

Digital Oncology Conference 2023 – A CCC-N and Else Kröner Symposium Preliminary Program (15. + 16.03.2023)

Day 1		March 15, 2023	
11:30 – 12:20		Welcome Lunch	
12:20 – 12:30		Welcome	
Conference Chairs		Michael Heuser (Department of Hematology, Hemostasis, Oncology, and Stem Cell Transplantation, MHH) Günter Schneider (Department of General, Visceral and Pediatric Surgery, UMG)	
Session 1	Digital and Computational Histopathology		
	Chairs	Friedrich Feuerhake (Institute of Pathology, MHH), Niels Grabe (Institute of Pathology, UMG)	
	12:30 – 12:55	Moritz Middeke (Department of Internal Medicine, University Hospital Dresden) <i>High throughput microscopy and computational analysis in oncology - ready for the clinic?</i>	
	12:55 – 13:20	Peter Schöffler (Computational Pathology, Technical University of Munich, Germany) <i>Making sense of pathology images</i>	
	13:20 – 13:45	Jeroen van Laak (Computational Pathology, Radboudumc, Nijmegen) <i>Use cases for computational pathology with high potential for clinical implementation and diagnostic decision support</i>	
	13:45 – 14:10	Friedrich Feuerhake (Institute of Pathology, Hannover Medical School, Germany) <i>Integration of computational pathology algorithms with established conventional diagnostic workflows</i>	
	14:10 – 14:25	Presentation from Abstracts	
	14:25 – 15:00	Coffee & Cake	
Session 2	AI to Advance Cancer Imaging		
	Chairs	Kristina Ringe (Department for Diagnostic and Interventional Radiology, MHH), Christian Dullin (Department of Diagnostic and Interventional Radiology, UMG)	
	15:00 – 15:25	N.N. <i>AI from bench to bedside in radiooncology: Status quo and quo vadis</i>	
	15:25 – 15:50	Horst Hahn (Institute for Digital Medicine, Fraunhofer Institute for Digital Medicine MEVIS, Bremen, Germany) <i>Integrating clinical and imaging data in oncology</i>	
	15:50 – 16:15	Florian Putz (Radiation Clinic, Universitätsklinikum Erlangen, Germany) <i>How can AI improve radiotherapy?</i>	
	16:15 – 16:40	Christian Dullin (Department of Diagnostic and Interventional Radiology, UMG, Germany) <i>Can virtual histology replace histopathology?</i>	
16:40 – 16:55	Presentation from Abstracts		
16:55 – 18:30	Poster Session & Get Together		

Day 2		March 16, 2023	
Session 3	Machine Learning and Visualization Techniques for Clinical Decision Support in Oncology		
	Chairs	Steffen Oeltze-Jafra (Peter L. Reichertz Institute for Medical Informatics, MHH), Anne-Christin Hauschild (Department of Medical Informatics, UMG)	
	9:00 – 9:20	Melanie Börries (Department for Biometry, Epidemiology and Medical Bioinformatics, Albert-Ludwigs-Universität Freiburg, Germany) <i>Systems medicine approach to support clinical decisions in oncology</i>	
	9:20 – 9:40	Anne-Christin Hauschild (Department of Medical Informatics, University Medical Center Göttingen, Germany) <i>Take a leap: New Algorithms and Multi-Omics Data to Support Clinical Decision in Oncology</i>	
	9:40 – 10:00	Renata Raidou (Institute of Visual Computing & Human-Centered Technology, Technical University Vienna, Austria) <i>Visual Analytics for Digital Radiotherapy</i>	
	10:00 – 10:20	Alexander Oeser (Innovation Center for Computer-Assisted Surgery, Leipzig University, Germany) <i>Expert-informed Bayesian Networks to Support Clinical Decision-Making in Oncology</i>	
	10:20 – 10:40	Discussion Session 3	
	10:40 – 10:55	Presentation from Abstracts	
10:55 – 11:25		Coffee & Cake	
Session 4	Digital Surgery		
	Chairs	Peter Hillemanns (Department of Gynecology and Obstetrics, MHH), Michael Ghadimi (Department of General, Visceral and Pediatric Surgery, UMG)	
	11:25 – 11:50	Tilman Schlick (Intuitive Surgery, Da Vinci Robotic Surgery) <i>Does digital surgery improve outcomes in oncology?</i>	
	11:50 – 12:15	Martin Wagner (Department of General, Visceral and Transplantation Surgery, Heidelberg University Hospital; Department of Visceral, Thoracic and Vascular Surgery, University Hospital Carl Gustav Carus Dresden) <i>From Surgical Data Science to AI-Assisted Surgery - Clinical Translation of Machine Learning in Surgical Oncology</i>	
	12:15 – 12:40	Nils-Claudius Gellrich (Department of Oral and Maxillofacial Surgery, Hannover Medical School, Germany) <i>The power of digital technologies for craniomaxillofacial tumor surgery and postablative reconstruction</i>	
	12:40 – 13:05	Michael Ghadimi (Department of General, Visceral and Pediatric Surgery, University Medical Center Göttingen, Germany) <i>Establishing digital surgery at a German university hospital</i>	
	13:05 – 13:20	Presentation from Abstracts	
13:20 – 14:05		Lunch	
Session 5	Building Trust in Artificial Intelligence Models and Digital Methods in Medical Education		
	Chairs	Sabine Salloch (Institute for Ethics, History and Philosophy of Medicine, MHH), Ulrich Sax (Department of Medical Informatics, UMG)	
	14:05 – 14:30	Sabine Salloch (Institute for Ethics, History and Philosophy of Medicine, Hannover Medical School, Germany) <i>Debate: AI will replace ethics committees: Yes</i>	
	14:30 – 14:55	Eva Winkler (NCT Heidelberg - Heidelberg University Hospital (UKHD), NCT Heidelberg, Germany) <i>Debate: AI will replace ethics committees: No</i>	
	14:55 – 15:20	Michal Matyjas/Pascal Grosse (Charité – Berlin) <i>New Digital Resources to Improve Medical Education</i>	

	15:20 – 15:40	Michael Heuser (Department of Hematology, Hemostasis, Oncology, and Stem Cell Transplantation, Hannover Medical School, Germany) <i>Training the next generation in Digital Medicine: Experience from the DigiStrucMed Graduate Program</i>
	15:40 – 15:55	Presentation from Abstracts
	15:55 – 16:25	Coffee & Cake
Session 6	AI and Machine Learning Techniques Improving Cancer Research	
	Chairs	Tim Kacprowski (Peter L. Reichertz Institute for Medical Informatics of TU Braunschweig and MHH), Tim Beißbarth (Institute of Medical Bioinformatics, UMG)
	16:25 – 16:50	Francesca Finotello (Institute of Molecular Biology & Digital Science Center, University Innsbruck, Austria) <i>Modelling immunotherapies in silico</i>
	16:50 – 17:15	Jack Kuipers (Department of Biosystems Science and Engineering, ETH Zurich, Switzerland) <i>Understanding tumor evolution with statistical machine learning</i>
	17:15 – 17:40	Michael Menden (Computational Biomedicine, Helmholtz Institute Munich, Germany) <i>A Vision of Computational Translational Pharmacogenomics</i>
	17:40 – 18:05	Tim Beißbarth (Institute of Medical Bioinformatics, University Medical Center Göttingen, Germany) <i>How can we make sense of the data overload in cancer research?</i>
	18:05 – 18:20	Presentation from Abstracts
	18:20 – 18:25	Young Scientist Digital Oncology Poster AWARD
	18:25 – 18:30	Concluding Remarks