ICCAS — Newsletter 01/2021

INNOVATION CENTER
COMPUTER ASSISTED SURGERY



HIGHLIGHT



ICCAS' STATUS SEMINAR | March 11, 2021 | virtual

Marking the first successful 15 years in existence of ICCAS, this year's Status Seminar was held virtually with around 90 participants. Prof. Andreas Melzer, Prof. Thomas Neumuth and PD Dr. Claire Chalopin presented the current results of our well-established research groups of Model-Based Automation, Digital Patient Model, Life Support Systems, Intraoperative Multimodal Imaging, Image-guided Focused Ultrasound and MR-guided Interventions. We also introduced Prof. Galina Ivanova's research group, which will support ICCAS' work in the field of biomedical data analysis.

The ICCAS team thanks everyone for a successful 2020 and looks forward to welcoming you back in person next year for the 2021 status seminar.



VIRTUAL EVENTS



ICCAS AT THE EUROPEAN CONGRESS OF RADIOLOGY (ECR) 2021 | March 3 – 7, 2021

The leading European and the second largest worldwide conference in the field of medical imaging and image-guided therapy — the European Congress of Radiology (ECR), was held online from 3 to 7 March. As in previous years, ICCAS was prominently represented in its scientific program. Together with Titti Owman from the Lund University in Sweden, Prof. Andreas Melzer held the on-demand session on working in the MRI environment. His topic focused on intraoperative/interventional MRI in terms of its methods and applications.



RESEARCH & PROJECTS



ICCAS LEADS PLATFORM DEVELOPMENT TO SUPPORT THERAPY DECISION IN COMPLEX BLOOD CANCERS | January 22, 2021

Janssen Cilag Germany aims to improve the treatment of blood cancer through application of artificial intelligence (AI). To this end, the research-focused pharmaceutical company supports a research project, in which ICCAS and the Clinic for Hematology, Cell Therapy and Hemostaseology at Leipzig University Hospital serve as the leading technology partners. Together, they are pursuing the goal of developing an AI-based digital health platform for therapeutic decision support for patients with complex blood disorders.

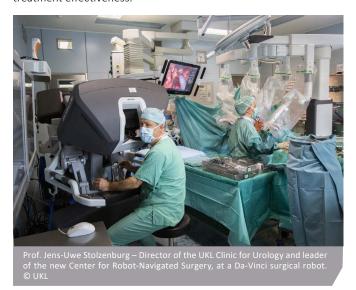
<u>Project website</u> <u>Press release (German)</u>





ICCAS IS A FOUNDING MEMBER OF THE FIRST CENTER FOR ROBOT-ASSISTED AND NAVIGATED SURGERY IN SAXONY | March 2, 2021 | Leipzig

To meet the increasing demand for minimally invasive surgery, the first interdisciplinary center for robot-assisted and navigated surgery in Saxony has been established at Leipzig University Hospital (UKL). The new center consolidates expertise from twelve disciplines in the implementation of robotic, navigation and IT-supported systems in the operating room, thus effectively using synergy effects in treatment effectiveness.



PUBLICATIONS



ICCAS' ANNUAL REPORT 2020 PUBLISHED | March 2021

Find out more about our project activities and appearances at numerous online technical conferences and trade fairs and get acquainted with our highlights of the past year, including the successful organization of BMT 2020, in our latest annual report. We

Link to our Annual Report

wish you an interesting read!



PRACTICAL SETTING AND POTENTIAL APPLICATIONS OF INTERVENTIONS GUIDED BY PET/MRI | March 2021

ICCAS' research team on MR-guided interventions addresses the feasibility issue of multimodality imaging for interventions in a new paper published in the Quarterly Journal of Nuclear Medicine and Molecular Imaging. In the publication, our MR-team explicates a supporting infrastructure that is suitable for broad preclinical adaption of the imaging modalities.

Link to publication



THERAPEUTIC ULTRASOUND: NON-INVASIVE TREATMENT OF MYOMAS | February 2021

You can read more about the project on non-invasive treatment of myomas involving ICCAS in cooperation with the Clinic and Polyclinic for Diagnostic and Interventional Radiology at Leipzig University Hospital in the current issue of kma - Klinik Management aktuell.

Link to publication



EVALUATION OF AN INTEGRATED OR BASED ON OPEN STANDARDS IN COCHLEA IMPLANT SURGERY | January 2021

ICCAS' research team on Model-Based Medicine and Intelligent OR demonstrates the benefits of an integrated OR using the example of a cochlea implantation at the University Hospital Leipzig.

Link to publication

Listing of all publications from 2021 available at:

Link to publications

MEDIA



3 QUESTIONS TO PROF. DR. THOMAS NEUMUTH ON ARTIFICIAL INTELLIGENCE IN THE OPERATING ROOM

In a video interview for Lernende Systeme – Germany's Platform for Artificial Intelligence, Prof. Neumuth elaborates on the different ways in which Artificial Intelligence (AI) can support operations, how this changes the workflow in the operating room and what it means for the patients.

<u>Link to video</u>

PEOPLE



SHIFTS IN ICCAS ADVISORY BOARD |

February 24, 2021

As a representative of our trusted industrial partner Siemens

Healthineers, Dr. Robert Krieg – Vice President of the Magnetic Resonance Business Unit – will be succeeding Dr. Heinrich Kolem on ICCAS Scientific Advisory Board. ICCAS welcomes its new advisory board member and thanks Dr. Kolem for his





arewell to Dr. Heinrich Kolem (left) and velcome to Dr. Robert Krieg. © Siemens dealthineers

valuable support throughout the past years.

HONORS



ANDREAS MELZER CONFIRMED AS COUNCIL MEMBER OF EAMBES | March 16, 2021

Prof. Dr. Andreas Melzer was confirmed in March 2021 as Councillor of Societies and Clinical Collaboration for the European Alliance for Medical and Biological Engineering & Science (EAMBES) until 2022. The General Council is the highest authority of EAMBES and elects the board members. The Alliance was founded in 2003 to improve the health, wealth and well-being of EU citizens through the application of medical and biological engineering and science and to advise the European Commission on medical technology issues.

EVENTS



CANCELLATION DORS 2021

In light of the ongoing pandemic situation in Germany, ICCAS regrets to inform that the annually held Digital Operating Room Summer School (DORS) will have to be cancelled for 2021. However, ICCAS' next Summer School will be hosted in summer 2022 and we are already accepting early registrations for it on our event page.







IMPRINT

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