"Over the Air" Software Upgrade from Hemex Health Means Earlier Diagnosis for the over 80 Million People in the World Affected by Beta Thalassemia

( November 16, 2021 – Portland, Ore., and Mumbai) Hemex Health announced a major enhancement to its Gazelle platform that allows its Hb Variant test to detect beta thalassemia disease and trait in addition to sickle cell disease and trait. The enhanced Hb Variant test detects beta thalassemia with accuracy close to the standard laboratory tests HPLC and capillary electrophoresis. Unlike lab tests, which cost tens of thousands of dollars and carry a high cost per test, the Gazelle reader from Hemex Health costs about the same as an iPhone and testing costs only a few dollars.

Installed base Gazelle devices will be updated automatically with the expanded capabilities. Gazelle devices already in use for testing for sickle cell disease and trait will be updated automatically with the expanded capabilities. The upgrade transforms the Gazelle platform into the world’s first complete, low cost, on-site, rapid testing (8-minute) solution for beta thalassemia.

“Beta thalassemia can be a very serious disease that often goes undetected before it is too late in India and many other parts of the world,” said Tulika Seth, MD, Founding Trustee and Professor of Hematology at All India Institute of Medical Sciences, New Delhi. “Early diagnosis at the point-of-care means that children’s lives can be saved, and the condition managed, if it is caught early enough.”

“Young adults especially need to understand their status before marriage since they may carry the trait,” said Dr. Tulika Seth. “The affordability and convenience of a point-of-care test will provide easier access so millions of couples can make informed reproductive choices, ensure appropriate maternal care, and facilitate diagnosis in infants.”

Additionally, serious conditions can occur when the gene for beta thalassemia combines with another abnormal hemoglobin gene.

"Because testing for beta thalassemia is unavailable in many places, people who are carriers are not diagnosed," said Professor Kwaku Ohene-Frempong, President of the Sickle Cell Foundation of Ghana and Program Coordinator for the National Newborn Screening Program for Sickle Cell Disease. "Most carriers of beta thalassemia are asymptomatic and not detectable by simple hemoglobin identification tests such as hemoglobin electrophoresis."
“However, if their reproductive partner has the sickle gene, they can have a child with sickle/beta thalassemia, a type of sickle cell disease. Detecting beta thalassemia is essential for proper genetic counseling about sickle cell disease,” said Professor Ohene-Frempong.

Approximately 1.5% of global population are carriers of beta thalassemia (about one out of every 66 people), with the highest prevalence areas stretching from the Mediterranean to southeast Asia, according to a study published in the Mediterranean Journal of Hematology and Infectious Diseases. A rapid, low cost, highly accurate testing technology has never been available to most at-risk populations.

“By combining affordability and on-site accessibility with gold standard-level performance, Gazelle provides a major new weapon for use in areas of the world with high prevalence of beta thalassemia,” said Patti White, CEO of Hemex. “Before Gazelle, lab-based, high volume batch testing, with its slow turn-around time, was the best option. But it was unavailable to many people.”

Gazelle makes simple programs such as school screenings possible so that hemoglobin disorders can be detected more widely. The sensitive detection and precise quantification of variants allows Gazelle to detect beta thalassemia in babies as young as six months, and sickle cell in newborns as early as 37 weeks gestation.

“We see this new capability from Gazelle as another example of how Hemex is empowering the frontlines of healthcare,” said Ms. White.

About Gazelle

Gazelle is a compact, rugged, battery-operated diagnostic device. Gazelle can be used inexpensively, with no cold chain requirements, by entry level healthcare workers in areas with limited access, resources, or electricity. Patient information and results are captured digitally for storage, printing, or later transmission. Gazelle is approved for detecting malaria and sickle cell disease in a growing list of countries, and integrates miniaturized versions of trusted technologies, innovative optics, and artificial intelligence. This versatile approach allows the company to continually add diseases to its menu of tests and expand to new users. Gazelle is an accurate and rapid digital platform that can work about anywhere in the world. With its affordable, compact, and rugged design, and all-day battery power, it delivers powerful, rapid diagnostics to more places without the need for a cold chain--from remote, low-resource settings, to drive through testing, border crossings, or nursing homes. Gazelle is approved for testing SCD in India, Ghana, Kenya, Tanzania, United Arab Emirates, Bahrain, and Kuwait and has CE mark. More information about Gazelle is available at https://hemexhealth.com/products.

About Hemex Health

Hemex Health breaks traditional barriers with its innovative diagnostic system that expands the potential of diagnostics for emerging diseases, making accurate tests accessible to new locations and new populations. Hemex Health designs diagnostic technologies for the real world by listening to the needs of healthcare providers including those in some of the most remote and challenging settings. The Gazelle technology was developed in collaboration with Case Western Reserve University. Hemex Health is located in Portland, Oregon, USA. 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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