



Anne Margrete Urdahl

Date of birth: 17/01/1969 | **Gender:** Female | (+47) 92864102 |

anne-margrete.urdahl@vetinst.no | <https://orcid.org/0000-0002-6149-2825> |

<https://app.cristin.no/persons/show.jsf?id=385268> |

<https://www.vetinst.no/ansatte/anne-margrete-urdahl> |

Whatsapp Messenger: +4792864102 | P.O. Box 64, 1431, Ås, Norway

About me:

Dr. Urdahl is a veterinary senior researcher (DVM, PhD) with long experience within zoonoses, particularly human pathogenic *E. coli* and antimicrobial resistance (AMR). Urdahl is currently project leading the Norwegian antibiotic resistance surveillance programs in the veterinary sector; NORM-VET and MRSA in swine. She is also involved in several AMR research projects, and coordinates AMR advisory to the authorities. Dr. Urdahl is an appointed member of the National Institute of Public Health Committee on preventing and combating antibiotic resistance, as well as to the Nordic One Health AMR expert group. She has also participated in national AMR expert groups.

EDUCATION AND TRAINING

1991 – 1997 – Ås, Norway

CAND. MED. VET. (DVM) – Norwegian School of Veterinary Science (now the NMBU)

<https://www.nmbu.no/en>

1998 – 2002 – Norway

PHD / DMV – Norwegian School of Veterinary Science (now the NMBU)

<https://www.nmbu.no/en>

1998 – 1999

EPIDEMIOLOGY - NORDIC POSTGRADUATE COURSE IN VETERINARY EPIDEMIOLOGY – Nordic Society for Veterinary Epidemiology (NOSOVE)

WORK EXPERIENCE

2003 – 2005 – Oslo, Norway

POSTDOC – NORWEGIAN SCHOOL OF VETERINARY SCIENCE (NOW NMBU)

PostDoc project “Risk assessment of STEC/*stx*-bacteriophages as zoonotic agents in the food production chain”; i.e. planning, conducting laboratory experiments, coordinating technician, writing publications.

2006 – CURRENT – Ås, Norway

SCIENTIST - SENIOR SCIENTIST – NORWEGIAN VETERINARY INSTITUTE

Through these years activity and responsen has gradually shifted from all kind of zoonotic diseases, to almost solely antimicrobial resistance. However, main activities have been and still are project leading of research projects and surveillance programmes (including design, planning, economy, coordinating the activities on daily bases and the reporting), advisory to the authorities, participating in research activities, as well as communication to the public, authorities and research communities.

LANGUAGE SKILLS

Mother tongue(s): **NORWEGIAN**

Other language(s):

| | UNDERSTANDING | | SPEAKING | | WRITING |
|----------------|---------------|---------|-------------------|--------------------|---------|
| | Listening | Reading | Spoken production | Spoken interaction | |
| ENGLISH | C1 | C2 | C2 | C1 | C2 |

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PROJECTS

2015 – 2017

Quinolone resistant Escherichia coli in Norwegian poultry and their impact on humans (QREC-Risk)

<https://www.vetinst.no/forskning-innovasjon/tidligere-forskningsprosjekter/quinolone-resistant-escherichia-coli-in-norwegian-poultry-and-their-impact-on-humans-qrec-risk>

2016 – 2020

Combating antimicrobial resistance in the Norwegian food production chain (NoResist)

<https://www.vetinst.no/forskning-innovasjon/tidligere-forskningsprosjekter/noresist-combating-antimicrobial-resistance-in-the-norwegian-food-production-chain>

2017 – 2021

Joint Action on Antimicrobial Resistance and Healthcare-associated Infections (EU-JAMRAI)

<https://www.vetinst.no/forskning-innovasjon/tidligere-forskningsprosjekter/eu-jamrai-european-union-joint-action-on-antimicrobial-resistance-amr-and-healthcare-associated-infections-hcai>

2019 – CURRENT

Klebsiella pneumoniae – a key driver in the global spread of antimicrobial resistance and a target for new approaches in diagnostics, surveillance and alternative therapeutics (KLEB-GAP)

<https://www.vetinst.no/forskning-innovasjon/pagaende-forskningsprosjekter/kleb-gap-klebsiella-pneumoniae-en-sentral-aktor-i-den-globale-spredningen-av-antibiotikaresistens-og-malbakterie-for-nyskapende-diagnostikk-overvakning-og-alternativ-behandling>

2021 – CURRENT

Evaluating emerging AMR threats and future capacity for action in Norwegian livestock agriculture (LIMBO)

<https://www.vetinst.no/forskning-innovasjon/pagaende-forskningsprosjekter/limbo>

2022 – CURRENT

Ionophore coccidiostats: risk of CO-selection of antimicrobial resistance – Clinical impact and intervention strategies (ICONIC)

<https://www.vetinst.no/en/research-and-innovation/ongoing-research-projects/iconic>

2007 – 2013

Public health aspects and the relationship between Shiga toxin-producing and Enteropathogenic E. coli in the ruminant food production chain

<https://www.vetinst.no/forskning-innovasjon/tidligere-forskningsprosjekter/public-health-aspects-and-the-relationship-between-shiga-toxin-producing-and-enteropathogenic-e-coli-in-the-ruminant-food-production-chain>

2007 – 2008

Foodborne Zoonoses - Campylobacter and E. coli - a network project (CampEc-NET)

Pathogens in the food chain – persistence, elimination and risk management (PathFoodChain)

2015 – 2019

HYGENEA: Risk based hygiene control in European Abattoirs

<https://www.vetinst.no/forskning-innovasjon/tidligere-forskningsprosjekter/hygenea-risikobasert-hygienekontroll-i-europeiske-slakteri>

2013 – CURRENT

NORM-VET – Monitoring program for antimicrobial resistance in the veterinary and food production sector

<https://www.vetinst.no/overvaking/antibiotikaresistens-norm-vet>

2013 – CURRENT

MRSA in swine

<https://www.vetinst.no/overvaking/mrsa-svin>

● PUBLICATIONS

Review and analysis of national monitoring systems for antimicrobial resistance in animal bacterial pathogens in Europe: a basis for the development of the European Antimicrobial Resistance Surveillance network in Veterinary medicine (EARS-Vet)

<https://doi.org/10.3389/fmicb.2022.838490> – 2022

Defining the scope of the European Antimicrobial Resistance Surveillance network in Veterinary medicine (EARS-Vet): a bottom-up and One Health approach.

doi.org/10.1093/jac/dkab462 – 2022

Longitudinal sampling reveals persistence of and genetic diversity in extended-spectrum cephalosporin-resistant Escherichia coli from Norwegian broiler production. Frontiers in Microbiology

doi.org/10.3389/fmicb.2021.795127 – 2021

Building the European Antimicrobial Resistance Surveillance network in veterinary medicine (EARS-Vet)

[10.2807/1560-7917.ES.2021.26.4.2001359](https://doi.org/10.2807/1560-7917.ES.2021.26.4.2001359) – 2021

The Effect of Antimicrobial Resistance Plasmids Carrying bla_{CMY-2} on Biofilm Formation by Escherichia coli from the Broiler Production Chain

<https://doi.org/10.3390/microorganisms9010104> – 2021

Actinobacillus pleuropneumoniae Eradication with Enrofloxacin May Lead to Dissemination and Long-Term Persistence of Quinolone Resistant Escherichia coli in Pig Herds

[10.3390/antibiotics9120910](https://doi.org/10.3390/antibiotics9120910)

Persistence of a stx-encoding bacteriophage in minced meat investigated by Application of an improved DNA extraction Method and digital droplet PCR.

[10.3389/fmicb.2020.581575](https://doi.org/10.3389/fmicb.2020.581575) – 2021

The prevalence and genomic context of Shiga toxin 2a genes in E. coli found in cattle

<https://doi.org/10.1371/journal.pone.0232305> – 2020

blaCTX-M-1/IncI1-ly plasmids circulating in Escherichia coli from Norwegian broiler production are related, but distinguishable

[10.3389/fmicb.2020.00333](https://doi.org/10.3389/fmicb.2020.00333)

Biofilm forming properties of quinolone resistant Escherichia coli from the broiler production chain and their dynamics in mixed biofilms

[10.1186/s12866-020-01730-w](https://doi.org/10.1186/s12866-020-01730-w) – 2020

Comparative genome analyses of wildtype- and quinolone resistant Escherichia coli indicate dissemination of QREC in the Norwegian broiler breeding pyramid

[10.3389/fmicb.2020.00938](https://doi.org/10.3389/fmicb.2020.00938) – 2020

Dissemination of quinolone resistant Escherichia coli in the Norwegian broiler and pig production chain, and possible persistence in the broiler production environment

[10.1128/AEM.02769-19](https://doi.org/10.1128/AEM.02769-19) – 2020

Significant reduction of vancomycin resistant E. faecium in the Norwegian broiler population coincided with measures taken by the broiler industry to reduce antimicrobial resistant bacteria

[10.1371/journal.pone.0226101](https://doi.org/10.1371/journal.pone.0226101) – 2019

Occurrence of and risk factors for extended-spectrum cephalosporin-resistant Enterobacteriaceae determined by sampling of all Norwegian broiler flocks during a six month period

<https://doi.org/10.1371/journal.pone.0223074> – 2019

Occurrence and characterization of quinolone resistant Escherichia coli from Norwegian turkey meat and complete sequence of an IncX1 plasmid encoding qnrS1

[10.1371/journal.pone.0212936](https://doi.org/10.1371/journal.pone.0212936) – 2019

Slaughter hygiene in European cattle and sheep abattoirs assessed by microbiological testing and Hygiene Performance Rating Food Control

[10.1016/j.foodcont.2019.01.033](https://doi.org/10.1016/j.foodcont.2019.01.033) – 2019

Livestock-associated MRSA CC1 in Norway; introduction to pig farms, zoonotic transmission and eradication

<https://doi.org/10.3389/fmicb.2019.00139> – 2019

What does the fox say? Monitoring antimicrobial resistance in the environment using wild red foxes as an indicator

[10.1371/journal.pone.0198019](https://doi.org/10.1371/journal.pone.0198019)

Occurrence of quinolone resistant E. coli originating from different animal species in Norway

[10.1016/j.vetmic.2018.02.022](https://doi.org/10.1016/j.vetmic.2018.02.022) – 2018

Evaluation of a widely used culture-based method for detection of livestock-associated methicillin-resistant Staphylococcus aureus (MRSA), Denmark and Norway, 2014 to 2016

<http://dx.doi.org/10.2807/1560-7917.ES.2017.22.28.30573> – 2017

Imported food and feed as contributors for introduction of plasmid-mediated colistin resistant Enterobacteriaceae to a "low prevalence" country

[10.1093/jac/dkx161](https://doi.org/10.1093/jac/dkx161) – 2017

Hepatitis E in Norway: seroprevalence in humans and swine

[10.1017/S0950268816002144](https://doi.org/10.1017/S0950268816002144) – 2016

CC398 in humans and pigs in Norway: A "One Health" perspective on introduction and transmission

[10.1093/cid/ciw552](https://doi.org/10.1093/cid/ciw552)

Emergence of AmpC-producing Escherichia coli in the broiler production chain in a country with a low antimicrobial usage profile

<http://dx.doi.org/10.1016/j.vetmic.2014.02.002> – 2014

Potentially pathogenic E. coli can produce biofilm under conditions relevant for the food production chain

[10.1128/AEM.03331-13](https://doi.org/10.1128/AEM.03331-13) – 2014

Synthetic brominated furanone F202 prevents biofilm formation by potentially human pathogenic Escherichia coli O103:H2 and Salmonella ser. Agona

[10.1111/jam.12355](https://doi.org/10.1111/jam.12355) – 2014

Occurrence of potentially human-pathogenic Escherichia coli O103 in Norwegian sheep

[10.1128/AEM.01825-13](https://doi.org/10.1128/AEM.01825-13) – 2013

Biofilm as an environment for dissemination of stx genes by transduction

[10.1128/AEM.03512-12](https://doi.org/10.1128/AEM.03512-12) – 2013

Two outbreaks of diarrhoea in nurseries after farm visits

[10.2807/ese.17.47.20321-en](https://doi.org/10.2807/ese.17.47.20321-en) – 2012

Shiga toxin-encoding genes (stx) in human faecal samples in Norway

[10.1111/j.1600-0463.2012.02957.x](https://doi.org/10.1111/j.1600-0463.2012.02957.x) – 2012

No indication of Coxiella burnetii infection in Norwegian farmed ruminants

[10.1186/1746-6148-8-59](#). - 2012

Norwegian sheep is an important reservoir for human pathogenic Escherichia coli O26:H11

[10.1128/AEM.00186-12](#). - 2012

Potentially human pathogenic Escherichia coli O26 in Norwegian sheep flocks

[10.1128/AEM.00189-11](#). - 2011

Pathogenic potential and horizontal gene transfer in ovine gastrointestinal Escherichia coli

[10.1111/j.1365-2672.2009.04575.x](#). - 2010

Experimental infection in calves with a specific subtype of verocytotoxin-producing Escherichia coli O157:H7 of bovine origin

<https://actavetscand.biomedcentral.com/articles/10.1186/1751-0147-51-43> - 2009

Diversity of Escherichia coli O157 in a longitudinal farm study using Multiple-Locus Variable-Number Tandem-Repeats Analysis

[10.1111/j.1365-2672.2008.03856.x](#). - 2008

Is lack of susceptible recipients in the intestinal environment the limiting factor for transduction of Shiga toxin-encoding phages?

[10.1111/j.1365-2672.2008.03845.x](#).

Comparison of E. coli O157 and Shiga toxin-encoding genes (stx) prevalence between Ohio and Norwegian dairy cattle

[10.1016/j.ijfoodmicro.2006.01.005](#). - 2006

Fluctuations in the occurrence of E. coli O157:H7 on a Norwegian farm

[10.1111/j.1472-765X.2005.01673.x](#). - 2005

Animal host associated differences in Shiga toxin-producing Escherichia coli from sheep and cattle on the same farm

[10.1046/j.1365-2672.2003.01964.x](#). - 2003

Serotypes and virulence factors of Shiga toxin-producing Escherichia coli isolated from healthy Norwegian sheep

[10.1046/j.1365-2672.2002.01787.x](#).

Isolation of Shiga toxin-producing Escherichia coli O103 from sheep using automated Immunomagnetic separation (AIMS) and AIMS-ELISA: Sheep as the source of a clinical E. coli O103 case?

[10.1046/j.1472-765x.2002.01161.x](#). - 2002

Shiga toxin genes (stx) in Norwegian sheep herds

[10.1017/s0950268801005751](#).

NORM/NORM-VET annual reports

<https://www.vetinst.no/overvaking/antibiotikaresistens-norm-vet>

MRSA in swine annual reports

<https://www.vetinst.no/overvaking/mrsa-svin>

Screening for antimicrobial- and heavy metal resistant bacteria in copper contaminated areas

ISSN:1893-4536

<https://www.hi.no/hi/nettrapporter/rapport-fra-havforskningen-en-2021-18> - 2021

Antimikrobiell resistens hos dyr og i mat - status i Norge i 2020

https://www.vetinst.no/rapporter-og-publikasjoner/rapporter/2020/antimikrobiell-resistens-hos-dyr-og-i-mat-status-i-norge-i-2020/attachment/download/0c742118-c15b-406a-8368-e7e6a680e140:8d5141959da8af651af8ceea19d589f8286d9cd0/20_2020_Antimikrobiell_resistens_hos_dyr_og_i_mat.pdf - 2020

Antibiotikaresistens - Kunnskapshull, utfordringer og aktuelle tiltak. Status 2020. [Antimicrobial resistance - knowledge gaps, challenges and relevant measures. Status 2020.]

<https://www.fhi.no/globalassets/dokumenterfiler/rapporter/2020/amr-kunnskapshull-rapport.pdf> - 2020

Antibiotic resistance in terrestrial wild mammal species in Norway- roe deer and wild reindeer as indicator species.

https://www.vetinst.no/rapporter-og-publikasjoner/rapporter/2018/antibiotic-resistance-in-terrestrial-wild-mammal-species-in-norway-roe-deer-and-wild-reindeer-as-indicators-species/attachment/download/64496e0e-8615-4ddf-95ff-da7b82fcd573:6cbf798b78f8dbc652d7ba04ee13de0ec3ecb156/2018_6_Antibiotic_resistance_in_terrestrial_wild_mammal_species_in_Norway.pdf - 2018

A survey on methicillin resistant Staphylococcus aureus (MRSA) in mink in Norway 2016

ISSN 1894-5678

https://www.vetinst.no/nyheter/gode-resultater-for-mrsa-overvakingen-i-2016/attachment/download/8ceea1dd-5fa9-48c9-bbd2-b63b78aae4a1:0755f21a44f45f9c0f81eaa05678c04947c98c84/2017_OK_MRSA_Mink_Report_2016.pdf - 2017

Antibiotikaresistens - kunnskapshull, utfordringer og aktuelle tiltak. Rapport fra tverrsektoriell ekspertgruppe, 2014

<https://www.fhi.no/globalassets/dokumenterfiler/rapporter/2014/2014-antibiotikaresistens.pdf> - 2014