Supporting information

Engineering Steps for Mobile Point-of-Care Diagnostic Devices

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Table T1. List of mobile phone diagnostic studies and their application for diagnosis of different diseases. References are made available here

readout	disease	setting	analytical sensitivity	clinical sensitivity	clinical specificity	ref
colorimetric	measles, mumps, HSV-1/2	laboratory	not discussed	100%, 99%, 100%, 100%	97%, 95%, 100%, 100%	1
	ovarian cancer	laboratory	20 ng/mL	89.5%	90%	2
	ebola	field	200 ng/mL	100%	100%	3
	HIV	laboratory	1 pg/mL	n/a	n/a	4
	UTI,	laboratory	10 CFU/mL	n/a	n/a	5
	red blood cells	laboratory	50 mg/dL	n/a	n/a	6
	zika	laboratory	0.05 ng/mL	n/a	n/a	7
	HIV, TB, malaria	laboratory	not discussed	n/a	n/a	8
	dengue	laboratory	5 nM	n/a	n/a	9
electrochemical	sepsis	laboratory	22 pg/mL	91%	82%	10
	cervical cancer	laboratory	10 amol	100%	92%	11
	HPV	laboratory	50 amol	83−92%	90−100%	12
	HIV	laboratory	48 ng/mL	100%	100%	13
	HIV, syphilis	fi eld	2 pg/mL	100%, 77%	91%, 89%	14
	malaria	laboratory	20 ng/mL	n/a	n/a	15
	malaria	laboratory	16 ng/mL	n/a	n/a	16
	HCV	laboratory	12 pM	n/a	n/a	17
fluorescence	avian influenza	laboratory	8×10^5 PFU/mL	96%	99%	18
	thrombin	laboratory	18 NIH units/mL	n/a	n/a	19
	ebola	laboratory	0.2 ng/mL	n/a	n/a	20
	zika	laboratory	$3 \times x10^4$ PFU/mL	n/a	n/a	21
	CMV	laboratory	1×10^3 PFU/mL	n/a	n/a	22
	HIV	laboratory	17 pg/mL	n/a	n/a	23
	HIV, dengue	laboratory	100 pM	n/a	n/a	24
	E. coli	laboratory	300 copies/pL	n/a	n/a	25
	zika, dengue, chikungunya	laboratory	22 PFU/mL	n/a	n/a	26
	HSV-2	laboratory	−100 copies/pL	n/a	n/a	27
	HIV, HBV	laboratory	1×10^3 copies/mL	n/a	n/a	28

microscopy	Loa loa filariasis	field	3×10^4 mf/mL	100%	94%	[29]
	schistosomiasis	field	not discussed	56%	93%	[30]
	giardiasis	laboratory	1×10^6 cells/mL	n/a	n/a	[31]
	S. aureus	laboratory	50 cfu/mL	n/a	n/a	[32]
	malaria, tuberculosis	laboratory	n/a	n/a	n/a	[33]

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