

Fast Diagnostics

The FAST Diagnostics Approach

The diagnostic technology underlying this proposal has the ability to identify any microbial or viral pathogen rapidly and with excellent accuracy. The approach is based on the genetic sequence of the target, does not use PCR, works in a “dirty” background (can do blood or urine directly), screens for more than one organism simultaneously, requires only microliters of material and is adaptable to point-of-care implementation. In addition to direct identification of the infectious agent, the presence of genetic elements identified with antibiotic resistance can also be determined. The technology is also responsive to new threats (e.g. Zika) and can efficiently incorporate testing for such within a few months. Rapid identification of a pathogen will improve treatment protocols (avoid indiscriminate use of antibiotics, for example), reduce morbidity and facilitate focused treatment.