

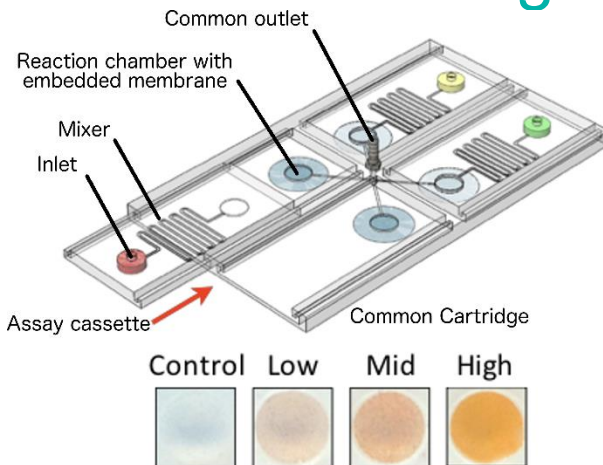
# Technology Licensing Opportunity



**NUS**  
National University  
of Singapore

**NUS**  
Enterprise

## Point-of-care diagnostics



### MARKET OPPORTUNITY

The nucleic acid market is expected to grow beyond US\$4,900 million by end of 2027 with a compound annual growth of 7.5% from 2017-2027. Current detection of pathogen nucleic acids is performed in the centralized clinical laboratories. This is costly, time-consuming and requires trained personnel. Therefore, there is a need for easy-to-use point-of-care diagnostics.

### TECHNOLOGY

This is a novel molecular platform that enables point-of-care visual and modular detection of nucleic acids. It has been clinically validated and shown to perform well against a clinical gold standard test (Cobas® HPV) with a high

detection accuracy of area under the curve = 0.965 for HPV16 and area under the curve = 0.944 for HPV18. Furthermore, by expanding the intra-subtype coverage, it was able to detect infections in samples that were missed by the commercial test.

### STAGE OF DEVELOPMENT

TRL 4

### APPLICATIONS

Initially targeting the markets for diagnosis and screening of infectious diseases. Additional markets can be pursued wherever detection of specific nucleic acids is required:

- Genetic diseases
- Cancers
- Water and air quality monitoring
- Food and agriculture testing

### ADVANTAGES

- Fast (<2 hours)
- Sensitive (<10 amol)
- Cheap
- Can be readily read out with the naked eye and quantified with smartphones.
- With versatile microfluidic design to complement the modular assay, a diverse array of pathogens on demand can be tested with a plug-in system.

### STATUS

Patent pending. Available for licensing and research collaboration.

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