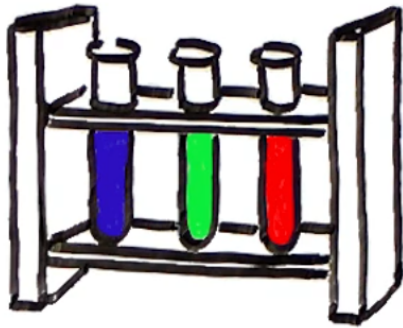


Good Laboratory Practice for Vector Control Product Testing in Africa

Graham Small, IVCC

New vector control products are urgently needed to maintain the enormous gains we've recently seen in the battle against malaria and to move us towards malaria eradication

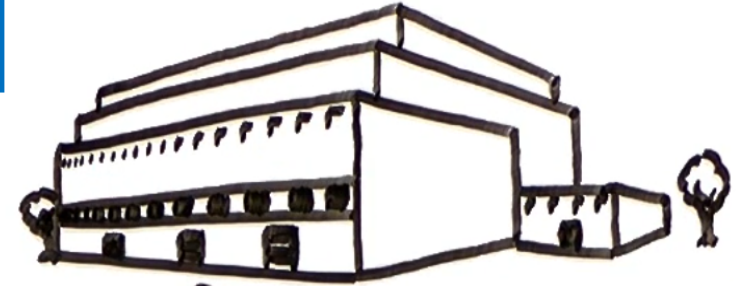


IVCC is partnering with industry to develop new products containing novel insecticides to which there is no existing insecticide resistance

Our Network of Collaborating Trials Sites in Africa



Vital to the development of these new vector control products is our network of collaborating trials sites in Africa



The trials sites help us to evaluate the products by conducting studies against local mosquito populations in the environments where they will actually be used

The Need for Quality Management Tools at Trials Sites

This is important because data generated in these studies are used by manufacturers to support regulatory submissions for product approvals



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However, until recently, lack of quality management systems at these trials sites made it impossible to determine whether studies had been conducted correctly, without significant deviations from study protocols



The GLP Certification Project

To address this, IVCC initiated a project in 2016 to support a network of 7 African trials sites towards Good Laboratory Practice (GLP) certification

Through implementing quality management systems for GLP compliance, the sites will be able to generate data that are:

- Reliable
- Repeatable
- Auditable



GLP certification will mean that these African trials sites will be able to generate test data that will be recognised by scientists and regulatory authorities worldwide

Collaborating African Trials Sites Participating in the GLP Project



Approach to GLP certification of African trials sites

In addition to funding the GLP certification process, IVCC has also made funds available for the infrastructure improvements necessary for full GLP compliance



Impact of infrastructure improvements – KCMUCo-PAMVERC, Tanzania



Example - Insectary Improvements

Before



- Cages made of iron bars- easy to rust and tear netting, many escapees
- Shelving rusted and dirty- habitat for spider nests
- Floors cement/dirt, walls painted cement- unhygienic
- Netting loose and holed / no cleaning routine

After



- Local cages replaced with BugDorm cages - plastic and easy to clean/ machine-wash, fewer escapees
- Shelving improved - easy to sterilize
- Floors and walls tiled - more hygienic, cleaning routine established with staff
- Daily cleaning routine established

Example - Insecticide Testing Facility Improvements

Before



- Benchtops porous and desks used as lab benches- unsuitable for nature of insecticide-testing
- Temperature monitoring devices not externally or internally verified
- Equipment not properly serviced
- Decontamination procedures not in place

After



- Benchtops made of non-porous material suitable for insecticide-testing
- Verified Refrigerators/Incubators monitored in real-time by data loggers during experiments
- Equipment serviced and calibrated
- Staff trained in decontamination

Training of staff at collaborating African trials sites



IVCC has also run 4 GLP training workshops (1 in the UK and 3 in Africa) and has funded specialist training in quality assurance and GLP compliance of data management systems



Current status of GLP certification in Africa



Facility	Country	Region	GLP application	GLP certification
KCMUCo-PAMVERC, Moshi (in collaboration with LSHTM)	Tanzania	East Africa	—	GLP Certified, April 2017
Centre de Recherche Entomologique de Cotonou (in collaboration with LHSTM) (CREC-LSHTM)	Benin	West Africa	—	GLP Certified January 2019
Ifakara Health Institute, Bagamoyo and Ifakara Branches (IHI)	Tanzania	East Africa	Q2 2019	Q4 2019
National Institute of Medical Research (NIMRI), Muheza	Tanzania	East Africa	Q4 2019	Q2 2020
Centre Suisse de Recherches Scientifiques en Côte D'Ivoire (CSRS), Abidjan	Côte D'Ivoire	West Africa	Q4 2019	Q2 2020
Institut Pierre Richet (IPR)/Institut National de Sante Publique, Bouaké	Côte D'Ivoire	West Africa	Q4 2019	Q2 2020
Institut de Recherche en Sciences de la Santé (IRSS)/Centre Muraz, Bobo-Dioulasso	Burkina Faso	West Africa	Q2 2020	Q3 2020

IVCC's GLP certification project has helped:

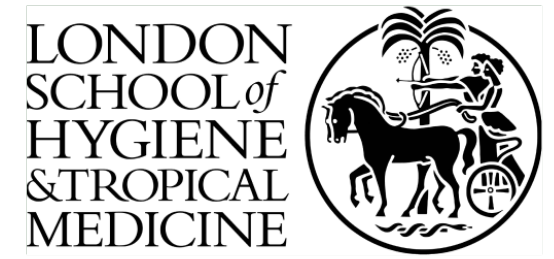
- Provide GLP certified testing services to our industry partners to evaluate their vector control products for submissions to WHO PQT-VC and regulatory authorities
- Widen the network of collaborating trials sites that IVCC and our industry partners can work with to evaluate products during development
- Strengthen research capacity at an institutional level at the trials sites, but also at individual (staff) and systems (networks) levels (**please see our poster**)
- Support the African sites to develop business management skills, a business action plan and progress indicators for long-term sustainability of GLP certification

Acknowledgments



- The Bill & Melinda Gates Foundation
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- Fred Yeomans (i2i)
- John Parker and John Doe (Parker Doe Partnership) & Bob Taylor

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