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Development of a pocket DNA sequencing and MDx device

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The DNA sequencing & MDx fields have seen dramatic advances since the first draft of the human genome was published, with companies reporting ever faster and cheaper methods. However, despite the race to attain the \$1000 genome producing a plethora of exciting technologies, capillary electrophoresis (CE) is still being routinely used for targeted clinical sequencing and expensive real time PCR devices are still the work-horse of the MDx laboratory. QuantuMDx is developing a portable, handheld DNA sequencing device for PGx and infectious disease applications, to provide an alternative to slow and relatively expensive CE DNA sequencing & expensive, slow and lab based MDx & CDx.

Biography

Jonathan O'Halloran is the inventor of QuantuMDx's proprietary sample preparation, amplification and sequencing technologies. Following studying for his PhD in Genomics, he began his career working in pathology laboratories in the UK. During this time he defined the specifications for a POC MDx & Sequencer device, and then built and altered technologies to facilitate his dream in his home garage. This early work was the foundation for QuantuMDx's technology. He spent 2 years in Cape Town, working to develop QuantuMDx's technology in the market that will benefit the most from it. He spent time with frontline health workers, who routinely perform POC Dx, to understand the field. This valuable experience has been channelled into QuantuMDx's device. QuantuMDx has now grown to 40 people, with a research base in Newcastle, UK and offices in USA and Singapore.

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