

FWD AMR.  
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# Activities related to WGS

Eva Litrup

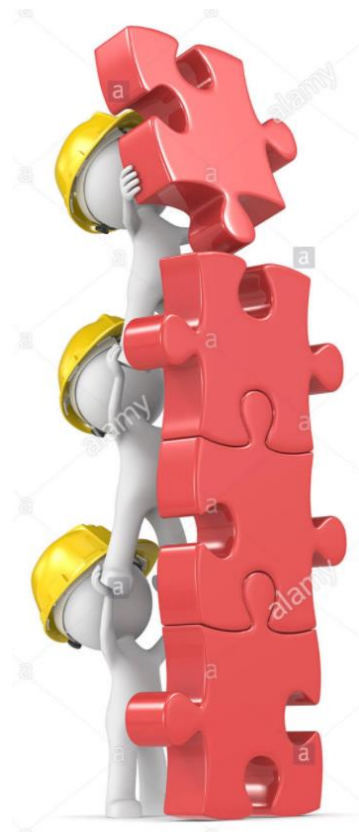
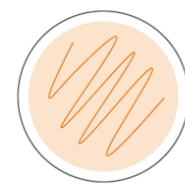
Foodborne Infections

Statens Serum Institut

FWD AMR RefLabCap Network meeting 1<sup>st</sup> December 2021

STATENS  
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INSTITUT





**Training**

**Methods**

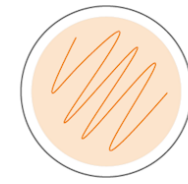
**Capacity building**

**Networking**

## Network meeting

- Great talks
- Good discussions
- Significant interest

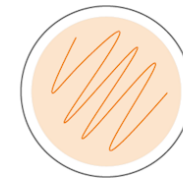
# Propose new methodologies



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- Perform Literature review
  - Bioinformatic methods
  - Databases
  - Relevant development initiatives
- Identify key AMR determinants for detection and surveillance of high risk epidemic clones
- Propose methodologies for AMR detection in routine WGS based surveillance
- Consult network and achieve agreement on proposed methodologies

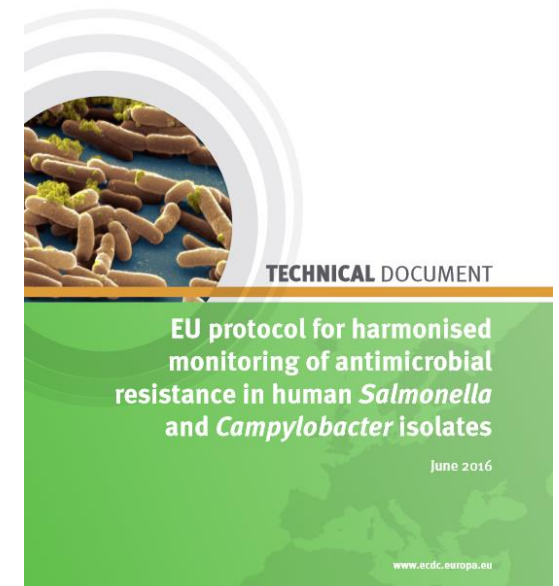
# Review EU protocol



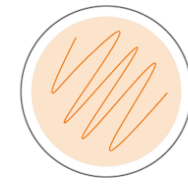
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## Revision of existing EU protocol

- Review existing EU protocol
- Propose amendments – monitoring genetic determinants
- Ensure EURL methodologies are compatible
- Create draft revision
  
- Consultation on draft in network
- Create revised EU protocol



# WGS based EQAs



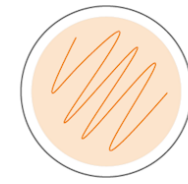
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Conduct three in vitro EQAs in the network

- WGS based resistome profiling
- High-risk clone identification
  
- The purpose is to see if the right genes are detected
- Method freedom – different resources (people and money)
- Answer is important -> communicable, comparable
- Ensure complementarity with ongoing ECDC EQA activities



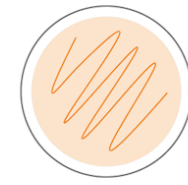
# Ring-trials analysis methods



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Conduct 3 in silico ring trials

- Extremely fast development in this field
- 1<sup>st</sup> round test existing methods/pipelines in labs
- 2<sup>nd</sup> and 3<sup>rd</sup> round executed on a common set of methods and databases
  
- Evaluate pipelines based on
  - Validity of results, correct gene finding is important...
  - Usability
  - Ease of implementation into surveillance of AMR/cluster detection

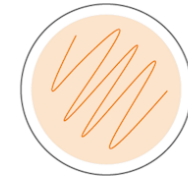


## Question:

- Does your lab have a **workflow for AMR prediction** based on WGS?
  - Yes, run routinely
  - Yes, run ad hoc e.g. projects, outbreaks
  - No



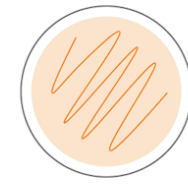
# Discussion meetings



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- Great discussions yesterday -> -> ->
- Short presentation on subject
- Informal discussions – max 1 hour
- We welcome subjects for discussion
- First subject is databases
  - CARD
  - ResFinder
  - AMRFinder Plus
  - Etc..





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Thank you all

Looking forward to collaborations and discussion

