

# FOLDABLE PAPER-BASED DEVICE FOR DETECTION OF INFECTION IN BODY FLUIDS

A new and simple foldable paper-based fluidic device (**InfectCheck**), designed with only two foldable sections for an efficient separation and detection of the desired biomarker.

Partners to further develop the system, pre- and clinical validation and/or to establish commercial agreements along with technical cooperation are sought.

## The Challenge

Chronic wounds represent a challenge to wound care professionals and consume a great deal of healthcare resources around the globe. The severity and cost of wound infections increase dramatically the longer they remain untreated. The resulting pain, impairment and social isolation lead to reduced quality of life and, in the worst case, hospitalization, and eventually sepsis and death. Standard procedures for wound infection detection are time consuming (microbiological tests) or show limited reliability due to the subjective judgement. Based on the medical practitioners interests, **InfectCheck** has been developed. of simple point of care testing (PoCT) devices based on the objective

## The Technology

**InfectChek** is a **foldable paper-based fluidic device** for detection of infection-related enzyme biomarkers in body fluids.

InfectChek is designed to implement a **highly specific immuno-capturing** of an enzyme biomarker, followed by fast color development due to the enzyme activity. The colour intensity reveals the state of infection.

InfectChek is **validated for detection of infection in chronic wound exudates and sputum** measuring the levels of myeloperoxidase (MPO) enzyme biomarker.

## Innovative advantages

- InfectChek answers the unmet need for rapid, reliable and inexpensive visual detection of infection.
- InfectChek does not require any instruments and is self-operated by the patient, obtaining result within 5 minutes.
- InfectChek facilitates the implementation of affordable screening programs for infection control in the population at risk.
- Early disease detection allows for efficient therapeutic regimes and shorter hospital stay that improve patients' quality of life and reduces healthcare costs.

## Current stage of development

Laboratory validation. It's required a pre-clinical validation in chronic wound fluids and sputum.

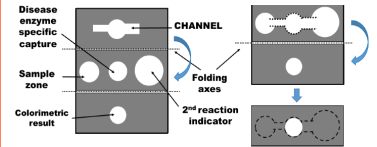
## Applications and Target Market

Fast self-assessment (Rapid Diagnostic Kit) / Point-of-care (PoC) tests for infection in out-hospital conditions, performed by patients suffering from:

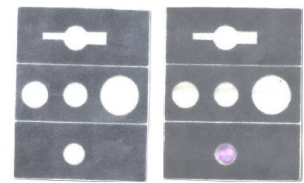
- Chronic wounds
- Chronic obstructive pulmonary disease (COPD)
- Adverse cardiac events

## Reference number

MKT2021/0181\_H



Body fluids: saliva, sputum, sweat, wound exudate, blood



Non-Infected

Infected

## Business Opportunity

Technology available for licensing with technical cooperation

## Patent Status

Priority application

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