

GALVmed is a not-for-profit global alliance of public, private and government partners. By making livestock vaccines, diagnostics and medicines accessible and affordable to the millions for whom livestock is a lifeline, GALVmed is protecting livestock and improving human lives. It is currently funded by the Bill & Melinda Gates Foundation and the UK Government's Department for International Development (DFID).



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Courtesy Call to the Deputy Chairperson African Union Commission, Addis Ababa- Ethiopia



Dr Peter Jeffries shaking hands with H. E Mr Erastus Mwencha (centre), Deputy Chairperson of the African Union Commission, while Dr Hameed Nuru, Senior Director for Policy and External Affairs looks on. The Deputy Chairperson has long been interested and engaged with GALVmed activities, supporting the Alliance since 2009. A courtesy call was paid recently introducing the new CEO and keeping H.E Mr Mwencha abreast of GALVmed activities on the continent. The Deputy Chairperson expressed gratitude to GALVmed and made particular mention of the success of the African Union Centre for Ticks & Tick-Borne Diseases (AU-CTTBD), Malawi.

Consortium to advance research into a CBPP vaccine for sub-Saharan Africa

Work is to begin exploring the potential efficacy of a vaccine to combat one of the most serious diseases inhibiting cattle production in Africa. Over \$1.2 million USD of funding has been granted by the Bill & Melinda Gates Foundation to evaluate the Chinese developed BEN-1 vaccine as an effective control tool for Contagious Bovine Pleuropneumonia (CBPP) in sub-Saharan Africa.

The Harbin Veterinary Research Institute (HVRI), subordinated to the Chinese Academy of Agricultural Sciences (CAAS), is the lead Grantee in a consortium which includes PANVAC, CIRAD, ILRI and GALVmed. The work will be undertaken in China, Ethiopia, France, Kenya, the UK and Zambia. GALVmed will act as the coordinating partner and oversee the provision of expertise for the safety and efficacy studies.

CBPP is a highly infectious disease of cattle caused by *Mycoplasma mycoides subsp. mycoides* (Mmm). It poses a major constraint to cattle production in large areas of sub-Saharan Africa, where 18 countries report the disease. Estimates of the socio-economic impact of CBPP vary significantly with annual economic loss estimates ranging from \$80 million to \$2 billion. What is not in question is the

high mortality rate (50%) arising in cattle from the disease and the ability of recovered animals to remain chronic carriers of the disease for up to 2 years after initial infection. In this way, CBPP is a particularly serious transboundary disease, able to spread and strike rapidly in new territories. A well-documented outbreak of the disease in Botswana in 1995 led to the slaughter of 320,000 cattle with a total economic loss of over \$400 million.

Vaccines currently in use in Africa have not prevented the continued spread and impact of the disease. If successful, the BEN-1 vaccine will offer the potential to transform current disease control efforts in Africa, with substantial associated benefits for small-scale livestock keepers, who currently bear the brunt of the disease. Developed in the 1960s, the BEN-1 vaccine was successfully used as a CBPP control tool in the People's Republic of China (74.5 million doses used), effectively controlling CBPP and contributing greatly to the eventual eradication of CBPP from China. The last reported case of the disease in the country was in 1989 and the use of the vaccine subsequently ceased in 1992. China was declared officially free of CBPP by the OIE in 2011.

Strong progress in developing new control tools for Animal African Trypanosomosis (AAT)

Significant progress has been made towards developing control tools for a disease which inflicts greater losses on livestock than any other in sub-Saharan Africa. In May 2011, the UK Government's Department for International Development (DFID) awarded GALVmed £8 million (US\$ 12.8m) to begin CATRA, an ambitious project to develop new technologies, tools and processes that could enable small-scale farmers in Africa to better manage the devastating effects of Animal African Trypanosomosis (AAT).

Transmitted predominantly by tsetse flies, AAT causes annual economic losses in sub-Saharan Africa estimated at up to US\$ 5 billion and is considered by Africa's heads of state to be one of Africa's greatest constraints to socio-economic development. Controlling animal trypanosomosis is necessary both because of the massive impact that the disease has on small-scale farmers and due to the weakness of current disease control tools which rely extensively on trypanocidal drugs for the treatment of infected animals. These drugs are widely available, but were developed over 50 years ago and have significant limitations in terms of safety and efficacy against emergent drug resistant strains. There are also high volumes of substandard or falsified drugs on the market, which weak systems of regulation fail to tackle adequately.

Led by an advisory committee of internationally renowned experts working with the GALVmed Programme Manager, Grant Napier and delivered with and through key project

partners, CATRA has produced substantial and encouraging results. The major CATRA outputs that have the potential for significant impact include:

New Drugs & Diagnostics

Towards the development of new drugs and diagnostics, the broad consensus from the commercial, academic and wider stakeholder community was obtained for completion of necessary Target Product Profiles and Compound Progression Criteria. These are vital requirements necessary to guide the drug development process from the screening hits stage, through early and late leads, to the end of exploratory development for subsequent adoption into full commercial development. These criteria are now available on the GALVmed website:

<http://www.galvmed.org/2012/04/trypanosomosis/>



Trypanocide Compounds

Four new trypanocide late lead compounds from key drug discovery partners, namely Anacor Pharmaceuticals, the University of Dundee, the University of North Carolina (UNC) and Swiss Tropical and Public Health Institute (SwissTPH), completed cattle efficacy evaluations against drug resistant strains of AAT. Three new late lead compounds are now ready to enter cattle efficacy proof of concept studies. These candidates represent the net output from several hundred candidate compounds screened and progressed for potential as therapeutic or prophylactic leads, for advancement into cattle efficacy proof of concept studies against drug resistant strains of the two key trypanosome species (*T. congolense* and *T. vivax*).

Diagnostics Tests

Partners including the University of Dundee and the University of KwaZulu-Natal (UKZN) were engaged for diagnostic assay development. Five out of six new antigen candidates were successfully identified as meeting the necessary sensitivity and specificity requirements in ELISA evaluations for advancement into pen side assay development. In addition, a sensitive and specific ITS1 "Touchdown" PCR based test was also developed and evaluated for assessment of drug efficacy against AAT.

Vaccine Development

The validation of a new model for evaluating animal trypanosome vaccine candidates and accompanying facilities, developed at the Centre for Biotechnology at the University of Eduardo Mondlane in Maputo, Mozambique, allowed for evaluation of a novel disease modifying or disease prevention vaccine candidate. This was the only vaccine candidate tested, despite review of a number of vaccine project proposals, but it did not prove to be effective in modifying or preventing disease progression in cattle.

Quality Assessment of Trypanocidal Drugs

Standardised tests are now possible following the CATRA project's development of internationally agreed quality standards (monographs) for all the currently available animal trypanocides. Additionally, two African laboratories, Laboratoire de Contrôle des Médicaments Vétérinaires de l'EISMV (LACOMEV) in Dakar, Senegal, and the Tanzania Food and Drugs Authority (TFDA) in Dar es Salaam, Tanzania have been equipped and trained in performing quality control testing, according to these standards and provide a firm base from which enhanced regional regulatory activities can proceed.

Publications

Publications produced by CATRA partners are available on the GALVmed website at: www.galvmed.org

New Bill & Melinda Gates Foundation funding to develop tools to control Animal African Trypanosomosis

In January 2014, the Bill & Melinda Gates Foundation granted GALVmed US\$1.4million USD to continue working collaboratively to develop livestock health tools to combat Animal African Trypanosomosis (AAT). This project aims to advance the discovery and development of safe and effective drugs against drug-resistant AAT and progress the development of a diagnostic test for field diagnosis of infection in cattle. The work also seeks to improve the quality control of existing trypanocides using now established expertise and infrastructure. The grant will provide critically important funding to follow-on from GALVmed's 30 month DFID funded programme, CATRA.

About Animal African Trypanosomosis

AAT is transmitted predominantly by tsetse flies and is an important livestock disease causing reductions in milk and meat production, reproductive performance (e.g. calving rate), draft power, and increased mortality, resulting in major economic losses to small- and large- scale livestock keepers. The disease is widespread and impacts more than 40 African countries but is highly amenable to veterinary intervention.

There are currently no diagnostic tests useful for field use, and there is increasing drug resistance against the currently available drugs developed more than 50 years ago. Under dosing of these drugs is widespread due to under estimation of live animal weight, and is further exacerbated by widespread prevalence of substandard and falsified drugs. Drug-resistant isolates are increasing in numbers and now have broad geographical distribution. Furthermore, infection by *T. vivax* is increasingly transmitted by biting flies outside tsetse infested areas making AAT management by tsetse control in these areas less relevant and other control tools, as a result, more important.

To counter these developments, new and effective drugs and diagnostic tests are urgently needed as key components of integrated disease control management strategies, which in particular must be directly relevant to small-scale livestock keepers in the control of the disease in affected areas.



ILRI-led Consortium to spearhead search for a new East Coast fever Vaccine

A multimillion dollar research consortium has been created to seek a new and improved vaccine against East Coast Fever (ECF). Inhibiting productivity and killing over a million cattle a year in Africa, where the disease is prevalent, ECF is one of the greatest challenges to those who rely on their cattle for livelihood.

The Nairobi-based International Livestock Research Institute (ILRI) has been awarded \$11million USD to lead the group pursuing a new generation vaccine. The consortium includes: the African Union Centre for Ticks and Tick-Borne Diseases (AU-CTTBD), Malawi; the Institute for Genome Sciences, University of Maryland, USA; the Institute of Tropical Medicine Antwerp, Belgium; the Roslin Institute, University of Edinburgh, UK; the Royal Veterinary College, UK; the United States Department of Agriculture-Agricultural Research Service (USDA-ARS); Washington State University, USA and the Global Alliance for Livestock Veterinary Medicines (GALVmed).

In addition to being a whole-hearted member of the new consortium, GALVmed continues to support fully the use of the safe and effective Muguga cocktail vaccine. This was first made many years ago by scientists at the East African Veterinary

Research Organisation (now the Kenya Agricultural Research Institute – KARI) and its invaluable production was taken up and successfully delivered by ILRI with support over the years from key institutions such as FAO and the East Coast fever Task Force. AU-CTTBD, which has benefited from technology transfer from ILRI and capacity-building facilitated by GALVmed, is set to produce the next batch of the vaccine.

Commenting on the funding announcement, GALVmed's Chief Executive Officer, Peter Jeffries said:

"ECF remains one of the most significant challenges to livestock keepers, especially those living in poverty who rely on their cattle for livelihood. A new and improved vaccine is an exciting vision but can be no more than that without this important collaborative approach and injection of funding from the Bill & Melinda Gates Foundation. This is an excellent, ambitious initiative and we are ready to play our part."

The former East African Veterinary Research Organisation, KARI and ILRI are to be commended for having produced the safe and effective Muguga cocktail vaccine which, whilst having scope for product improvement, today remains the most effective way to protect against ECF."

Uganda's ECF Progress

With a cattle population of around twelve million, the impact on livelihoods of ECF in Uganda is very significant. Whilst not yet fully registered, the ECF vaccine is being delivered on a trial basis through special dispensation from the Director of Veterinary Services and the National Drug Agency (NDA). A similarly enlightened approach took place in Tanzania prior to registration of the vaccine there.

At a meeting in Uganda, arranged by the Africa Institute for Strategic Animal Resource Services and Development (AFRISA), The Hon. Minister of Health, Dr Ruhakana Rugunda, who has personal experience of calf mortalities due to ECF, strongly urged for progress on registration of the vaccine in Uganda. In the discussion which was also attended by AFRISA's Professor Kabasa and Dr Kansime, the Minister told GALVmed's Dr Hameed Nuru and Dr Patrick Traill that making the vaccine available is a matter of justice for Farmers and noted the important opportunity that now exists for farmers' lives to be transformed through the full registration of the vaccine. AFRISA also had an important meeting with Minister for Livestock, Hon. Bright Rwamirama who continues to be most supportive of the vaccine being registered in Uganda.

GALVmed's Senior Director, Policy & External Affairs, Dr Hameed Nuru commented:

"We appreciate and would like to acknowledge the important and unifying role that AFRISA has played in creating the ECF platform as a valuable forum for discussion, progress and cohesion. I cherish

our involvement in this consortium which brings together the private sector, Government Departments, Makerere University, the Office of H.E The President and the National Drug Agency. As well as strengthening the voice of consensus as to the urgent need for the vaccine, AFRISA have done much work, producing training materials and providing teaching. I offer my thanks to them and to all our partners engaged in the great ECF vaccine progress in Uganda."

Distribution of the vaccine in Uganda has been undertaken by veterinary pharmaceutical distribution companies ERAM Ltd and Scopevet Developments, whom GALVmed has been glad to have the opportunity to support.



A successful vaccination campaign in Karamoja where 60% of Karamojong pastoralists' calves are estimated to die of ECF.



In August 2013, with support from GALVmed, the Kenya Agricultural Research Institute (KARI) in Nairobi provided ECF ITM training to fifteen individuals from Uganda, 5 from each of AFRISA and designated vaccine distributors ERAM Ltd and Scope Vet, respectively. The capacity of the Distributors was further strengthened when more than forty additional field veterinary officers and animal husbandry officers were trained by AFRISA at their Secretariat at Makerere University, Kampala in October. Those personnel who qualified received a certificate. Since then, approximately 2,500 animals have been vaccinated each month with numbers going from strength to strength.



Representatives of AFRISA, ERAM Ltd, SCOPE Vet, MAAIF, Makerere University and GALVmed, meeting as part of the Uganda ECF Stakeholders Platform

GALVmed has been seeking to support uptake of the vaccine in a variety of ways by facilitating:

- > Farmer days led by the Distributors near Mbarara attended by around 300 farmers, generating great interest in and demand for the vaccine.
- > A Field trip that enabled 50 farmers from all over Uganda to visit Narok for face-to-face discussion with Farmers who have been using the vaccine and to have exposure to a model of best practice.
- > The provision to Distributors of a leaflet to help sensitise Livestock Keepers as to the existence and value of the vaccine.
- > The provision of Liquid nitrogen containers to help strengthen essential cold chain facilities.
- > The correct use of ECF-specific eartags for the identification of vaccinated cattle.
- > The creation of ECF co-ordinators within the Distributors ERAM, posts dedicated to increasing the uptake of the vaccine.
- > The ERAM/ECHO Together Project to carry out vaccination campaigns which took place successfully in Karamoja where 60% of Karamojong pastoralists' calves die of ECF. 560 calves were vaccinated, 80 calves per community in 7 villages in the Kacheri subcounty.

- > The ERAM/ECHO Together Project to convene a meeting of stakeholders including livestock keepers, District Veterinary Office Representatives, FAO, Mercy Corps, MAP International, Church, ECHO Uganda & East Africa, District Veterinary Office, District Production Office, NAADS Coordinator, ERAM veterinarians and consultants to raise awareness of the importance of the ECF Vaccine. Thanks to the knowledge of these partners and their strong relationships with the communities there, it was possible to select low-income families and to spread the vaccinations in an equitable way through the village.

Further awareness campaigns are needed and additional vaccinators are required, but a further 50 vaccinators are due to be trained in Uganda this month. The installation of an additional liquid nitrogen plant in Uganda, specifically for the facilitation of ECF vaccination and located so as to provide easy access for all designated vaccine distributors, would greatly enhance the distribution of product.

GALVmed remains in close contact with the Government of Uganda, standing ready to provide any support that might be requested towards the full registration of the vaccine that is being manufactured at the AU Centre for Ticks and Tick-Borne Diseases (AU-CTTBD).

Thanks to the facilitating environment created by Uganda's Ministry of Livestock, Directorate of Veterinary Services, the efforts of GALVmed's partners and the willingness and generosity of livestock keepers to share their experience of the vaccine, demand for it has grown and the number of vaccinations is projected soon to reach 5000 animals being vaccinated per month in Uganda.

GALVmed's Director of Market Development and Access, Dr Patrick Traill commented:

"There has been a concerted effort from all partners in Uganda to help deliver this much needed ECF vaccine to farmers and their cattle. We have worked closely with distributors to make farmers aware of the vaccine and its benefit. I can only see this market going from strength to strength as farmers experience the positive affect of this vaccine, which is 'one shot for life'. As animal deaths from this fatal disease start to reduce and productivity improves, cattle farmers across Uganda stand to benefit."



Learning from our Partners & Listening to Livestock Keepers in Malawi



ECF vaccination in Malawi increased substantially in the last two months of 2013 when almost one thousand cattle were vaccinated against ECF. In all, 64% of the annual projected figure for ECF vaccination projection was achieved in November and December alone. The uptake in vaccinations resulted from listening to the views of stakeholders, including livestock farmers; the involvement of partners in developing and designing strategies; the delivery of end-user sensitisation campaigns based on insights from the farmers themselves and GALVmed's providing support to official ECF distributors.

The value of listening properly to stakeholders was underlined again in September 2013 when GALVmed's Assistant Director for Global Access, Dr Samuel Adediran increased the organisation's understanding of the ECF landscape in Malawi through consultation with a range of informed stakeholders, including staff at AU-CTTBD, the Livestock and Veterinary Departments, ECF distributors, representatives of Heifer International, Malawi Milk Producers Association (MMPA), Land O'Lakes and the staff of the Agricultural Communication Unit of the Department of Agriculture. The knowledge and expertise shared by practitioners and end users provided a greater understanding of livestock production systems, cattle ownership patterns, marketing initiatives, the impact of previous sensitisation campaigns and the challenges to, and opportunities for, ECF distribution in Malawi.

Following desk research into ECF—ITM distribution strategies in Malawi, a two-week campaign broadcasting daily FM radio adverts, delivered in two of the local languages, Chichewa and Tumbuka, was undertaken. Newspaper adverts were also run in national daily newspapers in order to reach a wider audience base, especially those without internet access. Subsequently, regional-specific programmes were developed. During the following months, 25 livestock farmers, considered to be opinion leaders in their respective districts in northern Malawi, were taken on farmer-to-farmer visits to Kawindula livestock cooperative farm

in Mzuzu where those who knew the benefits of the vaccine shared their experience. One of the participating farmers summed up their impression of the visit: *"We have known for a long time that there is strength in unity and cooperation, but members of Kawindula cooperative, have demonstrated how this time tested principle can be applied to livestock production. It is truly inspiring"*.

Following the exchange visit, GALVmed sponsored 200 vaccinations in seven ECF model farms in Northern Malawi. Interventions in the Central region involved vaccine awareness raising amongst commercial beef herd owners and representations to the government, through the Livestock and Veterinary Department, for ECF-ITM to protect cattle procured under the "One Family, One Cow" Presidential initiative. These combined efforts resulted in the vaccination of more than 600 cattle, plus additional registrations from individual farmers in December 2013.

Commenting on the progress, GALVmed's Assistant Director for Global Access, Dr Samuel Adediran said:

"To better understand the issues facing our customers, livestock keepers, it is important that we keep listening to them. Our partners and other stakeholders in Malawi continue to provide valuable insights and I offer my thanks to everyone who shared their knowledge with us back in September and in particular to the distributors GSJ and BVM. The results of the interventions are encouraging but only a small beginning in collaborative efforts which we believe will stimulate further uptake of the ECF vaccine in the future, ultimately improving the livelihoods of Malawian livestock farmers."

Second Phase of Building Sustainable Newcastle Disease Supply Chains in India and Nepal



Community Animal Health Workers trained as part of the Newcastle Disease field projects in Odisha, India.

Building upon the ND pilot projects which built sustainable supply chains for Newcastle disease vaccine in India and Nepal, GALVmed has launched the second phase of the programme. This phase of ND control projects will impact upon a larger area and a greater number of households. These new projects, which benefit from the learning to date, seek to benefit nearly 40,000 households in 50 villages in Nepal and over 60,000 households in approximately 400 villages in India. The work will take place in villages located around Nepalgunj in Nepal and Baripada in Odisha, India. A reliable supply of ND vaccine will be created for village poultry in the 2 year projects with vaccinators trained in administering the vaccine to village poultry. By ensuring that each of the stakeholders in the supply chain makes a fair income for playing their part, the aim is for the vaccination of village poultry to become common practice and for this to be sustained long after the end of the projects.



African Livestock Conference and Exhibition (ALiCE)

In June 2013, GALVmed participated in and sponsored the African Livestock Conference and Exhibition (ALiCE 2013). Partly catalysed by the GALVmed Alliance's *Impetus Strategy Paper*, ALiCE is the largest convergence of stakeholders in the livestock sector in Africa. As well as providing an opportunity to share a platform and join in the debate with leading exponents in the sector, GALVmed also greatly valued the opportunity to meet with some 3,500 Farmers and to share with them news that the ECF vaccine is available from official distributors in Kenya. Focusing on the theme: *Towards a Competitive and Sustainable World-class Livestock Sector*, the event was organised by Kenya Livestock Producers Association (KLPA) and the East Africa Farmers Federation (EAFF) and Eastern and Southern Africa Dairy Association (ESADA).

More photos are available on the GALVmed website at: <http://www.galvmed.org/category/multimedia-categ/photo/>



L – R: Hon. Felix Kiptarus Koskei, Cabinet Secretary, Agriculture, Livestock and Fisheries, Kenya, Dr. Kipkirui A. Lang'at, President, the East Africa Farmers Federation (ESADA) and Peter Jeffries, GALVmed CEO



In February 2013, GALVmed's Dr Mamta Dhawan and Dr Hameed Nuru visited Bangladesh to explore partnership opportunities, committing time to valuable face-to-face discussion. Here, Dr Nuru is pictured with Mr M. E Bari, Managing Director of Grameen Motosho Foundation and Grameen Krishi Foundation.



In order to share and make the most of information and insights generated in GALVmed-supported work, GALVmed has developed a document repository. As part of GALVmed's Knowledge Management work, Assistant Director, Policy & External Affairs, Dr Lois Muraguri has led this project to create a searchable database. Available now on the GALVmed website, the document repository offers open access to a range of reports.



Dr Lois Muraguri

Vetvac.org database updated

The Vetvac.org database which is a free to use, searchable database of commercially available livestock vaccines has been updated and now contains over 2,500 records. Aiming to provide a broad resource for scientists and other professionals working in the animal health sector, Vetvac.org enables practitioners to conduct global searches by entering Vaccine, Manufacturer, Host or Pathogen. The recent development of the database was undertaken by Intern, Linda Viksne with support from Josef Geoola, François-Xavier Robert and Richard Mole. Jointly owned by GALVmed and Inocul8, Vetvac.org was created in 2010.



Sharing the importance of Porcine Cysticercosis with Parliamentarians, Scientists & International Public Health Authorities



Pictured L – R: Alex Neil MSP, Cabinet Secretary (Minister) for Health & Well-being, Scottish Government; Dr Meritxell Donadeu; Sir John Arbutnot, President of the Royal Society of Edinburgh; Professor Lesley Yellowlees, President of the Royal Society of Chemistry & Vice-Principal, University of Edinburgh.



Professor Marshall Lightowlers (shown RHS) who led the group that identified TSOL18 in the late 1990s pictured here with Dr Meritxell Donadeu in the recent field visit to Nepal. Melbourne Laureate, Professor Marshall Lightowlers is Principal Research Fellow with the National Health and Medical Research Council and Professor in the Faculty of Veterinary Science at The University of Melbourne

The annual Science & the Parliament event (organised by The Royal Society of Chemistry and The Royal Society of Edinburgh) this year brought together Scientists and Parliamentarians in November on the topic of Science and Health. GALVmed's Director of Operations, Dr Meritxell Donadeu was amongst the Speakers and shared information about ongoing work on porcine cysticercosis using the TSOL18 vaccine which was developed by a team lead by Professor Marshall Lightowlers of the University of Melbourne.

Why work on porcine cysticercosis?

Porcine cysticercosis is caused by the larval stage of a worm parasite, *Taenia solium*. Pigs are responsible for transmission of the parasite. Humans can also be infected with the larval stage of *Taenia solium* often lodging in the brain, eye or spinal cord, causing what is known as neurocysticercosis. *Taenia solium* is the most frequent preventable cause of epilepsy in the developing world. Prevention of the parasite's transmission by pigs is an effective and inexpensive way to reduce this debilitating and sometimes fatal human disease.

GALVmed is working with Professor Lightowlers and Indian Immunologicals (IIL) to make the TSOL18 vaccine available commercially.

Prof Lightowlers, Dr Donadeu and GALVmed's Dr Peetambar Kushwaha visited Nepal in January to evaluate potential field projects. Meetings were also held with key stakeholders including the Director General of livestock department, the Chief of Epidemiology and Disease control section, Faculties in the Institute of Medicine and the rector of Patan Academy of Medical Science. Professor Lightowlers made a presentation on porcine cysticercosis and neurocysticercosis to the Nepal Veterinary Association.



GALVmed also participated in a 3-day workshop on Multisectoral Collaboration for Prevention and Control of Zoonoses organised jointly by WHO, OIE and FAO in Kathmandu, Nepal in November 2013. During the workshop, Dr Peetambar Kushwaha (pictured above centre) of GALVmed presented a poster on TSOL18 vaccine to raise awareness amongst regional public health authorities of the opportunities that the vaccine presents. Representatives from 19 countries and international organisations showed interest in the work.





The GALVmed team under the microscope

Samuel Adeniyi Adediran

Nationality: Nigerian

Job title: Assistant Director Global Access

Role in GALVmed: To assure sustainable access to vaccines, diagnostics and animal health products, across the entire value chain, for the benefit of resource constrained livestock producers in developing countries.

Relevant career highlights: For nearly two decades, Samuel has been actively involved in promoting rural livestock producers' access to improved resource and markets, thus improving livelihood. "Collaborating with partners to identify access challenges and opportunities and to build synergies using partners' comparative advantages epitomise my daily work and gives me the impetus to advance GALVmed's cause for the benefit of resource-poor livestock producers in developing countries".

Samuel started his R&D career at the sub-humid programme of ILRI, Nigeria; worked at the International Trypanotolerance Centre (ITC), The Gambia; The Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia, and University of Toronto Canada in various operational positions before joining GALVmed in April 2013. After qualifications in Animal science and Nutrition at universities in Nigeria, Samuel obtained a PhD in Animal Breeding and Genetics and a Diploma of Project Management at institutions in Australia. His experience in rural veterinary service delivery and passion for livestock development as a way out of poverty drew him to GALVmed and its mission to make a real difference to the livelihoods of resource-poor livestock keepers by facilitating provision of animal health tools, within a sustainable economic framework. Samuel is married, dedicated to spirituality and enjoys photography.

GALVmed Vacancies

1 Communications Manager 2 Communications Officer

The Global Alliance for Livestock Veterinary Medicines (GALVmed) is a unique non-profit organisation funded by Bill & Melinda Gates Foundation and the UK Department for International Development. GALVmed's purpose **Protecting Livestock – Improving Human Lives** is at the heart of everything we do. Strong two-way communication between GALVmed and all its stakeholders and by a much wider audience is crucial to its success. The communication of the GALVmed mission and performance is challenging both because of the number and variety of interested parties, and because of the complexity of the message that needs to be put across.

Interested in either of these posts? If you have...

COMMUNICATIONS MANAGER, based in Edinburgh, UK or Nairobi, Kenya

- Minimum of 5 years' experience as a Communications professional
- Broad experience in developing countries
- Track record at management level in a technical / scientific organisation
- Knowledge of Animal Health an advantage
- Experience in developing and running communication & advocacy strategies for not-for-profit organisations
- Experience in management of staff and projects
- Experience of establishing and maintaining partnerships
- Understanding of donors / funding
- Excellent English writing and editing skills with ability to produce finished copy
- Flexibility to travel internationally

COMMUNICATIONS OFFICER, based in Edinburgh, UK or Nairobi, Kenya

- Minimum of 3 years' experience as a Communications professional
- Experience in Social Media
- Ability to advise on content and design of IT presentations
- Experience in both internal and external communications
- Familiar with website and internet development
- Understanding of donors / funding
- Ability to produce staff bulletins / newsletters
- Ability to advise on organisation of PR events
- Excellent English writing and editing skills with ability to produce finished copy
- Flexibility to travel internationally

...then GALVmed would like to hear from you!

Please visit our website <http://www.galvmed.org/about-galvmed/vacancies> to review the full job descriptions. If you would like to discuss either of the roles further please contact our Senior Director of Policy & External Affairs – hameed.nuru@galvmed.org. Application is by CV, with a covering letter outlining your interest in the role and also an indication of your current salary, sent to recruitment@galvmed.org. Closing Date by which applications must be received is 13th April 2014 – please also indicate in your covering letter where you read this advert



Successful Staff Workshop in Nepal

In January, all GALVmed staff from the Africa, S.Asia and UK offices, gathered in Nepal for a workshop which had the 4 main aims and desired experiences of:

1. Learning through the impact of Field Projects
2. Knowledge Sharing
3. Forward thinking into GALVmed's future strategies
4. Motivational Teambuilding

Visiting speakers addressed the workshop with contributions from Village Poultry Keeper, Nirmala Katuwal and Community Animal Health Worker, Nimesh Thapa who spoke about the transformational difference that the Newcastle Disease pilot projects have had for them as individuals and the benefits that the local communities experienced. Heifer International representative, Mrs Neena Joshi provided an overview of how this important partner to GALVmed operates, setting the work in a S.Asia and a Global context. Dr Keshav Sah of Heifer spoke of the approach taken, together with GALVmed in the Newcastle Disease Field Projects, a perspective which was amplified by

GALVmed's Dr Mamta Dhawan and Dr Peetambar Kushwaha during a session in which GALVmed colleagues shared updates. Further enhancing the staff group's understanding of the Newcastle disease value-chain in S.Asia, Director of vaccine manufacturer Hester, Mr Darayus Lakdawalla, gave a useful explanation of their operation and of the vaccine plant that is producing the newly registered thermostable Newcastle Disease vaccine which is already being supplied into E. Africa.

Visits to hilltop villages in the Dhading District provided privileged opportunities for all GALVmed staff to meet some of the communities, visit the family homes that are characteristic of this region and learn a little more of their way of life. GALVmed's close partners, Heifer Project Nepal, offered an insight into how an established NGO has made a long-term difference to poverty. There, staff listened and observed and, when invited to, asked respectful, curious questions. Greeted with flowers and warmth and hospitable entertainment, some staff members joined in the dancing!

"Through Project interventions, I learnt about ND vaccination and the correct ways of keeping poultry. This helped me a lot to run my poultry farm successfully. I realise that it is not so easy to do anything without the proper knowledge. Because of the increased income, today I'm able to contribute to my children's education and daily needs. I'm very proud to say that I have progressed from a small hut to a proper building which was partially funded by poultry income. Now my family's future is secure. During my training I have learnt to mark the eggs so that they can be kept in an orderly manner for hatching. When the project began, I had a few birds and within 2 years I've managed to expand this to a flock of 50 – 70 birds throughout the year. I have made an income up to 250,000 to 300,000 Nepali Rupees. This is one of the greatest achievements of my life and all this has been made possible by the lessons I learnt in the training classes." *Nirmala Katuwal*

The knowledge sharing time provided an opportunity for the different GALVmed departments to offer an overview of their work and to discuss successes and challenges, assembled together as a whole staff cohort. Whilst operating with and through partners and with a staff complement of just under 30, such sessions provide an important opportunity to increase alignment within the organisation. Staff feedback, both anecdotally and through a survey has indicated that this workshop was



Backyard Poultry Keeper, Nirmala Katuwal shared her experiences with GALVmed Staff.

considered to be very worthwhile, genuinely inclusive and cohesive and showed cognisance in its design and execution of learning gained from previous events. Orchestrated by HR Manager, Sharon Ross, with integral support from S.Asia Office Manager, Sharmila Dutta, Peetambar Kushwaha and a steering committee drawn from different departments, the event also turned out to contain much fun!

Experienced Team-building facilitators, Borderlands, headed up by Motivational Speaker and Leader, Anil Chitrakar, animated GALVmed's teambuilding activities. There, the melting pot of individual personality type and cultural differences was manifest, often with humorous results, all played out in a supportive, constructive and unthreatening environment, helping to draw GALVmed staff closer together as a cohesive high-performing organisation.



GALVmed staff greatly appreciated the warm hospitality provided by villagers in the Dhading District and the insights they provided into their lives. Below are just some of the photographs taken by Staff Members, more of which can be viewed on the GALVmed website at: <http://www.galvmed.org/category/multimedia-categ/photo/>



Valued Partners

Courtesy call to the African – Union Commissioner for the Department of Rural Economy and Agriculture

GALVmed remains committed to livestock development in Africa. Our main partners are the AUC and also the specialised technical offices of AU-PANVAC, AU-PATTEC and AU-IBAR. Regular updates are undertaken between the partners.

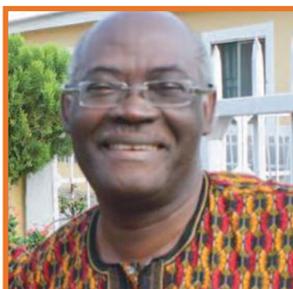


L – R: Dr M. Hassane (PATTEC Coordinator) H.E Mme Rhoda Peace Tumisiime Commissioner, Dr Peter Jeffries GALVmed CEO and Dr Karim Tounkara Director AU- PANVAC.

Board Matters



Professor Julie Fitzpatrick completed her tenure as a Board Director, during which she was Vice-Chair of the Board. Professor Fitzpatrick is succeeded as Vice-Chair by Professor Funso Sonaiya (separate photo on right). Left & right of Julie are respectively: Peter Jeffries & Board Chair, Professor Peter Wells.



GALVmed Vice-Chair, Funso Sonaiya, Professor at Obafemi Awolowo University, Ile-Ife, Nigeria, has worked briefly in other Nigerian and foreign universities and at the International Livestock Research Institute. He coordinated the FAO-sponsored International Network for Family Poultry Development (INFPD) for 22 years. He consults for governments and international organizations. He joined the GALVmed board in 2011.



Veterinary Consultant, Dr Paul van Aarle (left), Professor Andy Peters (centre) and Professor Ola Smith (right) were appointed Board Directors in September 2013.

Board Director, Veterinary Consultant, Dr Paul van Aarle sees delivery of much needed animal vaccines and medicines as the single most important task of GALVmed and commits his experience to help making this happen.

Veterinarian, Professor Andy Peters, who remains committed to strengthening GALVmed has been involved with the organization since its earliest days, as a member of the initial Technical Advisory Committee, as GALVmed's Chief Scientific Advisor and as Interim CEO.

Professor Olanrewaju Smith is a livestock health and production expert connected with stakeholders, technical and development partners actively working to improve the livestock sector in developing countries.

Dr Ashok Pande retired from the Board and Dr Karim Tounkara stepped down after providing much valued expertise and leadership.

Staff Matters

GALVmed is pleased to welcome a number of new staff:

Robert Parkes is in post as HR Director.

Joanna Cocker joined GALVmed at the beginning of March as Veterinary Clinical Research Officer.

Danny Goovaerts joined GALVmed in January as interim Senior Director of R&D.

Lou Gill (née Harvie) returned from maternity leave in February to resume her position as PA to CEO/Office Manager and we say farewell to **Lesley Henderson** who covered for Lou over the last 12 months.

Simiyu Gaitano, Josef Geoola, Gaokgakala Kelosiwang, Gofaone Matshameko, and Baptiste Dungu have moved on from GALVmed. We wish these former colleagues every success and pay tribute to the pioneering contribution that they have made to the organisation.

Heshborne Tindih has transferred from Malawi to become Technical Manager, ECF – Nairobi.

Stuart Brown has been promoted to Assistant Director, Business Development.

ICT Officer, **Kevin Maika** has become a Consultant.

As part of her doctoral studies at the University of Edinburgh, **Nadia Bemtgen** is undertaking an internship with GALVmed, supporting policy-related activities.



Board Member, Dr Narayan Hegde (centre), pictured at a small gathering in November with HRH The Prince of Wales.



Professor Declan McKeever died on January 23rd this year. This highly regarded individual with whom GALVmed collaborated in the organisation's infancy, was a member of the Southern African Centre for Infectious Disease Surveillance (SACIDS) Management Board at the Royal Veterinary College (RVC), University of London. Professor McKeever was Chair of Immunoparasitology and Head of the Pathology and Infectious Diseases Department at the RVC and recently appointed Vice Principal. A former scientist at the Moredun Research Institute, the International Livestock Research Institute (ILRI) and its predecessor, the International Laboratory for Research on Animal Diseases (ILRAD), Professor McKeever had been diagnosed with myeloma in December 2012. GALVmed offers sincere condolences to Professor McKeever's family, friends and colleagues.

Last word



Here in Scotland, from where I write, we are emerging from winter into spring with the hopeful signs of trees and plants coming into bud, the daylight hours lengthening and the sense of the landscape opening up. I see similar new growth in GALVmed, many 'green shoots' and reasons for us, as an alliance, to be positive.

It was, in part, the fruits of research progress in Human African Trypanosomiasis, Sleeping Sickness that planted the seeds for DFID to award £8 million in 2011 for GALVmed to co-ordinate the multi-partner programme, Controlling Animal African Trypanosomosis for Africa (CATRA). The ambition around and challenges involved in developing control tools for Animal African Trypanosomosis (AAT) were well understood from the outset. However, through the guidance of an expert advisory committee, the excellent work of biotech, university and research institution partners and a huge effort from Programme Manager, Grant Napier, some very promising results have come through. It is tremendously encouraging that in January this year, the Bill & Melinda Gates Foundation granted us US\$1.4million to continue this important work.

In a bid to counter one of the greatest inhibitors of growth to cattle production in Africa, Contagious Bovine Pleuropneumonia (CBPP), it is also exciting that a new and concerted effort is being undertaken to explore the potential efficacy of a novel vaccine for use in sub-Saharan Africa. Funded by the Bill & Melinda Gates Foundation, we look forward to working together with the lead Grantee, The Harbin Veterinary Research Institute (HVRI), subordinated to the Chinese Academy of Agricultural Sciences (CAAS) and with consortium members including PANVAC, CIRAD and ILRI.

Encouragingly, sales of East Coast fever (ECF) vaccine are 60% up on 2012 with over half a million doses of the vaccine having been sold by ILRI in the past year. These are positive indications that there is a greater awareness of, and demand for, the product with increasingly effective distribution

channels. The vaccine is being used on a trial basis in Uganda, through special dispensation from the Director of Veterinary Services and the National Drug Agency (NDA) and already over 11,000 animals have been vaccinated. In Malawi, sales started increasing significantly last November as a result of listening to farmers, consultation with partners and awareness-raising approaches which took account of the insights which stakeholders shared with GALVmed's Global Access & Market Development Units.

The African Union Centre for Ticks and Tick-Borne Diseases (AU-CTTBD) in Lilongwe, Malawi, where I received a warm welcome in July is on target to produce more than 270,000 doses of the vaccine this September. We are currently collaborating with the centre's Director, Dr Nkhwachi Gondwe-Mphepo and the AU to recruit a Strategic Management Expert for the centre in Lilongwe to establish the optimal model for the supply of products. CTTBD is expected to produce the first full batch of one million doses of the ECF vaccine in September 2015.

Whilst seeking to make the most of the tools at our disposal, it is right that we also strive for technological advances and I very much welcome the awarding of \$11million to the Nairobi-based International Livestock Research Institute (ILRI) to lead the group pursuing a new generation ECF vaccine. CTTBD and GALVmed are part of this forward-looking consortium which is funded by the Bill & Melinda Gates Foundation. It is perhaps fitting that, in the 50th anniversary year of Malawi's independence, this flagship AU institution should be engaged in cross-border knowledge and technology transfer and in helping to sustain the supply of an effective vaccine for a disease which remains the single biggest killer of cattle in Africa.



I met recently with the Scottish Government's Minister for International Development, Humza Yousaf, MSP. Mr Yousaf was positive about GALVmed's collaborative approach and support for strengthening vaccine production in Malawi, a nation which has strong historical ties with Scotland and is today a focus for Scottish Government support. At a recent event that was the culmination of bicentenary celebrations, marking the birth of Dr David Livingstone, Mr Yousaf spoke movingly of the inspiring individuals he had encountered in Malawi in the previous weeks. A young man who had previously 'gone off the rails' had been given support and role models by NGO Chance for Change which seeks to support young people who have experienced difficult life circumstances to take responsibility for their future direction. The Minister was taken aback and delighted that this 16 year old was telling him about Global Citizenship.

Another NGO had enabled a lady to afford a solar-powered battery, providing light in one solitary light bulb – the striking thing for the Minister being the value that this dignified lady saw in these 20 watts which enabled her children to study and the gratitude she had for being able to do this for her family. He described these small instances of great hope not as 'charity', nor 'aid', but as "an issue of justice". In the same way, I believe passionately that it is the right of livestock keepers to have the freedom to choose to protect their livestock against disease and thus to protect their families and their communities. This is why I am committed to strengthening the facilitating role that GALVmed is seeking to play in Africa and S.Asia, as a small cog in a much greater wheel. It is clear to me from listening to livestock keepers now and over the years that one of the stand-out benefits of income derived from livestock is choice. Like the 16 year old Global Citizen and the lady lighting up her children's future, having the dignity of some self-determination for ourselves and our families is surely an asset that most of us prize dearly.

A workshop in Nepal in January gave GALVmed staff the opportunity to reflect upon and contribute to the direction in which our organisation is going. It also importantly provided the chance for all staff to learn more about the highly successful Newcastle disease field projects undertaken in

Nepal with Heifer International and with BMPCS and PRADAN in India. We heard at first hand from beneficiaries such as backyard poultry keeper, Nirmala Katual, implementing partner Dr Keshav Sah of Heifer International, Mrs Neena Joshi, also of Heifer and Darayus Lakdawalla from Hester Biosciences. Only a few months prior to this, it had been a great pleasure for me to attend the launch of Hester's thermostable Newcastle Disease vaccine, together with GALVmed's Senior Director for Policy & External Affairs, Dr Hameed Nuru and our South Asia Manager, Dr Mamta Dhawan. Whilst cold chain management is something that we would continue to recommend, this vaccine's greater tolerance to fluctuations in temperature has the potential to be a tremendous asset in the supply of the vaccine where interruptions to the power supply break the chain. This vaccine is already being supplied into East Africa.

In Nepal, as a staff group, we also had the opportunity to visit villages in which Heifer is working holistically and to learn from the villagers about the positive transformations that they have chosen to adopt. The coming together of staff from different continents, which was deemed worthwhile by all, gave us the chance to share our progress, challenges and concerns and to gain greater alignment as a more cohesive unit. My special thanks to our Heifer International partners and GALVmed staff, Sharon Ross, Sharmila Dutta, Peetambar Kushwaha and members of their organising committee for making it such a useful and rewarding meeting.

All of the projects that I have mentioned here are ambitious and are testament to the far-sightedness and belief of our donors and partners. The scale of the endeavours that is intrinsic to the nature of Scientific endeavour and must lead us to focus with humility on the small part that each of us can play, often leads me to draw parallels in my own mind with the ask that we make of livestock keepers. Against a backdrop of falsified and substandard products and more fundamental life challenges than most of us in rich countries can begin to comprehend, we ask livestock keepers to put their trust in animal health products, inviting them to choose some degree of self-determination which involves a massive leap of faith. This business, that we are all in together, that of growth, takes hope, nerve and continued belief and requires us to keep the faith.

If you would like further information, or you wish to make any comments, please contact us by email on newsletter@galvmed.org



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