

Pathogen Detection

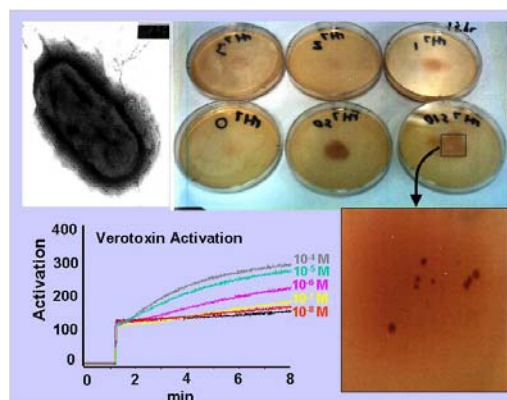
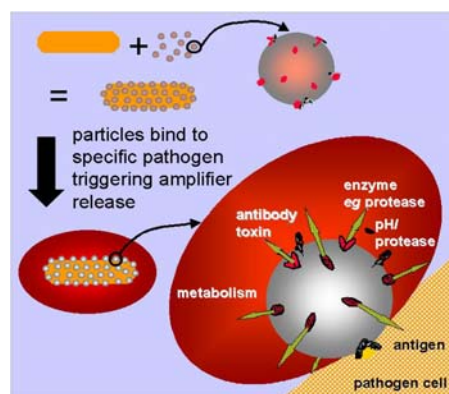
one pot diagnostics * ultrasensitive detection
in vivo diagnostics * drug delivery peptides * liposomes

ABL specializes in “one pot” diagnostics, particularly suited to low-skill strip tests and simple automated assays for complex samples. These include for hormones, drugs of abuse, clinical markers, explosives, pesticides and antibiotics. Reagent integration into small nanometer-sized particles (liposome & peptide assemblies) provides drug delivery and ultrasensitive detection solutions.

Ultrasensitive detection of pathogens, their toxins and antibiotic resistance has been achieved using related technology. Biosensing particles bind specifically to the surface of pathogenic microorganisms where they are triggered to produce easily detected diagnostic signals, including those visible to the naked eye (eg detection of <10 pathogens in 1-2 hours below). Antibiotic resistance and toxins (below) can also be detected rapidly.

ABL's unique technical position is provided by peptides engineered to trigger signal development in small nanometer-sized particle assemblies. The peptides are made specific to particular analytes by simple chemical modifications of the peptides.

Pathogen-sensitized peptides are armed with a second sensitivity allowing them to be switched on or off, to provide preformed particles for simple automation, pre-incubation control, minimization of non-specific background or integration into microelectronic devices. By changing the payload in the assembly, the peptide can trigger development of many different optical and electrical signals. The small size and high stability of the sensing assembly allows penetration into complex samples to target trace analytes *in situ* or report on localized responses on specific binding to pathogens or *in vivo* (eg in tissue, cells).



ABL – Making Rapid Pathogen Detection Possible.

Reagent supply, detection solutions and *licenses available.

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*patents apply WO 98/41535, 99/20252,
99/38009, 02/059147, GB 0311948.4

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