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Correction: Surface enhanced Raman scattering for the multiplexed detection of pathogenic microorganisms: towards point-of-use applications

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rsc.li/analystCorrection for 'Surface enhanced Raman scattering for the multiplexed detection of pathogenic microorganisms: towards point-of-use applications' by Matthew E. Berry *et al.*, *Analyst*, 2021, DOI: 10.1039/D1AN00865J.

The authors regret that an incorrect version of Table 1 was included in the original article. The correct version of Table 1 is presented below.



Table 1 A summary of the general approaches and studies discussed within this review

SERS approach	Summary	Performance
(1) Label-free detection	<ul style="list-style-type: none"> SERS substrates for the capture of pathogens. Intrinsic vibrational fingerprint of pathogens detected (no Raman reporters used). 	<ul style="list-style-type: none"> Detection of three Gram negative bacterial strains (LOD 10^5 CFU mL⁻¹).⁵⁰ Detection of <i>E. coli</i> and <i>S. aureus</i> in tap water and milk (LOD 10^3 CFU mL⁻¹, 10 min).⁵¹ Detection of multiple bacterial strains (LOD 1 CFU mL⁻¹, 5 min).⁵² Detection of bacterial strains in mung bean sprouts (LOD 10^2 CFU mL⁻¹, 4 hours).⁵³ Sampling and detection of bacterial pathogens from skin wound (LOD 10^6 CFU mL⁻¹, 8 hours (5 min for sampling)).⁹⁹ Detection of meningitis pathogens in clinical CSF.¹⁰³
(2) Microfluidics	<ul style="list-style-type: none"> Sample preparation, reaction, separation and detection integrated into a single device. Supports label-free and label-based detection. 	<ul style="list-style-type: none"> Label-free detection of <i>E. coli</i> and <i>S. aureus</i> in blood (LOD 10^5 CFU mL⁻¹, 100 CFU mL⁻¹ in culture).⁵⁷ Label-free detection of three bacterial strains in serum (LOD 4 CFU mL⁻¹, 15 min).⁵⁹ Label-based detection of <i>S. enterica</i> and <i>N. lactamica</i> using DEP enrichment (LOD 70 CFU mL⁻¹, 10 min).⁶¹ Label-based detection of three bacterial pathogens at millilitre scale in blood (LOD <100 CFU mL⁻¹, 13 min).⁶³ Label-based detection of <i>E. coli</i> using DEP enrichment (LOD 1 CFU mL⁻¹).⁶⁵ Detection of eight foodborne pathogens.⁹⁸ Label-free detection of multiple viral strains in clinical nasopharyngeal swabs.¹⁰⁶
(3) Nucleic acid-based detection	<ul style="list-style-type: none"> Coupling of assays for the detection of pathogenic DNA with SERS substrates. SERS nanotags functionalised with DNA/RNA aptamers. Supports label-based detection. 	<ul style="list-style-type: none"> Detection of meningitis pathogenic DNA (LOD in pM range).⁷² Detection of pathogen DNA in clinical CSF.⁷³ Detection of KSHV and BA DNA using LFA (LOD in fM range).⁷⁴ Detection of <i>S. aureus</i> and <i>S. typhimurium</i> using aptamer-based magnetic sandwich assay (LOD 15 CFU mL⁻¹).⁷⁸ Detection of <i>E. coli</i> and <i>S. aureus</i> using aptamer-based magnetic sandwich assay in urine samples (LOD 50 CFU mL⁻¹, 1.5 hours, 20 CFU mL⁻¹ and 15 min for culture).⁷⁹ Detection of <i>E. coli</i> using aptamers in beef samples (LOD 100 CFU mL⁻¹, 20 min).⁸¹ Detection of influenzae A H1N1 in complex mixtures (LOD 97 pfu mL⁻¹, 20 min).⁸² Detection of DNA from 11 common RTI pathogens using LFA (LOD in fM range, 20 min). Detection from throat swab.¹¹⁰ Detection of <i>S. enterica</i> and <i>L. monocytogenes</i> in milk, chicken and beef using LFA and RPA (LOD 22 CFU mL⁻¹).¹¹¹ Detection of plant pathogens on commercial crops using RPA outside of laboratory.¹¹⁴ Real time detection of MRSA genes using miniaturized PCR system.¹¹⁵
(4) Immunoassays	<ul style="list-style-type: none"> Specific binding of pathogen antigen and antibodies coupled with SERS nanotags. Supports label-based detection. 	<ul style="list-style-type: none"> Detection of Zika and dengue biomarkers using dipstick immunoassay (LOD 0.72 ng mL⁻¹).⁸⁶ Detection of multiple viral strains using magnetic LFA (LOD 10 pfu mL⁻¹).⁸⁹ Detection in blood, serum and sputum (LOD 10^5 pfu mL⁻¹). Detection of three bacterial pathogens using magnetic sandwich assay (LOD 10 CFU mL⁻¹).⁹⁰ Same LODs confirmed on portable system (1 hour).¹⁰⁸ Detection of multiple viral and bacterial pathogens in serum using magnetic sandwich assay (LOD 10 pg mL⁻¹).⁹¹

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

