 - 3:45pm | **AI in Healthcare – Gamechanger & Lifesaver?** |

**Prof. Dr. Christian Hinske, M.Sc.**

- Since 2021: Editorial Board Member at PLOS Digital Health
- Since 2020: Professor of Medical Informatics at LMU
- Since 2009: Anesthesiologist at LMU University Hospital
- 2009: M.Sc. Biomedical Informatics at MIT
- 2007: Doctorate at LMU
- 2007: M.D. at LMU

| Friday, 3:45 - 4:15pm | **Translating AI into Clinical Value – Can Data Save Lives?** |

**Dr. Franz Pfister, M.D., M.B.A., M.Sc.**

- Since 2019: Co-Founder and CEO at deepc
- Since 2021: Co-Founder at Orbit Health
- 2017-2019: Founding Team and Board Member at Ocean Protocol
- 2019: M.Sc. Data Science at LMU
- 2017: M.B.A. Healthcare Management at Munich Business School
- 2014: Doctorate at LMU
- 2013: M.D. at LMU

| Friday, 4:15 - 4:45pm | **AI in Cancer Research and Diagnostics** |

**Prof. Dr. Frederik Klauschen, M.D.**

- Since 2021: Professor of Pathology and Director of the Institute of Pathology at LMU
- Since 2020: Co-Founder and Chief Medical Advisor of Aignostics
- Since 2019: Deputy Director of the Institute of Pathology at Charité Berlin
- Since 2009: Research Group Leader and Physician at Pathology Department at Charité Berlin
- 2004-2009: Post-doctoral Researcher at National Institute of Health in Bethesda
- 2005: Doctorate at University of Lubeck
- 2005: M.D. and Diploma in Physics at Hamburg University

| Friday, 4:45 - 5:15pm | **Medical AI – Precision Medicine and Healthcare Workflow Optimization** |

**Andre Esteva, Ph.D.**

- Since 2019: Head of Medical AI at Salesforce
- Since 2015: Positions at various Venture Capital Firms
- 2017: Ph.D. Electrical Engineering at Stanford
- 2014: M.S. Electrical Engineering at Stanford
- 2011: B.Sc. Engineering at University of Texas at Austin

**Friday, 5:45 - 6:15pm** | **Representation Learning in Medical Imaging**

**Prof. Sumit Chopra, Ph.D.**

- Since 2021: Associate Professor at New York University
- 2017-2020: Co-Founder and Vice President of AI at Imagen Technologies
- 2007-2016: Co-Founder at AVAC Ltd.
- 2008-2014: Researcher at AT&T Labs
- 2008: Ph.D. Computer Science and Machine Learning at New York University
- 2003: B.Sc. Computer Science at University of Delhi

**Friday, 6:15 - 6:45pm** | **Towards Solving Breast Cancer Diagnosis with Deep Learning**

**Prof. Krzysztof Geras, Ph.D.**

- Since 2018: Assistant Professor at New York University
- 2016-2018: Post-doctoral Researcher at New York University
- 2016: Ph.D. Informatics at University of Edinburgh
- 2011: M.Sc. Computer Science at University of Warsaw

**Saturday, 9:15 - 9:45pm** | **Machine Learning for Computer Assisted Interventions**

**Prof. Nassir Navab, Ph.D.**

- Over 45350 citations and h-index of 96
- 2021: MICCAI Enduring Impact Award
- 2015: IEEE ISMAR 10 Years Lasting Impact Award
- Secondary faculty appointment at TUM Medical School
- Since 2012: Adjunct Professor at John Hopkins University
- Since 2012: Fellow of the MICCAI Society
- Since 2003: Full Professor and Director of the Laboratories for Computer Aided Medical Procedures (CAMP) at TUM
- 1993: Ph.D. at INRIA

**Saturday, 9:45 - 10:15pm** | **A Replication Crisis in Machine Learning?**

**Prof. Anne-Laure Boulesteix, Ph.D.**

- Since 2012: Professor of Biometry at LMU
- 2008-2012: Visiting and Assistant Professor at LMU
- 2005-2007: Post-doctoral Researcher at TUM
- 2005: Ph.D. in Statistics at LMU
- 2001: Diploma in Mathematics at University of Stuttgart
- 1996-2000: Studies of Mathematics and Engineering in Paris

## Saturday, 10:15 - 10:45pm — AI Applications in CT and X-Ray Imaging

**PD. Dr. Bastian Sabel, M.D.**

- Since 2018: Attending Physician, Dpt. of Radiology at LMU
- 2013-2018: Resident Physician, Dpt. of Radiology at LMU
- 2011: Research Fellow at Massachusetts General Hospital, Harvard Medical School
- 2010: Research Fellow at German Cancer Research Center, Division of Medical Physics in Radiology

## Saturday, 10:45 - 11:15pm — AI for Hematologic Disease Diagnostics

**Carsten Marr, Ph.D.**

- Since 2021: Director at the Institute of AI for Health (AIH), Helmholtz Zentrum Munich
- 2013-2021: Group Leader at Institute of Computational Biology (ICB), Helmholtz Zentrum Munich
- 2008-2013: Post-doctoral Researcher at Helmholtz Zentrum Munich and University of Edinburgh
- 2007: Ph.D. Dynamical Processes on Graphs and Biological Networks at TU Darmstadt
- 2002: Diploma in General Physics at TUM

## Saturday, 11:45 - 12:15pm — AI in Hepatology and Gastroenterology

**Tobias Seraphin, M.D.**

- Since 2021: Member of the Computational Oncology Working Group at RWTH University Hospital, Aachen
- Since 2020: Research Fellow and Resident Doctor at Dpt. of Gastroenterology, Hepatology and Infectious Diseases, University Hospital Dusseldorf
- 2020: Research Stay at Nuffield Dpt. for Population Health at Oxford University
- Since 2017: Dissertation on Epidemiology of Cancer in Sub-Saharan Africa, Dpt. of Epidemiology at Martin Luther University Halle-Wittenberg
- 2019: M.D. at University of Erlangen-Nuremberg and University of Leipzig

## Saturday, 12:15 - 12:45pm — Use of AI in Cardiology – Benefits and Challenges

**Dr. Enise Lauterbach, M.D.**

- Since 2019: Founder & CEO of Digital Health Hub Trier and LEMOA medical GmbH
- 2018-2019: Chief Physician at ZAR Nanz Medico, Trier
- 2012-2018: Cardiologist at Barmherzige Brüder, Trier
- 2004-2012: Resident Doctor at various Hospitals in Mainz, Frankfurt, and Trier
- 2004: M.D. at University Mainz

| Saturday, 2:00 - 2:30pm | AI in Healthcare – Revolution or Evolution? |

**Peter Koerte, Ph.D.**

- Since 2020: CSO and CTO at Siemens
- 2011-2020: Vice President and President Positions at Siemens Healthineers
- 2007-2011: Corporate Strategy at Siemens
- 2001-2007: Consultant at Boston Consulting Group
- 2015: General Management Program at Harvard Business School
- 2006: Ph.D. Business Strategy and International Trade at WHU - Otto Beisheim School of Management
- 2001: M.Sc. Industrial Engineering, Karlsruhe Institute of Technology

| Saturday, 2:30 - 3:00pm | Embedding Ethics in Medical AI – a Dermatological Case Study |

**Theresa Willem, M.A.**

- Since 2019: Consultant in Digital Health
- Since 2019: Research Associate at Institute of History and Ethics in Medicine at TUM
- 2016-2019: Project Management at Flying Health
- Since 2020: PhD. at School for Social Sciences and Technology, Dpt. for Science, Technology and Society at TUM
- 2018: M.A. Media Science at Humboldt University of Berlin
- 2015: B.A. Media Science at University of Regensburg

| Saturday, 3:00 - 3:30pm | Hot Takes on Bayesian Modelling of COVID-19 |

**Jan Brauner, M.D., M.S.**

- Research on Non-Pharmaceutical Interventions against COVID-19 Presented at Africa CDC, UK SAGE, Dutch House of Representative
- Since 2019: Ph.D. Candidate at University of Oxford, OATML lab, Machine Learning
- 2019: M.S. at University of Edinburgh, Focus on Machine Learning
- 2018: M.D. at University of Erlangen-Nuremberg

| Saturday, 3:30 - 4:00pm | Ensuring AI is Safe, Fair and Ethical |

**Tariq Rashid**

- Since 2019: Founder at Digital Dynamics
- 2012-2017: Positions at Government of the United Kingdom
- 2003: M.S. Artificial Intelligence at University of Bristol
- 2000: M.S. Natural Sciences at University of Cambridge

| Saturday, 4:30 - 4:45pm | Start-Up Pitch – Aignostics |
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**Viktor Matyas, M.B.A., M.Sc.**

- Since 2019: Co-founder and CEO at Aignostics
- 2016-2019: Senior Associate at Bridgepoint Germany
- 2012-2016: Junior Engagement Manager at McKinsey
- 2015: M.B.A. at INSEAD
- 2012: M.Sc. at London Business School
- 2011: B.Sc. at WU Vienna

**Aignostics**

- Objectives: AI-powered precision diagnostics for pathology
- Founders: Prof. Frederik Klauschen, Prof. Klaus-Robert Müller, Viktor Matyas, Dr. Maximilian Alber
- Founding: 2018

| Saturday, 4:45 - 5:00pm | Start-Up Pitch – Virtonomy |
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**Simon Sonntag, Ph.D.**

- Since 2019: Co-Founder and CEO at Virtonomy
- Since 2020: Task Force Leader Avicenna Alliance
- Since 2016: Governor European Society of Artificial Organs
- 2014-2019: COO at enmodes
- 2015-2016: Co-Founder and CEO ensagreen
- 2014: Ph.D. at Dpt. for Cardiovascular Engineering at RWTH Aachen

**Virtonomy**

- Objectives: Data driven clinical trials on virtual patients
- Founders: Dr. Simon Sonntag, Wen-Yang Chu
- Founding: 2019

| Saturday, 5:00 - 5:15pm | Start-Up Pitch – ImFusion |
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**Julia Rackerseder, M.Sc.**

- Since 2021: Technical Product Manager at ImFusion GmbH
- Since 2015: Co-Founder at MedInnovate
- 2019-2020: Use Case Researcher Digital Healthcare & Precision Medicine at Konica Minolta Global R&D
- 2015-2019: Ph.D. Student at the Chair for Computer Aided Medical Procedures at TUM
- 2015: M.Sc. Bioinformatics at TUM and LMU

**ImFusion**

- Objectives: Software solutions for medical image processing and computer vision
- Founders: Dr. Wolfgang Wein, Dr. Alexander Ladikos
- Founding: 2012

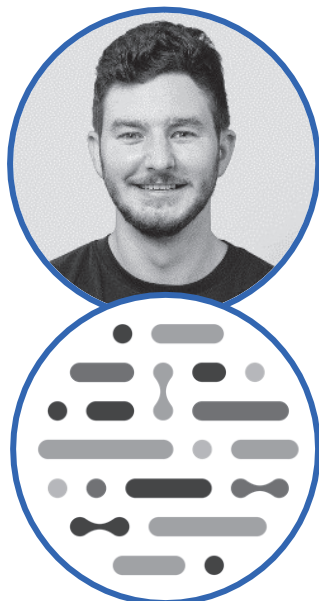| Saturday, 3:35 - 5:30pm | **Start-Up Pitch – Kaia Health** |
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**Konstantin Mehl, M.Sc.**

- Since 2016: CEO and Founder of Kaia Health
- 2013-2015: CEO and Founder of Foodora
- Dual Masters at Columbia University
- Honors Degree at CDTM
- B.Sc. Chemistry and Finance at TUM

**Kaia Health**

- Objective: Digital therapeutics company creating evidence-based treatments for musculoskeletal conditions, COPD, and others; empowering individuals to take control and self-manage their condition with effective, non-pharmacological, digital alternatives at low costs
- Founders: Konstantin Mehl
- Founding: 2016

| Saturday, 5:45 - 6:00pm | **Start-Up Pitch – Ada Health** |
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**Nico Meissner, M.D.**

- Since 2021: Backlog Owner of one of three Medical Teams at Ada Health
- 2020-2021: Full-time Medical Knowledge Engineer at Ada Health
- 2016-2019: Medical Knowledge Engineer as Medical Student at Ada Health
- 2015-2016: Medical Editor as Medical Student at medx
- 2019: M.D. at Charité Berlin
- Since 2016: Dissertation on Early Detection of Post-Stroke Depression, Dpt. of Experimental Neurology at Charité Berlin

**Ada Health**

- Objectives: End-user self-assessment app
- Founders: Prof. Martin Christian Hirsch, Dr. Claire Novorol, Daniel Nathrath
- Founding: 2011

| **Saturday, 6:00 - 6:15pm** | **Start-Up Pitch – Avelios Medical** |

### Dr. Sebastian Krammer, M.D.

- Since 2019: Co-Founder Avelios Medical
- Since 2018: Research Group Leader, Dpt. of Dermatology at LMU
- 2018-2021: Resident Physician, Dpt. of Dermatology at LMU
- 2019: Doctorate at LMU
- 2018: M.D. at LMU

### Avelios Medial

- Objectives: Modular clinic platform that digitizes and optimizes clinical processes
- Founders: Dr. Sebastian Krammer, Nicolas Jakob, Christian Albrecht
- Founding: 2019

| **Saturday, 6:15 - 6:30pm** | **Start-Up Pitch – cognote.ai** |

### Nils Krüger, M.D.

- Since 2020: Co-Founder of cognote.ai
- 2019: Visiting Student at ETH Zürich, Harvard University, and Cornell University
- 2016-2021: CMO and Research Assistant at MeCuM Mentor at LMU
- 2021: M.D. at LMU

### cognote.ai

- Objectives: Vertical AI assistant automating medical documentation for physicians; voice recognition for summarizing patient visits and supporting medical decisions; relieving doctors in their daily workflows and helping them focus on what matters most
- Founders: Currently in stealth mode
- Founding: Currently in stealth mode

| **Saturday, 6:30 - 6:45pm** | **Start-Up Pitch – iATROS** |

### Prof. Dr. Alexander Leber, M.D.

- Since 2019: CEO and Founder of iATROS
- Since 2008: Director at Isar Heart Center, Munich
- 2004-2005: Research Fellow at Icahn School of Medicine at Mount Sinai, New York
- 1998-2008: Academic Career at LMU Munich
- 1998: M.D. at University of Erlangen-Nuremberg

### iATROS

- Objectives: App based solutions for secondary prevention and telemonitoring of cardiovascular patients; modern data analysis approach using AI algorithms; direct feedback to attending doctors via video calls
- Founders: Prof. Alexander Leber
- Founding: 2019

| Saturday, 6:45 - 7:00pm | Start-Up Pitch – deepc |
|---|---|

### Nicole Humble, Ph.D.

- Since 2021: Senior Product Owner at deepc
- 2018-2021: Product Owner, Digital Identity and Security at Thales
- 2014-2018: Product Manager, Radiosurgery Treatment Planning at Brainlab
- 2014: Ph.D. Physics at TUM
- 2009: M.Sc. Radiobiology at University College London
- 2007: B.Sc. Medical Radiation Physics at University of Wollongong

### deepc

- Objectives: Diagnostics operating system to facilitate the fast deployment of medical AI technology into clinical workflows such as in radiology
- Founders: Dr. Franz Pfister, Julia Moosbauer, Paul Mayer, Michael Meyerhoff
- Founding: 2019; CE certification and launch in March 2021

# LMU - AI in Medicine

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## Visit our website to stay tuned for future events:

https://mecumplus.de/teams/lmu-aim/team

## Send questions to:

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