Centre for Computational Personalised Medicine – International Research Foundation

Owing to a unique initiative carried out by the Academic Computing Centre Cyfronet AGH along with five partner institutions in the framework of the EU Horizon 2020 *Teaming for Excellence* programme, the International Research Agenda programme implemented by the Foundation for Polish Science, and with financial support from the Ministry of Science and Higher Education, a new entity called **Sano** – Centre for Computational Personalised Medicine will be established in Kraków. This international research foundation is one of three Polish beneficiaries of the prestigious *Teaming for Excellence Phase 2* call, as well as the only participant representing the Małopolska region.

The mission of **Sano** involves:

- development of new computational methods, algorithms, models and technologies for personalized medicine,
- introducing new diagnostic and therapeutic solutions based on computerized simulations into clinical practice,
- fostering creation and growth of enterprises which develop cutting-edge diagnostic and therapeutic technologies,
- contributing to novel training and education curricula which meet the needs of modern personalised medicine.

The **Sano Centre** will be situated in Kraków: a city well known for educating top-class medical practitioners and IT experts, whose teaching hospitals are well regarded among the academic community and whose life science technology sector is continually expanding.

The establishment of the **Sano Centre** will directly contribute to regional scientific excellence by fostering new research collaborations and creating top-tier educational opportunities for postgraduate students. It will also improve knowledge and technology transfer by promoting creation of new commercial enterprises which deal with advanced technologies. The Centre's impact will transcend regional boundaries, contributing to advancements in medical research and thereby to the quality of medical care.

An important aspect of the establishment and further activities of **Sano** is its collaboration with the University Hospital in Kraków.

The Centre's objectives are based, among others, on the National Smart Specialisation Strategy. **Sano** aims to enhance collaboration between academic and commercial institutions on an international scale. Key performance indicators will include the number of highly cited scientific publications, patents and grants obtained by the Centre, the number of solutions based on computational models which have been introduced into clinical practice, and the number of innovative marketable products and services.

Research positions at **Sano** will be filled by way of international competitions organized by the Centre's International Scientific Committee which consists of 15 experts.

The Centre for Computational Personalised Medicine represents a joint international collaboration of the following institutions:

- **Academic Computer Centre Cyfronet AGH** – experts in *in silico* simulations and provisioning IT infrastructures for science,
- **Klaster LifeScience Kraków** – a Key National Cluster representing innovative enterprises associated with the life science sector and situated in the Kraków area,
- **University of Sheffield** and **Insigneo Institute** – experts in *in silico* modelling for clinical practice,
- **Forschungszentrum Jülich** – experts in large-scale computing and data analysis for scientific and industrial applications,
- **Fraunhofer Institute for Systems and Innovation Research ISI** – experts in systemic solutions and medical innovation,
- **National Centre for Research and Development** – experts in the scope of legal and organizational support.

The project is funded in the framework of the H2020-WIDESPREAD-2016-2017 TEAMING PHASE 2 program (grant no. 857533), the International Research Agendas program of the Foundation for Polish Science co-funded by the European Union in the scope of the European Regional Development Fund, and by the Ministry of Science and Higher Education.