Sartorius, DFKI launch joint research laboratory

20 December 2019 | News

Establishes Sartorius AI Lab (SAIL) research laboratory

Germany, December 19, 2019

Sartorius, a leading international partner of life science research and the biopharmaceutical industry, and the German Research Center for Artificial Intelligence (DFKI) have established the Sartorius AI Lab (SAIL) research laboratory. On the DFKI campus in Kaiserslautern, the use of artificial intelligence (AI) in Sartorius products and platform solutions is being experimentally tested and further developed at SAIL.

"So far, advanced methods of data analysis have been used only to a very limited extent in the biopharmaceutical industry, in drug research and in production. This is one of the reasons that development timelines and costs for medical drugs are ever increasing. Better use of data through AI is a particularly promising approach for making significant progress in this area. Many customers are already using the powerful software we have been offering for two and a half years through our Data Analytics unit for specific applications in biopharmaceutical production. We aim to strongly expand this business activity and are therefore glad to have found DFKI, one of the most important international centers of excellence for AI and deep learning with more than 1,000 scientists, as strong partners to join us in developing such solutions,"**said CEO Dr. Joachim Kreuzburg.**

SAIL is assigned to the DFKI research department of Smart Data & Knowledge Services headed by Professor Andreas Dengel and uses DFKI's deep learning hardware and expertise, which is unique throughout Europe. As a protected data room and independent data laboratory, SAIL is also open to Sartorius partners and customers as part of cooperation agreements, and the first projects have already been initiated. In addition, Sartorius and DFKI will use SAIL for training purposes, and DFKI employees will also be able to further their education in life science applications at Sartorius research sites.

Sartorius and DFKI intend to develop and employ machine learning and image and pattern recognition processes, among other technologies, for life science applications. For example, their researchers are working on new 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. Sartorius provides extensive data for this purpose and sends specialists from its Corporate Research and Product Development units to SAIL.

Prof. Oscar-Werner Reif, Chief Technology Officer at Sartorius, emphasized: "Within the framework of this cooperation, we are creating the foundations for developing digital tools and methods based on AI. The results obtained will be incorporated into the further development of Sartorius products so that our application solutions become more and more adaptive and powerful. Our aim is to use better methods of data analysis and the increasing computer capacities to map and simulate the development and production of biopharmaceuticals in computers in the future. As a result, development times and costs for new therapies will improve dramatically by an accelerated timeline from idea to patient. In addition, we are pleased to offer Sartorius employees and DFKI students and scientists the opportunity to exchange ideas and gain further qualifications in AI and life science applications."

Prof. Andreas Dengel, DFKI site manager in Kaiserslautern, said: "The DFKI transfer labs are developing new service modules with artificial intelligence for various markets and target groups. For two years, we have been using our AI hardware equipment, which is unique in Europe, for application-oriented research we conduct together with renowned companies such as Allianz, Continental, Hitachi and IAV. I am very pleased that we are entering the life science tools market as a partner with the global player Sartorius."