



## Press Release

### AI for biopharmaceutical production – Sartorius a new shareholder in DFKI, the German Research Center for Artificial Intelligence

- Sartorius acquires shareholding in DFKI
- Machine learning systems for life science applications
- Extension of the joint Sartorius AI Lab (SAIL)

Kaiserslautern | Göttingen, September 25, 2020

Sartorius has joined the group of shareholders of the German Research Center for Artificial Intelligence (DFKI). The Göttingen-based life science group and DFKI have already been working together for some time in a joint research laboratory on the development of future-focused tools and AI applications for the production of advanced medications.

“We are happy to take the next step in our partnership with Sartorius and look forward to extending it even further. At a time when research and development in medicine and biopharma is especially at the focus, the commitment of a successful global player like Sartorius as a regular DFKI partner underscores the high significance of our AI technologies for this important field,” said Professor Antonio Krüger, Ph.D., the Managing Director and Head of the Cognitive Assistants Research Department at DFKI.

“I am convinced that this partnership will result in important innovations for our industry. AI can unfold its powerful capabilities, above all in the accelerated development of more efficient medical drug manufacturing processes. In the medium term, we moreover see the potential of using AI processes to develop active pharmaceutical ingredients faster and more cost-effectively than the time-consuming and cost-intensive trial-and-error processes that are common today, thus making new therapeutics available earlier and to more patients,” stated Dr. Joachim Kreuzburg, Executive Board Chairman and CEO of Sartorius.

#### AI tools for biopharmaceutical production

Sartorius and DFKI are currently conducting research on deep learning algorithms and methods for image recognition of cells and organoids, analysis and modeling of biological systems, and for simulation and optimization of biopharmaceutical production processes.



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In August 2019, DFKI and Sartorius had opened the Sartorius AI Lab (SAIL) on the DFKI campus. At this joint research laboratory, the use of artificial intelligence in Sartorius products and platform solutions is experimentally tested and further developed. As an independent laboratory and a protected data space, SAIL is also available to Sartorius cooperation partners and customers. The lab is also successfully used for mutual training: Specialists from Sartorius work in the DFKI research ecosystem and, for example, use its deep learning hardware and expertise. In return, DFKI scientists benefit from Sartorius expertise in life sciences. SAIL is now being further extended, inter alia, by a special “wet lab,” which is a laboratory in which novel AI processes are combined directly with cellular and molecular biology experiments and can be practically tested.

“AI will certainly have a significant impact on life science research in the future and will enable fundamentally new research approaches and methods. However, unlike other applications in the consumer goods branch or IT sector, the application of AI tools in the life sciences is still in its infancy, as the combination of application expertise and AI knowledge is a much greater challenge due to the complex biological interrelationships and interactions. In this context, the SAIL wet lab in which biologists and data scientists can conduct experiments and research together is a further step to enable faster, more efficient biomedical and biopharmaceutical research and development,” added Professor Oscar-Werner Reif, Ph.D., Chief Technology Officer at Sartorius.

Professor Andreas Dengel, Ph.D., the Executive Director of DFKI in Kaiserslautern and Head of the Smart Data & Knowledge Services Research Department, commented: “It is important to us to put industry-relevant AI technologies to sustainable use. Our transfer labs and joint projects with our industrial partners and shareholders enable us to accomplish this. We are pleased to cement our collaboration with Sartorius in which we are already successfully working on the use of AI tools to optimize biopharmaceutical production processes.”

### **Expansion of the prominent group of DFKI shareholders**

Sartorius is the first life science company to join the group of DFKI shareholders as its 33<sup>rd</sup> member and has received a seat on the Supervisory Board. This role is filled by Chief Technology Officer Dr. Oscar-Werner Reif. Additional shareholders of DFKI include numerous renowned companies of various industrial branches: Accenture, Airbus, Bilfinger Digital Next, BMW, Cerence, CLAAS, Daimler, Deutsche Börse, Deutsche Messe, Deutsche Telekom, Fraunhofer Gesellschaft e.V., Google, HARTING, Intel, John Deere, KIBG, Microsoft Deutschland, Munich Re, NVIDIA, RICOH, Robert Bosch, ROSEN Swiss, SAP, Schwarz-Gruppe, Software AG,



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Volkswagen, VSE and ZF Friedrichshafen, as well as the universities of the DFKI locations in Bremen, Kaiserslautern and Saarbrücken.

### A profile of Sartorius

The Sartorius Group is a leading international partner of life science research and the biopharmaceutical industry. With innovative laboratory instruments and consumables, the Group's Lab Products & Services Division concentrates on serving the needs of laboratories performing research and quality control at pharma and biopharma companies and those of academic research institutes. The Bioprocess Solutions Division with its broad product portfolio focusing on single-use solutions helps customers to manufacture biotech medications and vaccines safely and efficiently. The Group has been annually growing by double digits on average and has been regularly expanding its portfolio by acquisitions of complementary technologies. In fiscal 2019, the company earned sales revenue of some 1.83 billion euros. At the end of 2019, more than 9,000 people were employed at the Group's approximately 60 manufacturing and sales sites, serving customers around the globe.

### A profile of the DFKI

The German Research Center for Artificial Intelligence (DFKI) was founded in 1988 as a non-profit Public Private Partnership (PPP). It has locations in Kaiserslautern, Saarbrücken and Bremen, a project office in Berlin, a laboratory in Lower Saxony and a branch office in St. Wendel, Saarland. DFKI is Germany's leading business-oriented research institute in the field of innovative software technologies based on artificial intelligence methods. In the international scientific community, DFKI is one of the most important "Centers of Excellence". Currently some 1,200 employees from about 60 nations are researching innovative software solutions. Their success: more than 130 professors from our own ranks and more than 90 spin-off companies with approx. 2,500 highly qualified jobs.

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