

MEDIA RELEASE

PRECISION HEALTH RESEARCH, SINGAPORE (PRECISE) ANNOUNCES LANDMARK PARTNERSHIP WITH ALNYLAM, BAYER, BOEHRINGER INGELHEIM AND NOVO NORDISK TO ADVANCE ASIAN PRECISION MEDICINE RESEARCH

- *Precision Health Research, Singapore (PRECISE) has established a significant partnership with Alnylam, Bayer, Boehringer Ingelheim and Novo Nordisk to collaborate on Asian precision medicine research. The joint research will benefit Singapore by driving advancements and healthcare solutions in precision medicine tailored to Asian populations.*
- *The collaboration aims to enhance existing PRECISE-SG100K anonymised datasets from Singapore's National Precision Medicine (NPM) programme by generating new, high-quality research with the potential to benefit Asia and Asians worldwide, addressing gaps in global genomic studies and translating precision medicine research into impactful solutions.*
- *The collaboration is expected to create significant economic benefits for Singapore, such as job opportunities, knowledge and expertise transfer, and collaborative research to strengthen our biomedical ecosystem, while ensuring data privacy and security.*

SINGAPORE, 1 DECEMBER 2025 – Precision Health Research, Singapore (PRECISE) is pleased to announce a landmark partnership with companies Alnylam, Bayer, Boehringer Ingelheim and Novo Nordisk, under Phase II of Singapore's National Precision Medicine (NPM) programme.

This pioneering initiative marks Singapore as the first country in Asia to establish a pre-competitive collaboration with leading pharmaceutical companies, contributing to a vibrant precision health ecosystem and reaffirming Singapore as a leading hub for precision medicine innovation in Asia.¹

By leveraging Singapore's unique multi-ancestry Asian population, the collaboration will advance insights into Asian genetics and beyond to tailor new precision medicines worldwide based on the specific insights from this population. This will be done by enhancing existing datasets from the PRECISE-SG100K study, Southeast Asia's most comprehensive population health study comprising rich phenotypic characterisation and whole genome sequencing data of 100,000 consented participants, while ensuring strong data governance and security.

The collaboration will address diversity gaps in global genomic research, generate new, high-quality research to improve understanding of health, risk factors and medical conditions, as well as support the development of novel diagnostics and treatments optimised for Asian

¹ The term 'pre-competitive' refers to a research collaboration agreement where participating members align and jointly focus on pre-agreed research areas to collaborate and ultimately benefit patients worldwide.



populations. This collaboration will accelerate advancements in biomedical research and healthcare innovation in the field of precision medicine. In the longer term, it is anticipated that the collaboration will help to drive better health outcomes for Singaporeans, with the potential for regional and global applications to benefit Asians worldwide.

This partnership could also bring significant economic benefits to Singapore. Collaboration partners Alnylam, Bayer, Boehringer Ingelheim and Novo Nordisk will contribute investments to support research activities and create employment opportunities in Singapore, as well as facilitate knowledge transfer, and strengthen Singapore's biomedical research data infrastructure.

This initiative will provide research insights from Asians to complement existing public-private genomic programmes in Europeans such as the UK Biobank and FinnGen to address the gaps in global genomic research, increasing diversity and greater equity for healthcare solutions and innovations.

Key Highlights of the Collaboration

- **Delivering benefits for Singapore and Asia:** By advancing precision medicine, the collaboration aims to develop better diagnostics and treatments tailored to Singapore's multi-ethnic population. These efforts contribute to improved disease diagnosis and prevention, enabling more targeted and effective treatments, and the integration of precision medicine into healthcare applications. This partnership will contribute to greater diversity in research and equity in the form of healthcare innovations tailored to Asian populations.
- **Singapore as a hub for precision medicine and innovation in Asia:** The collaboration enhances Singapore's position as a hub for biomedical research and innovation, setting new benchmarks for excellence in the region.
- **Enhancing datasets to drive research and innovation:** The PRECISE-SG100K dataset is one of the largest and one of the most comprehensive non-European population datasets and will bridge the gap between human genome and diseases for the Asian population, providing insights into health and the impact of lifestyle and environment on disease development. The collaboration will augment and further enrich the PRECISE-SG100K dataset, creating a robust and valuable resource for ongoing and future research. The enhanced datasets will accelerate the development of innovative diagnostics, therapeutics and enrich resources available to researchers and healthcare providers.
- **Enhancing the local economy and data science capabilities:** Singapore's commitment to enrich a thriving biomedical ecosystem is further strengthened by this partnership. The initiative will support job creation through roles such as bioinformaticians, data scientists, software engineers and project managers. It will also enhance data science capabilities, foster research collaboration by generating large scale analyses for data insights and future research, as well as create essential infrastructure and develop secure data platforms. These developments will facilitate knowledge transfer, bolstering Singapore's leadership capabilities in research and innovation.



Prof. Patrick Tan, Executive Director of PRECISE, said, "This groundbreaking partnership represents a significant milestone for PRECISE. By collaborating with Alnylam, Bayer, Boehringer Ingelheim and Novo Nordisk, we are harnessing the collective expertise of our partners to propel biomedical research and innovation as part of Singapore's NPM programme. As a small but dynamic country, Singapore's strong reputation for trust, integrity and reliability, as well as our adaptability to seize opportunities, makes us a preferred choice for collaboration. By leveraging our diverse population and unique competitive advantages, we are well positioned to widen collaboration with a range of partners, driving innovation and setting benchmarks for excellence at the forefront of the precision medicine landscape in Asia."

Prof. John Chambers, Chief Scientific Officer, PRECISE, shared, "This partnership is built on a foundation of robust safeguards and governance frameworks. There is Institutional Review Board approval and opt-in informed consent from PRECISE-SG100K study participants for industry to use their donated anonymised data for research by both academic and industry researchers, who will be granted controlled access in compliance with Singapore's regulations. Additionally, the researchers will not be downloading any datasets. PRECISE also works closely with the TRUST platform, a tool that enables health data analytics and innovation, to ensure strong data governance and security, and to safeguard participant privacy and maintain public trust."

With the support of ecosystem partners and stakeholders, the collaboration injects fresh ideas and capabilities into the precision medicine landscape, transforming healthcare and improving patient outcomes, to benefit not only the multi-ethnic population in Singapore but also the wider Asian population and global communities. This public-private partnership exemplifies the power of collaboration between academia, industry, and healthcare providers, combining complementary expertise to drive healthcare innovation, biomedical excellence and enhancing the local economy for Singapore.



About Precision Health Research, Singapore (PRECISE)

Precision Health Research, Singapore (PRECISE) is the national central entity coordinating Singapore's multi-phase National Precision Medicine (NPM) programme. Established to drive a whole-of-Singapore effort, PRECISE works with research, clinical, and industry partners to generate insights into Asian genomics and translate these into better health outcomes and economic opportunities.

NPM Phase II sequenced 100,000 Singaporeans and conducted clinical implementation studies, linking genomic, lifestyle, and healthcare data to deepen understanding of Asian diseases. NPM Phase III, now underway is conducted in partnership with Singapore's three healthcare clusters. Focusing on patient participants in clinical settings, Phase III will evaluate how genomics can be applied in practice to inform national health strategies, creating opportunities for innovation in diagnostics, therapeutics, and digital health.

PRECISE is a programme of the Consortium for Clinical Research and Innovation, Singapore (CRIS). NPM Phase II is supported by the National Research Foundation, Singapore (NRF) under the RIE2020 White Space (MOH-000588 and MOH-001264) and administered by the Singapore Ministry of Health (MOH) through the National Medical Research Council (NMRC) Office, MOH Holdings Pte Ltd. NPM Phase III is supported by the Singapore MOH through the NMRC Office, MOH Holdings Pte Ltd under the NMRC RIE2025 NPM Phase III Funding Initiative (MOH-001734).

For more information, visit www.npm.sg



About Alnylam Pharmaceuticals

Alnylam (Nasdaq: ALNY) has led the translation of RNA interference (RNAi) into a whole new class of innovative medicines with the potential to transform the lives of people afflicted with rare and prevalent diseases with unmet need. Based on Nobel Prize-winning science, RNAi therapeutics represent a powerful, clinically validated approach yielding transformative medicines. Since its founding in 2002, Alnylam has led the RNAi Revolution and continues to deliver on a bold vision to turn scientific possibility into reality. Alnylam's commercial RNAi therapeutic products are ONPATTRO® (patisiran); AMVUTTRA® (vutrisiran); GIVLAARI® (givosiran); OXLUMO® (lumasiran); Leqvio® (inclisiran), which is being developed and commercialized by Alnylam's partner, Novartis; and Qfitlia™ (fitusiran), which is being developed and commercialized by Alnylam's partner, Sanofi. Alnylam has a deep pipeline of investigational medicines, including multiple product candidates that are in late-stage development. Alnylam is executing on its "*Alnylam P⁵x25*" strategy to deliver transformative medicines in both rare and common diseases benefiting patients around the world through sustainable innovation and exceptional financial performance, resulting in a leading biotech profile. Alnylam is headquartered in Cambridge, MA. For more information about our people, science and pipeline, please visit <https://www.alnylam.com/> and engage with us on X (formerly Twitter) at [@Alnylam](#), or on [LinkedIn](#), [Facebook](#), or [Instagram](#).

About Bayer

Bayer is a global enterprise with core competencies in the life science fields of health care and nutrition. In line with its mission, "Health for all, Hunger for none," the company's products and services are designed to help people and the planet thrive by supporting efforts to master the major challenges presented by a growing and aging global population. Bayer is committed to driving sustainable development and generating a positive impact with its businesses. At the same time, the Group aims to increase its earning power and create value through innovation and growth. The Bayer brand stands for trust, reliability and quality throughout the world. In fiscal 2024, the Group employed around 93,000 people and had sales of 46.6 billion euros. R&D expenses amounted to 6.2 billion euros. For more information, go to <https://www.bayer.com/en/>

About Boehringer Ingelheim

Boehringer Ingelheim is a biopharmaceutical company active in both human and animal health. As one of the industry's top investors in research and development, the company focuses on developing innovative therapies that can improve and extend lives in areas of high unmet medical need. Independent since its foundation in 1885, Boehringer takes a long-term perspective, embedding sustainability along the entire value chain. Our approximately 54,500 employees serve over 130 markets to build a healthier and more sustainable tomorrow. Learn more at www.boehringer-ingelheim.com



About Novo Nordisk

Novo Nordisk is a leading global healthcare company, founded in 1923 and headquartered in Denmark. Our purpose is to drive change to defeat serious chronic diseases, built upon our heritage in diabetes. We do so by pioneering scientific breakthroughs, expanding access to our medicines, and working to prevent and ultimately cure disease.