



FWD AMR.
RefLabCap

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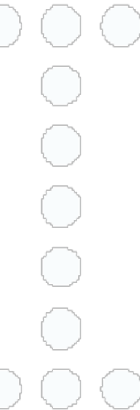


Food- and Waterborne Diseases Antimicrobial Resistance – Reference Laboratory Capacity

FWD AMR RefLabCap

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Provision of EU networking and support for public health reference laboratory functions for antimicrobial resistance in *Salmonella* and *Campylobacter* in human samples

- ❖ The project is run under a contract with HaDEA on behalf of DG SANTE and in close cooperation with ECDC
- ❖ 4-year project: **2021-2024**

- ❖ Contractors:
 - Statens Serum Institut (SSI)
 - Project leader: Eva Møller Nielsen, Section of Foodborne Infections

 - National Food Institute, Technical University of Denmark (DTU)
 - René Hendriksen, Research group for global capacity building

- ❖ Support countries to enhance the **validity and accuracy of surveillance data** in order to inform concerted actions against AMR at EU level and enable better **detection and control of cross border threats** to human health from AMR
- ❖ AMR in *Salmonella spp* and *Campylobacter spp* in human samples
- ❖ Cooperation with ECDC, DG SANTE and when relevant also EFSA and EURLs
- ❖ Participants:
 - Countries participating in the EU Health programme
 - Candidate and potential candidate countries, other funding
- ❖ **Cooperation with ECDC, DG SANTE and when relevant also EFSA and EURLs in the food safety area**
 - **EURL-AR, -Campylobacter, -Salmonella + inter-EURL working group on NGS**

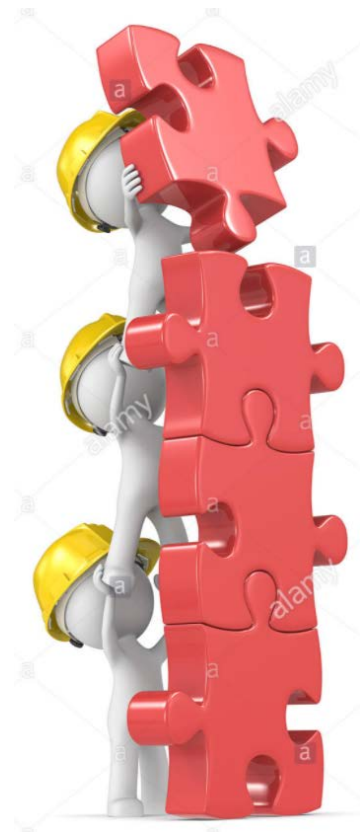
Networking and capacity building activities provided to national public health reference laboratories to improve their functions for AMR surveillance of human *Salmonella* and *Campylobacter* infections

Modernisation of methods for diagnostics, typing and AMR by using whole genome sequencing (WGS)

Activities to support the role of NRLs for public health to work with and **build capacities in the regional and local laboratories** in their own countries

Two pathogens: *Salmonella* spp and *Campylobacter* spp in humans

A specific focus on countries where capacities are less well developed



Training

Methods

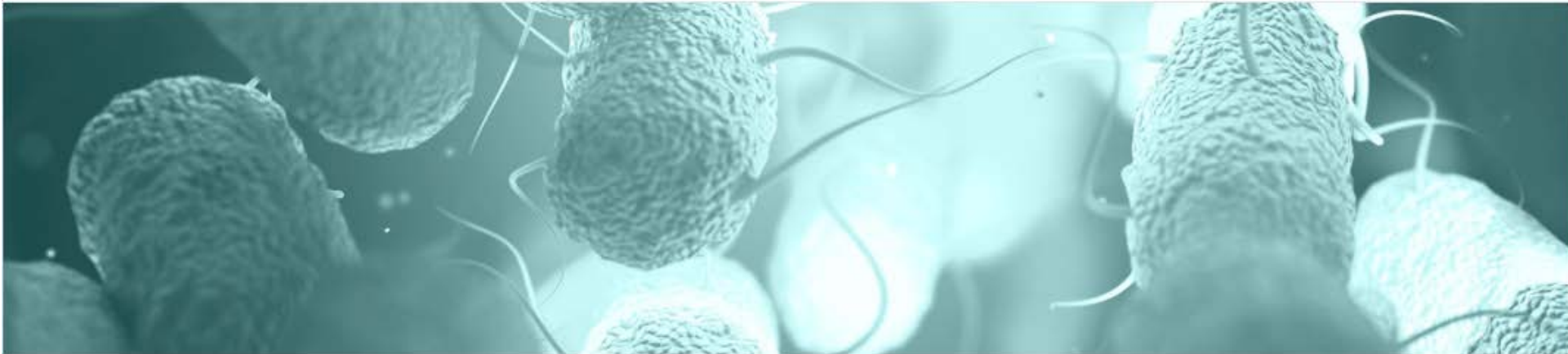
Capacity building

Networking

Network meetings, workshops, online presentations

- exchange of experience, best practice, inspiration
- discussions on NRL requirements, protocols, feedback on activities
- **complementarity with work carried out by the relevant EURLs in the food safety area**

Website: Protocols, guidance docs, training material, links



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News

[7 September - online meeting](#)
26 August 2021

[Welcome to FWD AMR-RefLabCap](#)
12 May 2021

• Minimum and optimal requirements in PH NRL functions

- Recommended coverage of surveillance
- Sampling and testing frequency
- Epi-situations for isolation & referral of isolates from primary to national level
- Methodological and resource capacity and capability requirements at all levels

obs MRSA	mecA	pos	NT	32
obs MRSA	mecA	pos	NT	36
bakteriemi			NT	30
obs MRSA	mecA	pos	NT	32
bakteriemi			NT	32
bakteriemi			NT	33
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obs MRSA	mecA	pos	NT	24
bakteriemi			NT	34
obs MRSA	mecA	pos	NT	28
bakteriemi			NT	32
obs MRSA	mecA	pos	NT	33
obs MRSA	mecA	pos	NT	0
obs MRSA	mecA	pos	NT	32
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• Identify capacity/capability gaps in all countries

- Existing information
- Survey in network



❖ Capacity building activities for all NRLs

- Lab training courses
- Workshops and surveillance exercises on integrated WGS-based surveillance

❖ Tailored support to 'priority countries'

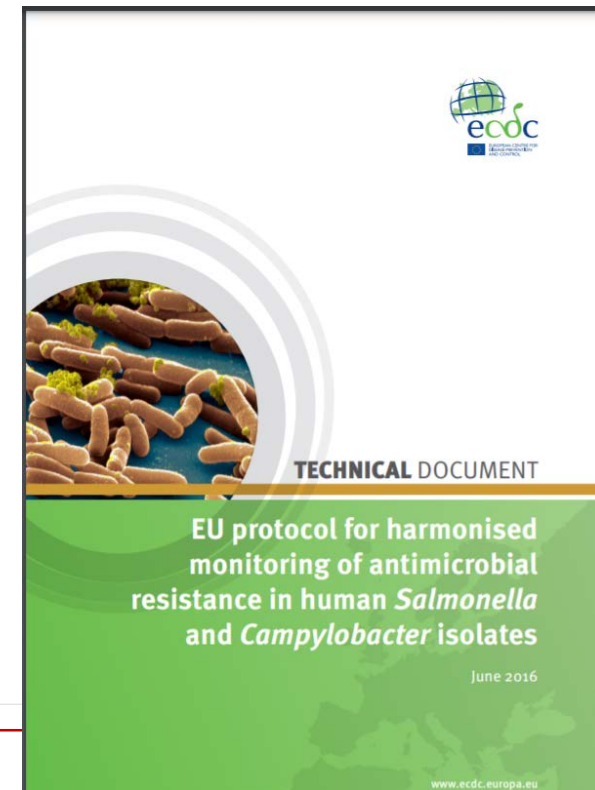
- country visits
- action plans



- ❖ Propose optimal methodologies for AMR detection, integrated into WGS-based surveillance for cluster detection
 - Existing guidance and literature, incl. bioinformatics and databases
 - Seek consensus experts/ECDC/EFSA/EUCAST
 - Set of common methods and standard protocols for national surveillance
 - Agreement in network

- ❖ Any relevant methodologies developed by EURLs shall be taken into account to **ensure complementarity**

- ❖ Review/amend existing EU protocol for AMR surveillance to include genetic AMR determinants



- Multi-disciplinary training workshops and webinars for PH epidemiologists and microbiologists
 - integration of WGS into national AMR surveillance and outbreak investigation
- EQAs of WGS-based resistome profiling
 - 3 rounds for all NRLs
- Inter-laboratory ring-trials of bioinformatics pipelines for prediction of AMR



Home > Life Sciences > Medicine & Healthcare

Antimicrobial resistance – theory and methods

About this course: The course will cover the topics related to antimicrobial resistance with basic definitions and overview on antimicrobials their use and the emergence and spread of resistance. The course will guide you through the concepts and the importance of resistance spread and dissemination and how that happens. It will show you how bacteria become resistant and which mechanisms they might.

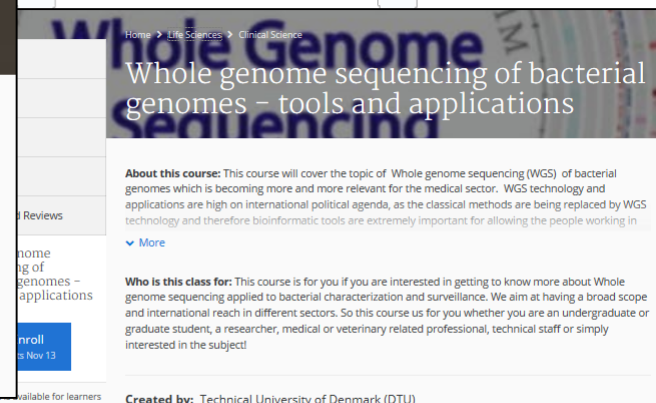
Who is this class for: This course is for you if you are interested in getting to know more about antimicrobials and antimicrobial resistance in bacteria. We aim at having a broad scope and international reach in different sectors. So this course is for you whether you are an undergraduate or graduate student, a researcher, medical or veterinary related professional, technical staff or simply interested in the subject!

Created by: Technical University of Denmark (DTU)

DTU

Enroll Started Oct 30

Financial Aid is available for learners who cannot afford the fee. Learn more and apply.



Home > Life Sciences > Clinical Science

Whole genome sequencing of bacterial genomes – tools and applications

About this course: This course will cover the topic of Whole genome sequencing (WGS) of bacterial genomes which is becoming more and more relevant for the medical sector. WGS technology and applications are high on international political agenda, as the classical methods are being replaced by WGS technology and therefore bioinformatic tools are extremely important for allowing the people working in

Who is this class for: This course is for you if you are interested in getting to know more about Whole genome sequencing applied to bacterial characterization and surveillance. We aim at having a broad scope and international reach in different sectors. So this course is for you whether you are an undergraduate or graduate student, a researcher, medical or veterinary related professional, technical staff or simply interested in the subject!

Created by: Technical University of Denmark (DTU)

DTU

Enroll Starts Nov 13

Financial Aid is available for learners who cannot afford the fee. Learn more and apply.

Support NRLs to build capacities in local/regional labs

- ❖ Support all NRLs in mapping the regional/local labs' capacities for detection and characterization of *Salmonella* and *Campylobacter*
 - Strengths/weaknesses and gaps/further needs for each country
- ❖ Support NRLs to carry out regional capacity building (≥ 16 MSs)
 - Physical and online meetings and workshops
 - Learning material
 - Ongoing individual support
- ❖ Support NRLs to establish national network of labs
- ❖ Model protocol for national surveillance of AMR in Salm/Campy
- ❖ Guidance for internal QC schemes for reference AMR testing





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