

10  
PARTNERS



4 years  
DURATION



5,6 M€  
FUNDING



8  
COUNTRIES



## DIAGORAS OBJECTIVES

The DIAGORAS project aims to develop a **device** that will **speed up** the diagnostic workflow of respiratory tract infections (RTIs) and **reduce the costs** of the current diagnostic procedures. This rapid, highly sensitive and **specific microbiological diagnostic system** will allow general practitioners (GPs) to make more informed and targeted decisions for the correct treatment of patients.

DIAGORAS acts as a **pathogen identification and diagnostic tool**, helping to reduce the risk of healthcare complications and unnecessary, costly treatment. The project will improve the social and economic aspects of community-based RTIs.

## MILESTONES

### EARLY 2017

Biological assays and discs ready as components

### MID 2018

Analytical validation in laboratory conditions completed

### END 2017

System integration of components completed into first prototype

### JUNE 2019

End of the project with clinical testing of the platform



## PARTNERS

- |                        |                         |
|------------------------|-------------------------|
| ① Hahn Schickard       | ⑥ MagnaMedics           |
| ② AIT                  | ⑦ ClinicaGeno           |
| ③ University of Zurich | ⑧ BioVendor             |
| ④ Erasmus MC           | ⑨ SPARKS & CO           |
| ⑤ ASKION               | ⑩ Karolinska Institutet |

## WANT TO KNOW MORE ?

[www.diagoras.eu](http://www.diagoras.eu)

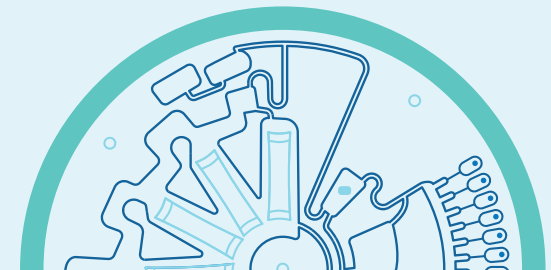
@DiagorasEU



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**Chairside Diagnosis of  
RESPIRATORY  
TRACT INFECTIONS  
for Personalised Treatment**



## CONTEXT

According to the WHO, antibiotic resistance already causes an estimated 700,000 deaths annually and, without effective action, is predicted to **cause 10 million deaths annually by 2050**.

Additionally, respiratory tract infections (RTIs) are among the top reasons for visiting a general practitioner, and one of the **major causes associated with the unnecessary prescription of antibiotics**.

Most antibiotics are **prescribed in primary care**, where the antibiotic prescription rate can approach 76%. Two factors are responsible of this **growing threat to humanity**:

- ▷ In febrile patients, many antibiotic prescriptions are **based on patient signs and symptoms**, and not on accurate clinical evidence-based diagnostics.
- ▷ **Diagnostic uncertainty** is an important factor when prescribing antibiotics to patients.

**Antimicrobial resistance is a global problem that affects all individuals.**

## HIGH SOCIETAL IMPACT

### DETECT RESPIRATORY TRACT INFECTIONS AT THE POINT OF CARE

**REDUCING**

**OVERALL BURDEN TO HEALTHCARE SYSTEMS**

**TIME TO DIAGNOSIS**

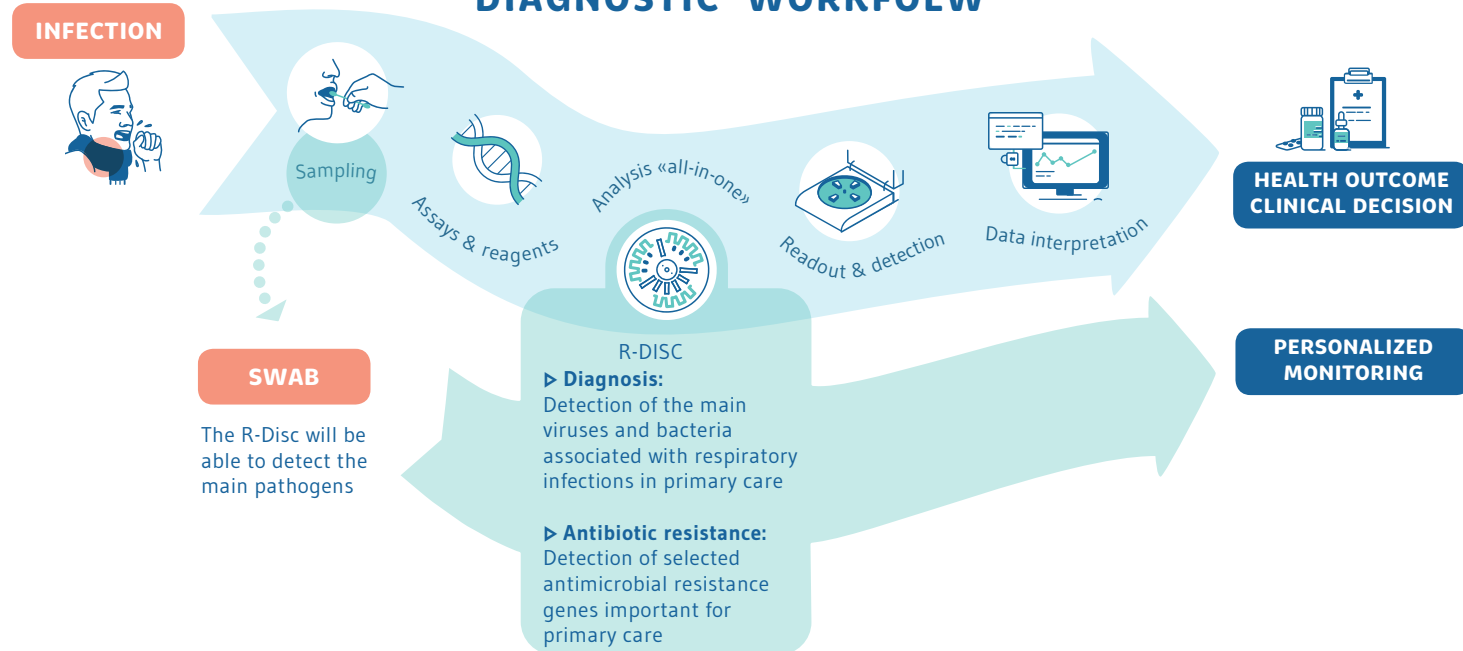
## DIAGNOSIS OF RESPIRATORY TRACT INFECTIONS AT CURRENT

- ▷ Antibiotic prescribing is based on symptomatic, rather than evidence-based diagnosis
- ▷ General practitioners (GPs) obtain pathogen and antibiotic resistance results in ~3 days
- ▷ A CRP test, even at the GP, is not sufficient to differentiate bacterial vs. viral infections

## INNOVATIONS ASSOCIATED WITH DIAGORAS

- ▷ Differentiation of viral vs. bacterial infections by combining molecular biology and CRP tests
- ▷ Samples are tested on a compact platform which integrates a microbiology lab into a disc
- ▷ GPs obtain the results rapidly, on site, and with minimum manual effort

## DIAGNOSTIC WORKFLOW



## DIAGNOSTIC PANEL

### Bacteria

*B. pertussis*  
*C. pneumoniae*  
*M. pneumoniae*  
*S. aureus*  
*L. pneumophila*

*M. catarrhalis*  
*H. influenzae*  
*S. pneumoniae*  
*S. pyogenes*

### Viruses incl. (sub)types, serotypes, lineages

Influenza A  
 Influenza B  
 Respiratory Syncytial Virus  
 Human Metapneumovirus  
 Human Parainfluenza Virus

Human Adenovirus  
 Human Coronavirus  
 Human Rhinovirus  
 Human Enterovirus  
 Human Bocavirus

### Indicative relevant antibiotic resistances

TEM-1, ROB-1, ermB