



Rapid 2D Barcode Rack Scanners help lower the cost of COVID-19 PCR Testing

Ziath reports how its super-fast 2D barcode rack readers are **assisting leading COVID-19 testing lab** – SummerBio LLC (Menlo Park, California, USA) to offer rapid, low-cost, high-volume testing solutions for educational organizations, employers and laboratories



Bildunterschrift: COVID-19-Probenverfolgungslösungen von Ziath

SummerBio

was conceived during the early stages of the COVID-19 pandemic in the USA, to combat expense and slow turnaround times of existing PCR testing. The company was formed by a group of life science automation industry veterans with decades of experience building and operating large-scale laboratory robotics. SummerBio's investment in automating the RT-PCR testing process has enabled them to become one of the top COVID-19 testing labs in California in less than 1 year.

Dave Scheinman,

President of SummerBio said "In the early days of the pandemic everyone was scared – do I, have it? do you, have it? We felt that if we could get people the information to know what their COVID-19 infection status was quickly, they could make informed decisions" His co-founder, Sasha Seletsky commented "We really wanted to enable high volume, low cost and fast turnaround COVID-19 testing to make it suitable for surveillance testing. To date SummerBio has processed more than 7 million tests during the pandemic including a peak of 1,000,000 a day during August 2021. Through clever use of automation, we have driven down the cost per test to less than \$10".."

Their robotic liquid handling cells

use a bespoke 2ml cryotube, developed in Korea, housed in boxes of 100 which allow very high levels of automation to process these racks at speed. Key to this automation is four Ziath Cube 2D barcode rack readers which can image a full rack of 100 tubes and read out all the barcodes in a little over 1 second. This means that SummerBio can quickly and reliably track each box of COVID-19 patient sample tubes throughout the whole testing process. For the RT-PCR step, licenced from Columbia University, the samples are robotically decanted into 96 position tube racks that are compatible with the 96-well PCR plates used in the final analysis. Here, a set of Ziath Mirage readers are used to control the flow of racks through the workstations. Any positive samples identified by PCR can then be withdrawn from the 96 well racks using a pair of Ziath Mohawk tube pickers to make tube selection quick and easy. By grouping the positive samples together into a daughter rack, a confirmatory PCR



can be run if required. Beneficially the Ziath Mirage can again be used to prepare the pick lists and confirm which tubes are in the re-test racks..

For further information

on rapid low-cost, high-volume SARS-CoV-2 testing solutions please visit

<https://www.summer.bio/covid>.



For further information

on rapid and reliable 2D barcode rack scanning and tube picking solutions please visit www.ziath.com or contact Ziath on +44-1223-855021 / +1-858-880-6920 / info@ziath.com.

Ziath Ltd.

Founded in 2005, Ziath specialises in development of innovative instrumentation control and information management products using 2D Data Matrix bar-coded tubes to simplify automation processes in life science organisations, from academia, to the biotech and pharma industries.

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