The University of Nottingham
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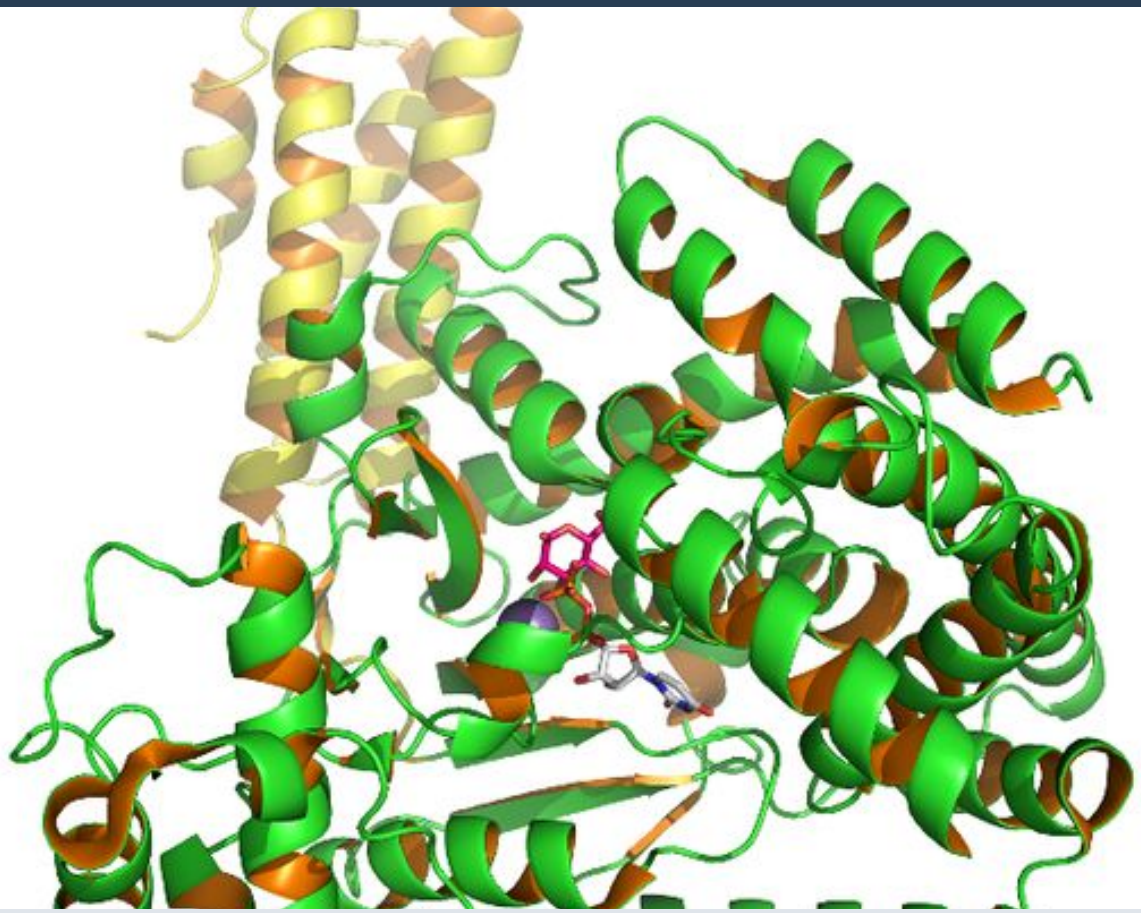
Microarray Assay for Prediction Severe Outcomes in Clostridium Difficile Infection

A novel, CDI assay, enabling treatment stratification for patients with acute infection



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Seeking

Development partner, Commercial partner

About **University of Nottingham**

The University of Nottingham produces world-changing research by focussing on the problems and challenges that affect societies and people on a wide scale. More than 80% of Nottingham research is ranked in the highest categories ‘world-leading’ or ‘internationally excellent’.

Background

Clostridium difficile (CDI) is the leading worldwide infective cause of hospital-acquired and antibiotic-associated diarrhoea, imposing a considerable financial burden on health service providers. In Europe alone, the annual estimated costs for the management of CDI amount to €3Billion. Infection causes a spectrum of clinical presentations, ranging from an asymptomatic carrier state to severe fulminant colitis and death. Management of this infection is complicated due to antimicrobial resistance, recurring infections, and strikingly the inability to reliably differentiate between acute infection and asymptomatic or symptomatic carrier states.

Tech Overview

Researchers at the University of Nottingham have developed and validated a novel, CDI assay, enabling treatment stratification for patients with acute infection. Utilising a number of biomarkers, two prediction tools have been validated. Firstly, the severity of CDI can be predicted and categorised as either Mild or Severe. In addition, a 30-day mortality prediction tool using a number of CDI related toxins and proteins has been developed.

Benefits

- Differentiate between a mild or severe infection state
- Differentiate between symptomatic and asymptomatic carrier states
- Provides a 30 day mortality prediction tool
- Inform treatment options for patients diagnosed with CDI
- Easy to implement micro array type format

Applications

The main application for this technology is in health protection and surveillance. The two assays have been developed to seamlessly integrate into the clinical setting. It is envisaged that this test would be utilised as part of the recommended protocol for testing CD and inform the care pathway.

Opportunity

The microarray assay has been developed and validated. The University of Nottingham is seeking partners to further develop and commercialise this technology.

Patents

- The University of Nottingham has applied for UK patent protection for this technology (Prediction tools for Clostridium Difficile Infection, priority date 28/04/17 UK 1706786.9)