

**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 saving human life*. It is currently funded by the Bill & Melinda Gates Foundation, the UK's Department for International Development and the European Union.**



GALVmed is initially focusing on four priority diseases: East Coast fever (which affects cattle), Rift Valley fever (cattle, sheep, goats, camels and also people), porcine cysticercosis (pigs and also people) and Newcastle disease (poultry). This issue has a special focus on East Coast fever – a disease transmitted by ticks that kills an estimated one million cattle in Africa each year.

## In this issue:

### **GALVmed and East Coast fever**

GALVmed outlines its plan to make the East Coast fever Infection and Treatment Method vaccine (ECF-ITM) accessible and affordable to millions of livestock keepers in at-risk countries.

### **Capacity building and support to African Union-Centre for Ticks and Tick-Borne Diseases, Malawi**

In 2009, GALVmed selected the AU-CTTBD, based in Lilongwe, Malawi, to become the commercial manufacturer of the ECF-ITM vaccine. Since then a broad range of capacity building measures have been taken and more are planned to enable the Centre to manufacture and supply a quality-assured product throughout the region in a sustainable manner.

### **VACNADA – Vaccines for the Control of Neglected Animal Disease of Africa**

Under this EU-funded project, GALVmed is busy moving ahead on a number of fronts to improve the quality and quantity of vaccines produced by eight African

laboratories against four key neglected diseases, each of which have major economic and social impacts: CBPP, CCPP, PPR and Newcastle disease.

### **Annual visit to the Bill & Melinda Gates Foundation**

GALVmed's annual visit to the BMGF in Seattle to report and discuss progress on the grant took place in early November.

### **Hameed Nuru and Karim Tounkara welcome 300 African livestock specialists to 'meet GALVmed'**

Dr Hameed Nuru, GALVmed's Senior Director, Policy and External Affairs, and Karim Tounkara, GALVmed board member and Director of the African Union-Pan African Veterinary Vaccine Center (PANVAC), recently took part in a special TV-style 'meet GALVmed' event at the 5th All Africa Conference on Animal Agriculture.

### **Team changes**

Introducing new members of GALVmed's team, including two new board members,

and announcing the members of the Global Access Advisory Committee and Regional Advisory Committee (South Asia).

### **GALVmed calendar**

Keeping you abreast of what's coming up over the next few months.

### **Jolly good fellows**

Since 2003, around 200 Pfizer Global Health Fellows have spent up to six months working with NGOs spread across 38 countries. GALVmed has been fortunate enough to have benefited from three fellows so far.

### **The GALVmed team – under the microscope**

Members of the GALVmed team talk about their role in the organization and also tell us a little about themselves.

### **Last word**

And finally, Steve Sloan, GALVmed CEO, always get the last word...



# GALVmed & East Coast fever

**GALVmed's objective:** In partnership with the Africa Union-Centre for Ticks and Tick-Borne Diseases, Malawi and national distributors and user groups, to make the ECF-ITM vaccine sustainably accessible and affordable to millions of livestock keepers in the at-risk countries.



## The disease

East Coast fever (ECF) is a serious, often fatal, disease of cattle caused by a single-celled parasite, *Theileria parva*. It kills an estimated one million cattle a year in 11 African countries. For more on this disease see the box at the end of this article.

## The Infection and Treatment Method

A preventative vaccination technology for ECF, known as the infection and treatment method (ITM), was developed in the 1970s by researchers at the East African Community's East African Veterinary Research Organization (EAVRO), Muguga – now the Kenya Agriculture Research Institute (KARI) – with support from the UK's Overseas Development Agency (now DFID). The collapse of the East African Community in 1977, just as the ECF-ITM was being assessed, disrupted the further development of this technology.

ITM involves inoculation of cattle with a predetermined dose of the parasite together with simultaneous treatment with a long-acting antibiotic (30% oxytetracycline). This leads to a mild reaction to the

parasites and full immunity against subsequent infection. In East Africa, a cocktail of three different stocks of live *T. parva* parasites that were originally collected in three different geographical areas (the 'Muguga Cocktail') is used for immunising cattle.

Although ITM can be highly effective and can provide life-long immunity, it has some limitations: the live parasites need to be stored in liquid nitrogen; the cost to treat an animal is relatively high; expert veterinary supervision is required to administer ITM; and the process to produce the parasites for inoculation is very time consuming – currently it takes about 18 months to produce each batch. So, more than 30 years after its development, ITM had not achieved its full potential.

Since 1997, the only source of the ITM vaccine has been the Nairobi-based International Livestock Research Institute (ILRI). However, ILRI's mandate does not extend to commercial manufacture of vaccines and a more sustainable source of vaccine is needed.



Delegates at the GALVmed East Coast fever event in Tanzania 20 May 2010

## GALVmed's objectives for ECF

ECF was selected as one of the first four focal diseases by GALVmed.

In 2007, GALVmed became aware that with relatively little external support, a small animal health company based in Arusha, Tanzania, VetAgro Tanzania Ltd, was successfully marketing ITM to pastoralists in northern Tanzania on a commercial basis. Thanks to ITM, mortality rates due to ECF dramatically declined in treated calves – from up to 50% beforehand to less than 2% annually. As a result, there was strong demand for ITM and more than 500,000 cattle have been vaccinated by VetAgro Ltd since 1998.

Encouraged by this success, GALVmed developed a plan to enable safe, effective and sustainable supplies of the vaccine to be accessible and affordable to millions of livestock keepers in the at-risk countries.

An action plan has been developed by GALVmed and its partners. These are the African Union-Interafrican Bureau for Animal Resources (AU-IBAR), ILRI, the Africa Union-Centre for Ticks and Tick-Borne Diseases (AU-CTTBD) Malawi, VetAgro Tanzania Ltd and VETAID, the British NGO. This is currently being implemented and includes:

- documenting the process to manufacture the ITM vaccine and characterizing the parasites in the 'Muguga Cocktail'
- facilitating formal registration of ITM in ECF-affected countries through compilation of a comprehensive registration dossier and working closely with national registration authorities
- facilitating the establishment and meetings of the ECF Task Force, chaired by AU-IBAR
- training and technical support to enable the vaccine to be manufactured at the CTTBD facility in Malawi
- improving the manufacturing process
- exploring the potential to produce a freeze-dried vaccine, thereby eliminating the need for costly and inconvenient liquid nitrogen cold chains, and supplying a freeze-drier to CTTBD
- enhancing the capacity for marketing within CTTBD through facilitating a strategic partnerships with the Botswana Vaccine Institute
- developing business plans with VetAgro Ltd, VETAID, an NGO, and other potential distributors to increase availability of ITM and coverage of at-risk cattle populations in Tanzania, Kenya, Malawi and Tanzania
- supporting the establishment of ITM user groups to speed up the process of distribution.



# The science of East Coast fever

East Coast fever (ECF) is a serious, often fatal, disease of cattle caused by a single-celled parasite, *Theileria parva*. The parasite is transmitted to cattle by brown ear ticks (*Rhipicephalus appendiculatus*). As infected ticks feed, parasites pass from the tick's salivary glands and invade cattle lymph nodes and spleen where they pass through a number of life-cycle forms, multiply and eventually invade red blood cells, which are ingested by ticks as they suck blood. The life-cycle is completed in the tick, which can then go on to infect more cattle.

Symptoms of ECF include enlargement of lymph nodes, fever, listlessness, emaciation, discharge from eyes and nose, bloody diarrhoea and, just before death, coughing and respiratory distress. Death usually occurs within a month of being bitten by an infectious tick.

The distribution of ECF in Africa mirrors the distribution of this tick species.

Current control strategies for ECF rely mainly on spraying cattle with acaricide to control ticks and treatment with drugs of cattle infected with the parasite. Both these methods have their disadvantages. Acaricides need to be applied frequently, which is expensive, and due to their toxicity can have

undesirable effects on the people applying them and the wider environment. The drugs of choice to treat the disease are only effective if treatment is started early and are very expensive: less expensive drugs are much less effective.

Despite considerable investment over the past few decades, a cheap, safe and convenient new generation (sub-unit<sup>1</sup>) vaccine for ECF is still some years away. This is not surprising: development of a sub-unit ECF vaccine is just as challenging as developing a vaccine for malaria (*T. parva* and the parasites that cause malaria have similar life-cycles) and, despite enormous investment, there is still no malaria vaccine available.

Meanwhile ECF remains a major killer of cattle in 11 countries in East, Central and Southern Africa and threatens to spread further: it is responsible for about half of all calf deaths in pastoral herds in these countries and is largely responsible for the lack of upgrading of indigenous breeds in areas where it occurs. It is estimated that one million cattle are killed by the disease annually and some 25 million cattle are at risk (22 million of which are owned by pastoralists).

<sup>1</sup> A vaccine produced from specific protein sub-units of a pathogen rather than whole pathogens.

## Capacity building and support to African Union vaccine centre, Malawi

For the ECF-ITM vaccine, an urgent need identified at the outset by GALVmed and partners was to secure a sustainable source of quality assured vaccine: ILRI was manufacturing the vaccine only as an interim measure to ensure continuity of supply.

Following an open invitation to tender in late 2008 GALVmed, in partnership with the newly established East Coast Fever Task Force chaired by AU-IBAR, selected the African Union-Centre for Ticks and Tick-Borne Diseases, (AU-CTTBD), based in Lilongwe, Malawi, to become the manufacturer of the ECF-ITM vaccine. Since then a broad range of capacity building measures have been taken and more are planned to enable the Centre to manufacture and supply a quality-assured product throughout the region in a sustainable manner.

Dr Nkhwachi Gondwe-Mphepo, acting director of AU-CTTBD is both a veterinarian and a seasoned administrator with more than 15 years working experience in several senior positions of the Malawian Veterinary Service that include being Head of the Central Veterinary Laboratory, Lilongwe. She holds a Masters in Public Health degree with majors in Statistics and Epidemiology from John Hopkins School of Public Health (USA) and is currently about to complete her PhD in Veterinary Epidemiology with University of Pretoria. She also holds 3 certificates in Management Development from Mananga Institute of Management (1993), the Danish Management Institute (1998) and Malawi Institute of Management (2006). She joined the CTTBD in 2003 and she has been instrumental in developing and delivering the veterinary epidemiology courses held for participants from the region.



Dr. Nkhwachi Gondwe-Mphepo said: **“I am standing next to the lyophilising machine which is one of the very sophisticated (and expensive) equipment which the Centre has just received from GALVmed.**

**The involvement of GALVmed in the CTTBD activities has offered us another dimension at business opportunities and a directional sense into the future that presents us with huge possibilities at ground breaking advances in the control of East Coast fever.**

**With the sponsorship from GALVmed, the CTTBD is beginning to make progress in upgrading the technical skills of its technical staff due to the focused training its technicians have started receiving in conducting clinical studies, handling of data and processing of laboratory materials.**

**The arrival of the first few pieces of equipment meant for upscaling of the ECF vaccine production has invigorated everyone at the CTTBD and given us renewed belief for a brighter future for the CTTBD as an institution.”**



## Capacity building measures include investments in both people and equipment

### To enhance CTTBD's human resource base:

- > From July to August 2010, 4 technicians from CTTBD have been trained at ILRI. Mr Mphukira Pangani and Mr Kennedy Senzamanja in flowcytometry (a technique for counting and examining cells by suspending them in a stream of fluid and passing them by an electronic detection apparatus) and ELISA (enzyme-linked immunosorbent assay; a biochemical technique used to detect the presence of an antibody or an antigen in a sample. ELISA can be used as a quality control check in vaccine production). Also, Mr Patrick Kafuwa and Mr Augustine Ngunde have received training in breeding and management of tick colonies and other experimental protocols.
- > Dr George Chaka and Mr Lustre Chombo are scheduled for training on the preparation of Muguga Cocktail stabilates toward the end of 2010.
- > Support on ITM technology transfer: Paul Spooner, who has been instrumental in the production of the ITM vaccine at ILRI, is now working with GALVmed to provide on-going technical support to CTTBD.
- > **ITM vaccine lyophilisation (freeze drying):** Pfizer Fellow Paul Dominowski also provided some initial ideas for freeze drying of ITM, although it is recognised that this is technically challenging and chances of success are quite low. If it is achieved, however, this will represent a major transformational improvement in the ITM vaccine, eliminating the need for the liquid nitrogen cold chain. GALVmed have also purchased an US\$80,000 lyophiliser (freeze-drier) and the associated reagents, which have been shipped to Lilongwe.
- > **Marketing support:** A cooperation MoU has been signed between CTTBD and BVI which provides for support in marketing and business development. An initial business case analysis and risk assessment prepared by Smart Innovation Consultants was presented at CTTBD in August 2010.
- > **Transfer of material from ILRI to CTTBD:** A Material Transfer Agreement has been drafted and will be signed between CTTBD and ILRI. This will formalise the transfer of the ECF master seed stabilates and ticks needed to start the production of commercial batches at CTTBD
- > **ITM vaccines for CTTBD:** In order to support the distribution of ITM vaccine in Malawi, GALVmed has contracted CTTBD to import and make available to distributors an initial 20,000 doses of the vaccine. The contract has been signed and shipping of the ITM vaccines is underway so as to mount immunisation campaigns before the next rainy season.

### To improve CTTBD's equipment and facilities:

- > **Refurbishment:** Stephane Chesneau of LabCal Solutions, a South Africa-based laboratory calibration company, and Paul Dominowski, a Pfizer Fellow seconded to GALVmed, assessed equipment and refurbishment requirements at CTTBD in August 2010. Based on their report, a list of essential equipment has been drawn up. Quotations were assembled and the procurement process is now underway. Filtration equipment has already arrived and seven tick incubators are currently en route from the supplier.

# VACNADA: Vaccines for the Control of Neglected Animal Diseases in Africa

GALVmed is currently busy moving ahead on a number of fronts to improve the quality and quantity of vaccines produced by nine Africa laboratories against four key neglected diseases, each of which have major economic and social impacts. These are contagious bovine pleuropneumonia (CBPP), contagious caprine pleuropneumonia (CCPP), pestes des petits ruminants (PPR) and Newcastle disease.

The initiative, running from January 2010 to August 2011, is part of the broader €20 million EU funded VACNADA (Vaccines for the Control of Neglected Animal Disease of Africa) project, which was launched in March 2010 by the European Union (EU) and African Union-Interafrican Bureau for Animal Resources (AU-IBAR).

The EU's VACNADA project aims to reduce the loss of animals through diseases and lessen the negative effects of the soaring food prices on vulnerable households in Africa.

The project targets more than one million livestock keepers living in rural communities in 24 African Union member states.

It is funded through the Food Facility established by the European Parliament and the Council of the European Union to assist developing countries and their populations cope with soaring food prices.

Of the €20, nearly €10 million has been allocated to buy vaccines for the four diseases from African vaccine producers and to vaccinate animals in 24 African countries.

VACNADA is operated by four partners, namely AU-IBAR, GALVmed, the Pan African Veterinary Vaccine Centre of the Africa Union (AU-PANVAC) and CIRAD (the French agricultural research for development organisation).

Under this partnership, GALVmed is responsible for providing a range of capacity building activities to eight vaccine producing laboratories in sub-Saharan Africa through a €6.9 million grant.

### The targeted vaccine producing laboratories are:

- > Botswana Vaccine Institute (BVI), Gaborone, Botswana
- > LANAVET – Laboratoire National Vétérinaire, Garoua, Cameroon
- > LABOVETKIN, Le Laboratoire Vétérinaire de Kinshasa, Kinshasa, DRC
- > National Veterinary Institute (NVI), Debre Zeit, Ethiopia
- > Veterinary Laboratory, Veterinary Services Directorate, Accra, Ghana
- > KEVEVAPI – Kenya Veterinary Vaccines Production Institute, Nairobi, Kenya
- > Laboratoire Central Vétérinaire, Bamako, Mali
- > Institute Senegalais de Recherches Agricoles – Laboratoire National De L'Élevage et des Recherches Vétérinaires (ISRA/LNERV), Dakar-Hann, Senegal



To undertake this work, GALVmed has recruited a large team of highly experienced consultants led by GALVmed's Nairobi-based VACNADA project coordinator, Fred Musisi.

One sub-team is assessing demand for these four vaccines, both now and in the future, in national and regional markets. Detailed reports have already been produced for Ethiopia, Kenya and Southern Africa, and others are in the process of being compiled by teams of national consultants.

In turn, these reports are informing the development of a sophisticated model by the Edinburgh, Scotland-based global animal health and veterinary medicine research consulting firm, Vetnosis.

**GALVmed's Director of Operations, Meritxell Donadeu explains: "The labs will use the model as part of their sales and marketing and distribution strategies. And GALVmed will be using this information to identify areas of support, for interaction with donors and to incentivise commercial partners, amongst other uses."**

Meanwhile other team members are providing a wide range of support to the eight laboratories. This includes:

- > **Training in vaccine operations management**, including development of business plans.
- > **Review of quality assurance systems:** Consultants have visited the laboratories to assess current quality assurance systems and to make recommendations for improvements, including establishing Total Quality Management-type approaches and adoption of standard operating procedures.

- > **Improvements to the laboratories' facilities and equipment:** For example, a tendering process is currently underway to supply lyophilizers (freeze driers) to the laboratories in Accra, Dakar, Garoua and Kinshasa during 2011.
- > **Improvements to CCPP and PPR vaccines:** For CCPP this involves working with NVI, Debre Zeit and KEVEVAPI, Nairobi to improve harvesting techniques for CCPP antigen using ultra-centrifugation to increase the quantity of vaccine being produced.

Outside the scope of the VACNADA project, GALVmed is exploring other improved CCPP production processes for some laboratories to enable more vaccine to be produced. In addition for PPR, freeze-drying techniques are being investigated to enable development of a thermostable vaccine, initially at BVI, Gaborone, and later other laboratories.

**Process development laboratory:** A process development laboratory is being established at NVI, Debre Zeit to enable the laboratory to try out process improvements at a pilot scale.

### VACNADA tender updates

- > Vial Labelling Machine
- > Lyophilisation Systems
- > Training in Vaccine Production Operations Management

These tenders are currently being let – information will be posted to the GALVmed website when this process is complete.

# Annual visit to the Bill & Melinda Gates Foundation

GALVmed's annual visit to the Bill & Melinda Gates Foundation took place in early November to report and discuss progress on the grant. The Foundation is based in Seattle, USA. It invests 6% of its funding into animal health and plays a significant role in promoting and profiling the need to invest and develop the animal health sector to contribute to eradicating poverty.

During the visit we had the opportunity to meet with our Senior Program Officer; policy and external affairs; legal and intellectual property; and global health staff.

A 'Learning Lunch' session was open to all Foundation staff to attend. This is a chance for different grantees to raise awareness of their work and provides an open forum for discussion.

We also had a sneak preview of the Foundation's new headquarters in Seattle, which has been built close by and where new staff will move to in early June 2011. Overall the visit stimulated discussion on ways to work together to promote and profile the animal health agenda and areas of consideration in the development of our next application to the Foundation.

**Steve Sloan, GALVmed CEO, said:**

**"Our annual visit to the Foundation is an opportunity to share ideas and be aware of the multiplicity of interests in which the Foundation invests. It is a vibrant and stimulating place where the focus is always upon the needs of poor people and giving them opportunity.**

**If you plan it well, or are just lucky in timing, you also meet others with shared interests – like the time we spent with Washington State University and an opportune meeting with Pierre Ferrari, the incoming CEO of Heifer International, a GALVmed partner, just 6 days into his new post. I wished him well with their exceptionally important mission and we will seek to develop our working relationship."**



# Hameed Nuru and Karim Tounkara welcome 300 African livestock specialists to 'meet GALVmed'



A capacity crowd at the AACAA event listens as journalist Nik Wood poses a question to Ed Rege, Hameed Nuru and Karim Tounkara



**Dr Hameed Nuru, GALVmed's Senior Director, Policy and External Affairs, and Dr Karim Tounkara, GALVmed board member and Director of the African Union-Pan African Veterinary Vaccine Center (PANVAC), recently took part in a special TV-style event at the 5th All Africa Conference on Animal Agriculture (AACAA).**

The event was hosted by international broadcast journalist Nik Wood with Ed Rege, the President of the AACAA, completing the panel.

Over 300 delegates heard the panellists explain GALVmed's approach and share its initial focus and plans. The audience, mostly African livestock specialists, appreciated the innovative format used for the 'meet GALVmed' event.

During the event Dr Nuru explained:

**"Our motto, our strapline, our vision is all the same thing – protecting livestock, saving human life.**

**GALVmed doesn't produce or market vaccines... we facilitate, that is our niche – bringing the relevant people together, recognising their strengths and their weaknesses.**

**It's not just about having the vaccine, drug or diagnostic, it's getting it down the chain to the animals – that is what is really critical... bringing private companies into this, giving them the incentives so it can become sustainable."**

Earlier, during the opening session, the AACAA President thanked GALVmed for their generous sponsorship of the conference.

The 5th AACAA, held at the United Nations Conference Centre in Addis Ababa, Ethiopia, took as its theme *Commercialisation of Livestock Agriculture in Africa: Challenges and Opportunities*. 140 papers on a broad range of livestock issues were scheduled to be presented over the 3-day conference, held from 25-28 October 2010.

GALVmed's Hameed Nuru chaired a session on *Emerging animal health issues: implications for African livestock keepers and priority interventions in a globalizing world*.

A short film report of this event is available on the GALVmed website.



# Team changes

## Dr Shadrack Moephuli is confirmed as a GALVmed Board member

“The October AGM gave us the opportunity to formally welcome back Shadrack Moephuli as a GALVmed Board member, after a period away. He is a great asset and we are delighted he is part of our governance and advisory body.” said Steve Sloan, GALVmed CEO.

Dr Moephuli is the President and Chief Executive Officer of the Agriculture Research Council (ARC) of South Africa. His responsibility as the CEO is to elevate the organization to a world class leader in agricultural research and development of animal vaccines. Dr Moephuli often speaks out on the role of agriculture as a key element of sustainable economic development, technology transfer and commercialization of agricultural research results throughout the value chain. His career prior to ARC spanned lecturing at the University of Witwatersrand and a stint at the Ministry of Agriculture in South Africa.

## Dr Lindiwe Sibanda invited to join GALVmed Board

Dr Sibanda is the Chief Executive and Head of Mission for FANRPAN (Food Agriculture and Natural Resources Policy Network) a South Africa-based NGO working across Africa to connect policy issues. She is a national of Zimbabwe.

Steve Sloan, GALVmed CEO, said:

“The way we work at GALVmed is that we invite potential board members to join us. They then have a trial meeting with us and if we are happy with each other, then they become a board member and they are confirmed at the next AGM. Fortunately for GALVmed she liked us and I know Dr Sibanda will be a stellar addition to the board.”

## Global Access Advisory Committee membership announced

GALVmed is pleased to announce the first members of its Global Access Advisory Committee.

These individuals have been chosen because of their contribution to the livestock industry, disease control or international development.

The role of Global Access Advisory Committee is to provide GALVmed with expert, independent advice on pro-poor access issues pertaining to the sustainable delivery of livestock vaccines, diagnostics and drugs in the developing world.

The first meeting of the advisory committee will be held in Debre Zeit, Ethiopia, just outside Addis Ababa, on 19 and 20 January 2011.

Currently members of the committee are:

**Dr Omer Akesse**, Vétérinaire conseil, Côte d'Ivoire  
Expertise: *Distribution*

**Professor Walter S Alhassan**, SABIMA (Strengthening Capacity for Safe Biotechnology Management in sub-Saharan Africa), Ghana  
Expertise: *Biotechnology, regulatory*

**Dr Micus Chimbombi**, Ministry of Agriculture, Botswana  
Expertise: *Veterinary medicine, agriculture*

**Dr Albert Doufissa**, Cameroon  
Expertise: *Distribution*

**Professor Christopher Garforth**, Reading University, UK  
Expertise: *Poverty, exclusion and access*

**Dr Frans Van Gool**, Merial, France  
Expertise: *Marketing and distribution*

**Professor Dominic Kambarage**, Consultant, Tanzania  
Expertise: *Veterinary medicine, healthcare*

**Dr Joachim Otte**, FAO, Italy  
Expertise: *Pro-poor animal health*

**Genevieve Phan**, France  
Expertise: *Quality assurance/quality control*

**Dr Ed Rege**, Consultant, Kenya  
Expertise: *Biotechnology, facilitation*

**Dr David Sherman**, Consultant, UK  
Expertise: *Sustainable animal health networks*

**Professor Ola Smith**, Consultant, Canada  
Expertise: *Livestock production and health*

**Dr Lazare Tano**, Merial, France  
Expertise: *Marketing and distribution*

**Professor Charles Waiswa**, High Heights Services Makerere University, Uganda  
Expertise: *Distribution*

## Regional Advisory Committee (South Asia) announced

The inaugural Regional Advisory Committee (South Asia) will take place in New Delhi on the 13-14 December.

Following open invitations, GALVmed's board and management has handpicked a group of high-calibre advisors to offer transparent and strategic advice for work across Bangladesh, India, Nepal and Sri Lanka.

The requirements for the group were exacting. The Regional Advisory Committee has to bring together a group who between them offered knowledge of pro-poor livestock systems and animal health, and experience of veterinary services, animal production, agricultural economics, policy,

supply chains, manufacturing, marketing, product registration and quality assurance.

The group also has to include opinion formers and advocates, and people with regional experience of the priority diseases endemic in the region. GALVmed also targeted people with a working knowledge of all four of GALVmed's priority countries, whilst ensuring a gender balance.

Following the first meeting of the group in New Delhi on 13-14 December, thereafter meetings will take place twice yearly.

The Regional Advisory Committee (South Asia) members are:

### Bangladesh

Dr Bari  
Dr Huque

### India

Dr N Hedge  
Dr Lal Krishn  
Dr Chanda Nimbkar  
Dr CK Rao  
Dr SN Singh

### Nepal

Dr Mahato  
Dr Pathak

### Sri Lanka

Dr Chandrasiri  
Dr Wanasinghe



## GALVmed's New Delhi office

GALVmed's presence in South Asia is set to really take off in 2011. The South Asia Programme Manager, Mamta Dhawan, explains:

**"In November I was joined by an office manager in GALVmed's Delhi office - Sharmila Dutta – who will be a fantastic addition to the team. It is a very timely appointment because the New Delhi office will be hosting the first meeting of the GALVmed Regional Advisory Committee for South Asia on one hand while Newcastle disease pilot projects will be taking off at the same time. This committee will develop and guide our South Asia strategy and help drive the GALVmed agenda in the region."**

Sharmila has recently been to GALVmed's HQ in Edinburgh for induction.

Currently GALVmed's South Asia programme is focused on Newcastle disease market surveys and pilot studies of the thermostable vaccine, but activities will expand significantly in 2011 following the first Regional Advisory Committee meeting.

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## GALVmed CALENDAR

23–24 November 2010

### **3rd International Conference on Neglected Zoonotic Diseases WHO, Geneva**

*GALVmed involvement:* Consultant Johan Van Himmelryck representing Steve Sloan

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23–25 November 2010

### **Workshop for OIE National Focal Points for Veterinary Products, Johannesburg**

*GALVmed attendance:* Baptiste Dungu

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29 November 2010

### **GALVmed Board meeting by teleconference**

[Note: GALVmed has two teleconference and two face-to-face board meetings each year]

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13–14 December 2010

### **Inaugural Regional Advisory Committee (South Asia) New Delhi**

*GALVmed lead:* Mamta Dhawan

*GALVmed attendance:* Steve Sloan, Hameed Nuru, Meritxell Donadeu, Lois Muraguri, Sharmila Dutta and Mamta Dhawan

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15–22 December 2010

### **Field visit to Newcastle disease pilot programmes India**

*GALVmed attendance:* Steve Sloan, Meritxell Donadeu and Mamta Dhawan

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19–20 January 2011

### **Inaugural Global Access Advisory Committee, Debre Zeit, Ethiopia**

*GALVmed lead:* Charlotte Nkuna

*GALVmed attendance:* Steve Sloan, Baptiste Dungu, Charlotte Nkuna, Hameed Nuru and Meritxell Donadeu

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14–16 February 2011

### **1st International One Health Congress (Human health, animal health, the environment and global survival) Melbourne, Australia**

*GALVmed involvement:* Steve Sloan speaking



# Jolly Good Fellows

Since 2003, around 200 Pfizer Global Health Fellows have spent up to six months working with NGOs spread across 38 countries. Pfizer Fellows are Pfizer employees who are seconded to selected NGOs for up to 6 months, with the company covering all costs. They come from across a wide range of professional disciplines and levels in the company, and from across the globe. Their role is to help build capacity in their host organization in their specialist areas.

GALVmed has been fortunate enough to have benefited from three fellows so far. The latest Pfizer Fellow is **Liza Prettypaul** who will be part of the GALVmed team for six months from August 2010.

Working with GALVmed staff members Roggers Mosha and Victor Mbao, Liza is based in Arusha, Tanzania. She is working on the ECF-ITM in East Africa. Liza will produce a cohesive study of the market and delivery, and will assist GALVmed to better understand the terrain and influence supportive policy change and farmer uptake of the ITM product. This should assist long-term sustainability through strong private sector participation. By enhancing ITM use, this will improve cattle keepers' livelihoods by reducing cattle mortality rates and increasing production of meat and milk.

Building on its past achievements, which include registration and a formal launch of ITM, and ongoing work looking at improving the vaccine and its administration, GALVmed now need to address delivery. This is directly linked to markets – understanding the nature of these markets, where any problems occur and how to overcome them. A specialist can do this for us – especially if based on the ground and doing hands-on data and information collection and analysis.

For her part Liza's motivation was to learn more about vaccines and broaden her abilities in the area of engagement, communications and leadership to take back to Pfizer in the US.



**Liza Prettypaul working in Longido, Tanzania researching markets for the East Coast fever vaccine**

Liza joined Pfizer in 2002. She has worked as a pharmaceutical sales representative within the cardiovascular and pain division, and most recently as a therapeutic specialty representative. She has sold 11 different products during her Pfizer career. Prior to joining GALVmed, she was responsible for the Bronx and Westchester area of New York where she partners with key accounts and prescribers to increase the utilization of the Pfizer human health products Lyrica, Celebrex and Aricept.

**Paul Dominowsk** was a previous Pfizer Fellow at GALVmed. His responsibilities were to assess the development ability, manufacturing capabilities and capacity of the National Veterinary Institute (NVI) located in Debre Zeit, Ethiopia, as well as several other African vaccine production labs.

He explained: "During my first week I reviewed four full independent vaccine projects from start to finish, and prepared reports on each product with options for improvement and optimization. The biggest obstacle is simply inadequate resources to make process improvements. It appears I will have to re-imagine everything to implement many of the new methodologies."

Paul continued: "After assessing the facility we determined that the entire campus of several hectares could have a wireless network installed for under US\$1,000. The cost seemed low enough and the benefits immeasurable in assisting better communication at NVI. We decided to request that Pfizer, Inc. consider donating 10 laptop computers. Then we secured a global health fellows grant for

US\$1,000 to be used for the purchase of 10 wireless routers and the software to make the network secure. NVI now has one of the largest wireless networks in southern Ethiopia. The laptop computers reside in the NVI library for check-out by all employees. This provides access to the internet, allowing employees to take distance learning programs in the evenings and improve life for their families."

Paul said his greatest success was scaling up production of the peste des petites ruminants and foot-and-mouth disease viruses, both previously produced at a scale of 100 litres a year. With some instruction they can now produce 300 litres of each in only two weeks without major capital investment.

He said: "Of course, they seized this improvement immediately and have set many wheels in motion to implement the changes. When all is said and done, it will be done with an Ethiopian spin, as it should be. But will the effort be sustained I had wondered? I guess I will have to wait to see – but suspect it will!"



# The GALVmed team under the microscope

Here members of the GALVmed team talk about their role in the organization and also tell us a little about themselves. We anticipate the latter will help break the ice when you first meet them.

A complete bank of team biographies will soon appear on the GALVmed website.



## Dr Hameed Nuru

**Job title:** Senior Director, Policy and External Affairs

**Role in GALVmed:** To Head the Policy and External Affairs Department, which is responsible for partnerships, advocacy, policy, communications, marketing and global access (marketing & distribution of

vaccines and products). Also heads the GALVmed Africa office and oversees GALVmed South Asia office.

**Nationality:** Motswana (Botswana)

**Joined GALVmed:** January 2009

**Relevant career highlights:** Formerly Senior Policy Officer: Livestock and Fisheries at the African Union – Interafrican Bureau for Animal Resources (AU-IBAR) office, Dr Nuru has significant experience in veterinary research, livestock disease control and policy initiatives.

Dr Nuru began his career in academia lecturing veterinary students in universities in Nigeria and Zimbabwe from 1987–1995. He then shifted to the civil service as a veterinary officer, where he quickly rose through the ranks to become a Regional Veterinary Officer in Botswana and was responsible for the largest cattle producing central region in Botswana from 1995–2006.

Dr Nuru has been involved in several major projects which include several Pan-African initiatives involving mass vaccination, disease eradication and outbreak monitoring. Throughout his career, he has been deeply committed to veterinary service, especially in the fields of trans-boundary animal disease control, clinics, policy, ruminant reproductive research, teaching and extension.

**Education:** Secondary education at King's College, Lagos, Nigeria, after which he graduated from Faculty of Veterinary Medicine, Ahmadu Bello University Zaria, Nigeria with a Doctor of Veterinary Medicine degree – with distinction, in 1987.

In 1991 he moved to the Centre for Tropical Veterinary Medicine (CTVM) at Edinburgh University in the UK, where he obtained an MSc in Tropical Animal Production and Health.

**Interests:** Dr Nuru has a professional passion and enthusiasm to address the plight of livestock farmers in Africa and for advocating livestock issues especially animal health as a channel out of poverty and ensuring food security.

His hobbies (when time allows) are cars, driving (usually fast), travelling and fishing. Having grown up in a farming environment to a veterinarian father, he also shares a love for livestock and has a small farm in Botswana where he breeds Bonsmara cattle and sheep. His culinary tastes are for most African dishes with a big hold on the vegetables. Meat it is and the bigger the piece of steak the better, as all who dine with him come to know.



Hameed Nuru writes:

**“In this photograph I was part of a GALVmed team working with the Masaai in the Arusha area, Tanzania in 2009 with VetAgro. I did some of the calf ECF-ITM vaccinations. The little boy is a potential farmer. He was helping to drive the calves into the area for vaccinating.”**



**“In the second photo, the fellow holding the calf is Mr Ngayok, a Maasai cattle owner. A short while after this picture was taken he visited Edinburgh and met with HRH Princess Anne as part of a GALVmed delegation.”**



## Gaogakala Kelosiwang

**Job title:** Personal Assistant

**Role in GALVmed:** To carry out administration duties in the Botswana office and coordination of relevant activities to be undertaken by Senior Director, Policy and External Affairs.

**Joined GALVmed:** September 2010

**Nationality:** Motswana (Botswana)

**Relevant career highlights:** Being able to assist in the achievement of goals and moving the organisation forward.

**Education:** Diploma in Secretarial Studies.

**Interests:** I love to read, travel, listen to music, watch movies, network and spend time with my family.





### Dr Victor Mbaio

**Job title:** Project Manager ECF

**Role in GALVmed:** To coordinate activities in the implementation of R&D for East Coast fever (ECF) related projects. These include the transfer of ECF vaccine technology from ILRI, Nairobi to the Centre for Ticks and Tick-Borne Diseases (CTTBD) in Lilongwe; ECF Infection and Treatment Method process

improvements related to lyophilisation, dose reduction and other cost reduction technologies; and following up registration of the vaccine in user countries. Also to participate in monitoring and evaluation activities related to ECF vaccinations.

**Joined GALVmed:** April 2010

**Nationality:** Zambian

**Relevant career highlights:** Victor has had over 12 years work experience in East Coast fever research and management. He worked in Southern Zambia as ECF control officer and later Team Leader in a project that developed and then distributed a univalent ECF vaccine using a locally isolated parasite stock. He supervised the transfer of production of this vaccine to the CTTBD in Lilongwe in 2001 and later worked on optimising an in vitro technique for assessing ECF vaccines. He has also worked as head of the vaccine production unit of the Central Veterinary Research Institute in Zambia and as QA Manager at CTTBD.

**Education:** Victor obtained his Bachelor of Veterinary Medicine from the University of Zambia and PhD in veterinary science from Ghent University in Belgium/Institute of Tropical Medicine, Antwerp.

**Interests:** Apart from tasting dishes from different countries, Victor loves science fiction and thriller movies. He also likes to play table tennis, pool and is an ardent swimming student. Above all, he loves to spend time with family at home (keeps one sane).



### Dr Fred L. Musisi

**Job title:** VACNADA Project Coordinator

**Role in GALVmed:** Coordinate and oversee the implementation of the VACNADA project in regard to: i) Development and/or strengthen of the distribution systems & on market surveys on vaccination needs, ii) vaccine operation management and

technical assistance to improve vaccine production, iii) essential upgrading of laboratory facilities and equipment, iv) support mechanisms for the implementation of quality assurance at the labs, and optimizing the production processes for CCPP and PPR vaccines.

**Joined GALVmed:** May 2010

**Nationality:** Ugandan

**Relevant career highlights:** Fred had a short stint with the "older" East African community, which broke up in 1977, only to be re-born

in 2000, when he served as Veterinary Research Officer. This was followed with engagement within the UN system where he served in various capacities ranging from Veterinary Protozoologist, Project Manager, Team Leader, Chief Technical Adviser & Consultant between 1979 through to 2008. He has since retired from being a staff member within the UN, but has since served as a consultant to USAID (United States Agency for International Development), the European Union and FAO (Food and Agriculture Organisation) prior to joining the GALVmed family.

**Education:** Graduated from University of Nairobi with Bachelor of Veterinary Medicine followed with post-graduate studies at University of London (School of Tropical Hygiene & Medicine) leading to the award of MSc and PhD.

**Interests:** Sports, travel to new places (my photograph was taken on holiday in USA with my wife and son), reading and supporting disadvantaged individuals and communities. Generally I enjoy all foods except the majority of sea foods to which I am allergic.



### Kevin Maika

**Job title:** ICT Officer

**Role in GALVmed:** To ensure that the GALVmed website remains accurate and that it is regularly updated. Responsible for building and contributing content to GALVmed social networking sites and stimulating blogging. Ensuring a regular supply of this material through the

coordination of 'story producers' from or close to livestock keeping communities. Working with colleagues in identifying the most beneficial technologies for the end user, in particular SMS and mobile technologies. Responsible for the implementation and administration of the Huddle tool as an internal communication tool for GALVmed (intranet).

**Joined GALVmed:** May 2010

**Nationality:** Botswana (Botswana)

**Relevant career highlights:** Kevin has worked as an ICT Officer for FAO (Food and Agriculture Organisation). He worked in the unit of Regional Animal Health Centre for Southern Africa, which offers support to the SADC (Southern African Development Community) region's livestock sector with a specific focus on trans-boundary animal disease control. He was responsible for developing and carrying out regular updates for the organisation's website and also undertaking general end-user support for team members within the organisation.

Kevin has also carried out extensive work in website development with a clientele that includes the Botswana Innovation Hub and the Embassy of Brazil in Botswana. Other notable achievements include being engaged by Investec Bank in Johannesburg, South Africa, undertaking the automation and testing of the Cross-Asset Trading system using Worksoft Certify. His career interests are geared towards system development and website management.

**Education:** Graduated from the University of Sunderland with a BSc with Honours in Computer Systems Engineering.

**Interests:** Kevin is a huge football and basketball fanatic with his favourite teams being Manchester United and the Los Angeles Lakers, respectively, which ultimately keeps him indoors most of the time. Having lived and studied in the UK, Kevin has developed huge interest in learning different cultures and likes meeting different people. He also has a keen interest in technology and spends most of his free time reading about the latest and upcoming technologies, especially in the computer and mobile phone categories. Kevin enjoys a meal that could be made up of potatoes (in whatever form), fish and chicken.

**Other:** Kevin has been a registered member of the Botswana Information Technology Society since 2008.



# Last word

**And finally, Steve Sloan, GALVmed CEO, always gets the last word...**

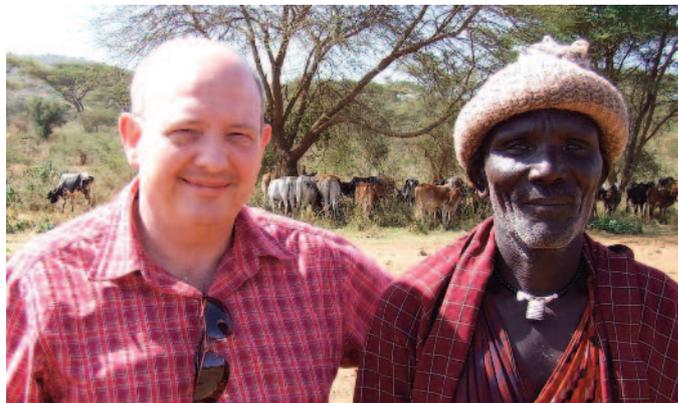
This year saw GALVmed reach a critical point in its development. Following a lengthy establishment phase, which began back in November 2005, GALVmed really started operations in earnest in March 2008 following the awarding of the joint US\$28 million three-year grant by the Bill & Melinda Gates Foundation (BMGF) and the UK's Department for International Development (DFID). This marked the beginning of our work to develop, register and launch "four to six vaccines, pharmaceutical or diagnostic products by 2015", and also our associated capacity building, advocacy and other related activities.

We are now well into the final year of that BMGF/DFID grant and we really need to let people know about the progress we have made against the first four prioritised diseases: East Coast fever, Rift Valley fever, porcine cysticercosis and Newcastle disease.

One component of a strengthened approach to communications to enable GALVmed to do that is this newsletter. Rather than commit ourselves to produce the newsletter at regular intervals dictated by the calendar, we have decided to produce them as often as necessary – so, whenever you receive one, we really have something important to say!

The newsletter is being sent to our large and rapidly growing extended GALVmed family – including members of staff, board members, advisors, consultants, partners, investors and our friends in the media.

To minimise costs and impact on the environment, wherever possible newsletters will be distributed by e-mail: if you must print them, we have taken care in our design to minimise ink usage whilst still achieving an attractive and clear layout.



There is now a lot happening on many fronts and with the GALVmed family scattered around the world it is becoming increasingly difficult to keep abreast of developments. So, in addition to the newsletter we are also having a renewed emphasis on the website, committing ourselves to post regular stories and updates about our plans, challenges and achievements. With our rapidly growing GALVmed family, we will also place greater emphasis on introducing new members and profiling established ones.

I am confident that the progress we have achieved together with our partners will put us in a strong position and that our investors will be keen to provide additional funding to enable us to move on to tackle new diseases and extend our reach, especially into Asia.

2011 will be an exciting year for GALVmed. As we move towards delivering on the promises we made when we got our first big grant, we will also make even more ambitious plans for the coming years, enabling us to help protecting livestock-saving human life on an even bigger scale.

**Finally, as we enter the end of year festive season, I would like to wish all GALVmed's friends happy holidays and a productive, healthy and successful 2011.**

**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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