

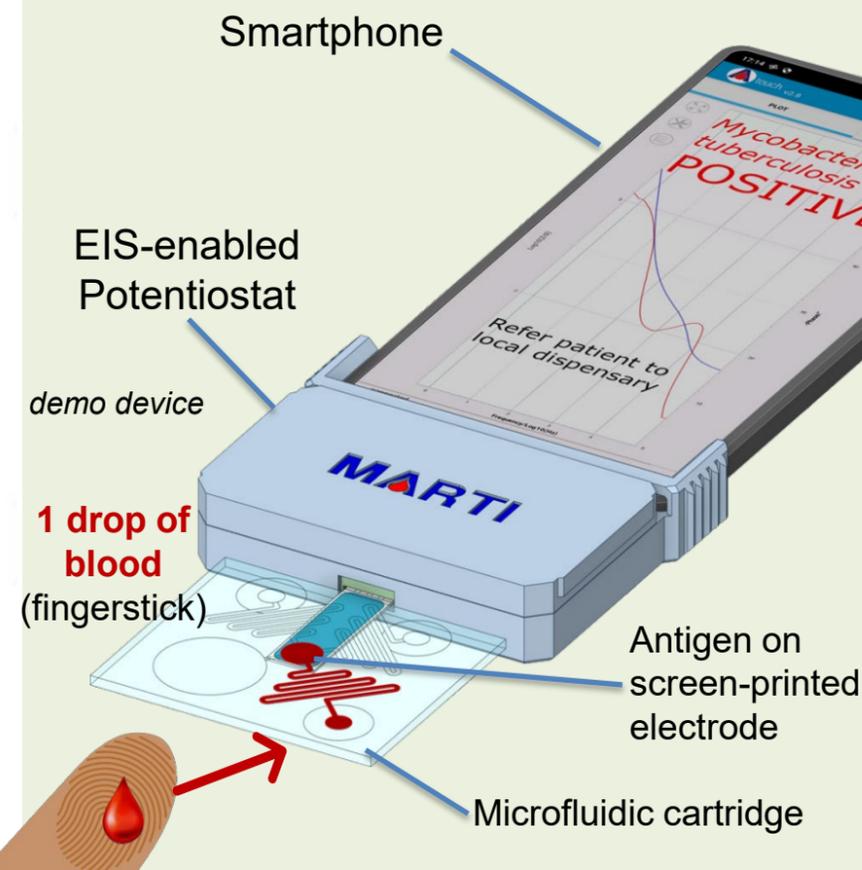
Carl Baumeister [1,2], Mosa Molatseli [1], Thoriso Sesing [1], Nomthanzazo Khuboni [1], Jan Verschoor [2], Gerrie Mostert [2], Bernard Fourie [2], [1] MARTI TB Diagnostics, [2] University of Pretoria

**Objective**

MARTI test was used for monitoring TB treatment efficacy of 75, blinded TB+ samples from the RePORT 1 cohort, before treatment and at 1, 2 and 6-months of treatment in South Africa.

**Methods**

**The MARTI point-of-care device demonstrated**



The **anti-mycolate antibody biomarker** detected by the MARTI test appears to:

1. Correlate well with liquid culture outcome and/or NAAT tests for active TB at baseline (**88% sensitive\***),
2. Be **independent of HIV co-infection**,
3. Produce a **few false negative outcomes** at month 0 that **reverted to TB+** once treatment reduced the antigen overload,
4. **Subside at end of treatment at month 6**, indicating the utility of the **MARTI test to indicate success of treatment**,
5. **Provide accurate diagnostic data** for all patients where sputum sample analysis fails,
6. Be a **suitable solution for paediatric TB**.

\*for TB screening

Funded by: Supported by: UNIVERSITEIT VAN PRETORIA UNIVERSITY OF PRETORIA YUNIBESITHI YA PRETORIA Faculty of Health Sciences

**Data from RePORT 1-UP samples**

Patient # HIV+ *NTM	Sampling month with outcome [LC, XPERT, Burden of Mtb/MARTI ]			
	0	1	2	6
1	LXB / M	LXB- / M	L / M	L / M
2	LXB / M	LXB- / M	L / M	L / M
11	L / M			
14	LX / M	LX / M		
15	LX / M	LX / M		L / M
16+	LB / M	LB- / M		
18+	LB / M	LB- / M	L / M	
24+	L / M	L / M	L / M	
25+	L / M			
7+*	LXB / M	LXB+ / M		L / M
3+	LX / M	LX / M	L / M	L / M
19+	LB / M	LB / M	L / M	
23+*	LB / M	LB / M	L / M	
9+	LB / M	LB+ / M	L / M	ND / M
5	LXB / M	LXB / M	L / M	L / M
17	B / M	LB / M		ND / M

Fig 2: MARTI-results of confirmed TB patients. L=Liquid culture; X=GeneXpert; B+=M. tb Burden increase. B-=M. tb Burden decreased; M=MARTI. TB+ (red); Borderline (yellow); TB- (green).

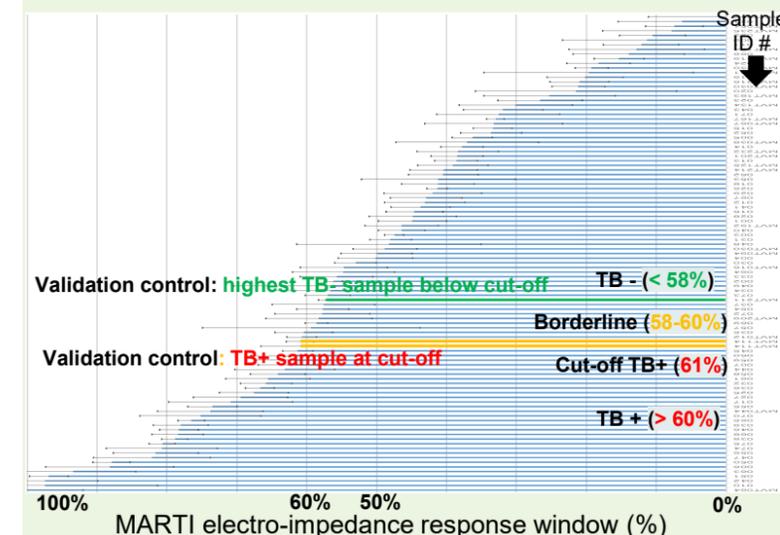


Fig 3: MARTI-results of all RePORT1-UP samples of the CRDF-funded study.