

PHAGE-BASED DIAGNOSTICS AND THE FIGHT AGAINST INFECTIOUS DISEASE

PBD Biotech to speak at Liverpool School of Tropical Medicine anniversary celebrations

As the frequency of extreme events increases so does our collective vulnerability to infectious diseases such as tuberculosis, which is increasingly resistant to antibiotics and spreads during disruption, such as conflict. 2023 marks the 125th anniversary of The Liverpool School of Tropical Medicine (LSTM) an institution dedicated to supporting the tackling of infectious diseases.

As part of the celebrations, on the 23 May a special event has been put together. Partnering with the Science and Technology Facilities Council (STFC – part of UK Research and Innovation) and the infection innovation consortium (iicon) it will look to highlight current innovation capability for tackling infectious diseases and discuss what innovations are needed in the next 25 years to better protect the global community from infectious disease.

Tuberculosis is second only to Covid as the world's most fatal infectious disease and is increasingly resistant to antibiotics. Although often considered a problem of the global south, rates in the UK, Europe and the USA are rising¹. A quarter of the world's population carry the disease, which can be activated when the individual becomes immunocompromised.

The World Health Organisation has a campaign to End TB and rapid detection and identification of the strain of mycobacteria is crucial to achieving this. Jane Theaker of clinical-stage diagnostic company PBD Biotech has been invited to the event to discuss the role of phage-based diagnostics in ending the tuberculosis pandemic.

Phil Carvil, Head of North West Clusters for STFC who is co-coordinating the event says: "The Covid pandemic has shown us the importance of partnerships in tackling major health challenges and also the need to be innovative."

Clusters are growing mechanisms in the UK to aid this need to draw on collective expertise, knowledge, and capabilities to tackle key challenges, both within and between sectors. This event also marks the 4th anniversary of the pan North West of England's Health and Life Sciences Cluster, which was set up to better connect this ecosystem, thereby supporting a multi-disciplinary approach to research and innovation.

He continues: "It is that connectivity between the research and innovation system which is key in order to address these global challenges. Companies like PBD Biotech are forward-thinking looking to tackle key infectious diseases of relevance not only to the global market but also the UK. As such they have sight of current innovation capability within their target market and understand the challenges of getting novel diagnostics out into the field."

Jane Theaker, CEO of PBD Biotech, comments: "Phages have multiple uses in medicine but particularly in diagnostics. As they are specific to a particular bacteria and capable of finding just a few cells of the pathogen in a blood sample, they provide a precise way to identify a disease at a

¹ <https://www.who.int/news/item/14-10-2021-tuberculosis-deaths-rise-for-the-first-time-in-more-than-a-decade-due-to-the-covid-19-pandemic>

very early stage of active infection. Preventative treatment can then break the cycle of infection and this will help us to End TB for good.”

The event ‘2048 - 150 Years of Infectious Disease Research and Innovation’ will take place on 23 May 2023 is jointly hosted by LSTM, iicon and STFC Register at www.eventbrite.co.uk/e/2048-150-years-of-infectious-disease-research-and-innovation-tickets-574397697977

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About PBD Biotech (www.pbdbio.com)

PBD Biotech Limited specialises in the use of novel bacteriophage-based technology. The company has developed proprietary, patented technology that can be used to detect the presence of mycobacteria that cause tuberculosis in humans and animals in a blood sample.

This includes human TB – *Mycobacterium tuberculosis* (Mtb) – where the technology has application as a screening tool.