

Infectious diseases are a major burden to public health and the global economy, not in the least due to antimicrobial resistance. Rapid point of care (POC) in vitro diagnostics (IVD) are key tools in the effective clinical management of patients with infectious diseases. Yet there is still a large unmet clinical need for more rapid POC IVDs generating more clinically relevant, actionable information. Effectively addressing this need requires a change in the current approach in training researchers on IVDs, generating a new 'breed' of IVD researchers capable of closing the gap between the clinical and technological perspective. ND4ID takes up this challenge by offering early stage researchers (ESRs) a world-class first of its kind training programme where they will be exposed to the full breadth of disciplines spanning clinical, technological and market-oriented viewpoints, from both the academic and non-academic sector. These synergies brought by the ND4ID consortium ensure ESRs that are fully equipped to become future lead players in the field of rapid diagnostics for infectious diseases and even well beyond.

## Innovative research program

The research programme aims to bring an innovative solution to one or more major challenges in current IVDs for respiratory tract infections (RTI), urinary tract infections (UTI), bloodstream infections (BSI) and antimicrobial resistance (AMR)

	Bioassay	Platform	
Advancements in lateral flow assays	KUL (ESR1): highly specific, multiplexable antibodies KUL (ESR4): multiplex LAMP assay	KTH (ESR2): Transparent, polymer based synthetic microfluidic paper KUL (ESR3): digital ELISA platform with improved sensitivity	RTI
Advancements in molecular assays	UA (ESR5): clinically actionable thresholds for UTI diagnostics	KTH (ESR6): Simple (hand-winded) clockwork assay KTH (ESR7): Molecular UTI diagnostic on a DVD platform	UTI
	KTH(ESR8): Sample preparation module for 10 ml of whole blood	SU(ESR9): Isotachophoretically RCA module and nanowire readout	BSI
Advancements in sequencing based assays	BC (ESR10): Cartridge based sequencing BMX (ESR14): laboratory approaches for sequencing-based characterisation of the resistome	BMX (ESR15): bioinformatic tools for sequencing-based characterisation of the resistome	
Advancements in phenotypic assays	UA (ESR11): Digitation of CarbaNP test	CSIC(ESR12): microwell-based MIC using photonic readout EPFL (ESR13): Isothermal nanocalorimetric heat flow measurements	AMR

## Extensive training program

The ESRs are offered a holistic training program. The training-through-research is augmented by a unique comprehensive network-wide training programme covering clinical, technical and translational knowledge and skills of relevance to IVD research, development and exploitation.

## Partners



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## Join our team?

We welcome additional partnerships from academia and industry:

- Discuss an innovative research program
- Suggest a training component
- Join our Advisory Board
- Enrol as an early stage researcher

Within the framework of the project "New Diagnostics for Infectious Diseases", a number of top institutes throughout Europe will jointly hire 15 PhD students who will receive an extensive network-wide training bridging the clinical, biotechnological and technical aspects of diagnostic development.

Want to be a future lead in **NEXT GENERATION DIAGNOSTICS DEVELOPMENT?**

**START NOW AND JOIN OUR TEAM**

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"This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 675412".