

News

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Worldwide experts meet in Liverpool to share progress in vector control



Disease control experts, scientists, academics and representatives from some of the world's leading industrial companies converged on Liverpool for two days of discussion, debate and information sharing on all aspects of vector control. The event, hosted by IVCC, took place at Jury's Inn on the historic Liverpool waterfront on 15th and 16th June.

IVCC's two Expert Scientific Advisory Committees, which meet every six months to review projects, held meetings at the beginning and end of the week, allowing for two stakeholder days in the middle of the week which all representatives from both the sides of IVCC's operations attended.

Dr Tom McLean, IVCC's Chief Operating Officer said: "Our Public Health Products and Interventions Consortium experts had the opportunity to learn more about each others' projects, to meet the project leaders and to talk vector control with some of the leading figures in academia and industry. Similarities, synergies and opportunities are much easier to uncover when meeting face to face, indeed the IVCC has always encouraged the insecticides and information systems portfolios to inform and support each other. Bringing together a host of experts from both sides of our endeavours with the international sector expertise of our ESACs creates a unique opportunity for formal and informal high-level information sharing, and it is this that has made stakeholder days so successful."

Dr Christian Lengeler from the Swiss Tropical Institute gave the keynote address on large scale trials of vector control interventions and the generation of key public health evidence. Many of the individual public health products and information systems projects were highlighted in talks and poster presentations, with time for questions, discussions and networking.

Stakeholder day keynote address



The keynote address for the crossover day was given by Professor Christian Lengeler, Head of the Health Interventions Unit at the Swiss Tropical and Public Health Institute.

Professor Lengeler mapped out what large scale vector control interventions needed to demonstrate and how evidence for effectiveness of interventions had changed over time.

In his presentation, he examined the cost of generating reliable evidence for new vector control interventions, setting the expense against the likely cost benefit of reviewed evidence generating policy at global and national level.

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Tackling the growing threat of insecticide resistance



Insecticide resistance among vector species is recognised as one of the key threats to malaria control in Africa and newly published research has demonstrated resistance to DDT and pyrethroids in *Anopheles funestus* populations in East Africa for the first time.

Resistance is already well documented in southern and West Africa but this research indicates that resistance in *An. funestus* may be more widespread than previously assumed.

The IVCC is tackling the resistance threat by facilitating development work to bring forward three new

active ingredients unaffected by current resistance mechanisms by 2020. A combination of data mining rescreening programmes and molecular design projects is building a wide candidate base from which these new active ingredients can be developed.

As well as new AIs, IVCC is also supporting the development of a new kit which will enable resistance in mosquito populations to be determined quickly, cheaply and reliably.

The Vector Population Monitoring Tool (VPMT) is a simple molecular biology kit enabling scientists to reliably identify species, infection status and the presence of insecticide resistance genes and will provide information previously only available through complex laboratory investigation.

VPMT technology is already being used in some areas, and is continually being expanded to cover more species and more resistance mechanisms.

Janet Hemingway admitted to National Academy of Sciences



IVCC's Chief Executive, Professor Janet Hemingway, has been elected to the National Academy of Sciences (NAS), one of the highest scientific honours in the United States.

Professor Hemingway, elected as a foreign associate for her excellence in original scientific research, joins renowned former members such as Albert Einstein, Robert Oppenheimer, Thomas Edison and Alexander Graham Bell. There are currently just over 2,000 active NAS members and 380 foreign associates, of which nearly 200 have won Nobel prizes.

Commenting on her election, Professor Hemingway said: "It is a great honour to be formally recognised by the Academy for my work in the control of malaria and other vector borne diseases. This also reflects well on the large numbers of collaborators nationally and internationally who have worked with me over the years."

Insecticide Quantification Kit (IQK) scope expands



IVCC is supporting the development of kits that will determine the insecticide level in nets and on treated surfaces, ensuring continuing protection without the need for complex and expensive bioassay setups.

Simple and cost effective test kits for cyano-pyrethroids and DDT are nearing the end of field testing in Africa and we will soon be ready to start trials on a new test that will be able to assess levels of carbamates and organophosphates for the first time.

Our work with stakeholders and end users has demonstrated that there is a high demand for such a test, especially with increased use of bendiocarb as a vector control product.

"Early results from the first field tests are encouraging and are generating considerable interest," explained Andrew Spencer, IVCC's Business Development Manager.

"The addition of carbamates and OPs to IQK's functionality will make cheap and reliable insecticide level testing available in all vector control scenarios."