

**Pre-qualify the GeneSTAT® Disease Analyzer**  
for the Global Malaria Action Plan (GMAP) for Control, Elimination and  
Eradication of malaria. (An NGO's advocacy for a new and improved diagnostic tool)

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*CORE-Uganda's advocacy and support of pre-qualification of the GeneSTAT® Disease Analyzer is an extension and continuance of the organization's efforts in the global fight to control, eliminate and ultimately eradicate malaria from the planet. CORE-Uganda is noted for its open support of the World Health Organization's work, especially WHO's re-introduction of DDT into the Global program against malaria. It is known for its advocacy and IEC initiatives within the context of Uganda's Ministry of Health National Malaria Control Program.*

CORE-Uganda, as a community-based organization support of the DxNA manufactured device, the GeneSTAT® Disease Analyzer, as a frontline malaria diagnostic tool in the detection of malaria infection, is based on a human-rights advocate's perception, and is driven by four (4) basics assumptions:

1. that the device is in harmony with the *Roll Back Malaria (RBM) Partnership Global Malaria Action Plan* vision and objectives “for a substantial and sustained reduction in the burden of malaria in the near and mid-term and the eventual global eradication of malaria in the long-term, when *new tools* make eradication possible”. We present the GeneSTAT® Disease Analyzer as one such *new tool*.
2. the GeneSTAT® Disease Analyzer delivers the most consistently accurate, fastest, easy to use, portable and reliable diagnosis of disease.
3. in addition to its portability and ease-of-use, the device and its attendant technology is affordable and can be used in conjunction with, or supplementary to currently accepted, though less predictable and accurate, diagnostic tools.
4. accurate, rapid and reliable diagnosis not only make sense, medically, but is also **a basic human right**, and leads to proper treatment and costs saving.

#### GeneSTAT® Disease Analyzer and Global Malaria Action Plan (GMAP)

Medicine and diagnostics are used for malaria case management, and while malaria can be confirmed by parasitological diagnosis with either microscopy or rapid diagnostic tests (RDTs), neither is as accurate or as sensitive as the PCR delivered by the DxNA device.

The GMAP research and development initiatives specifically call for the development of *new tools* to support initiatives to control malaria in endemic and epidemic situations. The delivery of “portable” PCR, with remote transmission capabilities, via the DxNA device, is one such tool. The Analyzer qualifies as a new and improved anti-malaria intervention by virtue of its portability (it can be run powered by a car battery), and point-of-care diagnostic facility. It can help to minimize the risk of emergence of drug-resistant malaria (especially artemisinin-resistant malaria) and insecticide-resistant mosquitoes, by providing consistently accurate diagnosis, which makes appropriate treatment possible.

Additionally, the PCR delivered by the DxNA GeneSTAT® Disease Analyzer is a valuable tool that supports interruption of transmission as its can target asymptomatic populations who, in actuality, are undetected carriers. The device uncovers them at low infection densities that can not be detected by a microscope or RDTs.

There is a registered belief that there exist a large “pool of blood”- populations infected with very low levels of *P. falciparum* and *P. vivax* that go undetected by conventional means (i.e. microscopy and RDTs), but cause the spread of malaria. Since infection in this “pool” is undetected, it goes untreated. With detection made possible by PCR delivered by the GeneSTAT® Disease Analyzer, this pool of undetected “carriers” can receive treatment at the correct dosage levels. Without detection and treatment they continue to spread infection and progress and reduction in transmission is possibly reversed.

The National Malaria Control Program administered by the Ministry of Health in Uganda is experiencing measured success in lowering the morbidity and mortality rates in some districts that are using a combination of interventions. Now, when a person comes into an up-country clinic with a fever, the doctor can no longer prescribe an ACT because there is a likelihood that the patient is not infected with malaria. With a portable PCR device, the doctor can, within minutes, determine whether or not malaria is present and, treat accordingly.

PCR is the best technology to detect Plasmodia; the GeneSTAT® Disease Analyzer, using PCR, diagnoses on the spot, accurately, rapidly, easily and cost-effectively to under-served populations.

### CONCLUSION

The GeneSTAT® Disease Analyzer by DxNA is a logical and timely addition to the Global Malaria Action Plan. It can play a pivotal and vital role in the mission to control, eliminate and eradicate malaria, ultimately achieving zero transmission. The WHO team, tasked with saving lives today and preventing deaths tomorrow can not hesitate, but must act swiftly to pre-qualify this important and essential addition to the arsenal.

Roll Back malaria defines elimination as “reducing to zero the incidence of locally acquired malaria infection in a specific geographic area as a result of deliberate efforts, with continued measures in place to prevent re-establishment of transmission”; and eradication as the permanent reduction to zero of the global incidence of infection caused by Plasmodia as a result of deliberate efforts, so that intervention measures are no longer needed. The expert consensus, according to RBM, is that elimination and eradication of malaria will require *new tools*.

Let us give the countries’ national malaria control programs the best, relevant and effective tools available. Help strengthen their systems. Give them the GeneSTAT® Disease Analyzer. Pre-qualify the device.

## CORE-Uganda

The Congress of Racial Equality – Uganda (CORE-Uganda) was chartered as a NGO under Ministry of Internal Affairs in February 2006. Congress of Racial Equality-Uganda is an “exempt organization” as defined under section 2(bb)(i)(B) of the Uganda Income Tax Law. It is a community-based, non government organisation (NGO), charitable, educational and of a public character, dedicated to the promotion of racial equality and well being of all the people in the Great Lakes region and other parts of East Africa through the achievement of political, economic, health, cultural and educational equality.

*CORE-Uganda’s activities are riveted to the United Nations Millennium Development Goals (MDGs), the eradication of poverty and hunger; universal primary education; gender equality and the empowerment of women; the reduction child mortality; improvement of maternal health and combating infectious diseases.*

CORE-Uganda operates with the consent and policy guidance of the Congress of Racial Equality (CORE), a United States-based human/civil rights organization founded 67 years ago at the University of Chicago..

CORE-Uganda’s activities are possible with the support and cooperation of key stakeholders as partners as the World Health Organization (WHO) Global Malaria Program, the Ministry of Health, Republic of Uganda, Malaria Consortium, Roll Back Malaria, Uganda Peoples Defence Forces (UPDF), Africa Fighting Malaria (AFM), the Ugandan business community, and USA-based donors.

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