Curriculum vitae and track record for Research Professor, PhD

Ingeborg Klingen, NIBIO

PERSONAL INFORMATION

Family name, First name: Klingen, Ingeborg
Date of birth: 14.10.1964
Sex: Female
Nationality: Norwegian
Google Scholar: https://scholar.google.dk/citations?user=Bof-ki0AAAAJ&hl=en
URL for personal web site: https://www.nibio.no/en/employees/ingeborg-klingen?locationfilter=true

EDUCATION

2001	PhD: **Disputation date:** *21.02.2001.* Biological control by the use of insect pathogenic fungi. Department of Plant and Soil Sciences, Agricultural University of Norway (NLH) (Now Norwegian University of Life Sciences (NMBU))
1992	MSc: Plant and Soil Sciences with specialisation in Plant Protection and Agricultural Entomology, NLH.

CURRENT AND PREVIOUS POSITIONS

2015-Present	Head of Department of Invertebrate Pests and Weeds in Forest, Agriculture and Horticulture at Norwegian Institute of Bioeconomy Research (NIBIO), Biotechnology and Plant Health Division
2014-Present	Deputy Head of Plant Health and Biotechnology Division at NIBIO
2001-Present	Researcher at Department of Invertebrate Pests and Weeds in Forest, Agriculture and Horticulture at NIBIO
2012-2014	Head of Department of Invertebrate Pests at Bioforsk, Norwegian Institute for Agricultural and Environmental Research, Plant Health and Plant Protection Division
2010-2012	Head of Section Pests in field crops and vegetables at Bioforsk, Plant Health and Plant Protection Division
2008-2010	Head of Section Entomology at Bioforsk, Plant Health and Plant Protection Division
1993-1996	Senior executive officer at The Norwegian Agricultural Inspection Service (Landbrukstilsynet, later Norwegian Food Safety Authority (Mattilsynet), Section of Pesticides.
1992-1993	Executive officer at The Norwegian Society for Conservation of Nature (Naturvernforbundet)

INSTITUTIONAL RESPONSIBILITIES

2017-2018	Deputy board member Faculty of Biosciences at NMBU
2014-2016	Board member Institute of Plant Sciences at NMBU
2014-2016	Board member Vitenparken Campus Ås ("The Science Park Campus Ås")
2007-2014	Member of the Norwegian Scientific Committee for Food Safety (VKM) doing risk assessment connected to approval of pesticides in Norway
2010-2012	Board member Bioforsk, Norwegian Institute for Agricultural and Environmental Research

COMMISSIONS OF TRUST

2010-2012	Secretary/ Treasurer for the Fungi Division in The Society of Invertebrate Pathology
2012-2014	Chair Elect for the Fungi Division in The Society of Invertebrate Pathology
2014-2016	Chair for the Fungi Division in The Society of Invertebrate Pathology
2015-Present	Censor Det Jordbrugsvidenskabelige Censorkorps, University of Copenhagen, Denmark

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

1999-Present	Member of The Society of Invertebrate Pathology

MAJOR COLLABORATIONS

International: Agricultural Faculty (ESALQ) of University of São Paulo University (USP) in Brazil (Prof Italo Delalibera Jr and his group, Prof Gilberto De Moraes and his group and lately Prof José Mauricio Simões Bento and his group). University of Copenhagen (Prof Jørgen Eilenberg and Dr Nicolai Vitt Meyling et al), Cornell University (Prof Ann Hajek and her group). La Universidad Central "Marta Abreu" de Las Villas (Cuba, Dr Yordanys Ramos Gonzales et al), Biorationale (UK, Dr Roma Gwynn), Research Institute for Sustainable Humanosphere (RISH), Kyoto University (Japan, Dr Aya Yanagawa,), Maynooth University (Ireland, Dr Rafael De Andrade Moral). Most of the projects I have been leading has involved an extensive group of international collaborators. SMARTCROP, with 11 international partners, is one example. National collaboration: NMBU (e.g. Dr Richard Meadow, Prof Arne Stensvand), Institute of Marin Research (Dr Eric Jan Lock et al), University of Oslo (Prof Atle Mysterud et al), NTNU (Prof Atle Bones et al).

Track record

Research leadership experience:

My 23 years' experience as a project leader and 17 years as leader of Sections and Departments in Bioforsk/NIBIO demonstrate my ability and willingness to initiate and lead research. Presently I am in the Divisions leader team and I am leading a Department consisting of 26 permanent staff and 15 out of these have a PhD. In addition, 3-5 MSc and 3-5 PhD students, 2-4 exchange students and 2-4 season workers are connected to my department throughout a year. I have the responsibility of personnel and economy at the department and a budget of about 45 mill NOK/ year depending on our project portfolio and PhD students/ Post Docs in the portfolio. I have been project leader or work package leader of a number of projects. I would specifically like to highlight one of my latest projects, SMARTCROP www.smartcrop.no the largest (38 mill NOK) integrated pest management (IPM) project in Norway. I have also been a board member of Bioforsk, Vitenparken and Institute of Plant Sciences at NMBU. Through my work as a department leader and as board member of different R&D institutions I have gained experience and competence with processes that promotes and motivates for a positive development of scientific skills and results in R&D institutions. Further, I have gained knowledge about processes that drives research politics and how this may be used in strategic thinking and development of R&D institutions.

I have also attended several leadership courses such as IhlenPsykologene -Workshop in communication (2017). Several leadership courses at Bioforsk/ NIBIO (since 2008). AFFs Mentoring program for female leaders in governmental organizations (gathering based throughout 2006).

Innovation and commercialization

Through my own research and my research leadership I believe that I have contributed to the development of innovative knowledge, methods and approaches that may be used and further developed in IPM/IVM. One example that I specifically would like to mention are result obtained in collaboration with scientists in Brazil, Denmark, Cuba and Malawi where we have studied the effect of entomopathogenic fungi as endophytes in selected crops and how this may be used to control different pests. For some of these we are close to a method/ product for practical use. Further, the SMARTCROP-work with prediction of entomopathogenic fungi in the Entomophtoromycota for the use in a natural enemy pest warning model represents an innovative and promising approach. We aim at implementing this into an existing web-based forecasting system for agricultural pests and diseases, the NIBIO´s VIPS platform https://www.vips-landbruk.no/ The VIPS platform is now expanding internationally, and hence this pest natural enemy warning model might be adapted and used internationally in the future. Also, parts of the SMARTCROP-work on combining odours and natural enemies in improved biocontrol strategies are close to a marked potential. Of other relevant innovative research in SMARTCROP I may mention the use of sensor technology in weed harrowing, and sprinkler irrigation against plant pathogens. SMARTCROP has several industry partners and both end-users and management has shown interest in innovative knowledge, methods, implementation and possible products we are presenting.

List of selected projects:

2025-2026	Kunnskapsstatus for god plantehelse, effektivt plantevern og alternativer til kjemiske plantevernmidler. Funding: Landbruksdirektoratet: 2025/55161, Agros 313878 and NIBIO basic funding from the Norwegian Research Council (NFR-GF 342631/L10).
2024	Will drones in plant protection reduce the use of chemical pesticides? Funding: Landbruksdirektoratet over the National Action Plan for Sustainable Use of Pesticides (2023/60667, Agros 250328) and by NIBIOs basic funding from the Norwegian Research Council (NFR-GF 342631/L10).
2018-2022	BIOIMMIGRANTS -Innovative approaches and technologies to manage emerging plant pests and invasive alien species threatening biobased production (Project leader). Funding: Strategic Institute Programs (SIS) through Norwegian Research Council (NFR) https://www.nibio.no/prosjekter/bioimmigrants?locationfilter=true
2015-2019	SMARTCROP - Innovative approaches and technologies for Integrated Pest Management (IPM) to increase sustainable food production (Project leader). Funding: NFR https://www.nibio.no/en/projects/smartcrop?locationfilter=true
2017-2020	Forming scientists for the next generation of pest management (Fase 1 and 2). Connected to SMARTCROP (Leading NIBIOS contribution). Scientist and student exchange program between the agricultural faculty (ESALQ) at University of São Paulo (USP), NMBU and NIBIO. Funding: The Norwegian Agency for International Cooperation and Quality Enhancement in Higher Education (Diku (earlier SIU)) and CAPES Brazil
2017-2019	ENTOFÔR -From waste to resource (Leader of NIBIOS contributions: WP1 and WP 2). Funding: NFR
2012-2016	PLANTSTRENGTH -Strengthening the basis of sound plant protection by understanding the ecology and interactions of different pest groups and beneficials in Norwegian cereals (Leader of WP 2: Winter wheat pest syndrome). Funding: SIS through NFR
2011-2014	TICKLESS -Reduced ticks and tick-borne diseases in sheep by integrated management (Leader of WP 2: Biological control of ticks). Funding: NFR
2011-2014	BERRYSYS A system approach to biocontrol in organic and integrated strawberry production (Project leader). Funding: Forskningsmidlene for jordbruk og matindustri

Publications
50 per-reviewed international journal papers
5 book chapters (3 international (per-reviewed) and 2 national)
26 technical reports
Ca 70+ publications at various international scientific meetings
Ca 25+ publications at various national meetings
Ca 30+ publications in grower´s journals, the web etc.

Referee for several international journals such as: Acta Agriculturae Scandinavica Section B - Plant Soil Science, Applied Soil Ecology, BioControl, Biocontrol Science & Technology, Biological Control, Bulletin of Entomological Research, Crop Protection, Experimental and Applied Acarology, Journal of Applied Entomology, Journal of Insects as Food and Feed, Journal of Invertebrate Pathology, Journal of Pest Science, Latvijas Entomologs, MDPI Insects, Mycological Research, Neotropical Entomology, Pest Management Science, Polar Biology, Sydowia

MOBILITY

1998 (7 months) PhD student mobility grant to Cornell University, USA. Grant received from The Research Council of Norway

2017 (2 months) Researcher mobility in connection with the SMARTCROP project to Luiz de Queiroz College of Agriculture, São Paulo University, Brazil.

SUPERVISION OF GRADUATE STUDENTS AND RESEARCH FELLOWS

2000-Present I have been the supervisor/ co-supervisor of **2 Post Docs**, **8 PhD students, 15 MSc students, and several BSc and exchange students**. Students have mainly been connected to NMBU (Norway) and São Paulo University (Brazil), but also to University of Copenhagen (Denmark), La Universidad Central "Marta Abreu" de Las Villas (Cuba) and National Superior School of Agronomy and Food Industries (France).

TEACHING ACTIVITIES

NIBIO, where I have been employed during my research career, is subject to the Ministry of Agriculture and Food as an administrative agency with special authorization and its own supervisory board. NIBIO has no teaching obligations but agreements with several universities and students connected to our projects.

1998 (6 month) Teaching Assistance in Invertebrate pathology at Cornell University, USA

1999-2008 Giving Laboratory lessons in Invertebrate pathology at NMBU, Norway

ORGANISATION OF SCIENTIFIC MEETINGS AND WORKSHOPS

2007 Organizing and teaching at the Workshop “Collection, handling and identification of insect and mite pathogenic fungi in annual and perennial crops” at The National Agricultural University in Managua (Nicaragua)

2007 Organizing the Workshop Agriculture, forestry aquaculture and environmental collaboration between Norwegian R&D institutions at Campus Ås and Latin American R&D institutions -Experiences and possibilities

2005 Organizing the Workshop “Agro-environmental cooperation between European organizations, CATIE and other institutions in tropical Latin America: Experiences and opportunities” at The Norwegian Institute for Agricultural and Environmental Research, Plant Health and Protection Division.

2004 Co-organizer of The 37th Annual Meeting of the Society of Invertebrate Pathology in Helsinki, Finland.