

# SMART DOSING FUNNEL FOR COLLECTING A PRECISE VOLUME OF SALIVA



## KEY ACHIEVEMENTS

- Development of a saliva collection kit enabling an **exact 1:1 mixture of saliva and microbial inactivation buffer**
- **Patented technology**
- **Successfully used for SARS-Cov-2 patient testing**
- **Compatible with robotic automation**

## COMPETITIVE ADVANTAGES

- **Smart dosing funnel for precise saliva volume**
- **Immediate in-tube inactivation** of pathogens present in saliva
- **No direct contact** with the inactivation liquid
- **Only 3 steps** from sample collection to ready-to-analyse tube

## INTELLECTUAL PROPERTY

- EP3939700B1 filed in 2020 and granted in 2022
- WO 2022/013235A1 (EP, CA and US)
- Registered design

## PARTNERSHIP SOUGHT

- We are seeking for an industrial or commercial partner interested in manufacturing and/or distributing, under licence, the saliva collection kit

## CONTEXT

The COVID-19 pandemic highlighted the need for rapid and widespread diagnostic testing. In this context **saliva emerged as a convenient biofluid to detect certain pathogens**. However, the volume of collected saliva must be compatible with the predefined amount of inactivation buffer contained in the collection tube. **To ensure fully standardized testing, precise control of saliva volume is essential**. The **University of Liège** (Belgium) has designed and developed a saliva collection kit that meets this requirement.

The kit consists of a tube, an adapter, a dosing funnel, and a push-cap. The tube, which withstands high temperatures, contains 1.5 ml of a liquid that inactivates pathogens and preserves nucleic acids. The adapter screws onto the tube and incorporates a central one-way umbrella-style valve. When the adapter is attached, the valve ensures complete leak-proof sealing, preventing any escape of the inactivation liquid. The dosing funnel is then fixed onto the adapter. This smart funnel features a central cylinder with a volume of 1.5 ml, surrounded by a wide overflow area.

## INSTRUCTIONS FOR USE

The tube, adapter, and dosing funnel are pre-assembled. The push-cap is provided separately.

- **Step 1** : The patient deposits **1,5 ml of saliva** into the central cylinder of the funnel, filling it completely.
  - Any excess automatically flows into the overflow area.
- **Step 2** : The push-cap is pressed into the cylinder to allow the saliva to pass through the one-way valve.
  - The saliva flows into the tube and mixes with the inactivation liquid.
  - The dosing funnel ensures an equal-volume mixture, essential for standardized analyses (e.g., PCR).
- **Step 3** : The funnel is removed.