

## *Genomic Approaches Toward Malaria Control, Surveillance and Elimination Workshop*

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**WHY:** The National Malaria Control Program in Zambia has made important strides in scaling up malaria control interventions, reducing the malaria burden, and developing advanced surveillance systems for establishing malaria free zones. The latest National Malaria Strategic Plan 2011-2015 calls on the Ministry of Health and partners to establish at least two malaria free zones in Zambia by 2013 and an additional three zones by 2015.

This push for malaria elimination comes with the recognition that the success of malaria control efforts and improvements in malaria surveillance has resulted in distinct malaria epidemiological zones throughout the country. Improving malaria surveillance, especially parasitologically confirmed diagnoses, helps the control program to better understand levels of transmission intensity where malaria is still a serious problem, and foci of transmission where malaria is in pre-elimination or elimination phase.

**WHAT:** Organized as two distinctive training sessions, the *Genomic Approaches Toward Malaria Control, Surveillance And Elimination Workshop* will provide didactic and practical training in malaria epidemiology, transmission, and genomics toward control, surveillance, and elimination of malaria. The training workshop will be taught by a range of experts from the Ministry of Health, academic and field-based research institutions and is specifically designed for individuals with diverse backgrounds and broad experiences in malaria control and elimination in Zambia.

**Didactic Training (January 7 & 8):** Participants will gain knowledge of key principles and approaches in malaria epidemiology and transmission specific to Zambia and surrounding region. The role of genomics and genomic tools to assess changes in malaria transmission and to improve malaria surveillance will also be examined.

**Practical Laboratory Training (January 9 & 10):** In addition to basic computational skills for data analysis, participants will gain hands-on training in genomic laboratory techniques for malaria surveillance and elimination, including:

- sample-processing methods (e.g. DNA extraction and quantification, and PCR for assessing multiplicity of infection and drug resistance marker determination);
- training in novel genotyping technologies (e.g. real-time and high resolution melting technologies for quantification of parasite material from patient samples);
- genotyping of specific parasite types using a molecular barcode; and
- drug resistance marker analysis.

**WHO:** Participants must be nominated by their primary organization/institution to attend the following workshop training sessions:

- **Didactic Training** is intended for individuals who are working in malaria control activities and/or involved in malaria control and eradication research activities.
- **Practical Laboratory Training** is intended for individuals currently working in a laboratory setting and seeking to advance research efforts to support malaria control and surveillance toward elimination in Zambia over the next 2 – 5 years.

**WHERE:** National Malaria Control Centre in Lusaka, Zambia

**WHEN:** Didactic Training – January 7 -8, 2013  
Practical Laboratory – January 9-10, 2013