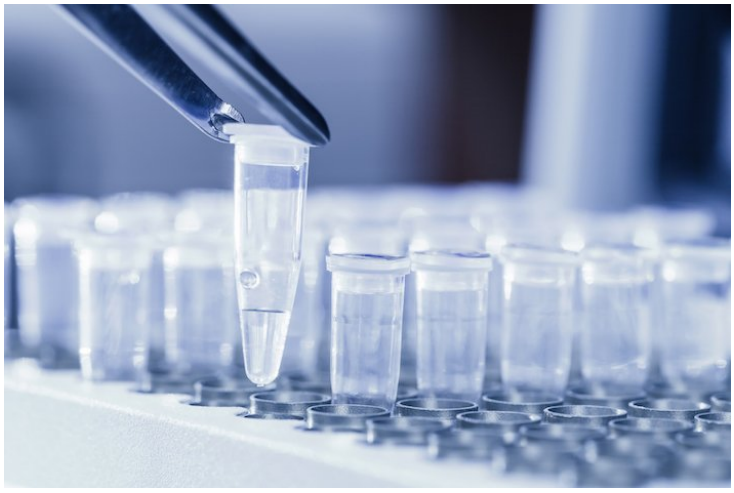
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Japanese firm Shimadzu invests in ChromaCode for developing scalable PCR technology

June 8, 2023 | News

Shimadzu will support ChromaCode's business and contribute to the development of cancer and infectious diseases testing technologies



Japan-based Shimadzu Corporation has invested in ChromaCode Inc., a US-based startup with technology to expand genetic testing, through its corporate venture capital (CVC) fund, Shimadzu Future Innovation Fund L.P. (Shimadzu FIF). This is Shimadzu FIF's first investment.

ChromaCode is a startup that expands the number of target genes available in existing polymerase chain reaction (PCR) with its proprietary reagents and analysis software to enable high-precision multiplex PCR (High Definition PCR, HDPCR). PCR is a technique that replicates and amplifies DNA with specific genetic information to test for the presence of a target gene. ChromaCode's HDPCR is a platform technology that can be applied to a wide range of genetic tests, including cancer and infectious diseases, and is expected to expand the scope of PCR testing.

Next-generation sequencers (NGS) and PCR are used to select the best treatments for diseases with genetic abnormalities, such as cancer, from the DNA sequences that make up an organism's genetic information. NGS can perform comprehensive genomic testing, but it is expensive and can take up to several days. On the other hand, PCR enables faster testing with low cost, but it can measure only 3Ã¯Â½Å¾5 target genes at a time.

ChromaCode's proprietary reagents and analysis software enable HDPCR, which expands the number of genes that can be measured simultaneously by a factor of 4Ã¯Â½Å¾10, providing low-cost and fast testing in 24 hours.

Shimadzu has contributed on the prevention of the spread of COVID-19 with PCR detection reagent kits and “AutoAmp”, a fully-automatic PCR testing device. Shimadzu FIF has invested in ChromaCode, which has the potential of innovative PCR extension technology. With this investment, Shimadzu will support ChromaCode's business and contribute to the development of cancer and infectious diseases testing technologies.