

# EXHALYZER

Direct Detection of Bacteria from Exhaled Breath

Direct detection | Rapid results | Non-invasive sampling | High resolution

Bacterial pathogens are important causes of severe respiratory tract infections. Early and fast detection of these pathogens will prevent transmission, damage to the respiratory tract and dissemination of the infection to other organs.

## EXHALYZER objectives

- Implementation of a non-invasive sampling method of the lower respiratory tract.
- Diagnostic tests for relevant bacterial pathogens which cause severe lower respiratory tract infections.
- Pre-clinical validation using clinical samples.



The **EXHALYZER** allows detection of respiratory tract infections by exhaling air through a defined lithographically manufactured membrane. Retained pathogenic bacteria are fluorescently labelled and detected using automated fluorescence microscopy.



The **EXHALYZER** will provide a non-invasive, on-site sampling procedure including detection giving conclusive results within 60 minutes.

The **EXHALYZER** supports a rapid and targeted treatment of respiratory tract infections, thereby accelerating the patients' recovery and avoiding empiric antibiotic therapy.

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