

Hemex Health

NIH Awards Prize to Hemex Health’s Non-Invasive Sickle Cell, Malaria, Anemia Rapid Test (“SMART”) Diagnostic Technology

PORTLAND, OREGON – OCTOBER 26, 2020 – Researchers from Hemex Health, Medtronic plc, Case Western Reserve University, and the University of Nebraska Medical Center’s International Foundation Against Infectious Disease in Nigeria (IFAIN) were awarded 3rd place and \$100,000 in the [NIH Technology Accelerator Challenge](#). The competition was sponsored by the National Institute of Biomedical Imaging and Bioengineering (NIBIB) of the National Institutes of Health and the Gates Foundation.

According to the NIH, the purpose of the challenge was to “spur the development of platform concepts and prototypes of non-invasive, multiplexed diagnostic technologies for sickle cell disease, malaria, and anemia -- diseases with high global and public health impact.”

“Our developers and advisers believe that rapid, non-invasive, ultra low-cost diagnostics will enable entire communities to be screened, helping to eliminate malaria and to diagnose children with sickle cell disease and anemia early enough to get them started on treatments before they become seriously ill,” said Patti White, Hemex’s CEO.

Code named, SMART (Sickle, Malaria, Anemia, Rapid Test), the system includes non-invasive diagnostics for sickle cell, malaria, and anemia. The project seeks to build on Hemex Health’s Gazelle® platform, which currently includes minimally invasive tests (using a drop of blood) for malaria, the detection and quantification of hemoglobin variants, as well as for total hemoglobin for anemia determination. The non-invasive test will screen for anemia, malaria, and sickle cell disease using an optical finger sensor similar to the way blood oxygen is measured. An advantage of combining the non-invasive and minimally invasive diagnostics is, when needed, more diagnostic information and confirmation is available on the same platform. The goal is a one-minute, \$0.25 non-invasive malaria, sickle cell, and anemia test.

“The world desperately needs easy-to-use diagnostic technologies with the flexibility needed to meet viruses and diseases in every corner of the planet,” said Ms. White.

About the Gazelle Platform

Hemex's Gazelle platform quickly and affordably diagnoses multiple diseases at the point of need. The first commercialized tests include malaria and sickle cell disease, and soon to be released, anemia. Gazelle Malaria returns accurate results in about a minute. Gazelle Hb Variant identifies and quantifies hemoglobin disorders such as sickle cell disease in eight minutes.

The platform is designed to meet the rugged demands of low resource settings. Gazelle is portable, battery powered with a cell phone charger, and provides digital data storage and transmission.

About Our Partners

Development of the SMART diagnostic technology requires collaboration with academic and industry partners. The team from Medtronic, the global leader in medical technology with expertise in pulse oximetry and cerebral oximetry, will provide the non-invasive technology and prototypes, and will drive the non-invasive testing. The team at Case Western Reserve University (CWRU) is a leader in sickle cell diagnostics, anemia, and red blood cell characteristics in microcirculation. CWRU has been a key partner in developing Hemex's minimally invasive tests for malaria, sickle cell, and anemia. IFAIN works to improve the quality of life of children in Nigeria, and the rest of the world, by reducing the burden of infectious and related diseases.

About Hemex Health

Hemex Health develops and commercializes diagnostic technologies that help make affordable life sustaining medical care possible for people everywhere. The company targets some of the world's most deadly diseases, including malaria, sickle cell disease, and COVID-19. The Gazelle technology was developed in collaboration with Case Western Reserve University.

Hemex excels at creating high quality accurate rapid diagnostic products that are affordable and easy to use. Hemex is also partnered with the [Novartis Biome](#) in creating innovative digital health solutions for sickle cell disease.

HemexDx, a subsidiary of Hemex Health, is located in Mumbai, India. More information can be found by going to www.hemexhealth.com.

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