

RESEARCH STRATEGY 2025-2029

Research at Oslo University Hospital will move the knowledge base for tomorrow's diagnostics and treatment

This research strategy will support Oslo University Hospital's (OUS) <u>Development Plan 2040</u>. The strategy has been developed under the auspices of the Research Committee at OUS, in close collaboration with the University of Oslo (UiO), Oslo Metropolitan University (OsloMet) and the Central User Committee at OUS. The strategy is followed up through a rolling hospital-wide action plan and division-specific action plans.

Research at Oslo University Hospital – one of our main tasks

Research is the cornerstone of advancing clinical practice, and the hospitals in Norway have a primary responsibility for patient-oriented clinical research. Therefore, research is one of four main tasks in hospitals, enshrined in the Specialist Health Services Act, the Health Enterprises Act and in the statutes of OUS. Clinical research includes the development of new diagnostic and therapeutic approaches, as well as the evaluation of the benefits and risks of various treatment options. It must therefore be closely integrated with patient care. The hospitals also play a key role in facilitating the translation of findings from basic medical research into clinical practice and vice versa (translational research). As the country's largest university hospital, OUS carries a particular responsibility in this regard. A strong culture of research and innovation among managers and employees is a vital asset for attracting and retaining talented professionals and expertise. The advancement of knowledge benefits patients, society and employees alike, enhancing staff well-being and professional pride. Our high level of clinical activity provides substantial opportunities for research, innovation and quality improvement. These are essential not only for ensuring patient safety and developing future diagnostics and treatment, but also for creating more efficient and sustainable hospital operations in an era of anticipated healthcare workforce shortages.

Current situation for research at Oslo University Hospital, 2025

OUS is one of the largest hospitals in Europe and hosts many of Norway's leading clinical and diagnostic professional milieus - offering unique opportunities for research. Evaluations consistently show that OUS is a national and international leader in several research fields. Every year, OUS contributes to around 2,400 scientific articles and 90-100 completed doctoral degrees, accounting for around half of the research conducted in Norwegian hospitals. We maintain extensive international research collaboration with foreign coauthors featured in about 60 per cent of our publications. About 70 per cent of our scientific articles are published in partnership with the University of Oslo - our most important research collaborator. In 2024, research activity at OUS totalled approximately 1,690 research man-years, distributed among an estimated 3,500 employees, including research support personnel. Many of those engaged in research combine it with clinical responsibilities, either as part-time researchers or in addition to full-time clinical roles. Roughly half of the research man-years are funded externally through competitive grant schemes.

The goals and measures set out in this strategy are based on a situation analysis (SWOT) and a systematic evaluation of the implementation of the previous research strategy. The strategy also builds on recommendations from the Research Council of Norway's national evaluation of medicine and health sciences (EVALMEDHELSE). The follow-up of specific recommendations addressed to each clinical division will be a key element of the division-specific action plans.

Our continuous tasks in research

We will deliver research of outstanding quality and support evidence-based practice and decisionmaking

We aim to conduct high-quality research across the full spectrum of our disciplines - from basic research to clinical application - while also prioritising selected strategic research areas. Our focus will be on excellence rather than volume, with peer review and independent evaluation serving as key instruments for assessing research quality. We will apply a broad set of criteria to evaluate research outputs and individual contributions, in line with the principles of the San Francisco Declaration on Research Assessment (DORA Declaration). Through this approach, we aim to enhance evidence-based clinical practice and support evidence-informed decision-making in the health service, drawing actively on both our own research and that of others.

We will engage actively with users

To ensure that our research remains relevant and of benefit to patients, we will promote broad and meaningful user involvement across all stages of the research process - involving as early as possible, and wherever appropriate. Users will be engaged in a variety of ways, and in all studies where their participation is feasible and adds value. We will provide appropriate training and facilitate effective communication to support user involvement. Furthermore, users will receive clear and targeted information about the outcomes of studies in which they have contributed.

We will be an attractive and responsible partner, and further strengthen our national and international collaboration with universities and university colleges, the health service and healthcare industry

We will continue to expand and deepen our collaboration with universities and university colleges through joint academic forums, research groups, shared projects, and infrastructure. Emphasis will be placed on organisational models and partnerships that promote interdisciplinary and interprofessional research. We will maintain broad collaboration - both nationally and internationally - with academic institutions and the healthcare industry, and other parts of the healthcare system. Collaboration with academic partners and funding bodies, both in Norway and abroad, rely on our ability to act as a competent, long-term, and reliable partner. In international collaborations, particular caution must be exercised when engaging with countries that do not have established security agreements with Norway.

We will also strengthen cooperation with the primary healthcare services, particularly in research aimed at improving patient pathways. Interdisciplinary and interprofessional collaboration may be key to generating new insights and innovative solutions.

We will foster a strong and good research culture as an integral part of our activities

Research will be embedded in all aspects of patient care. We will conduct excellent research and high-quality clinical services that mutually reinforce one another. Research will generate new knowledge that improves diagnostics, treatment, care, and disease prevention. Our activities will be characterised by a strong research culture founded on ethics, academic integrity, and quality. We will ensure that our researchers receive training and are kept up to date with relevant standards, ethical principles, and legal frameworks governing research. We are committed to safeguarding diversity, representativeness, and data privacy in all research activities. Gender equality and an inclusive working environment are also essential foundations for building strong research environments and achieving high-quality outcomes.

We will share our knowledge with society

Our research will be published in peer-reviewed journals, and we will actively disseminate findings to professional audiences, patients, and the wider public - using accessible language and appropriate

communication channels. We aim to contribute to the practical use of research findings and support informed public discourse. We will take and active and knowledge-based role in public debate and encourage our researchers to engage through diverse forms of communication. We are committed to open research, including open access publishing and the sharing of research data where this can be done securely and responsibly.

Our strategic goals for the period 2025-2029

Goal 1: Conduct research that improves clinical practice

Strategies to achieve the goal:

- 1.1 Further develop research at OUS with the necessary breadth and quality to support cutting-edge research, innovation and transformative advancements in diagnostics, care and treatment.
- 1.2 Facilitate that OUS receives a larger overall allocation of external research funding and, at a minimum, maintains current levels of internal funding. In addition, we will coordinate and optimise investments in, and the operation of, high-cost infrastructure such as core facilities, advanced medical equipment, research biobanks, and related resources. In close collaboration with UiO, we aim to maximise the effective use of both equipment and expertise.
- 1.3 Strengthen infrastructure and capabilities for data analytics, storage and sharing, and actively utilise big data particularly within the fields of artificial intelligence (AI) and secondary use of health data. This includes alignment with OUS's strategies for AI and personalised medicine. We will continue to support the development of quality registries and enhance opportunities for extracting structured data from electronic health records for research purposes.
- 1.4 Promote research and the development of new technologies that improve resource utilisation and increase efficiency within healthcare services, including fostering interdisciplinary coordination of technology-related research initiatives.
- 1.5 Increase use of of biological material stored in research biobanks through responsible, efficient, and purpose-driven storage solutions. This includes ensuring an accessible and transparent overview of available biobank material and its associated metadata.
- 1.6 Strengthen the hospital's research culture across all staff, including leadership at all levels, and foster active engagement with users where relevant. Arrangements should be made for research time for staff with relevant roles potentially through buy-out arrangements funded by external research grants.

Goal 2: Expand the scale of studies and enhance the implementation of research findings in both the short and long term

Strategies to achieve the goal:

- 2.1 Increase the number and scale of clinical trials and the inclusion of patients in research, in accordance with the *National Action Plan for Clinical Trials* (to be revised by the Ministry of Health and Care Services in 2025/2026).
- 2.2 Increase the scale of health services research, including studies and technological development related to patient care, patient safety, treatment pathways, resource-efficient solutions, and challenges such

as overdiagnosis, overtreatment, and the development of platform studies.

- 2.3 Enhance the scale and quality of translational research by supporting curiosity-driven, basic, and long-term research, and by fostering stronger integration between basic science and clinical practice.
- 2.4 Promote the broader adoption of diagnostics and treatments underpinned by robust scientific evidence, while actively phasing out practices that are proven to be ineffective or inappropriate.
- 2.5 Support the dissemination of research results to patients, user organisations, and the wider public. Where appropriate, cost-benefit analyses should be used to help translate findings into practice and inform decision-making.

Goal 3: Systematic career development of researchers and targeted recruitment

Strategies to achieve the goal:

- 3.1 Further strengthen high-quality research environments that are nationally and internationally competitive in attracting talent and expertise.
- 3.2 Enhance conditions for conducting research within clinical settings by placing strong emphasis on research experience and interest when recruiting leaders for units where research is, or should be, a conducted activity. Leaders must act as role models and key enablers, fostering a culture where research and research careers are prioritized.
- 3.3 Continue to develop the hospital's and individual divisions' capacity for research leadership and structured career development, in close collaboration with UiO and OsloMet.
- 3.4 Support continued research skills development beyond the doctoral level, e.g. through shared supervisory responsibilities and by developing attractive career pathways for researchers.

Goal 4: Invest in research-based innovation

Strategies to achieve the goal:

- 4.1 Strengthen innovation capacity, idea generation, and the commercialisation of in-house research by fostering a strong innovation culture and competence within all divisions. This includes increasing awareness of relevant guidelines. Efforts will be undertaken in close collaboration with our technology transfer office, Inven2 AS, and through expanded cooperation between clinical units, research groups, and industry partners.
- 4.2 Increase revenue from innovation and industry collaboration as a supplementary source of funding to support further research and innovation in the divisions.
- 4.3 Promote research-based service innovation and technological development that enhances efficiency and quality in treatment, diagnostics, rehabilitation, and disease prevention.

Goal 5: Develop organizational structures for research in a changing OUS, in collaboration with UiO

Strategies to achieve the goal:

5.1 Ensure effective organisation of experimental, diagnostic and clinical research in close collaboration with UiO, taking into account ongoing organisational development at OUS and the planning of new

buildings, including the Life Science Building.

- 5.2 Further develop the hospital's research biobank infrastructure, including governance, operations, financing, and the integration of biobanking into clinical workflows.
- 5.3 In collaboration with UiO, improve coordination of the laboratory animal facilities at OUS and UiO to ensure more efficient use of infrastructure and enhanced service delivery for researchers