Press

Joint Press Release

Universitätsklinikum Erlangen , Siemens Healthineers, Friedrich-Alexander-Universität Erlangen-Nürnberg, Fraunhofer Institute for Integrated Circuits IIS, and Medical Valley EMN Erlangen/Nuremberg, 20 June 2017

University medicine, industry, and science establish an innovation partnership for digitalizing healthcare

- The purpose of the Digital Health Innovation Platform (d.hip) is to drive digitalization in healthcare.
- Partners include the Universitätsklinikum Erlangen, Siemens Healthineers, the
 Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), the Fraunhofer Institute for
 Integrated Circuits IIS, and Medical Valley EMN.

The Digital Health Innovation Platform (d.hip) was established by an alliance between university medicine, industry, and science for the purpose of accelerating the digitalization of medicine and healthcare. The Universitätsklinikum Erlangen, Siemens Healthineers, the Friedrich-Alexander-Universität-Erlangen-Nürnberg, the Fraunhofer Institute for Integrated Circuits IIS, and Medical Valley EMN have signed a memorandum of understanding to this effect.

"We're convinced that digitalization can make a crucial contribution to improving the quality and efficiency of healthcare and the health of each individual. This motivates us to establish d.hip as a platform for combining our diverse qualifications," says Prof. Dr. Jürgen Schüttler, Dean of the School of Medicine at the Friedrich-Alexander-Universität Erlangen-Nürnberg, in summarizing the joint discussions. "As a hospital offering the highest level of care, the Universitätsklinikum Erlangen supports the early translation and validation of new technologies," emphasizes Prof. Dr. med. Dr. h. c. Heinrich Iro, Medical Director and

Universitätsklinikum Erlangen









Universitätsklinikum Erlangen , Siemens Healthineers, Friedrich-Alexander-Universität Erlangen-Nürnberg, Fraunhofer Institute for Integrated Circuits IIS, and Medical Valley EMN

Department Head at the Universitätsklinikum Erlangen. "Data can provide essential information for research into diseases and for gaining knowledge that will improve the care of our patients."

Experts network to stimulate ideas early on

The partners' stated goal is to use the Digital Health Innovation Platform to stimulate research into new areas and to conduct development so that it is even more interdisciplinary, clinically and scientifically relevant, and practice-oriented than ever. The platform will make it possible to implement innovations more efficiently and effectively, thereby reducing the time-to-market. Patients and healthcare providers in Germany and abroad will be able to benefit from new developments more guickly.

"Siemens Healthineers has committed itself to helping healthcare providers to overcome their current challenges and to continue their development in their particular business environment," explains Dr. Arthur Kaindl, General Manager of Digital Health Services, Siemens Healthineers. "We will contribute to d.hip our extensive expertise in the area of medical and laboratory technology and we want to make sure that our customers can use innovations in the field of digitalization as early as possible to improve medical patient care and reduce healthcare costs."

Actively shaping the digital transformation in healthcare

The digitalization of healthcare will change workflows and structures in clinical operations. It enables innovations that can improve quality and efficiency in all segments of healthcare. This requires expanding key future technologies and the associated capabilities — which is why the Friedrich-Alexander-Universität Erlangen-Nürnberg is planning to significantly expand its research and research-related training in the field of Digital Health over the next few years.

"We're contributing our proven research expertise to the Digital Health Innovation Platform. For FAU, this is another excellent opportunity to demonstrate our innovative strength and distinctive ability to cooperate in interdisciplinary, cross-institutional teams. We're one-hundred-percent competitive and compatible in this field," emphasizes FAU President Prof. Dr. Joachim Hornegger.

Universitätsklinikum Erlangen, Siemens Healthineers, Friedrich-Alexander-

Universität Erlangen-Nürnberg, Fraunhofer Institute for Integrated Circuits IIS,

and Medical Valley EMN

Exploiting the potential of digital health in interdisciplinary projects

The partners will be combining their medical, technical, and economical expertise to

generate innovations. Among other things, machine learning will be used to render hospital

procedures more efficient. For example, automated processes in clinical imaging can be

tested that permit earlier diagnoses of breast cancer with a better detection rate. Methods

for mathematical optimization and machine learning can help optimize the planning of

operations, thus improving planning reliability.

In addition, the partners see the integration of new technologies as having tremendous

potential for improving medical care. "Clinical-grade wearables and sensor-based

monitoring can promote a healthier lifestyle and improve treatment compliance or help to

introduce adjustments to treatment early on. Intelligent image analysis methods for digital

pathology can also support the selection and adjustment of individual treatments for tumor

patients," states Prof. Dr. Albert Heuberger, Director of the Fraunhofer Institute for

Integrated Circuits IIS in Erlangen, describing the potential of modern cutting-edge

research.

"The proximity within the region of excellent clinical care, recognized research and science,

innovative power in medical technology, and strength in international marketing allows us

to develop more effective and efficient solutions to improve healthcare in interdisciplinary

cooperation," says Prof. Dr. Erich Reinhardt, Chairman of the Board of Medical Valley EMN,

and then adds: "This will permanently establish the attractiveness and importance of this

innovation hub for high-tech medicine."

This press release can be found at www.siemens.com/press/PR2017060325HCEN

Press contacts

Universitätsklinikum Erlangen

Johannes Eissing

Phone: +49 9131 85-36102; E-mail: presse@uk-erlangen.de

Reference number: PR2017060325HCEN

Page 3/5

Universitätsklinikum Erlangen , Siemens Healthineers, Friedrich-Alexander-Universität Erlangen-Nürnberg, Fraunhofer Institute for Integrated Circuits IIS, and Medical Valley EMN

Siemens Healthineers

Marion Bludszuweit

Phone: +49 9131 84-7803; E-mail: marion.bludszuweit@siemens-healthineers.com

Friedrich-Alexander-Universität Erlangen-Nürnberg

Prof. Dr. Alexander Martin

Phone: +49 9131 85-67163; E-mail: alexander.martin@fau.de

Fraunhofer Institute for Integrated Circuits IIS

Dr. rer. nat. Christian Münzenmayer

Phone: +49 9131 776-7310; E-mail: christian.muenzenmayer@iis.fraunhofer.de

Medical Valley EMN

Jörg Trinkwalter

Phone: +49 9131/91617-47 or mobile: +49 160/94861948

E-Mail: joerg.trinkwalter@medical-valley-emn.de

About the Universitätsklinikum Erlangen

Since its founding in 1815, the Universitätsklinikum Erlangen has practiced medicine at the highest level. Today it covers every area of modern medicine with its 24 departments, 19 independent departments, and 7 institutes. In terms of diagnostics and treatment, it uses the latest knowledge from medical research and state-of-the-art equipment. The Universitätsklinikum Erlangen, FAU Erlangen-Nürnberg, and the City of Erlangen share the common goal of making Erlangen a "City of Health and Medicine." In the northern Bavarian medical cluster "Medical Valley," the hospital collaborates with other scientific, commercial, and political partners to gain an international leadership position in the field of high-tech medicine. As a hospital providing the highest standard of care and as a university hospital, the Universitätsklinikum Erlangen combines the highest level of medical care, research, and teaching. Its scientists promote medical progress, monitor the effectiveness of applied methods and, while complying with the strictest quality guidelines, develop new diagnostic and therapeutic procedures not yet available anywhere else. Its research focus areas include tumor research, medical and health technology, infection research and immunology, neuroscience, and renal and cardiovascular research.

About Siemens Healthineers

Siemens Healthineers is the separately managed healthcare business of Siemens AG enabling healthcare providers worldwide to meet their current challenges and to excel in their respective environments. A leader in medical technology, Siemens Healthineers is constantly innovating its portfolio of products and services in its core areas of diagnostic and therapeutic imaging and in laboratory diagnostics and molecular medicine. Siemens Healthineers is also actively developing its digital health services and enterprise services. To help customers succeed in today's dynamic healthcare marketplace, Siemens Healthineers is championing new business models that maximize opportunity and minimize risk for healthcare providers.

Universitätsklinikum Erlangen , Siemens Healthineers, Friedrich-Alexander-Universität Erlangen-Nürnberg, Fraunhofer Institute for Integrated Circuits IIS, and Medical Valley EMN

In fiscal 2016, which ended on September 30, 2016, Siemens Healthineers generated revenue of €13.5 billion and profit of over €2.3 billion and has about 46,000 employees worldwide. Further information is available at www.siemens.com/healthineers

About the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU)

Founded in 1743, FAU has a rich history. It is a strong research university with an international perspective and one of the largest universities in Germany, with around 40,000 students, 263 degree programs, 4,000 academic staff in the sciences (including 576 professors), about 180 million euros (2016) in third-party funding, and 500 partnerships with universities around the world. The university's research-oriented instruction focuses on training students in both theory and practice to enable them to think critically and work independently. The research itself also strikes the perfect balance between a theoretical approach and practical application.

FAU's outstanding performance is reflected in numerous top positions in both national and international rankings, as well as the high amount of funding granted by the German Research Council (DFG) that its researchers are able to secure.

About Fraunhofer Institute for Integrated Circuits IIS

The Fraunhofer-Gesellschaft is the leading organization for applied research in Europe. Its research activities are conducted by 69 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of 24,500, who work with an annual research budget totaling more than 2.1 billion euros. The Fraunhofer Institute for Integrated Circuits IIS is one of the world's leading application-oriented research institutions for microelectronic and IT system solutions and services. It ranks first among all Fraunhofer Institutes in size. With the creation of mp3 and the co-development of AAC, Fraunhofer IIS has reached worldwide recognition. In close cooperation with partners and clients the Institute provides research and development services in the following areas: Audio and Media Technologies, Imaging Systems, Energy Management, IC Design and Design Automation, Communications, Positioning, Medical Technology, Sensor Systems, Safety and Security Technology, Supply Chain Management and Non-destructive Testing. More than 900 employees conduct contract research for industry, the service sector and public authorities. Founded in 1985 in Erlangen, Fraunhofer IIS has now 13 locations in 10 cities: in Erlangen (headquarters), Nuremberg, Fürth, Dresden, further in Bamberg, Waischenfeld, Coburg, Würzburg, Ilmenau and Deggendorf. The budget of 150 million euros is mainly financed by projects. 24 percent of the budget is subsidized by federal and state funds.

About Medical Valley EMN

Medical Valley EMN e.V. has been operating as a cluster management organization since 2007 and currently comprises 190 members from the areas of business, academia, healthcare, networks, and politics. The main task of cluster management is to further develop, coordinate, and market the cluster.

"Digital Health" is Medical Valley's most important strategic development field. In this context, Medical Valley EMN e.V. undertakes a variety of functions, including the coordination of the "Digital Medicine/Health" platform as part of the Zentrum Digitalisierung. Bayern (Bavarian Center for Digitalization), coordination of the "model region for digital healthcare management in Franconia" research initiative, and management of the "Digital Health Hub" as part of an initiative by the Federal Ministry for Economic Affairs.