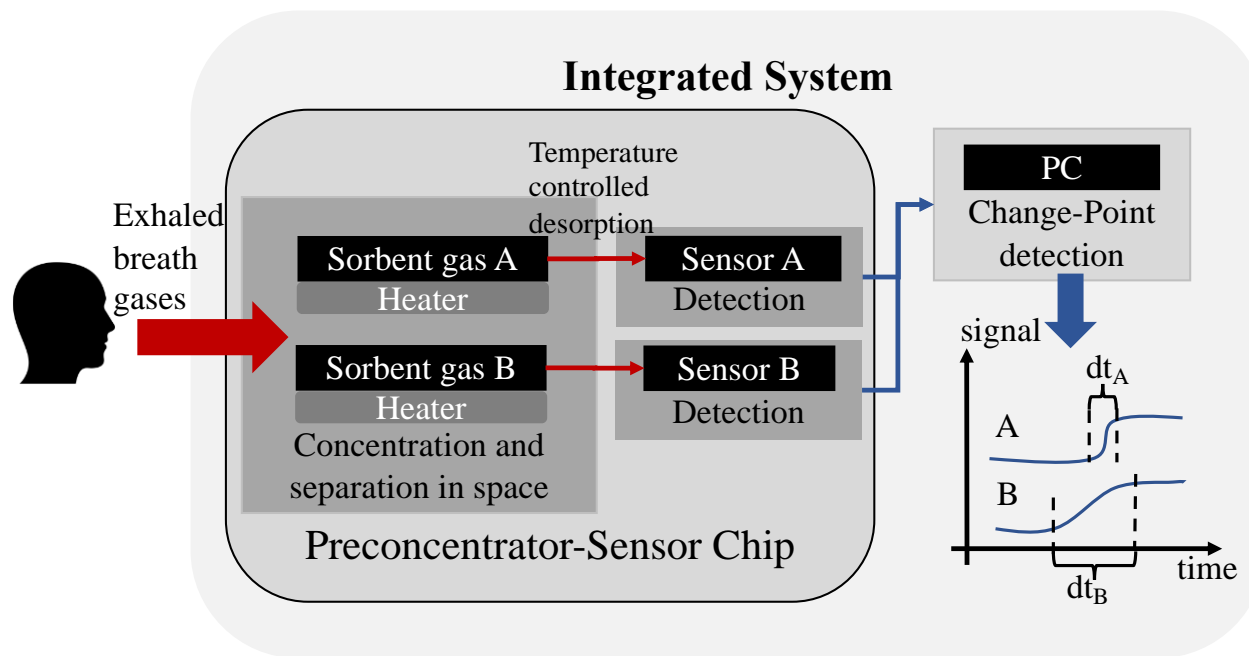




# Sepsis Diagnosis via Integrated Breath Sensing System with Change-Point Detection for Real-Time Point-of-Care (**SepsISensorR**)

11 million people out of which 2.9 million children under 5 years old die from sepsis every year – **one death every 2.8 seconds**.



## › **Project objectives**

- In vitro validation using bacterial cultures.
- In vivo test using exhaled gases from mouse models of sepsis.



# Sepsis Diagnosis via Integrated Breath Sensing System with Change-Point Detection for Real-Time Point-of-Care (**SepsISensor**)

## › **Project team, methodology**

- Multidisciplinary team
  - Dr Christoforos Panteli - Electrical Engineering Imperial College > UCY
  - Dr Chrysafis Andreou - Electrical Engineering UCY
  - Dr Agapios Agapiou - Chemistry UCY
  - Dr Andreas Anastasiou - Mathematics and Statistics UCY
  - Dr Apidianakis - Biology UCY
- Methodology
  - Development and test sensing system with controlled gases.
  - GC-MS analysis of in vitro and in vivo gases.
  - Comparison and improvement of system.

## › **Main project outputs**

- Integrated gas sensing system and its performance characteristics.
- Correlation of gases released by sepsis related bacteria as function of time and amount.
- Correlation of exhaled gases from mouse models as function of time and infection load and type.