

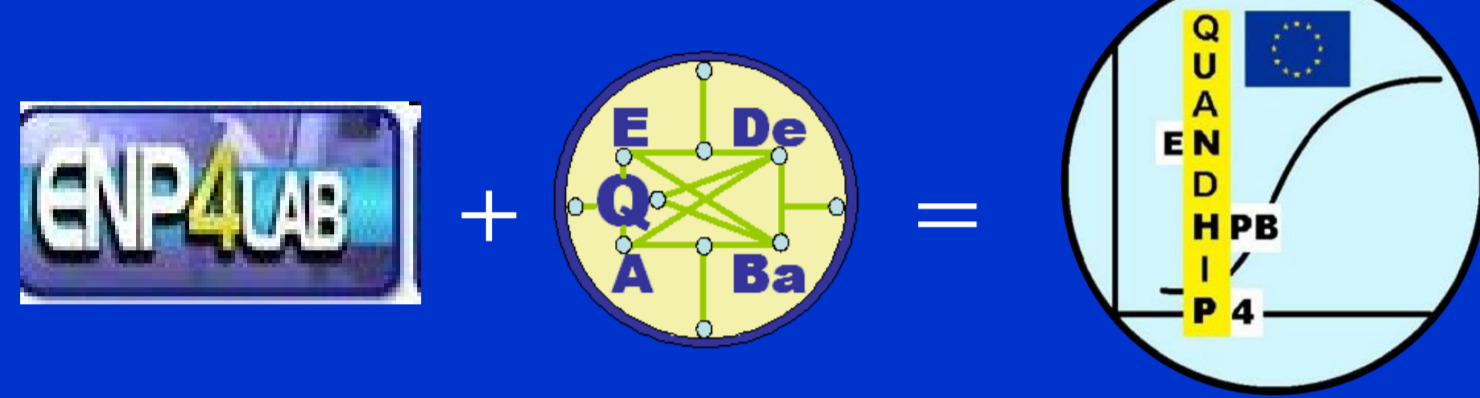
Contribution to a better future for health in Europe through QUANDHIP: Quality Assurance Exercises and Networking on the Detection of Highly Infectious Pathogens

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Objectives

- to link and consolidate the objectives of two existing networks dealing with highly infectious bacteria and viruses that emerged from the EU funded project EQADeBa, coordinated by the Robert Koch-Institut (RKI), Germany, and the ENP4-Lab project, coordinated by the National Institute for Infectious Diseases "L. Spallanzani" (INMI), Italy
- to stabilize both network activities comprising 39 highly specialized and advanced partner laboratories and advisors from 23 European countries
- to ensure the universal exchange of best diagnostic strategies apt to support a European response strategy in case of outbreaks of highly pathogenic infectious agents
- to generate a biodiverse repository of reference materials
- to provide a supportive European infrastructure and strategy for external quality assurance exercises (EQAEs)



Partners

Main Partner / Coordinator: RKI, Germany
Co-Coordinator: INMI, Italy

Associated Partners:

AGES	Austria
VAR	Belgium
FLI	Germany
ISS	Italy
SMI-NIB	Sweden
HPA-NIB	United Kingdom
THL	Finland
NKUA	Greece
NCEBACT	Hungary
NPHSL	Lithuania
NIPH	Norway
PZH	Poland
BIOEF	Spain
RIVM	The Netherlands
IZSPB	Italy
NCIPD	Bulgaria
IMBBw	Germany
INSA	Portugal
SUJCHBO	Czech Republic

IZSLER	Italy
ISC III	Spain
DGA	France
NVRI	Poland
DTU	Denmark
TA	Estonia
LIC	Latvia
BNI	Germany
HPA-NIV	United Kingdom
PUM	Germany
SMI-NIV	Sweden
INSERM	France

Collaborating Partners:

FOCP-NIB	Switzerland
FOCP-NIV	Switzerland
LNS	Luxembourg
CRSSA	France
NCE-NIV	Hungary
DG ENTR	EU

Expected Outcomes

- to ensure and improve citizens' health and to bridge Security and Health by enhancing and optimizing the laboratory capabilities for diagnostics of high threat bacteria and viruses
- to provide sustainability for European capacity and capability building for the detection and identification of highly infectious pathogens based on national and international cooperation
- to ensure European laboratory preparedness to manage natural and intentional outbreaks of high consequence pathogens
- to provide the necessary early response capabilities to support public health authorities, control measures, clinical patient management, and epidemiological and forensic investigations
- to further improve the laboratory preparedness for the diagnostic of highly pathogenic agents of risk group 3 and 4
- to support the coordination of laboratory response to cross-border events dealing with highly infectious pathogens

Horizontal Work Packages

WP 1 Coordination: Actions undertaken to manage the project and to make sure that it is implemented as planned

- Technical coordination and management will be carried out for each network separately by RKI and INMI.
- The two networks on viruses and bacteria will be linked for a close collaboration in case of unknown biological threats.

WP 2 Dissemination: Ensure information flow and access of various developed documents between the partners and for public

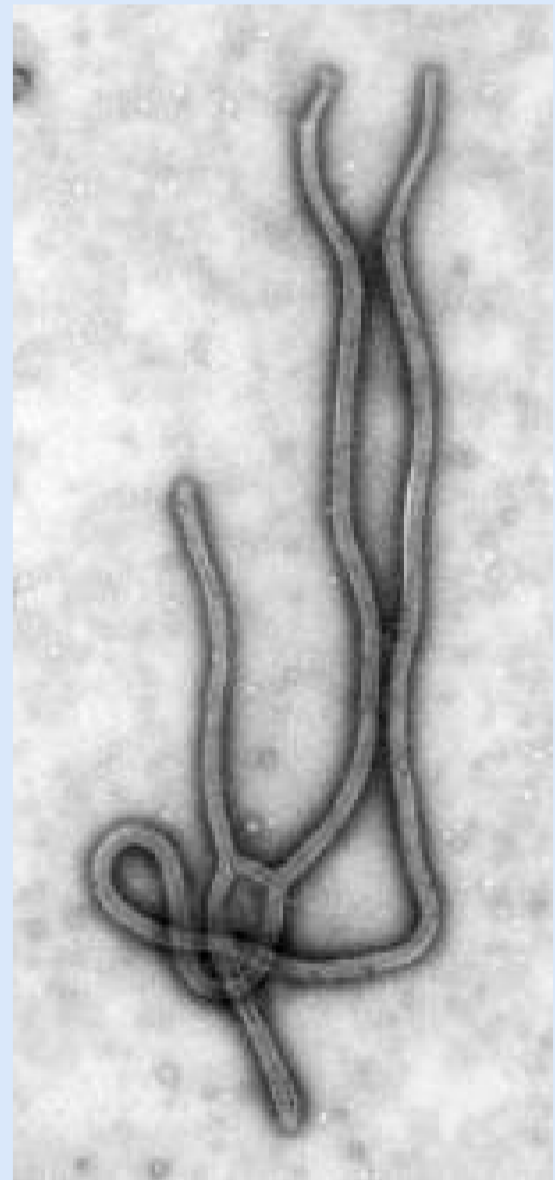
- Development of recommendations, website, publications, leaflets, presentations, meetings.
- The primary target groups will be laboratory workers dealing with the diagnostics of high threat pathogens, biosafety experts, first responders, clinical staff and security forces. The targeted stakeholders will be the EU Commission, national MOH including National (Microbiology) Focal Points (N(M)FP), GHSAG, WHO, ECDC.

WP 3 Evaluation: A continuous evaluation process effected by Advisory Board, steering committee, coordinators and WP leaders

- The Advisory Board will involve representatives from different organizations: ECDC, SANCO C3, DG ENTR, DG HOME AFFAIRS, GHSAG-LN, WHO and EUROPOL.



Mixed bacterial culture containing *Yersinia pestis*



Filovirus (Ebola virus)

Core Work Packages

WP 4 EQAEs „External Quality Assurance Exercises“

Exchanging experiences regarding laboratory preparedness and response capabilities by performing 3 rounds of EQAEs and 6 meetings partly carried out separately for bacteria and viruses.

- Testing the network's capacity for preparedness
- Extended spectrum on viruses (BSL 4 agents)
- Developing „Gold Standard(s)“: Standardised European laboratory diagnostic strategies and reference material
- Establishing data on antibiotic susceptibility of high threat bacteria

WP 5 Repository

Providing relevant and characterized isolates, clinical and environmental samples, for quality control and for validation in the diagnostic process of high infectious agents.

- Extend the bacteria repository at the RKI
- Develop a list of key reference strains of all BSL 4 agents and their location to promote the exchange of all reference strains of all BSL 4 viruses
- Develop and verify quantitative nucleic acid standards for the comparison of different methods and instruments
- Transfer of material assuring security and traceability.

WP 6 Training

Exchange of practical laboratory based training between the JA Partners with regard to best practice including essential elements of biosafety and biosecurity.

- Exchange of bacteriological and virologist expertise
- Best practices in diagnostics, biosafety and biosecurity, management of biological events and risk assessment
- Extension of the existing training list by developing further training programmes
- Experiences of other networks, such as ETIDE and EURONHID, will be involved

WP 7 Biosafety and Biosecurity

Improvement and dissemination of definitive checklists outlining engineering, primary and secondary containment strategies, building design and infrastructure, integrated specialized equipment, disinfection, biosafety and biosecurity issues for risk group 3 and 4 pathogens

- Cross-disciplinary input from other organizations: ECDC, Biosafety Europe, European Biosafety Association and WHO
- Support the setting up or re-evaluation of the BSL 3 & 4 laboratories
- Cooperation with security agencies and bridging of Health and Security



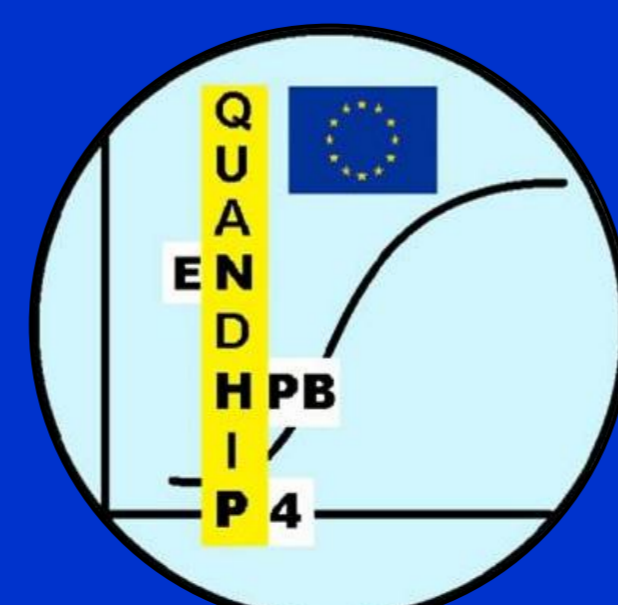
WP 8 Working Group (WG)

Providing recommendations and support with regard to cross-border events with highly infectious pathogens

- Transport of samples
- Collaboration models between highly specialized and routine laboratories, emergency services, clinical settings, Public Health officials, CBRN investigation and forensic operations (SOP: running a BT-sample)
- Promoting interactions within the bacterial and viral networks
- Assessment of existing mobile laboratories and their deployment during outbreak response
- Bridging CBRN investigation and forensic laboratory operations

Deliverables

- Interim and Final Reports including results of the 3 EQAEs
- Repository of risk group 3 and 4 infectious pathogens
- Improved Checklist on biosafety/biosecurity for BSL 3 and BSL 4
- Improvement of laboratory diagnostics by training
- Recommendations to support coordination of laboratory activities for outbreak response



Duration of the project: 3 years
Total costs: 6.631.963 €
EU contribution: 3.315.982 €

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Co-coordinator: INMI

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