tpr

Two-Photon Research

Press Release
for immediate release

For further information contact:
Maks Wulkan
Phone: +1 (802) 777-4480
mwulkan@twophotonresearch.com
www.twophotonresearch.com

Aptamer-based diagnostic platform granted US Patent

The first use of aptamers to detect viruses and other pathogens.
The platform provides a basis for an accurate COVID-19 test.

Montreal (QC), April 22, 2021 – Two-Photon Research announces the grant of

a patent "Pathogen Detection Using Aptamer Molecular Beacons Using a Mobile

Device" by the US Patent and Trademark Office (patent no. US 10,927,404 B1).

The patent was awarded within sixty days of the application.

The invention is based on the field of aptamers, short molecules complementary

to the protein and other molecular sequences, that are well suited for finding and

binding to target sequences with very high specificity and affinity.

The Aptamer Molecular Photonic Beacon™ (AMPB) starts emitting photons once

it binds to the target molecular sequence and is stimulated by the smartphone's

flash. To be distinguished from the flashlight, the AMPBs emit light at a different

wavelength. The smartphone's camera sensors are used to detect the presence of viruses and other pathogens.

The first embodiment of the patent is the CAST COVID-19 Test. CAST provides accurate results from a saliva sample in seconds.

"This diagnostic platform has the potential to change the way we test for viruses and other pathogens" says Najeeb Khalid, the company's CEO and one of the co-inventors. "By simply changing the aptamer, tests for HIV, Zika, Influenza, Lyme and Legionnaire's disease, along with tests for future coronavirus and its mutations, will be realized."

For more information visit www.twophotonresearch.com/news/cast

# # #

About Two-Photon Research Inc.

Two-Photon Research Inc. explores photons to create a wide range of innovative applications. The company's research and development cover photonics, optics, wafer processing, micro packaging, pathogen diagnostics, mechanical design, precision motion systems, systems design and software engineering.