

- **Sector – Healthcare and life sciences**

QuantuMDx is a life science tools and molecular diagnostics company based in Newcastle upon Tyne, United Kingdom and has designed and developed the Q-POC™ device, a rapid and portable DNA analyser.

- **Technology**

The Q-POC™, compresses a molecular diagnostics laboratory into a single use test cassette accompanied by a simple-to-use, portable, and affordable device. It can be used anywhere from basic ‘under-the-tree’ settings to clinics and hospitals, providing results within 20 minutes.

With its high-quality testing for diseases such as TB and HPV, the battery-operated device aims to bring the power of precision medicine to health professionals globally, enabling patients to be tested, diagnosed and given treatment options in one efficient consultation.

The result is a low-cost personalised health diagnostic for everyone, regardless of who they are or where they live. Not only will Q-POC™ help individuals and communities, it will also empower overburdened healthcare systems worldwide.

- **End users**

The Q-POC™ can be used by frontline health workers (doctors, nurses, pharmacists and community-based clinicians) as well as in established clinical laboratories.

QuantuMDx customers will be public and private sector health care providers, NGO’s and healthcare buyers.

- **Story/Newsy element**

QuantuMDx Group Limited and MolBio Diagnostics Private Limited will announce a Memorandum of Understanding (MoU) at FutureTech Festival.

The two companies will explore and flesh out opportunities for joint working in infectious disease diagnostics, with an initial focus on genotypic drug resistance testing for those infected with tuberculosis.

They will also look to co-develop a robust portable platform for targeted next generation sequencing, initially focusing on the Indian market followed by worldwide release.

- **What do they do?**

MolBio is a molecular diagnostics company based in Goa, India and has developed and commercialised the Truelab™ point-of-care Real Time PCR System and Truenat™ assays for various infectious diseases including tuberculosis.

Molbio developed the Truelab™ technology with its R&D subsidiary Bigtec Labs, based in Bangalore, India. The development was supported by the Government of India under the New Millennium India Technology Leadership Initiative (NMITLI) of the Council of Scientific and Industrial Research, the Biotechnology Industry Partnership Program (BIPP) of the Department of Biotechnology, the Indian Council of Medical Research (ICMR) and Grand Challenges Canada under the Point-of-Care Diagnostics Initiative. Molbio also continues to be supported by FIND under their Support for Success (S4S) initiative.

- **Collaboration**

QuantuMDx and Molbio will investigate the complementary and synergistic nature of their respective technologies, business operations and expertise, with the collective aim of improving healthcare for all, through earlier diagnosis of disease.

They are looking to collaborate on:

- assay development for multi-drug resistant TB
- co- development of a targeted next generation sequencing robust platform
- manufacturing and distribution strategies
- licensing and cross licensing opportunities

QuantuMDx and Molbio are looking to maximise synergies, expand the capabilities of both companies and complement, rather than compete against, each other and seek to address gaps in the provision of diagnostics, as partners.

- **Impact in the UK and India**

Tuberculosis (TB) is one of the top 10 causes of death worldwide.

India has the highest number of TB cases in the world with an estimated incidence figure of 2.74 million cases in 2018 and 410,000 deaths. * There are also an estimated 79,000 multi-drug resistant TB infected individuals among the notified cases of pulmonary TB in India each year. ** India has also established a concerted and focused programme around the elimination of TB.

However, most of these deaths can be prevented by earlier diagnosis and 'right first time' treatment and care management decisions. Currently, there is no full-range diagnostic solution available, which provides information concerning the presence of the infection as well as the potential effectiveness of the various drugs available. By working together, QuantuMDx and Molbio have the potential to address this major gap in providing guided and informed information to clinicians.

The two companies are committed to working together to innovate and develop diagnostic solutions across the TB care management pathway, from screening and detection to a full range of drug resistance testing solutions, all of which provide the information required for guided and personalised treatment.

As a result, they aim to see improved outcomes for patient suffering from the targeted diseases. Individuals will benefit from earlier and precise detection and diagnosis of disease states, earlier access to treatment and right first-time prescribing. In addition, healthcare providers will benefit from enhanced clinical decision making, antibiotic guardianship and clinical efficiencies.

From a commercial perspective, by maximising the market opportunities around TB and additional portfolio development, QuantuMDx and Molbio would expect to see significant global growth for both companies, with resultant job creation not only in R&D, product development and commercialisation in the field of innovation and digital health, but also job creation in manufacturing and distribution, as both companies roll out their joint vision for India and other large global markets.

* <http://www.who.int/>

** www.tbfacts.org: "Global TB Report 2017", WHO, 2017