



Catch up on Sano's latest research and team news in our new newsletter.

## 2025 Highlights: Sano's Year of Scientific Achievements and Partnerships

In 2025, Sano Centre for Computational Medicine experienced a year of intensive scientific growth, new partnerships, and a stronger presence in both the Polish and international healthcare innovation ecosystems. This issue of our newsletter is fully dedicated to the key milestones, projects, and achievements of the past year.

### Krakow Conference on Computational Medicine 2025

In 2025, Sano launched its new flagship event – the [Krakow Conference on Computational Medicine](#), held in October in Krakow. Organised by the Sano Centre for Computational Medicine in collaboration with the Faculty of Computer Science at AGH University of Krakow and the Academic Computer Centre Cyfronet AGH, the conference marked an important step in advancing computational medicine in Poland and worldwide. Under the theme "Enhancing Virtual Human Twin with AI Solutions", leading researchers, clinicians, and innovators came together to discuss how artificial intelligence can shape the future of personalised healthcare.

The conference was held under the Honorary Patronage of Marcin Kulasek, Minister of Science and Higher Education of the Republic of Poland, and Aleksander Miszalski, Mayor of the City of Krakow. Media Patronage from krakow.pl and Tygodnik Powszechny further strengthened the visibility of the event in the public sphere.



### Gaia AI Factory – new AI infrastructure for medicine

Sano joined the consortium developing Gaia AI Factory – Poland's second Artificial Intelligence Factory, led by CYFRONET AGH in Krakow.

This 70-million PLN initiative, co-funded by the European Union and Poland, focuses on building trusted AI technologies in medicine, space, and large language models.

The Gaia AI supercomputer will provide computing power several times greater than Helios, currently the fastest system in Poland, and will support the full AI lifecycle – from data preparation and model training to deployment in real-world applications. The project also includes training programmes, expert consultations, and digital skills development, directly supporting Sano's mission to advance computational medicine in a responsible way.

#### AI-powered Protein Structure Landscape

The Structural and Functional Genomics team at Sano, together with international partners, co-created the AI-powered Protein Structure Landscape – an interactive platform for exploring protein structures. Available at [protein-structure-landscape.sano.science](https://protein-structure-landscape.sano.science), it enables users to explore nearly one billion predicted protein structures. By integrating data from AlphaFold, ESMAtlas, and the Microbiome Immunity Project, the platform offers a unified, visual map of the protein world, freely accessible to scientists worldwide.

This open-access resource supports research in drug discovery, structural biology, and computational medicine, representing a major step toward understanding life at the molecular level. As [Pawel Szczepiak](#) - postdoctoral researcher at the Structural and Functional Genomics team notes - the platform can contribute to better diagnostic and therapeutic methods and deepen our understanding of molecular processes at the structural level.

#### SimuScope – AI-augmented surgery

Innovative solutions developed at Sano are gaining international recognition. During the Surgical AI Days UnVeil Surgical, Sean Huver from NVIDIA presented SimuScope – a technology created at Sano – as a groundbreaking tool that enhances surgical precision and patient safety. This recognition highlights the real-world impact of our AI-driven research on next-generation surgical tools.

#### Scientific awards and recognitions

2025 also brought important individual successes for Sano researchers. [Marek Wodzinski](#) was among the laureates of the Polityka Science Awards 2025, winning in the technical sciences category for his research on AI algorithms for medical imaging. His work supports the development of advanced diagnostic methods and the integration of AI into clinical practice, moving us closer to more precise, accessible, and patient-centred medicine. Sano researchers also received prizes for best oral presentations at international conferences, reflecting the high scientific quality of the projects conducted at the centre.

#### Strengthening the bioinformatics community

In 2025, [Sylwia Bozek and Tomasz Kościółek](#) were elected to the Board of the Polish Bioinformatics Society (PTB), further strengthening Sano's role in the national bioinformatics community. This engagement helps build bridges between computational medicine and bioinformatics in Poland and across Europe.



#### HR Excellence in Research Award

On August 21, 2025, Sano received the HR Excellence in Research award from the European Commission, recognising the centre's commitment to creating a supportive, transparent, and inclusive research environment in line with the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers. This prestigious distinction underscores Sano's dedication to fostering excellent conditions for researchers, aligning perfectly with our mission to attract and develop top talent in computational medicine.

#### Grants and research development

Sano researchers secured funding through prestigious international and national calls for projects in medicine and digital health. These grants enable the development of innovative methods for medical data analysis, imaging, and clinical decision support, further strengthening Sano Centre for Computational Medicine's position as a leading international research foundation.

[Discover more on our website](#)

#### Innovative Children's Hospitals Gala 2025

Once again, Sano was a proud partner of the Innovative Children's Hospitals Gala 2025, organised together with the K.I.D.S. Foundation to honour institutions and experts transforming paediatric care through modern technologies. The gala was organised in collaboration with Siemens Healthineers, HTC Poland, AniaOdZdrowia, and HL7 Poland, under the Honorary Patronage of the Rector of SGH Warsaw School of Economics and the Institute of Health Management at Lazarski University. Media partners included Medonet and OnkoRodzice, with expert support from organisations such as NIL-IN, Medical Innovation Institute, EIT Health, the AI in Health Coalition, and patient-focused foundations.





#### Media presence and the digital health debate

Experts from Sano actively contributed to public debate on digital health and AI in medicine. Representatives of the centre appeared in outlets such as Radio Kraków, RMF24, Polskie Radio Dwójka, TVP Kultura, and K MAG, discussing current trends and challenges in data-driven healthcare and AI adoption. Sano also contributed to a report by the Polish Information Processing Society (PTI) on healthcare digitalisation.

#### International conferences and networking

In 2025, Sano participated in numerous international conferences and industry events, including:

- EBRAINS Summit: Transforming Brain Research and Medicine (Brussels)
- ACDSA 2025 (Antalya)
- KubeCon + CloudNativeCon Europe 2025
- ICCS 2025 (Singapore)
- MICCAI 2025 (Daejeon)
- World Health Expo (Dubai)
- Nordic Life Science Days (NLSDays)

These events offered valuable opportunities to present research results, strengthen international collaborations, and build networks for future joint projects.

#### Neuropizza, symposia, and community initiatives

Sano continued its popular Neuropizza series – informal meetings where researchers share cutting-edge findings in neuroscience over pizza.

Sano also co-organised the Brain Plasticity in Blindness Symposium, focusing on neuroplasticity and brain adaptation, bringing together experts from multiple countries and disciplines.



#### Sano Running Team and team culture

Life at Sano is not only about science – well-being and team spirit also matter. The Sano Running Team finished 47th in the Poland Business Run 2025, with Adam Sulek taking 3rd place in the overall OPEN category. Such initiatives strengthen internal integration and underline that caring for health is an integral part of our organisational culture.

The year 2025 demonstrated that Sano Centre for Computational Medicine is consistently building its position as an international research foundation that connects science, technology, and clinical practice to shape the future of data-driven medicine. Thank you for being part of our community – in 2026, we are planning even more projects, collaborations, and events, which we will keep you updated on in our upcoming newsletters.

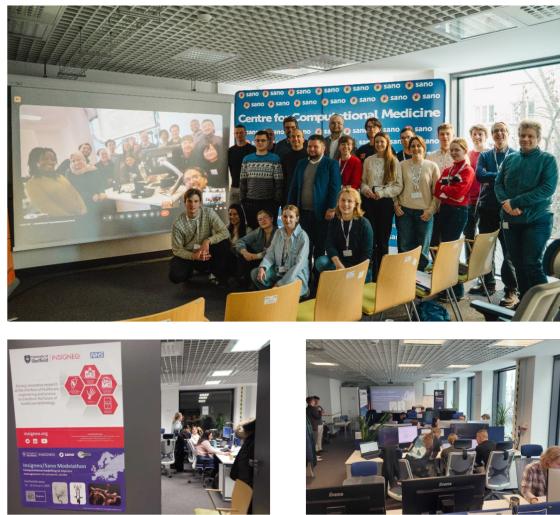
## Insigneo–Sano Modelathon 2026: Multiscale modelling for ischaemic stroke

#### *Can computers help save the brain after stroke?*

Picture a scientific marathon where engineers, doctors, and programmers from two countries race against time to build digital models of brain blood vessels. From 13-16 January, **Sheffield** and **Kraków** teamed up for the **hybrid Modelathon** – blending hackathon energy with precision stroke research.

Participants dived deep into Circle of Willis anatomy (the brain's vital arterial network)

using VR headsets, 3D-printed aneurysm models, and cutting-edge 0D/1D/3D simulations. They tested how carotid artery clots alter blood flow, ran haemodynamic sensitivity analyses, and simulated clinical scenarios — all to better understand stroke and empower doctors' decisions.



The finale? Six teams delivered captivating multiscale models with genuine clinical potential!

*Full story and soon the event video on [our website](#).*

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## Join Sano to work in ThromboRisk – MSCA Doctoral Network

ThromboRisk is an international project implemented under the Marie Skłodowska-Curie Doctoral Networks, aimed at deepening the understanding of clot formation, growth, and rupture — the main processes behind ischemic strokes, heart attacks, and venous thrombosis. The project addresses one of the most significant challenges of modern medicine by combining expertise in mechanobiology, biochemistry, pathophysiology, and multi-scale modelling. Within the consortium, leading universities and research institutes from across Europe collaborate to train doctoral candidates to tackle real-world clinical problems.

Sano is one of the consortium partners and, within the ThromboRisk project, offers two PhD positions:

- Sano PhD Student – Project title: AI-enhanced efficient sensitivity analysis and uncertainty quantification in multi-scale modelling (PhD from University of Eindhoven, realised at Sano)
- Sano PhD Student – Project title: The role of musculoskeletal system and respiration on deep vein thrombosis – modelling lower limb haemodynamics (PhD from University of Amsterdam, realised at Sano)

Both PhD Student positions in ThromboRisk offer a 36-month full-time contract at Sano. The main supervisor is dr. Maciej Malawski (Sano Director), with training delivered through Challenge-Based Learning within the international consortium. Applications close 28 February 2026, with project start ASAP (no later than 31 October 2026).

To be eligible to take part in ThromboRisk project as a PhD Student, you need to comply with the mobility rule. See more and apply by going to the links below:

- <https://sano.science/job-offers/sano-phd-student-1-thromborisk/>
- <https://sano.science/job-offers/sano-phd-student-2-thromborisk/>

## Leader of the Research Team "Medical Imaging and Robotics"

If you're passionate about advancing medical imaging and robotics in an interdisciplinary environment, join us as a Research Group Leader at Sano Centre for Computational Medicine.

### Working at Sano

Sano is an international research centre in Kraków that turns advanced computational discoveries into real healthcare solutions. Bridging science, medicine, and industry, we aim to become Central Europe's leading hub for computational medicine.

### About the Research Group

The *Medical Imaging and Robotics* group focuses on interdisciplinary research at the intersection of medical imaging, artificial intelligence, surgical technologies, and robotics. The group's work spans topics such as AI-driven image analysis, algorithm development, surgical simulation, synthetic data generation, and intelligent robotic systems, all closely connected to clinical validation and translational applications. All this is done in cooperation with other Sano research teams.

As a Group Leader, you will have the opportunity to further shape the group's scientific direction, develop new research lines, and strengthen collaborations with clinicians, industry partners, and international research institutions.

#### Your Role

As a Research Group Leader at Sano, you will play a central role in defining and advancing the group's scientific vision while fostering a supportive and inclusive research culture. You will combine independent research with leadership, mentorship, and collaboration across Sano's research teams.

#### Your activities will typically include:

- Driving a coherent research strategy aligned with Sano's Research Agenda
- Initiating, leading, and contributing to innovative research projects, both independently and in collaboration
- Building, mentoring, and supporting a diverse research team, including PhD students and postdoctoral researchers
- Attracting external research funding through national and international grant applications
- Strengthening clinical and industrial collaborations to support data access and translation of research outcomes
- Representing the group through publications, conferences, and public dissemination

Rather than focusing on rigid task divisions, we value flexibility and encourage you to shape the role around your strengths and scientific ambitions.

#### Your Profile

We are looking for an experienced and motivated researcher who enjoys working across disciplines and supporting people. You hold a PhD in a relevant field (such as computer science, engineering, applied mathematics, medical physics, biomedical engineering, robotics, or medicine) and have established yourself as a self-contained researcher.

You bring experience in areas related to medical imaging, AI, robotics, or computational medicine in general, along with a strong publication record and an interest in translational research. Experience in supervising researchers, leading projects, and building collaborations is important, as is the ability to communicate effectively in an international environment.

#### What We Offer

Sano offers a unique opportunity to lead an independent research group within a fast-growing, internationally connected institute. You will benefit from:

- Scientific independence and freedom within an agreed Research Agenda
- Fair salary (approx. €60,000 gross yearly, depending on experience) and attractive benefits including private medical care, sports card, and additional paid holidays
- Flexible working hours and a hybrid work model, with offices in a modern research facility in Kraków
- Strong institutional support in grant writing, recruitment, legal/IP matters, business development, and software engineering
- Access to an extensive network of academic, clinical, and industrial collaborators
- Opportunities for co-supervision of MSc and PhD students and adjunct academic appointments
- Support for international travel, conferences, and research visits

Relocation support is available if needed.

#### Diversity & Inclusion

Sano is an equal-opportunity employer committed to building an inclusive and diverse research environment. Research shows that women and members of underrepresented groups often apply only when they meet all listed criteria. If this role excites you, your background is relevant to Sano's mission and you are enthusiastic about leading interdisciplinary research in computational medicine, but you are unsure whether you meet every requirement, we encourage you to apply anyway.

[Join Us – See Openings!](#)

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## Sano Seminars

*Join our free seminar series to connect with top experts and peers. Experience innovative sessions live or on-demand on [YouTube](#).*

2nd February 2026 - 14.00 CET

[Simplifying bioinformatics data science with Pyrun](#)

Pedro García López, Enginyeria Informàtica i Matemàtiques Universitat Rovira i Virgili, Tarragona, Spain

4th February 2026 - 14.00 CET

[Generative Models for Drug Discovery: From Pharmacogenomics to Targeted Molecular Design](#)

Joel P. Arrais, Professor at University of Coimbra, Department of Informatics Engineering, Portugal

[List of seminars in Sano](#)



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We kindly inform you that from 22/10/2021 we changed the system for sending the newsletter to MailChimp. For more information, please contact [media@sano.science.org](mailto:media@sano.science).

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