



CRISPRdetect – multiplexed RNA detection with reprogrammed tracrRNAs

Keywords: CRISPR-Cas, RNA detection, diagnostics, multiplexing, point-of-care (POC)

INVENTION NOVELTY

Provided is a scalable RNA detection platform technology that can expand numerous applications of multiplexed diagnostics for clinical testing facilities and point-of-care (POC) testing.

VALUE PROPOSITION

Our ability to improve patient health and treat disease is built around the information we can collect about a person's health status. Diagnostic tests play a key role in collecting this information. However, these tests often can only collect a few pieces of information, limiting insights into health and how decisions are made around patient care. We have developed a new, first-in-class technology platform we call LEOPARD that can collect large amounts of information with a single test. The technology is built around a new discovery in CRISPR biology that we converted into a means to detect large number of RNA transcripts in parallel. LEOPARD has the potential to offer fast and multiplexed readouts with simple machinery that provides immediate advantages over multiplexed PCR, next-generation sequencing, and mass spectrometry. The technology can also be applied for point-of-care testing that could offer the first rapid and multiplexed testing devices that could be used outside of clinical settings

COMMERCIAL OPPORTUNITY

The technology is offered for co-development and/or licensing.

DEVELOPMENT STATUS

Current efforts focus on the development of a multiplexed detection systems based on microarrays and lateral flow strips.

PATENT SITUATION

A European priority application was filed in Februar, 2020, an international PCT-application is pending (WO 2021170877).

FURTHER READING

Jiao et al. 2021. *Science* 372, 941–948

