



Veterinærinstituttet
Norwegian Veterinary Institute

Facts & Figures Norwegian Veterinary Institute 2020



Norwegian Veterinary Institute

- A public-sector research institute in the areas of terrestrial animal- and fish-health, welfare and food safety.
- It's most important function is contingency planning and development of expertise related to preventing and reducing threats to the health of fish, animals and humans.
- Strategies and daily operations based on UN Sustainability Goals contribute to achievement of these goals at both national and international levels.
- A national and an international reference laboratory, involved in a wide range of international collaborative activities.
- Under the ownership of the Ministry of Agriculture and Food. The Institute also carries out tasks for the Ministry of Industry and Fisheries.
- Our basis financing comes from these ministries and the Research Council of Norway. Additionally, approx. 50 percent of our revenue comes from externally funded research projects and contracts.



Our values, vision and main objectives

- The Norwegian Veterinary Institute shall be scientifically ambitious, forward-looking and cooperative.
- Work for and towards sustainable agriculture and bio-economy using a ONE HEALTH approach to healthy food, animals, humans and the environment.

Our mission

- To supply independent research-based expertise and support to the authorities.
- To identify and prevent threats to animal- and human health - One Health.

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Key work in 2019

- An outbreak of severely ill dogs in which 43 dogs died and more than 200 were acutely ill. Identification of the bacterium *P. alcalifaciens* in several dogs was striking. Future research is necessary to document whether this bacterium was the primary cause of the disease.
- The first outbreak of maedi/visna since 2005 was identified in sheep in Trøndelag. The institute analysed around 18 000 blood samples in connection with the outbreak .
- The Norwegian Veterinary Institute introduced digital histopathology (microscopy images of tissues). All histopathological images for disease detection in aquaculture are now produced in Harstad.
- A national center of expertise for production-animal health was established.
- The Rauma water catchment was announced free of the salmon parasite *Gyrodactylus salaris*. One step closer to eradication of the parasite from the Norwegian wild salmon population.
- Enningdalselva, and several other North-European rivers experienced disease and mortality in fresh run salmon. Extensive diagnostic efforts in Norway and other countries have so far not revealed the cause. In the established international dialogue and cooperation, the condition is denoted "red skin disease".
- The Minister of Agriculture and Food laid the foundation stone for the Institute's new premises in Tromsø that will open in 2020.
- Participation in NORAD's (Norwegian Agency for Development Cooperation) «Fish for development» project, where Ghana, Columbia and Myanmar are cooperative partners .
- A cooperation agreement with Harbin Veterinary Institute, Chinese Academy of Agricultural Sciences, and Institute of Microbiology, Chinese Academy of Sciences was signed.
- An official visit to Mongolia to identify potential areas for future cooperation under the ONE HEALTH initiative was performed.
- More than 100 000 cervids have been tested for Chronic Wasting Disease (CWD) in the last 4 years. The Norwegian Veterinary Institute is an OIE International reference laboratory for CWD.

Key figures 2019

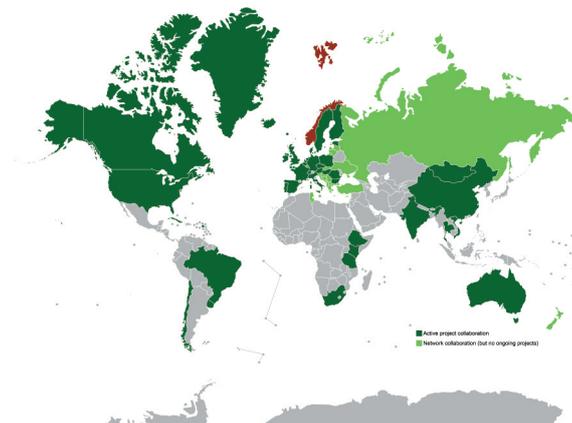
- 318 employees
- 94 employees with PhD
- 124 scientific peer-reviewed articles
- 6 locations in Norway
- Employees from 40 nations
- 212 900 samples analysed
- 415 MNOK in total income



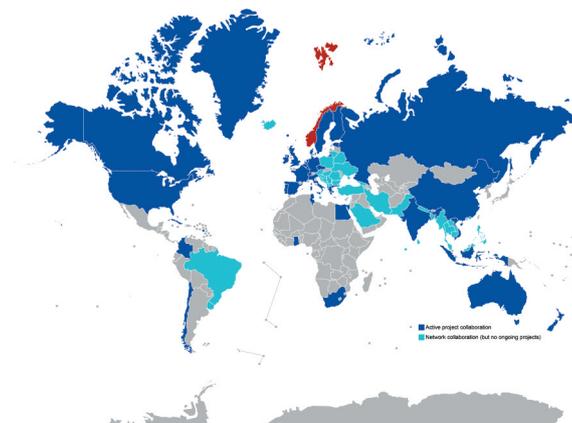
Services

- Research, analyses and diagnostics
- Knowledge production and development
- 44 national surveillance programmes
- National reference laboratory for more than 30 diseases of terrestrial and aquatic animals
- OIE International reference laboratory for 4 diseases
 - Infection with infectious salmon anaemia virus
 - Infection with *Gyrodactylus salaris*
 - Infection with salmonid alphavirus
 - Chronic Wasting Disease
- OIE Collaborating Center for Epidemiology and Risk Assessment for Aquatic Animal Diseases.

International cooperation within animal health, animal welfare and food safety in 2019



International cooperation within fish health and fish welfare in 2019



Research activities

The Institute has around **120** current research projects, funded by grants from national and international research funding agencies.

- Major scientific outputs from research projects include 90-120 scientific publications annually in peer-reviewed international scientific journals, and active participation in PhD education.
- During the last 20 years, researchers at the Institute have co-published in scientific journals with authors from around 90 countries.



Examples of research areas:

Antimicrobial Resistance is a global threat for both humans and animals, and requires joint efforts across countries and disciplines. The AMR research group at NVI aims at acquiring knowledge on the dynamics, dissemination and transmission of AMR in a “One health” perspective, and thereby contribute to the joint efforts against further development of AMR.

CWD is a fatal prion disease in cervids, similar to scrapie in sheep or mad cow disease. CWD was first detected in Europe in Norway in 2016, and since then, the institute has been engaged in one of its largest ever surveillance programmes.

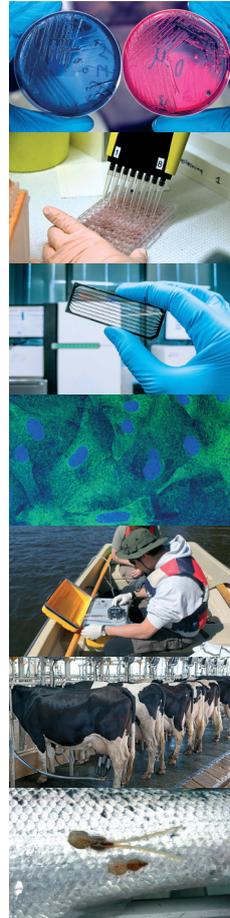
SEQ-TECH is a strategic research initiative that aims to establish high throughput sequencing technology at the Norwegian Veterinary Institute. “Next-generation sequencing” will provide a better basis for infection tracing and risk assessment in fish health, animal health and food safety.

BIO-DIRECT is a strategic research initiative that aims to develop new veterinary diagnostics capable of rapid and accurate disease detection using new biomarkers and establishment of organ-like cell culture models that can minimize animal experiments.

eDNA monitoring: Detection of environmental DNA (eDNA) from pathogens of aquatic animals, carriers and susceptible species in nature and aquaculture. Aims to develop non-invasive monitoring of the presence/absence and spread of pathogens without sacrificing live animals.

Animal welfare: Animal welfare is a strategic research area for both fish and terrestrial animals with focus on development of objective welfare indicators to promote good health and assist animal and health authorities, livestock owners and industry.

Salmon lice - epidemiological approach: Aims to develop both tools and knowledge relating to the occurrence of lice, development of resistance to chemical treatments and evaluation of the effectiveness of new measures to combat lice infections.



The New Building at Ås in 2020

The new facility at Ås will enhance biological research and enable the use of new technologies and methods for diagnostics, research and education. The new veterinary facilities will provide new and unique opportunities to raise the level of services provided by the Norwegian Veterinary Institute.



The new building at Ås in March 2020

Where we are in Norway

The Norwegian Veterinary Institute will continue to seek stronger cooperation with regional knowledge hubs within research and knowledge-based enterprises.



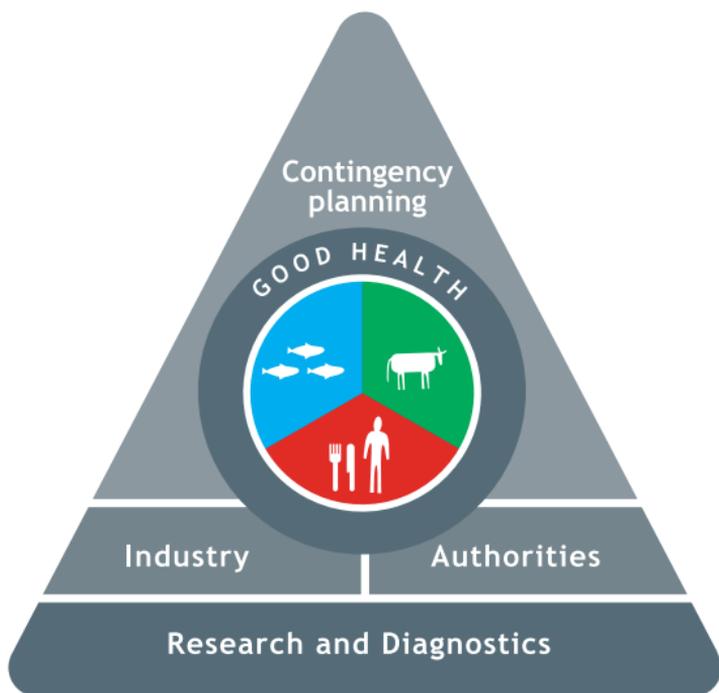
Moving here in 2020



The new veterinary building will house the Norwegian Veterinary Institute and NMBU's Faculty of Veterinary Medicine



The Minister of Food and Agriculture, Mrs Olaug V. Bollestad, visiting the building of the new facilities at Ås



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