

**Research strategy 2024-2029, Department
of Forensic Sciences**



Research strategy 2024-2029

Department of Forensic Sciences

The strategy is followed up by rolling action plans

1. Background

About the Department of Forensic Sciences

- The Department of Forensic Sciences has national and regional assignments for the judicial system and other public administration. The tasks include expert assignments, research and teaching in forensic sciences.
- The department has national and regional assignments in forensic genetics, forensic toxicology and drug abuse research, forensic pathology, clinical forensic medicine, death scene investigations and biological age assessment.
- The department works according to recognized quality assurance principles to contribute to legal certainty for all the parties involved.

2. Overall goals

Our goals and tasks are to:

- Conduct excellent research in order to deliver services of high academic quality that safeguard legal protection
- Contribute to better diagnostics and prevent harmful health effects and accidental death related to psychoactive substance use
- Increase knowledge on potential harm associated with various illicit drugs and psychoactive medications, with a specific focus on prenatal and adolescent exposure
- Use registry data linked with our routine data to reveal risk factors for problematic psychoactive substance use in order to prevent intentional and un-intentional overdose death
- Improve the detection and interpretation of biological traces in criminal cases
- Develop and improve methods for kinship analysis and investigative genetic genealogy
- Improve diagnostic methods for disclosure of cause of death, injury detection, and better assessment of time of death
- Increase knowledge of characteristics and risk factors associated with accidental and sudden unexpected early deaths to enable future preventive measures
- Ensure good research culture and collegial cooperation, and support from the management
- Share our research results with the public, in addition to publishing in scientific journals
- Strive for quality rather than quantity in research
- Strengthen our international cooperation
- Educate healthcare professionals, actively recruit and educate research talents, and provide guidance throughout research careers

3. Strategic objectives

We aim to:

1. Develop excellent research environments (based on academic quality)

- a. Facilitate long-term efforts to establish and maintain high-quality research environments, in close collaboration with the University of Oslo and external research institutions.
- b. Dynamically and transparently, prioritize outstanding research environments in resource distribution.
- c. Stimulate activity that increases external funding and shield resources for research in the annual budget.
- d. Strengthen the initiatives from and support the research groups seeking external funding.
- e. Support research environments/groups through improved infrastructure.
- f. Strive for better utilization of research results.

2. Strengthen the diagnostic, basic and clinical research in active cooperation with users/clients

We aim to:

- a. Involve users/clients in the planning and implementation of our research.
- b. Better, facilitate skilled researchers, who combine routine work and research and make sure they have good opportunities for research in the form of participation in large projects, management of smaller projects, case reports and PhD projects.
- c. Strengthen research support functions.
- d. Support multidisciplinary research initiatives, especially involving collaboration with other laboratory and clinical research milieus at Oslo University hospital and/or University of Oslo.
- e. Strengthen translational research, which is an important link between basic and clinical research.
- f. Test, develop and implement new technology, including machine learning and artificial intelligence to greater extent.

3. Improve the research organization and strengthen the cooperation with the university and university college sector

We aim to:

- a. Further, develop cooperation with the University of Oslo by anchoring research at the neighboring department at Faculty of Medicine as well as the Faculty of Mathematics and Natural Sciences and other faculties of the university environment. We aim to make greater use of research infrastructure, core facilities and administrative services, as well as contributing to the university's Strategy 2030 working towards a sustainable society.
- b. Further, develop the research groups by:
 - i. Strengthening and increasing our competence.
 - ii. Expanding the collaboration between groups internally and externally, across academic disciplines and professions, as well as between clinical and basic environments.
 - iii. Placing more emphasis on research ethics, research and work culture, career development and supervision, and job satisfaction.
 - iv. Leadership and supervisor development for researchers in collaboration with the University of Oslo.
- c. Support interaction between research groups and management for good priorities based on competence, academic advantages, and needs.

4. Strengthen our international cooperation

We aim to:

- a. Increase our participation in international cooperation and networks.
- b. Stimulate increased international mobility, cooperation, and recruitment of researchers.
- c. Increase the number of scientific publications with international collaborators and outstanding research environments.

5. Strengthen research based on the use of research biobanks and medical quality registries

We aim to:

- a. Facilitate research through increased accessibility and management of human biological material and associated data in accordance with applicable regulations.
- b. Maintain and enhance established research biobanks and encourage prospective research initiatives with establishment of biobanks that includes biological specimen collected at autopsy and crime scene investigations.
- c. Encourage increased use of research biobanks, thematic research registries and quality registries, including greater extent of data sharing and utilization.
- d. Continue efforts to obtain legal authority to enable use of routine material for quality assurance and research purposes.