Role of the OIE in improving animal health by using biotechnologies
A syncytium of cells infected with the virulent Kabete O strain of rinderpest that has had GFP (green fluorescent protein) inserted in frame into the polymerase (L) gene (originally reported in Brown et al. [2005] - Rational attenuation of a morbillivirus by modulating the activity of the RNA dependent RNA polymerase. Journal of Virology, 79, 14330-14338)
green: GFP (and therefore the polymerase); blue: nuclei; red: endoplasmic reticulum

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By adopting the OIE’s Fourth Strategic Plan in May 2005, our Member Countries and Territories confirmed their decision to update our mandate. The OIE was created in 1924 with the aim of controlling the international spread of infectious animal diseases, but now, over and above this original mission, our new mandate is ‘to improve animal health worldwide’. This considerably broadens our responsibilities, since not only does it require all our Members to share the same political will, but new institutional and technical mechanisms for preventing and controlling animal diseases will have to be developed at a national, regional and worldwide level.

To succeed, the OIE must now provide policy makers with the right information, arguments and tools for this political will to be exercised effectively and sustainably. These arguments must first and foremost be founded on a qualitative and quantitative evaluation of the political, social and economic benefits to be gained by investing more in new national, regional and worldwide animal health systems.

However, the effectiveness of investments in animal health systems depends on the good governance of the mechanisms intended to implement them. Veterinary Services, including both their public and private sector components, are in the front line when it comes to improving animal health. Increasing their effectiveness depends on the mobilisation of adequate human and financial resources, and on the application of the methods of good governance described in the OIE Code and democratically adopted in the form of international standards by the 170 Members. Good governance requires both legislation and the necessary human and financial resources to apply it.

It is also important to claim that this field of activity qualifies as a ‘global public good’. The sudden appearance of new risks to populations and agricultural sectors throughout the world, in an unprecedented context of the globalisation of pathogens and climate change means that investment in animal health mechanisms must be considered a priority.

The prevention and control of zoonoses by implementing OIE standards and guidelines linked to the WTO/SPS Agreement are an essential component of public health policies. An analysis of the current avian influenza crisis is a perfect example of this, but there have been many other similar crises (severe acute respiratory syndrome [SARS], bovine spongiform encephalopathy [BSE], Rift Valley fever, rabies, etc.).

We must also remember the considerable economic and social impact of animal diseases on the rural economy of our Member Countries and Territories.

The animal production industry in rich countries is under constant threat from these diseases. In most cases, and at great expense, they are eradicated, but countries remain at risk from the reintroduction of disease, which causes enormous losses. Animal production plays a considerable role in the survival of poor rural communities in developing countries. Disease is also a threat for animals raised in these countries, and it is a serious problem for poor communities in rural and peri-urban areas. They are currently incurring severe losses as a result of animal diseases and these losses are on the increase.

It is important to reiterate that the control of animal diseases makes an important contribution to the fight against poverty throughout the world, in terms of both public health and support for the economic and social development of the populations and countries concerned.

This economic approach is also supported by an analysis of the current regional and global flow of trade in animals and animal products. Exports can in some cases offer a precious source of income for developing countries and their rural producers, but for sanitary reasons this outlet is very often closed to them. Effective control of animal diseases in these countries would therefore help to give them access to valuable markets from which they are currently barred.
as they are not yet able to control or eradicate the most important of these diseases.

Investing in new animal health systems throughout the world thus helps not only to protect countries from natural or bioterrorist threats linked to the reintroduction of infectious animal diseases and zoonoses that they have already succeeded in eliminating, but also to safeguard public health, reduce poverty and open to all the possibility of trading their agricultural products freely with the rest of the world. The OIE will deliver these messages loud and clear wherever they need to be heard. At the same time, we are working with economists to provide policy makers with convincing arguments that are backed up by figures.

By evaluating Veterinary Services’ compliance with its quality standards, the OIE can also identify priority areas for investment on behalf of the national Veterinary Services in each Member Country or Territory that so wishes. The ultimate aim is to ensure that veterinary surveillance networks are in place everywhere, since early detection of diseases and an immediate response are the keys to effective prevention and control of natural or intentional animal health disasters.

More than fifty countries are currently being evaluated by experts trained and certified by the OIE. The World Animal Health and Welfare Fund, set up by the OIE in 2004, is dedicated to this evaluation and analysis activity and to providing continuing education in the OIE’s five regions for national officials in charge of modernising the Veterinary Services and maintaining relations with the OIE, as well as for relevant private sector representatives.

In carrying out its new mandate, the OIE will also continue to give top priority to its scientific and technical missions relating to the continuous updating of disease control methods.

In addition to providing the communication needed to ensure that these control methods are applied effectively by adequately resourced Veterinary Services everywhere, it is essential to form alliances with intergovernmental organisations such as the WTO, FAO and the WHO and with relevant regional organisations, not forgetting key private sector partners such as organisations of producers, veterinarians, processors, and catering and distribution chains.

Lastly, we must bear in mind that animal health is a crucial factor in ensuring food safety and an essential component of animal welfare. This explains why consumers and animal welfare groups actively support the fulfilment of our new mandate.

There can be no doubt that improving animal health is a global public good: more than 120 countries need help to reach a situation that is satisfactory for them and does not pose a sanitary risk to other countries. This is clearly a highly relevant area for the expression of international solidarity, in the interests of us all.

More than fifty countries are currently being evaluated by experts trained and certified by the OIE

This explains why consumers and animal welfare groups actively support the fulfilment of our new mandate

Bernard Vallat
Director General, OIE
The birth of biotechnology and original expectations

The term ‘biotechnology’ was coined in 1919 by Karl Ereky, a Hungarian engineer, who described the term to capture the process by which products could be produced from raw materials with the aid of living organisms. The field has evolved over the decades but really exploded in the latter part of the 20th Century with the advent of the new techniques of genetic engineering. Techniques such as gene splicing and recombinant deoxyribonucleic acid (DNA) technology allowed for the first time the selection of segments of DNA to be taken from one organism and placed into the cells of another organism. The ability to make bacterial or eukaryotic cells produce foreign plant and animal molecules led to a sudden new biological revolution. Foremost, genetic engineering brought biotechnology to the forefront of science and commercial applications soon followed.

Advances and obstacles in the last decade

The first advances came inaudibly with improvements in production methods but the advancements that received the most notoriety came with the production of new medicines and genetically engineered crops. As early as 1978, the synthesis of human insulin had a huge impact on expectations and the biotechnology industry grew rapidly. Successes in plant biotechnology are evident today with an estimated 70% of processed foods in grocery stores containing ingredients derived from biotechnology crops. The first commodity crop, an insect resistant variety of corn, was grown and sold in 1996. The application of biotechnology in animal production on the other hand has had varying successes and limited commercial applications. The initial breakthroughs in animal biotechnology came with making genetically identical copies or clones of animals. The first success made international news in 1997 when a group of Scottish researchers announced the birth of Dolly, which was cloned using a single cell from an adult sheep. Researchers have since cloned other mammals including cows, goats, pigs, and mice. However, the overall low rate of successful cloning and frequent occurrence of developmental abnormalities in cloned animals demonstrate the need for further research before cloning can be practical. It has also been reported that cloned animals may exhibit health problems. There are currently several hundred cloned dairy and beef cattle, though their food products have not been sold to the public.

A notable scientific breakthrough in animal biotechnology came in the form of a research tool whereby a foreign gene could be inserted and expressed in an animal. One of the first commercial applications under consideration was the use of transgenic farm animals as bioreactors for the production of medicines or organs
donors. Safety concerns over the risk of contamination of the end product with animal pathogens such as bovine spongiform encephalopathy (BSE) have severely limited the application of these technologies. The commercialisation of transgenic farm animals for food has also been elusive with concerns over food safety, animal welfare, and the environment being expressed by regulatory authorities and the public. Not surprisingly, the first transgenic animals to be sold to the public have not been food animals but companion animals. The first transgenic animal to reach the market being the ornamental goldfish, which under black light fluoresce in a brilliant red color due to an inserted gene derived from the sea anemone. The first cloned pet, a cat, was delivered to its owner in December 2004.

Applications in animal health

Some of the most tangible applications of biotechnology have been in animal health. The globalised trade in live animals, animal products, bedding and feeds is leading to a continuously increasing threat of infectious diseases worldwide. The epizootiological situation is further jeopardised by the regular intra- and intercontinental transport of animals for competitions, exhibitions and breeding purposes. The increasingly open borders between many countries, also contribute to a new high risk situation, where infectious agents may easily travel thousands of miles and suddenly appear in areas where they are unexpected and probably unknown. The sudden appearance of an infectious disease in a new region of a country or a continent may lead to delayed or improper diagnosis, resulting in the uncontrolled spread of the agent to susceptible populations of animals in large unrestricted geographic areas. The emergence of vector-born diseases, such as Rift Valley fever, bluetongue and African swine fever, in connection to climatic changes, is also an increasing threat world-wide. To prevent the spread of infectious diseases, the World Organisation for Animal Health (OIE) emphasises the importance of the following basic requirements:

a) the very rapid, accurate, highly specific and sensitive detection and identification of infectious agents; and
b) prompt and effective control of diseases.
The recent achievements of biotechnology are significantly contributing to the development of novel powerful diagnostic assays, such as various real-time polymerase chain reaction (PCR) and isothermal amplification methods, microarrays, protein detection by nucleic acid amplification, recombinant proteins, synthetic proteins, biosensors and many other approaches to detect the pathogens and/or the immune responses after infection. The phylogenetic analysis of the amplified nucleic acid sequences provides novel information on the evolution of pathogens and supports the studies of molecular epidemiology. Evidence for exchange of DNA amongst varying microbial organisms along the evolutionary ladder is redefining our understanding of pathogens and redefining the classification of microorganisms and systematics. Considering that 70%-80% of all new emerging diseases worldwide are zoonotic, biotechnology is also making momentous contributions to preventive medicine by opening new ways to construct genetically modified marker vaccines, DNA vaccines and other tools for improved and safer immunisation against infectious diseases in animals and man. Biotechnology provides the means by which novel and effective tools can be specifically designed for control and eradication. With the investments made in biotechnology research, health authorities worldwide are progressively in a better position to combat infectious diseases, including highly devastating transboundary animal diseases. Considering the emerging biological threats worldwide, biotechnology is providing tools for the detection, prevention and management of natural and bioterrorism induced pandemics. Emerging technology has provided the tools to design much deadlier pathogens in the hands of bioterrorists. However, concomitantly the ability to respond to emerging pandemics to reduce mortality has also improved significantly in the recent years.

According to recent publications there are 105 biotechnology products licensed for animals. Most of these products are biologics, including veterinary vaccines and diagnostic kits. The animal health industry invests more than $400 million a year in research and development. Current sales of biotechnology-based products for use in animal health generate $2.8 billion. Biotechnology has yielded new and improved
medicines for animals that help lower production costs and improve animal welfare by fighting devastating infectious diseases that affect animals worldwide. The advent of biotechnology has provided the means by which animal vaccines can be rationally designed for the specific control and eradication of diseases, including the implementation of DIVA (differentiating infected from vaccinated animals) strategies. Biotechnology has also led to the development of rapid laboratory diagnostic tests to detect disease outbreaks early, a critical element in disease control. Importantly, biotechnology is enabling the development of diagnostic kits that can not only be used in the laboratory but pen-side tests that can be used in the field to make decisions about the exposure of animals during a disease outbreak.

The next frontier, the application of animal genomics in animal health

In the late 20th Century, a new window of opportunity has opened with a new area of research called genomics. The term ‘genomics’ was first coined in 1986 to name a new journal where science generated from efforts to sequence the human genome could be published. Technologies being used at that time included the use of bacterial restriction endonucleases to visualise differences in the sequence of DNA and map chromosomes. This was followed quickly by the development of the polymerase chain reaction (PCR) in 1985, which opened up an entirely new world to detect and to study the differences in the DNA sequences of the various genes of animals. Coupled with genetic markers, PCR became a powerful tool that quickly allowed the development of genetic maps of the livestock genomes in the early 1990s. As the 21st Century began and the human genome moved toward an initial draft sequence, additional technologies became available that allowed researchers to move into large-scale gene expression studies to visualise changes in levels of expression of hundreds of thousands of genes in specific tissues. The agricultural research community was able to capitalise on the infrastructure built by the human genome project by sequencing the chicken genome (Gallus domesticus) and the bovine genome (Bos taurus). The 2006 calendar year marked a major milestone in the history of agricultural animal research with the draft genome sequences completed for chickens and cattle and sequencing initiated for the porcine and equine genomes. The animal health research community now has in place a powerful toolbox for understanding the genetic variation associated with disease susceptibility, host-pathogen interactions, and complex phenotypes such as health traits.

Critical gaps in our understanding of gene structure and function in domestic animals must be filled before animal genomics can be successfully applied to animal health. Domestic animals provide a unique resource to study the primary biological mechanisms underlying gene structure and function, regulation of gene expression, and the genetic contribution to phenotypic variation because, unlike humans, domestic animals have been artificially selected to express or repress specific traits. Significant resources will be needed to support research and
integrate two scientific disciplines that are not traditional partners: quantitative genetics and animal health. In support of that endeavour, the OIE has established an Ad hoc Group on Biotechnology. In this Group experts are working together to assess new technologies and develop scientific guidelines to enable their safe use in animal health research.

Furthermore, OIE sponsored and hosted at its Paris headquarters an International Symposium on Animal Genomics for Animal Health (23-25 October 2007). Advances in animal genomics will require interdisciplinary teams of scientists that address complex issues in animal diseases with state-of-the-art equipment and approaches that include infectious diseases, pathology, physiology, immunology, and comparative microbial genomics.

The following four priorities will be paramount if we are to achieve the full benefits of animal genomics:

1. quantitative population genetics studies to identify markers of health traits;
2. studies in functional genomics to assess host-pathogen interactions;
3. translating genomics information to discover innovative tools to control animal diseases;
4. integrated stakeholder support to advance the application of animal genomics for animal health.

Sandor Belak and Cyril Gay
Working with ribonucleic acid (RNA)-based biotechnologies

Advances in the laboratory now indicate that ribonucleic acid (RNA)-based biotechnologies are fast approaching application in animals. The most likely area of use will be in disease prevention or mitigation. There are several RNA-based biotechnologies but, in general, they all aim to reduce the production of protein from a given gene. At present, RNA-based biotechnologies have most promise in combating virus infection in animals through reducing viral gene activity. RNA-based biotechnologies are likely to impact on animal health within the next ten years.

RNA-based approaches to regulate gene activity have been practiced in the lab for some time. Significant technical advances and validation of strategies now mean they are likely to see application in animals in the field soon.

There are a variety of RNA-based biotechnologies differing in technical aspects of the mode of action. However, they all aim to reduce the production of protein from a given gene. This article will introduce the different types of RNA-based biotechnologies, briefly indicate how they might be delivered to an animal and indicate possible applications. The focus will be only impact to animal health.

RNA-interference (RNAi)

Although less than a decade has passed since RNAi was shown to work in mammals, this term has come common place in discussion about regulating gene expression. But what is RNAi? In its simplest definition it is the use of RNA (ribonucleic acid) molecules to modulate the activity of a target gene. When you delve deeper a multitude of terms appear – siRNA, shRNA, miRNA to name a few. These terms will be expanded more later; but first how are genes activated.

Genes within an animals' genome are transcribed when the appropriate activation signals are present in a given cell. The action of transcription results in the production of messenger RNA. An RNA molecule comprises of a string of nucleotides; the string of nucleotides in messenger RNAs encode for the proteins that make up an animals cell. It is against this messenger RNA that RNAi acts. The important functional component of RNAi is a short single-stranded RNA molecule of about 20 nucleotide bases in length which can bind directly to a target messenger RNA. This interaction leads to the destruction of the messenger RNA, preventing production of protein which should have been produced by that messenger RNA. This activity is often called 'gene knockdown'. To give an example, if an RNAi molecule was designed to target a viral gene, then its activity would prevent normal virus production.

RNAi molecules come in different forms. As independent small double stranded RNA molecules called short-interfering RNA (siRNA) that can only survive transiently in an animal. For prolonged an activity the siRNA must be incorporated into an expression vector that functions like a gene. In this case they are called short-hairpin RNA (shRNA), due to their physical structure, or microRNA (miRNA). The latter form are found naturally in animals and are now believed to play a major role in normal cell growth and survival. Synthetic miRNA can also be constructed in the lab for delivery to an animal.
Other RNA-based biotechnologies

Although currently most optimism for successful application of RNA-based biotechnologies revolves around the use of RNAi, other types of RNA molecule exist that could be applied to animals. These include RNA decoys to block activity of an enzyme. A potential application would be to block the activity of a viral polymerase and thus prevent viral replication. For some time the prospect of using antisense molecules or other oligonucleotide-type molecules.

Both antisense and RNAi molecules evoke normal cellular enzymes to destroy the target RNA. There are some RNA molecules that contain their own enzymatic activity. Ribozymes, that specifically bind to and subsequently catalyze the cleavage of other target RNA molecules, and represent an interesting alternative to the RNAi. Unfortunately ribozyme design has proved difficult.

It is likely that further RNA molecules will be identified. For example, recently RNA molecules that can destroy miRNA called antagomirs. To date, all RNA-based biotechnologies function to reduce target gene activity.

Delivering RNA-based molecules

How can RNA-based molecules be delivered to animals? Two different strategies are possible. First they could be delivered in a gene-therapy or vaccination-type of approach. Depending on what type of RNA-based molecule was delivered the effect could be either a transient of stable change in gene activity. For example the use of siRNA would result in a transient alteration in gene activity somewhat similar to vaccination, except that the timescale would most likely be considerably shorter than the intended protection period offered by vaccination. This timescale will impact on what you could use siRNA for. With a gene therapy delivery strategy the aim would be to enable the change in gene activity to be present for as long as cells carrying the RNA-based molecule survive in the animal. For most applications, actual delivery vehicles remain to be evaluated.

Alternatively, shRNA or miRNA could be delivered as a transgene to generate genetically modified animals. This approach would result in the stable inheritance of the RNAi transgene by offspring and subsequent generations of animals derived from the original founder animal.

For both gene therapy delivery and transgenic strategies, more elaborate RNAi molecule designs that incorporate inducible gene knockdown activity are possible. In this case the RNAi molecule is only produced in the presence of the appropriate inducing factor.

The practicalities of delivery of RNA molecules to animals are likely to be common to those addressed during development of drug treatment strategies and vaccination.

Applications of RNA-based biotechnologies in animal health

Most applications that could be applied to animals are still in the experimental phase. There are, however, several preclinical studies for applications in humans and it is reasonable to expect that these will accelerate the use of RNA-based biotechnologies in animals. A few current studies will be described to illustrate the potential of RNA-based biotechnologies.

Perhaps the most likely application of RNA-based biotechnologies will be to interfere with virus infection. Several projects are focussing on the use of RNAi to prevent virus replication and thus combat virus induced disease. These studies are most advanced for FMDV, EIAV and flu. Commonly the target is the viral polymerase. Antisense-type approaches are also being targeted against viruses. In one project the RNA molecule functions as a decoy, again aiming to prevent influenza viral polymerase enzyme activity to intervene in virus replication.
Alternative uses of RNA-based biotechnologies that can be envisaged for the future include modulation of some aspect of the immune system. In this scenario the variation in gene activity seen in natural animal populations could be mimicked through the knockdown afforded by RNAi. In a similar vein, some other aspect of animal function, for example, growth could be modulated.

Potential risks associated with RNA-based biotechnologies

It is now widely acknowledged that RNAi can be an efficient way to reduce gene activity. However, as with most emerging technologies, some concerns remain to be overcome. The use of RNA-based technologies can provoke an internal immune response within an animal’s cell. In extreme situations this can lead to cell death. For those applications that aim to combat virus infection this may be an advantage.

Another widely discussed concern relates to possible inefficiencies on non-target genes. This is possible through weak interaction of the RNA molecule to messenger RNAs transcribed form non-target genes. Obviously if this occurred in a living animal the effect could be quite severe. This is an area of intense investigation at the moment and the imminent human clinical trials with RNA-based biotechnologies will be informative in this regard.

Bruce Whitelaw
Looking to the future: potential nanotechnology applications in animal health

Nanotechnology is the understanding and control of matter at dimensions of roughly 1 to 100 nanometers, where unique phenomena enable novel applications. For comparison purposes, a nanometer is one-billionth of a meter; a sheet of paper is about 100,000 nanometers thick. At the nanoscale, the physical, chemical and biological properties of materials differ in fundamental and valuable ways from the properties of individual atoms and molecules or bulk matter (1).

Internationally, substantially increased funding is being devoted to research and development in the area of nanotechnology (Fig. 1) (2). This is allowing the advancement of the knowledge frontiers of nanoscale phenomena and processes toward the goal of systematic control over matter at the nanoscale level. Investment in nanotechnology including both public and private funding is a major factor used to benchmark the standing of countries’ support for nanotechnology research and development.

Although the chemical and electronics applications of nanotechnology have been in development for a number of years, it is only in the past decade that the biological applications of nanotechnology have generated unprecedented attention. In nanomedicine, there is the expectation that nanoparticles (extremely small bead-shaped carriers of medicinal agents) will replace numerous medical tests, scans, or surgeries with a simple injection. Using these tiny spheres doctors will be able to locate disease sites deep within the body and at the same time determine their size, shape, and diagnostic features. They can then adapt the nanoparticles to deliver a load of therapeutic drugs exactly where needed. Readily manufactured to contain a variety of components, the particles can be tailored to each patient’s unique condition. This technology has already been seen to work against such major health challenges as cancer, and cardio-vascular disease in laboratory animals. The notion of linking in-built sensors to in-built smart delivery systems has been called ‘the fuel injection principle’ since it mimics the
way modern cars use sensors to time fuel-delivery to the engine. The closest applications to market are implantable insulin-delivery devices or ‘drug chips’ that will be linked with glucose sensors for (human) diabetics to automatically regulate blood sugar levels. Over time, this could be the model for all drug delivery, in both humans and animals.

In the veterinary medicine community interest is now being generated as to what applications of nanotechnology may be applicable to animal health. Scott outlines four potential applications (3):

- **Smart drug delivery wherein** nanoscale devices (as mentioned above) are envisioned that will have the capability to detect and treat an infection, nutrient deficiency or other health problem long before clinical signs are evident.
- **Disease diagnosis and treatment** whereby quantum dots may be injected into the bloodstream of animals where they would detect cells that are malfunctioning. As quantum dots respond to light it may be possible to illuminate the body with light and stimulate the quantum dot to heat up enough to kill diseased cells.
- **Identity preservation** using nanoscale devices has the potential to continuously track and report the history of an animal and its products.
- **Management of animal breeding** could be improved by using subcutaneous nanotubes which could be used to track oestrus in animals. These tubes have the capacity to bind and detect the estradiol antibody at the time of oestrus by near infrared fluorescence. The signal from the sensor could be incorporated as part of a central monitoring and control system to actuate breeding.

In addition to these applications, the following somewhat more detailed uses have been described (4):

- **Tracing food from paddock to plate** using ‘nanobarcodes’ made of silver and gold which could allow the continuous tracking and recording of the physical path meat or milk took, as well as variables affecting food safety such as temperature.
- **Nanocrystals** known as ‘quantum dots’ can bind to specific proteins in disease-causing bacteria, and emit distinctive colours under ultraviolet light to indicate whether plants or animals are infected and need to be treated or destroyed.
- **A farm-based nanoparticle** is being developed to bind to the surface of campylobacter bacteria in the gut of chickens, clumping them together and dislodging the bacteria from the intestines.

As the various potential animal health applications start to move towards commercialisation, there will be trade issues that will inevitably arise. The question as to whether the SPS Agreement can regulate trade in nanotechnology has recently been examined by Thayer (5). As in any trade prohibitive measure, whether the SPS Agreement applies to measures prohibiting trade in nanotechnology would depend on the purpose of the measure. The purpose of SPS measures is to protect animal, plant or human health against certain risks associated with foreign goods. The risks may include those caused by toxins, diseases and pests. As recent studies (6) have shown that certain nanoparticles are toxic to fish, the purpose of a measure which would regulate trade in nanotechnology would be to protect animal health against such a risk. Therefore the conclusion is drawn that because of recent scientific evidence, many measures which would regulate the trade in nanotechnology would be subject to the SPS Agreement. In addition, since Sanitary and Phytosanitary Measures must be based on scientific evidence, if Members apply the Agreement appropriately, the Agreement would objectively balance the benefits and risks of trading in nanotechnology.

Increasingly governments are turning their attention to consider what new, if any regulatory measures may be needed in regards to nanotechnology. That is, nanoscale materials present challenges similar to those posed by products from other emerging technologies, however, the challenges may be complicated by the fact that properties relevant to product safety and effectiveness may change as size varies within the nanoscale. Risk assessments will have to be undertaken which take into consideration the biological effects and interactions of nanoscale materials. Special consideration will
be required for the assessment of the potential translocation of nanoparticles in humans and other species, and potential adverse affects, for example, within the cardio-vascular system or following passage across the blood-brain barrier. As regulatory initiatives are undertaken, nanoethics, which is the study of nanotechnologies’ ethical and social implications, will be intertwined with the risk communication process. Lin notes that nanoscience which is so full of potential that it has been called ‘the next industrial revolution’ will impact society, the environment, the economy or even global politics in profound ways (7). In keeping with this theme, an anthology entitled Nanoethics: The Ethical and Social Implications of Nanotechnology has just become available and covers a full range of issues facing nanotechnology, including those related to benefits, risk, environment, health and more (8).

As governments examine their regulatory requirements, there will be an expectation that the international standard setting bodies will be deliberating standards, recommendations, guidelines or codes that will serve as international reference points. For example, definitional standards are needed to enable all players to speak in common terms and it has been suggested that there is a need for nano-nomenclature. In this regard, the International Standards Organization (ISO) has established ISO-TC 229 Nanotechnologies. Within the Organization for Economic Cooperation and Development (OECD) the Committee for Scientific and Technological Policy (CSTP) created the CSTP Working Party on Nanotechnology (WPN) in March 2007. The WPN has established six projects which include Statistics and Measurement, Impacts and Business Environment, International Research Collaboration, Outreach and public engagement, Dialogue on Policy Strategies and The Contribution of Nanotechnology to Global Challenges. It would seem inevitable that the outcomes of these projects will impact, albeit in a tangential manner, Animal Health Policy.

The World Organisation for Animal Health (OIE) has been considering the possibility that work in regards to nanotechnology relevant to its mandate may be necessary. Further to this consideration, Resolution XXVIII was adopted at the meeting of the International Committee in May 2005 (9). Part 7 of this resolution refers to ‘development of guidelines relevant to the application of nanoscience/nanotechnology as it relates to animal health’. As a result of this resolution, a sub-group on nanotechnology has been established within the OIE ad hoc Group on Biotechnology. Developments in potential Animal Health applications area are being monitored. Clearly a technology which is becoming increasingly well-funded and is moving so rapidly to concrete applications deserves careful attention. It would seem to be very timely for member governments to consider what expectations they may have of OIE in regards to work on Nanotechnology that would, of course, be relevant to its mandate.

Some questions that may have to be considered to inform the policy debate could include:

- If a food producing animal has been the subject of a nanotechnology application will this have any influence on the safety of the product for human consumption?
- Will there be any environmental impacts of Nanotechnology applications which may be used in animal health? For example, is it likely that nanomaterials can affect wildlife if they are accidentally released into the environment?
- Will there be occupational hygiene issues for Animal Health workers?
- What are the toxicological aspects of Nanoparticles in drug delivery (10) as applied to Animal Health therapeutics or biologics?
- What objectives of the OIE would be fulfilled by the consideration of further work relating to Animal Health applications of Nanotechnology?
- What specific work should OIE undertake in regards to the Animal Health applications of technology in regards to Standards or Code development?

Some possible areas of consideration could include:

- Animal Health applications
- Nanotechnology
- Standards or Code development
- Animal Health Policy

Anne A. MacKenzie
References


new OIE publications

These publications are available for purchase from the OIE e-bookshop www.oie.int (publications)

Volume 26 (3) of the Scientific and Technical Review contains 21 articles submitted by experts from all parts of the world. The articles describe different animal disease surveillance strategies and the control and elimination of important animal diseases. The organisation of Veterinary Services is also discussed, as are diagnosis and vaccines.

The Review also constitutes a unique vehicle for the publication of reports on the situation of various animal diseases in the world, in particular in countries whose animal health situation receives little or no publicity otherwise. Every year, the OIE also publishes two issues of the OIE Scientific and Technical Review on specific topics.

It is twelve years since the World Organisation for Animal Health (OIE) published ‘Preventing the spread of aquatic animal diseases’ in its Scientific and Technical Review (the Review) (Vol. 15 [2], June 1996), and nearly ten years since aquatic animal disease emergencies were addressed in ‘Management of animal health emergencies’ Vol. 18 (1), April 1999. Since these publications, there have been significant developments in aquatic animal disease control.

A completely overhauled OIE Aquatic Animal Health Code now provides a new, more practice-orientated international framework for sanitary safety in the trade of aquatic animals and aquatic animal products. The recommendations in each of the disease chapters are designed to minimise the risk of the disease under consideration being introduced and established in the importing country, taking into account the nature and intended end-use of the traded commodity as well as the aquatic animal health status of the exporting country. Basic biosecurity conditions are defined, requiring that an early detection system is in place that must include veterinarians or aquatic animal health specialists trained in recognising and reporting suspicious disease occurrence.

With the increase in culture of ‘new’ aquatic animal species and the consequential discovery of new and emerging diseases, it appears timely to provide an update on the range of disease emergency management strategies. The main purpose of this volume of the Review is, therefore, to provide a state-of-the-art compilation and assessment of aquatic animal disease emergency management strategies, covering policies as well as operational tools, from international to farm levels. It aims to provide useful generic information on the different issues surrounding the management of aquatic animal disease emergencies, written by world specialists. It should be extremely valuable, providing a contemporary and truly global perspective on this topic.
Name and function of OIE permanent personnel participating in meetings and visits

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<td>Jean-Luc Angot</td>
<td>Deputy Director General (Administration, Finances, Staff management)</td>
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<td></td>
<td>Gideon Brückner</td>
<td>Deputy Director General (Animal Health and International Standards)</td>
</tr>
<tr>
<td></td>
<td>Alex Thiermann</td>
<td>Advisor and President of the Terrestrial Animal Health Standards Commission</td>
</tr>
<tr>
<td></td>
<td>Maria Zampaglione</td>
<td>Head of the Communication Unit</td>
</tr>
<tr>
<td></td>
<td>Gaieul Mamaghani</td>
<td>Deputy Head of the Communication Unit</td>
</tr>
<tr>
<td></td>
<td>Alain Dehove</td>
<td>Coordinator of the World Animal Health and Welfare Fund</td>
</tr>
<tr>
<td></td>
<td>Willem Droppers</td>
<td>Chargé de mission</td>
</tr>
</tbody>
</table>

### Administration and Management Systems Department

<table>
<thead>
<tr>
<th>Department</th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daniel Chaisemartin</td>
<td>Head of the Department</td>
</tr>
<tr>
<td></td>
<td>Bertrand Flahault</td>
<td>Deputy Head of the Department</td>
</tr>
<tr>
<td></td>
<td>Aleksandra Balmont</td>
<td>Bilingual Secretary / Conference Assistant</td>
</tr>
</tbody>
</table>

### Animal Health Information Department

<table>
<thead>
<tr>
<th>Department</th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Karim Ben Jebra</td>
<td>Head of the Department</td>
</tr>
<tr>
<td></td>
<td>Antonio Petrini</td>
<td>Deputy Head of the Department</td>
</tr>
<tr>
<td></td>
<td>Francesco Berlingieri</td>
<td>Deputy Head of the Department</td>
</tr>
<tr>
<td></td>
<td>Maria Cristina Ramirez</td>
<td>Chargé de mission</td>
</tr>
</tbody>
</table>

### International Trade Department

<table>
<thead>
<tr>
<th>Department</th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sarah Khan</td>
<td>Head of the Department</td>
</tr>
<tr>
<td></td>
<td>Leopoldo Stuardo</td>
<td>Chargé de mission</td>
</tr>
<tr>
<td></td>
<td>Yamato Atagi</td>
<td>Chargé de mission</td>
</tr>
<tr>
<td></td>
<td>Gillian Myfrea</td>
<td>Chargé de mission</td>
</tr>
</tbody>
</table>

### Publications Department

<table>
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<tr>
<th>Department</th>
<th>Name</th>
<th>Position</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Paul-Pierre Pastoret</td>
<td>Head of the Department</td>
</tr>
<tr>
<td></td>
<td>Annie Souyi</td>
<td>Deputy Head of the Department</td>
</tr>
<tr>
<td></td>
<td>Tamara Benicasa</td>
<td>Sales and Marketing Agent</td>
</tr>
<tr>
<td></td>
<td>Marie Teissier</td>
<td>Documentalist</td>
</tr>
</tbody>
</table>

### Scientific and Technical Department

<table>
<thead>
<tr>
<th>Department</th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gideon Brückner</td>
<td>Head of the Department</td>
</tr>
<tr>
<td></td>
<td>Tomoko Ishibashi</td>
<td>Deputy Head of the Department</td>
</tr>
<tr>
<td></td>
<td>Christianne Bruschke</td>
<td>Chargé de mission</td>
</tr>
<tr>
<td></td>
<td>Keith Hamilton</td>
<td>OFFLU Coordinator</td>
</tr>
<tr>
<td></td>
<td>François Diaz</td>
<td>Officer in charge of validation of diagnostic assays</td>
</tr>
<tr>
<td></td>
<td>Léa Knop</td>
<td>Officer in charge of the recognition of countries’ animal disease status</td>
</tr>
<tr>
<td></td>
<td>Sara Linnane</td>
<td>Scientific Editor</td>
</tr>
</tbody>
</table>

### Regional Activities Department

<table>
<thead>
<tr>
<th>Department</th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dewan Sibartie</td>
<td>Head of the Department</td>
</tr>
<tr>
<td></td>
<td>Gaston Funes</td>
<td>Deputy Head of the Department</td>
</tr>
<tr>
<td></td>
<td>Stéphane Berlaud</td>
<td>Chargé de mission</td>
</tr>
<tr>
<td></td>
<td>Nathaly Monsalve</td>
<td>Bilingual Secretary</td>
</tr>
</tbody>
</table>

### The Regional Representations

#### Africa

- **Amadou Samba Sidibé**
  Regional Representative for Africa (Bamako, Mali)

- **Nicolas Denormandie**
  Technical Assistant (Bamako, Mali)

- **Mariam Minta**
  Secretary (Bamako, Mali)

- **Bonaventure J. Mtei**
  Sub-Regional Representative for the Southern African Development Community (SADC) (Gaborone, Botswana)

- **Patrick Bastiaensen**
  Chargé de mission (Gaborone, Botswana)

#### Americas

- **Luis Osvaldo Barcos**
  Regional Representative for the Americas (Buenos Aires, Argentina)

- **Salomé Koloffón Tella**
  Senior Technical Assistant (Buenos Aires, Argentina)

- **Alicia Palmas**
  Secretary (Buenos Aires, Argentina)

- **José Joaquín Oreamuno Toledo**
  Sub-Regional Representative for Central America (Panama)

#### Asia and the Pacific

- **Teruhide Fujita**
  Regional Representative for Asia and the Pacific (Tokyo, Japan)

- **Yoshiyuki Oketani**
  Deputy Regional Representative (Tokyo, Japan)

- **Shiro Yoshimura**
  Senior Deputy Regional Representative (Bangkok, Thailand)

- **Yumiko Sakurai**
  Regional Veterinary Officer (Tokyo, Japan)

- **Wacharapon Chotiyaapat**
  Chargé de mission (Tokyo, Japan)

- **Ronello C. Abila**
  Regional Coordinator, SEAFMD (The Southeast Asia Foot and Mouth Disease Campaign) Coordination Unit (Bangkok, Thailand)

- **Nichola Hungerford**
  Communications Officer, SEAFMD (The Southeast Asia Foot and Mouth Disease Campaign) (Bangkok, Thailand)

- **Stéphane Forman**
  Chargé de mission (Bangkok, Thailand)

#### Europe

- **Nikola T. Belev**
  President of the OIE Regional Commission for Europe and Regional Representative for Eastern Europe (Sofia, Bulgaria)

- **Caroline Planté**
  Sub-Regional Representative / Chargé de mission (Brussels, Belgium)

- **Aina Kostova**
  Secretary (Sofia, Bulgaria)

- **Violeta Radkova**
  Technical Assistant (Sofia, Bulgaria)

#### Middle East

- **Ghazi Yehia**
  Regional Representative for the Middle East (Beirut, Lebanon)

- **Pierre Primot**
  Chargé de mission (Beirut, Lebanon)

- **Mustafa Mestom**
  Advisor (Beirut, Lebanon)

- **Rita Rizk**
  Secretary (Beirut, Lebanon)
### Name and function of experts having represented the OIE in meetings and visits

<table>
<thead>
<tr>
<th>Name and function</th>
<th>Place</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hassan Abdel Aziz Aidaros</td>
<td></td>
<td></td>
<td>Member of the OIE Working Group on Animal Production Food Safety</td>
</tr>
<tr>
<td>Miguel Angel Azañón Robles</td>
<td></td>
<td></td>
<td>OIE Delegate of Guatemala</td>
</tr>
<tr>
<td>David Bayvel</td>
<td></td>
<td></td>
<td>Chairman of the OIE Permanent Animal Welfare Working Group</td>
</tr>
<tr>
<td>Véronique Bellemain</td>
<td></td>
<td></td>
<td>Director of ENSV (Ecole Nationale des Services Vétérinaires [National School of Veterinary Services]), OIE Collaborating Centre</td>
</tr>
<tr>
<td>Vincenzo Caporale</td>
<td></td>
<td></td>
<td>President of the OIE Scientific Commission for Animal Diseases</td>
</tr>
<tr>
<td>Carlos Correa Messuti</td>
<td></td>
<td></td>
<td>Vice-President of the OIE Administrative Commission</td>
</tr>
<tr>
<td>Jamil Gomes de Souza</td>
<td></td>
<td></td>
<td>President of the OIE Regional Commission for the Americas</td>
</tr>
<tr>
<td>Jennifer Koeman</td>
<td></td>
<td></td>
<td>Special Projects Officer (Canadian Food Inspection Agency)</td>
</tr>
<tr>
<td>Ikue Koike</td>
<td></td>
<td></td>
<td>OIE Technical Consultant</td>
</tr>
<tr>
<td>Pierre-Charles Lefèvre</td>
<td></td>
<td></td>
<td>General Inspector of Veterinary Services Ministry of Agriculture and Fisheries, Paris, France</td>
</tr>
<tr>
<td>Rossella Lelli</td>
<td></td>
<td></td>
<td>OIE Observer (OIE Collaborating Centre for Veterinary Training, Epidemiology, Food Safety and Animal Welfare, Teramo, Italy)</td>
</tr>
<tr>
<td>Gardner Murray</td>
<td></td>
<td></td>
<td>OIE Delegate of Australia</td>
</tr>
<tr>
<td>Abdoulaye Bouna Niang</td>
<td></td>
<td></td>
<td>OIE Consultant</td>
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<tr>
<td>Alejandro A. Schudel</td>
<td></td>
<td></td>
<td>OIE Technical Consultant</td>
</tr>
<tr>
<td>Stuart A. Slorach</td>
<td></td>
<td></td>
<td>Chairman of the OIE Working Group on Animal Production Food Safety</td>
</tr>
<tr>
<td>Michel Thibier</td>
<td></td>
<td></td>
<td>Scientific Advisor (Embassy of France in Australia)</td>
</tr>
<tr>
<td>David Wilson</td>
<td></td>
<td></td>
<td>OIE Technical Consultant</td>
</tr>
<tr>
<td>Matsuake Yamage</td>
<td></td>
<td></td>
<td>OIE Technical Consultant</td>
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### OIE news

#### June 2007 (cont.)

<table>
<thead>
<tr>
<th>Title of the event</th>
<th>Place</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting of the Union of European Veterinary Practitioners</td>
<td>Krakow (Poland)</td>
<td>1-3 June 2007</td>
<td>Dr V. Bellemain &amp; Dr Ch. Bruschke</td>
</tr>
<tr>
<td>(UEVP) Section - Federation of Veterinarians of Europe (FVE)</td>
<td></td>
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<tr>
<td>General Assembly</td>
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<tr>
<td>8th Meeting of the Tri-State Commission (TSC) on the</td>
<td>Kota Bharu (Malaysia)</td>
<td>4-6 June 2007</td>
<td>Dr R.C. Abila &amp; Dr N. Hungerford</td>
</tr>
<tr>
<td>Establishment of the Malaysia-Thailand-Myanmar (MTM)</td>
<td></td>
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<tr>
<td>Peninsular Campaign for FMD Freedom</td>
<td>Rome (Italy)</td>
<td>11-15 June 2007</td>
<td>Dr F. Berlingieri</td>
</tr>
<tr>
<td>11th Regular Session of the Commission on Genetic Resources</td>
<td>Onderstepoort,</td>
<td>19 June 2007</td>
<td>Dr G. Brückner</td>
</tr>
<tr>
<td>for Food and Agriculture (CGRFA)</td>
<td>Pretoria (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OIE Reference Laboratory</td>
<td>Gaborone (Botswana)</td>
<td>20-21 June 2007</td>
<td>Dr G. Brückner</td>
</tr>
<tr>
<td>OIE/FAO FMD Reference Laboratories Network</td>
<td>Quezon City (Philippines)</td>
<td>25-28 June 2007</td>
<td>Dr R.C. Abila &amp; Dr N. Hungerford</td>
</tr>
<tr>
<td>Meeting of the FMD Task Force at the Bureau of Animal Industry: Planning for the Final Stage of FMD Eradication Workshop on an African Network on Bovine Tuberculosis (BTB)</td>
<td>Bamako (Mali)</td>
<td>25-30 June 2007</td>
<td>Dr L. Knopf</td>
</tr>
<tr>
<td>Technical meeting on animal and human avian influenza H5N1</td>
<td>Rome (Italy)</td>
<td>28-29 June 2007</td>
<td>Dr B. Vallat, Dr Ch. Bruschke, Mrs M. Zampaglione, Dr A. Thiermann, Dr G. Yehia, Dr A.S. Sidibé, Dr T. Fujita &amp; Dr P. Primat</td>
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</tbody>
</table>

#### July 2007 (cont.)

<table>
<thead>
<tr>
<th>Title of the event</th>
<th>Place</th>
<th>Date</th>
<th>Participants</th>
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</thead>
<tbody>
<tr>
<td>OIE/FAO-APHCA joint Workshop on Animal Identification and</td>
<td>Colombo (Sri Lanka)</td>
<td>2-4 July 2007</td>
<td>Dr Y. Oketani &amp; Dr L.O. Barcos</td>
</tr>
<tr>
<td>Traceability (SRI)</td>
<td></td>
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<tr>
<td>30th session of the Codex Alimentarius Commission (CAC)</td>
<td>Rome (Italy)</td>
<td>2-7 July 2007</td>
<td>Dr B. Vallat, Dr W. Droppers &amp; Dr F. Berlingieri</td>
</tr>
<tr>
<td>The General Assembly of the SIMV (the French union of the</td>
<td>Paris (France)</td>
<td>3 July 2007</td>
<td>Dr F. Diaz</td>
</tr>
<tr>
<td>veterinary reagent and drug industry)</td>
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</table>
### Meetings and Visits

**July 2007 (cont.)**

<table>
<thead>
<tr>
<th>Title of the event</th>
<th>Place</th>
<th>Date</th>
<th>Participants</th>
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</thead>
<tbody>
<tr>
<td>Invitation from the Australian Society for Microbiology (medical and veterinary) - Invitation from the Director of the Australian Animal Health Laboratory at Geelong - Meeting with the federal authorities and the agencies involved in animal health and welfare - Meeting with the Australian Foreign Affairs and International Cooperation authorities</td>
<td>Canberra, Geelong, Adelaide (Australia)</td>
<td>8-14 July 2007</td>
<td>Dr. B. Vallat &amp; Dr. G. Murray</td>
</tr>
<tr>
<td>Ad Hoc meeting on Bluetongue between DG Sanco and Stakeholders</td>
<td>Brussels (Belgium)</td>
<td>9 July 2007</td>
<td>Dr. C. Planté</td>
</tr>
<tr>
<td>Seminar on the cost/benefit analysis of veterinary services</td>
<td>Buenos Aires (Argentina)</td>
<td>9-13 July 2007</td>
<td>Dr. A. Dehove, Dr. L.O. Barcos &amp; Dr. S. Kolöffön Tella</td>
</tr>
<tr>
<td>14th Annual Convention of the American Veterinary Medicine Association (AVMA) - Participation in the Panel on Foot and Mouth Disease (FMD) with a presentation on the global FMD situation</td>
<td>Washington DC (United States of America)</td>
<td>15-16 July 2007</td>
<td>Dr. L.O. Barcos</td>
</tr>
<tr>
<td>Second Regional Steering Committee Meeting of GF-TADs for Asia and the Pacific - Bilateral discussions with the national authorities - Visit to the headquarters of OIE programmes based in Bangkok</td>
<td>Bangkok (Thailand)</td>
<td>15-19 July 2007</td>
<td>Dr. B. Vallat, Dr. D. Siibartie, Dr. T. Fujita, Dr. Y. Oketani, Dr. Y. Sakurai, Dr. W. Chotipaputta, Dr. S. Yoshimura, Dr. R.C. Abila &amp; Dr. S. Forman</td>
</tr>
<tr>
<td>Meeting of the board of directors of the Latin American Avian Association (ALA)</td>
<td>San José (Costa Rica)</td>
<td>16 July 2007</td>
<td>Dr. J.J. Oreamuno Toledo</td>
</tr>
<tr>
<td>3rd Professional Development Event for those working in veterinary medicine, animal production and hydrobiologics</td>
<td>Guatemala City (Guatemala)</td>
<td>17-19 July 2007</td>
<td>Dr. J.J. Oreamuno Toledo &amp; Dr. M.A. Azañón Robles</td>
</tr>
<tr>
<td>Meeting with Mr Bernard Kouchner, French Minister of Foreign and European Affairs at the Ministry of Foreign and European Affairs</td>
<td>Paris (France)</td>
<td>19 July 2007</td>
<td>Dr. J.-L. Angot</td>
</tr>
<tr>
<td>Seminar on the Dialogue and Common Activities between the OIE Member Countries of the European Union and the other Member Countries of the OIE Regional Commission for Europe</td>
<td>Kiev (Ukraine)</td>
<td>23-24 July 2007</td>
<td>Dr. J.-L. Angot, Dr. C. Planté, Dr. N.T. Belev &amp; Mrs. R. Kostova</td>
</tr>
<tr>
<td>OIE/FAO Regional Workshop on Trainers’ Training on HPAI Surveillance and Control</td>
<td>Bangkok (Thailand)</td>
<td>23-24 July 2007</td>
<td>Dr. T. Fujita, Dr. S. Yoshimura, Dr. M. Yamage &amp; Dr. I. Koike</td>
</tr>
<tr>
<td>6th Meeting of the Inter-American Committee of Avian Health (CIA)</td>
<td>San José (Costa Rica)</td>
<td>24-25 July 2007</td>
<td>Dr. J.J. Oreamuno Toledo</td>
</tr>
<tr>
<td>Meeting for the publication of the 2008 edition of the Manual of Diagnostic Tests and Vaccines for Terrestrial Animals (Terrestrial Manual) in English/French/Spanish and the release of the updated French and Spanish 2004 edition of the Terrestrial Manual on the OIE website</td>
<td>OIE Headquarters, Paris (France)</td>
<td>25 July 2007</td>
<td>Dr. J.-L. Angot, Mr. B. Fiallaut, Dr. G. Funés, Dr. T. Ishibashi, Ms. S. Linnane, Mrs. A. Souyri, Mrs. S. Suarez, Dr. F. Diaz &amp; Dr. P.-C. Lefèvre</td>
</tr>
<tr>
<td>Meeting of the Permanent Veterinary Committee of the Southern Cone (CVP)</td>
<td>Montevideo (Uruguay)</td>
<td>25-26 July 2007</td>
<td>Dr. L.O. Barcos, Dr. J. Gomes de Souza &amp; Dr. C. Correa Messuti</td>
</tr>
<tr>
<td>OIE/FAO-APHCA Joint Workshop on Disease Surveillance using Highly Pathogenic Avian Influenza (HPAI) as a model</td>
<td>Chiang-Mai (Thailand)</td>
<td>25-28 July 2007</td>
<td>Dr. T. Ishibashi, Dr. Y. Oketani, Dr. Y. Sakurai &amp; Dr. S. Forman</td>
</tr>
<tr>
<td>Meeting with Ms Envera Mahic, Minister Counselor at the Bosnia-Herzegochina Embassy</td>
<td>OIE Headquarters, Paris (France)</td>
<td>26 July 2007</td>
<td>Dr. J.-L. Angot</td>
</tr>
<tr>
<td>Workshop to kick off the GripAvi project</td>
<td>Montpellier (France)</td>
<td>28-29 July 2007</td>
<td>Dr. W. Drovers</td>
</tr>
<tr>
<td>Information day held by the NGO Vétérinaires Sans Frontières-Belgique (VSF-B) for a class of veterinarian students from the Ecole Inter-États des Sciences et Médecine Vétérinaires in Dakar who were on a study tour in Belgium</td>
<td>Brussels (Belgium)</td>
<td>30 July 2007</td>
<td>Dr. C. Planté</td>
</tr>
<tr>
<td>6th OIE/FAO-APHCA Regional Workshop on WTO’s SPS Agreement, using Bovine Spongiform Encephalopathy (BSE) as a model</td>
<td>Chiang-Mai (Thailand)</td>
<td>30 July - 2 August 2007</td>
<td>Dr. T. Ishibashi, Dr. Y. Oketani &amp; Dr. Y. Sakurai</td>
</tr>
<tr>
<td>SPC Meeting of the Pacific Heads of Veterinary and Animal Production Services (PHOAVPS) on ‘Surveillance, Early Warning and Rapid Containment’</td>
<td>Nadi (Fiji)</td>
<td>30 July - 3 August 2007</td>
<td>Dr. T. Fujita</td>
</tr>
<tr>
<td>Visit to PAHO-PANAFTOSA aiming to coordinate actions of common interest and to develop common strategies against foot and mouth disease (FMD)</td>
<td>Rio de Janeiro (Brazil)</td>
<td>31 July 2007</td>
<td>Dr. L.O. Barcos</td>
</tr>
</tbody>
</table>
### August 2007

<table>
<thead>
<tr>
<th>Title of the event</th>
<th>Place</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting on Risk Management of TADs in the SADC Region</td>
<td>Nguruto-Anusha, Tanzania</td>
<td>12-14 August 2007</td>
<td>Dr B.J. Mtei</td>
</tr>
<tr>
<td>International Conference on Diseases in Nature Communicable to Man</td>
<td>Madison, United States of America</td>
<td>12-14 August 2007</td>
<td>Dr J. Koeman</td>
</tr>
<tr>
<td>8th Assembly of the International Veterinary Immunology Symposium (IVIS)</td>
<td>Ouro Preto, Brazil</td>
<td>15-19 August 2007</td>
<td>Dr A.A. Schudel</td>
</tr>
<tr>
<td>6th World Congress on Alternatives &amp; Animal Use in the Life Sciences (WC6)</td>
<td>Tokyo, Japan</td>
<td>21-26 August 2007</td>
<td>Dr S. Kahn &amp; Dr D. Bayel</td>
</tr>
<tr>
<td>Meetings with the Thai authorities on future activities of the OIE HPAI Coordination Office to prepare training courses in surveillance and other topics for veterinarians and para-veterinarians – part of the OIE/JSTF Project with FAO and the Department of Livestock Development (DLD) in Thailand</td>
<td>Bangkok, Thailand</td>
<td>22-24 August 2007</td>
<td>Dr T. Fujita, Dr S. Yoshimura, Dr M. Yomage &amp; Dr I. Koike</td>
</tr>
<tr>
<td>3rd ASEAN Workshop on HPAI Control and Eradication – Brainstorming Meeting on the Re-Formulation of the Regional Framework for Control and Eradication of HPAI in ASEAN Countries</td>
<td>Manila, Philippines</td>
<td>28-30 August 2007</td>
<td>Dr A. Thiermann, Dr Ch. Bruschke, Dr T. Fujita &amp; Dr Y. Sakurai</td>
</tr>
<tr>
<td>Inter-Agency Meeting on FMD and the GF-TADs Programme for the Americas</td>
<td>Buenos Aires, Argentina</td>
<td>28-31 August 2007</td>
<td>Dr G. Brückner, Dr G. Funes, Dr L. Barcos, Dr S. Koloffon Tella, Mrs A. Palmas, Dr J.J. Oreamuno Toledo, Dr V. Caporale, Dr A.A. Schudel &amp; Dr C. Correa Messuti</td>
</tr>
<tr>
<td>1st Chinese Veterinary Biosafety Conference</td>
<td>Beijing, People's Republic of China</td>
<td>29 August 2007</td>
<td>Dr T. Ishibashi</td>
</tr>
<tr>
<td>Joint IAEA/OIE/WHO Technical Meeting on the Global Survey of Laboratory Quality Systems Meeting between the Southern Agricultural Council (CAS) and Ministers from MERCOSUR</td>
<td>Lyons, France</td>
<td>30 August 2007</td>
<td>Ms S. Linnane &amp; Dr F. Diaz</td>
</tr>
<tr>
<td></td>
<td>Conchon, Chile</td>
<td>31 August 2007</td>
<td>Dr G. Funes &amp; Dr L. Barcos</td>
</tr>
</tbody>
</table>

### September 2007

<table>
<thead>
<tr>
<th>Title of the event</th>
<th>Place</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Avian Influenza Congress</td>
<td>Antalya, Turkey</td>
<td>2-5 September 2007</td>
<td>Dr K. Hamilton</td>
</tr>
<tr>
<td>OIE Workshop on BSE Status and Impact on Trade</td>
<td>Amman, Jordan</td>
<td>3-4 September 2007</td>
<td>Dr T. Ishibashi, Dr G. Yehia, Dr P. Primot &amp; Prof. H. Aidaros</td>
</tr>
<tr>
<td>International Technical Conference on Animal Genetic Resources for Food and Agriculture</td>
<td>Interlaken, Switzerland</td>
<td>3-6 September 2007</td>
<td>Dr W. Droppers</td>
</tr>
<tr>
<td>Outbreak Investigation Training</td>
<td>Ho Chi Minh City, Can Tho City &amp; Da Nang City, Vietnam</td>
<td>3-23 September 2007</td>
<td>Dr S. Forman &amp; Dr R. Abila</td>
</tr>
</tbody>
</table>
# meetings and visits

## September 2007 (cont.)

<table>
<thead>
<tr>
<th>Title of the event</th>
<th>Place</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>29th Plenary Meeting – European Food Safety Authority (EFSA) - Animal Health and Welfare (AHAW) Panel project</td>
<td>Parma (Italy)</td>
<td>5-6 September 2007</td>
<td>Dr R. Lelli</td>
</tr>
<tr>
<td>1st Meeting of the steering committee of the GripAvi research project</td>
<td>Montpellier (France)</td>
<td>10 September 2007</td>
<td>Dr W. Droppers</td>
</tr>
<tr>
<td>58th Session of the WHO Regional Committee for the Western Pacific</td>
<td>Jeju (Republic of Korea)</td>
<td>10-14 September 2007</td>
<td>Dr T. Fujita</td>
</tr>
<tr>
<td>OIE National Trainers’ Course on HPAI Surveillance for Field Veterinarians and Para-Professionals</td>
<td>Yangon (Myanmar)</td>
<td>11-13 September 2007</td>
<td>Dr S. Yoshimura, Dr I. Koike &amp; Dr M. Yamage</td>
</tr>
<tr>
<td>European Association for Health Information &amp; Libraries (EAHIL) Workshop 2007</td>
<td>Krakow (Poland)</td>
<td>12-15 September 2007</td>
<td>Mrs M. Teissier</td>
</tr>
<tr>
<td>Participation in the technical workshop to validate policy notes on livestock development in Africa - 10th ALive Executive Committee meeting - 3rd General Assembly of the ALive Platform - Participation in the first Steering Committee meeting of the Support Programme to Integrated National Action Plans for Avian and Human Influenza (SPINAP)</td>
<td>Addis Ababa (Ethiopia)</td>
<td>15-22 September 2007</td>
<td>Dr B. Vallat, Dr A. Dehove, Prof. P.-P. Pastoré, Dr A.S. Sidibé, Dr N. Denormandie &amp; Dr A.B. Niang</td>
</tr>
<tr>
<td>Workshop on Classical Swine Fever in South Eastern Europe</td>
<td>Brasov (Romania)</td>
<td>17-18 September 2007</td>
<td>Dr G. Funes</td>
</tr>
<tr>
<td>OIE Training on Surveillance and HPAI Control</td>
<td>Hanoi &amp; Ho Chi Minh City (Vietnam)</td>
<td>17-22 September 2007</td>
<td>Dr S. Yoshimura &amp; Dr M. Yamage</td>
</tr>
<tr>
<td>OIE Regional Workshop on the World Animal Health Information System (WAHIS)</td>
<td>New Delhi (India)</td>
<td>18-20 September 2007</td>
<td>Dr K. Ben Jebara, Dr D. Chaisemartin, Dr Y. Oketani &amp; Dr Y. Sakurai</td>
</tr>
<tr>
<td>Joint FAO/WHO Food Standards Programme – Codex Ad Hoc Intergovernmental Task Force on Foods derived from Biotechnology</td>
<td>Chiba (Japan)</td>
<td>24-28 September 2007</td>
<td>Prof. M. Thibier</td>
</tr>
<tr>
<td>Workshop on Improved Eradication of Classical Swine Fever Using Emergency Vaccination Programmes: Use and Consequences of Vaccination</td>
<td>Hanover (Germany)</td>
<td>25-26 September 2007</td>
<td>Dr Ch. Bruschke</td>
</tr>
<tr>
<td>4th Joint EC/ECDC/WHO-Europe Workshop on Pandemic Influenza Preparedness</td>
<td>Luxemburg (Luxembourg)</td>
<td>25-27 September 2007</td>
<td>Dr W. Droppers</td>
</tr>
<tr>
<td>Seminar ‘Poverty Alleviation, Trade and Livestock Diseases’</td>
<td>Stockholm (Sweden)</td>
<td>26 September 2007</td>
<td>Dr A. Dehove &amp; Prof. S.A. Siorach</td>
</tr>
<tr>
<td>Launch of the OIE/AusAID Project on Strengthening Veterinary Services in Southeast Asia</td>
<td>Bangkok (Thailand)</td>
<td>26-27 September 2007</td>
<td>Dr D. Sibartie, Dr R. Abla, Dr D. Wilson &amp; Dr G. Murray</td>
</tr>
<tr>
<td>Visit to Friedrich-Loeffler-Institut (FLI)</td>
<td>Reims (Germany)</td>
<td>26-27 September 2007</td>
<td>Dr K. Hamilton</td>
</tr>
<tr>
<td>Meeting held by the STDF in the presence of Pascal Lam, Director of the WTO, on market access experiments in Kenya, Tanzania and Uganda - ‘Mobilising Aid for Trade – Focus on Africa’</td>
<td>Dar-Es-Salaam (Tanzania)</td>
<td>30 September - 1 October 2007</td>
<td>Dr B. Vallat</td>
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</table>

1. In his capacity as a member of the research team of the Executive Committee of the ALive Platform and not as a representative of the OIE
On 17 September Dr Gillian Mylrea joined the OIE as a Chargée de Mission in the International Trade Department. Gillian comes to the OIE from New Zealand, where she was working in the New Zealand Ministry of Agriculture and Forestry Biosecurity Division in the area of international trade. She has also worked in the dairy industry and clinical dairy practice in New Zealand. Gillian was born and raised in Australia and graduated from the University of Sydney in Veterinary Science in 1986. She obtained her PhD from the University of Sydney in 1992 on the study of reproduction in chital deer. She has been living in New Zealand for the last 15 years and has citizenship of both countries. Gillian is excited to have the opportunity to work at the OIE and live in Paris and is looking forward to contributing to the work of the OIE.

On 1st July 2007, Dr Yamato Atagi joined the OIE as a Chargé de Mission in the International Trade Department. Yamato comes to the OIE from Japan, where he had been working in the Animal Health Division of the Japanese Ministry of Agriculture, Forestry and Fisheries (MAFF) since graduating in Veterinary Medicine from the University of Tokyo in 1992. He obtained a master’s degree from the University of Guelph in 2000 and due to his expertise in the identification and traceability of live animals he had been a member of the OIE ad hoc Group on this topic since June 2005.

He is very pleased to join the OIE as he has a strong interest in international trade. His knowledge and practical experience will further enable the International Trade Department to make a strong contribution to the development of international standards and to the fulfillment of the OIE’s mandate.
Scientific and Technical Department

In July 2007 Keith Hamilton was seconded to the OIE in Paris, from Defra in the United Kingdom, to take up the role of coordinator for OFFLU. In the UK, Keith had been working on a range of projects in Defra’s Veterinary Exotic Notifiable Disease Unit.

Changes

Marie Teissier, Information Specialist, joined the Publications Department on 1 June 2007 through internal transfer. She first joined the OIE in 1993 in the Information Department, where she created and developed the Documentation Centre. Her training in languages and information management have enabled her to develop a comprehensive documentation service that offers a rich collection of publications centred on the activities of the OIE since its creation.
Activities of the International Trade Department

**Ad hoc group on the guide to good farming practices**

**OIE, Paris, 24-26 July 2007**

The ad hoc Group met to revise the draft Guide to good farming practices. OIE recognises the need for seamless coordination between OIE and Codex standards with respect to good practices to address risks of food-borne illness, taking account of hazards arising ‘from the stable to the table’. This is why the OIE is working in collaboration with FAO on the Guide to Good Farming Practice. In addition to micro-organisms, the Guide should address risks due to contaminants of animal feed/pasture, such as heavy metals, pesticides, and veterinary medicines.

The revised draft Guide will be included on the agenda of the Working Group on Animal Production Food Safety at its meeting 5-7 November, then by the Terrestrial Animal Health Standards Commission at its meeting in March 2008. It is intended that the Guide be presented in booklet format. While not forming part of the Terrestrial Animal Health Code (the Code), the Guide will nonetheless be recognised as an important source of advice for the purposes of international trade. In accordance with the OIE standard-setting procedures, the development of the Guide should take place during a two year period.

**Ad hoc Group on Aquatic Animal Feeds**

**OIE, Paris, 29-31 August 2007**

The ad hoc Group addressed comments provided by OIE Member Countries and Territories on the ‘Draft Guidelines for the Control of Aquatic Animal Health Hazards in Aquatic Animal Feeds’ and revised the draft guideline accordingly. The OIE received several comments on the treatment of food safety issues and the role of the OIE Animal Production Food Safety Working Group (APFSWG). The ad hoc Group decided to refer these to the Aquatic Animal Health Standards Commission and the APFSWG for consideration at their meetings in October and November, respectively.

The ad hoc Group considered that its Terms of Reference had been completely addressed and referred the amended text to the Terrestrial Animal Health Standards Commission for further consideration at its meeting of 17-28 September.

**Ad hoc Group on amphibian diseases**

**OIE, Paris, 5-7 September 2007**

The ad hoc Group followed the Terms of Reference drafted by the OIE Aquatic Animal Health Standards Commission and started with the review of Members’ responses to the ‘Questionnaire on International Amphibian Trade and Diseases’ and summarised the data provided.

The ad hoc Group identified two diseases that meet the listing criteria and recommended that these be added to the OIE list of diseases, i.e. ‘infection with Batrachochytrium dendrobatidis’ and ‘infection with ranaviruses’.

The ad hoc Group then drafted disease chapters on infection with *Batrachochytrium Dendrobatidis* and infection with *Ranavirus* for inclusion in the Aquatic Animal Health Code. An updated definition of ‘aquatic animals’ was proposed, as well as new draft chapters for model certificates.
Permanent Animal Welfare Working Group Meeting

**OIE, Paris, 5-7 September 2007**

The OIE Permanent Animal Welfare Working Group (PAWWG) held its sixth meeting from 5-7 September 2007.

For the first time, an Industry representative participated as a full member of the PAWWG. From this year, on a rotational basis, one industry representative will be a full member and the other two participate as observers. In 2007 the International Dairy Federation (IDF) representative was the member. In 2008 and 2009, the members will be the representative of the International Federation of Agricultural Producers (IFAP) and the International Meat Secretariat (IMS) respectively.

The PAWWG reviewed the four sets of guidelines adopted at the May 2006 OIE General Session, taking into account outstanding submissions received, and recommended appropriate modifications to the texts.

The PAWWG proposed a draft definition for the term ‘animal welfare’ to be included in the Terrestrial Animal Health Code. This will be considered by the Terrestrial Animal Health Standards Commission at its meeting.

The meeting also addressed the following issues:

- The first draft of the stray dog population control guidelines was reviewed, taking into account OIE Members’ comments and the work completed within the International Trade Department. A revised text will be submitted to the Code Commission meeting.
- The PAWWG proposed that the OIE convene an ad hoc Group to develop guidance on the OIE approach to animal welfare in livestock production systems. The OIE is expected to convene this Group early in 2008.
- The OIE has undertaken to conduct a first meeting of an ad hoc Group on Laboratory Animal Welfare in December, which will address the terms of reference developed by the PAWWG.
- The PAWWG discussed the work under way to organise the 2nd OIE Global Conference on Animal Welfare, to be held in Cairo (Egypt), 20-22 October 2008.
- A revised draft text on the welfare of aquatic animals in aquaculture was discussed and will be submitted to the Aquatic Animal Health Standards Commission at its meeting on 1-5 October.
Activities of the Scientific and Technical Department

Second WHO Expert Meeting on major Important Antimicrobials for Human Health (CIA)

*Copenhagen, (Denmark), 29-31 May 2007*

Catherine Lambert, Head of International Affairs, AFSSA-ANMV, Fougères, represented the OIE at this meeting, the purpose of which was to revise the list of critically Important antimicrobials (CIA) developed during the meeting in Canberra (Australia) on ‘Critically Important Antibacterial Agents for Human Medicine for Risk Management Strategies of Non-Human Use’, which was held in 2005, taking into account new scientific information and to develop criteria for prioritising antimicrobials. The Canberra list was first revised by the WHO Expert Committee for Selection and Use of Essential Medicines and a few modifications were made. The updated WHO list and the OIE list adopted at the General Session in May 2007 will be part of the documents used by the Ad hoc Codex Intergovernmental Task Force on Antimicrobial Resistance.

First Annual meeting, EPIZONE,

*Lublin/Pulawy, Poland, 29 May-1 June 2007*

Dr Elisabeth Erlacher-Vindel, OIE Consultant Expert, Scientific and Technical Department, represented OIE at the first annual meeting of all members of EPIZONE (European network of Excellence for Epizootic Diseases, Diagnostic and Control) held at Lublin/Pulawy (Poland) from 29 May to 1 J une 2007. During the meeting a presentation on OIE, its missions, the animal disease monitoring system, the standards, and the OIE Reference Laboratories and Collaborating Centres was given, with a view to preventing possible overlaps in the tasks announced in the project with already existing and available work at the OIE. The OIE is a member of the Advisory Panel of EPIZONE and participated in its second meeting held 1 J une at Pulawy (the first meeting of the Advisory Panel has been held in Lelystad the 11 and 12 J anuary 2007).

EUFMD workshop on FMD-NSP (foot and mouth disease - nonstructural protein) diagnostic tests and emergency vaccination

*Tervuren (Belgium), 5-7 June 2007*

Dr Lea Knopf participated in the second workshop on the ‘vaccinate-to-live’ strategy following an FMD outbreak in a European context. The workshop emphasised the problems and solutions of interpreting NSP test results and related surveillance strategies. The practical work on data from Slovenia led to fruitful discussions that resulted in recommendations for further research and clarification of the EU legislation level needed. A third workshop addressing these open questions is already scheduled.

Ad hoc Group on Biotechnology

*Paris (France), 12-14 June 2007*

The ad hoc Group was convened to address the scientific and technical aspects of biotechnology that impact on animal health. At its June meeting, the Group recommended adding RNA-based technologies as a new objective to its Terms of Reference. These new technologies are moving very fast with applications in pathogen control, biological control of insects, biotherapeutics, and drugs. It was further recommended that its Draft Guidelines on Somatic Cell Nuclear Transfer (SCNT) in Production Livestock and Horses be presented to the Terrestrial Animal Health Standards Commission for consideration for inclusion in the Terrestrial Code. The Group discussed and amended its Draft Guidelines on Veterinary Plasmid DNA Vaccines, which would be presented to the Biological Standards Commission. The Group agreed to focus in its future work on specific nanotechnologies that are relevant to animal health, such as new diagnostic platforms and drug delivery. The Group also agreed to address relevant safety issues, such as toxicology. Finally, the ad hoc Group agreed to the scope and definition of biotechnology in the OIE context.

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Report of the ad hoc Group on Epidemiology

**Paris (France), 20–22 June 2007**

The Group refined the definition of ‘containment zone’ with regard to FMD. Numerous technical terms were defined and recommendations were made for their harmonised use throughout the Terrestrial Code (e.g. herd, surveillance and monitoring). Extended discussions were held on whether or not a country can be officially declared disease free if an infection is present in wildlife (e.g. CSF and AI); the Group concluded that a generalised approach would require prior endorsement of the International Committee as there are many practical implications. The concept of compartmentalisation was evaluated against the requirements of the bluetongue and African horse sickness chapters to establish a baseline reference. The preliminary conclusion was that supervised facilities for a compartment have to be vector-proof only in relation to the susceptible animal species and that quarantine stations can fulfil the criteria of compartmentalisation for these diseases.

Workshop on an African network on bovine tuberculosis (BTB)

**Bamako (Mali), 25–30 June 2007**

The OIE was invited to participate in the first of two planned workshops to establish a pan-African (research) network on bovine tuberculosis (BTB) caused by *Mycobacterium bovis*. The main objective was to discuss and exchange information on the current epidemiological situation in West and Central Africa and existing national programmes, both in humans and animals. The participants developed and harmonised future strategies, and identified the need for specific research to better control BTB in humans and animals adapted to the African context. Based on the experience and knowledge collated, a second workshop will be held in Tanzania in November 2007.

Ad hoc Group on Aquatic Animal Health Surveillance

**Paris (France), 18-20 July 2007**

The ad hoc Group met for the third time in July 2007. The Group amended the Aquatic Animal Health Code (Aquatic Code) Appendix on General guidelines for aquatic animal health surveillance in accordance with Member Countries and Territories comments. The Group continued to harmonise the general information chapters to improve consistency of approach and provide a basis for the drafting of the new surveillance guidance to be included in the individual disease chapters. The Group further developed the specific disease chapter template of the *Manual of Diagnostic Tests for Aquatic Animals (Aquatic Manual)* to ensure that the scientific information necessary to develop appropriate surveillance programmes for diseases can be formulated. The Group believes that the information included in the chapters that will be based on the template will enable countries to use the *Aquatic Manual* for the design of the most effective surveillance programmes. As a consequence of the new, expanded template, the Group concluded that the development of guidelines for *Aquatic Manual* chapter authors to follow in specifying the surveillance requirements for individual diseases has become a major task.
The OIE Director General, Dr Bernard Vallat, led a team comprising Dr Dewan Sibartie, Head of the OIE Regional Activities Department, and Dr Teruhide Fujita, OIE Regional Representative for Asia and the Pacific, to attend the Second Meeting of the Regional Steering Committee for Asia and the Pacific of the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs), a joint FAO/OIE initiative. The meeting was held in Bangkok, Thailand, on 18 and 19 July 2007, following the kind invitation of the Government of Thailand.

The meeting was opened by Professor Dr Thira Sutabutra, Honourable Minister of Agriculture and Cooperatives of Thailand, and was attended by various other personalities including the Chief Veterinary Officer of the FAO, Dr Joseph Domenech.

In his opening address, Dr Vallat underlined the role played by the OIE in the international control of animal diseases, pointing out that the combined strengths of the OIE, FAO and Sub-Regional Organisations such as the Association of South-East Asian Nations (ASEAN), the South Asian Association for Regional Cooperation (SAARC) and the Secretariat of the Pacific Community (SPC), under the GF-TADs, provided a unique mechanism to control transboundary animal diseases in the world including the Asian region. He stressed the need for ASEAN and SPC to join hands with neighbouring countries such as Japan, the People’s Republic of China, the Republic of Korea (for ASEAN), Australia and New Zealand (for SPC), to reinforce animal disease control in the region. He warned that although certain diseases are apparently on the decline, others are emerging and re-emerging in various parts of the world. He stated that highly pathogenic avian influenza (HPAI) is reoccurring in countries where it was thought to have been eradicated and other diseases are making their appearance where they were least expected.

Dr Vallat informed that the negotiations between the OIE and the Government of Thailand for the establishment of an OIE Sub-Regional Representation in Bangkok had reached an advanced stage and that the Sub-Representation would soon be functional. He also announced the full participation of the People’s Republic of China and Chinese Taipei in the activities of the OIE.

Professor Dr Thira Sutabutra emphasised the economic importance of controlling animal diseases, particularly foot and mouth disease (FMD) and HPAI, and commended the roles played by the OIE and FAO in that respect, stressing that the great contribution of these two organisations to improve global animal health and
On the OIE side, technical presentations were made by Dr Sibartie and Dr Fujita, as well as by Dr Ronello Abila and Dr Shiro Yoshimura, the Regional Coordinator for the South-East Asia FMD Campaign (SEAFMD) and the Senior Deputy OIE Regional Representative for Asia and the Pacific, respectively.

Dr Sibartie reviewed the world animal health picture, pointing out that the situation was largely dominated by the reoccurrence of HPAI in countries where it was thought to have been eradicated, the appearance of bluetongue in Northern Europe and the possibility of the disease becoming endemic in Europe and the rest of the world due to climate change. He concluded that while the incidence of some animal diseases is decreasing worldwide, largely due to improved early detection and rapid response being enforced by Veterinary Services, other animal diseases are emerging and re-emerging due to a variety of reasons including climatic changes and globalisation of goods and services.

Dr Fujita described the evolution of the GF-TADs Programme in the region and proposed other programmes to further support animal health in the region, outlining the supporting role of regional organisations such as ASEAN, SAARC and SPC.

Dr Abila presented the achievements of the SEAFMD Programme, namely the progressive zoning approach regarding freedom from FMD and the 2020 Roadmap for the control of the disease in South-East Asia.

Dr Yoshimura presented the progress achieved under the special HPAI control Programme in ASEAN countries.
2nd Meeting of the GF-TADs’ Steering Committee for Asia and the Pacific

The main recommendations adopted during the meeting include:

- That the Secretariat of the Pacific Community (SPC) be recognised as a Regional Specialised Organisation (RSO) within the framework of the GF-TADs Regional Steering Committee for Asia and the Pacific.
- That only one Regional Support Unit (RSU) and one Epidemiological Network/Centre dealing with all priority diseases be established for each sub-region.
- That each Epidemiological Network/Regional Leading Centre may, as far as possible, be attached to the RSU which will be responsible for the coordination of its activities.
- That RSUs organise their meetings in close collaboration with OIE, FAO, regional organisations and neighbouring countries.
- That RSUs develop their short, medium and long term strategies for the prevention and control of transboundary animal diseases (TADs) in accordance with OIE and FAO guidelines and with their support as required.
- That RSOs be encouraged to consider the possibility of involving the participation of neighbouring countries in their activities. In this respect, ASEAN shall enlist the participation of at least Japan, Republic of Korea and the People’s Republic of China and thus be called for the purpose of TAD prevention and control, ASEAN+3. Similarly, SPC shall enlist the participation of Australia and New Zealand and be known as SPC+2.
- That the RSU for the SPC region be hosted by the SPC’s animal health and production office located in Suva, Fiji.
- That the leading laboratories for the ASEAN region for foot and mouth disease, classical swine fever and highly pathogenic avian influenza be located respectively in PakChong, Thailand, Vietnam and Malaysia. All efforts will be made to provide support to these laboratories in order to allow them to meet high international technical standards if needed.
- That the leading laboratories for the SAARC region for foot and mouth disease, highly pathogenic avian influenza and peste des petits ruminants be located respectively in India, Pakistan and Bangladesh while it is confirmed that the RSU will be located in Kathmandu, Nepal.

A professional excursion organised by the Department of Livestock Development of Thailand to Samutprakarn Crocodile Farm and Zoo, the largest crocodile farm of the world, was highly appreciated.
Appointment of permanent Delegates

30 July 2007
Sri Lanka
Dr Asoka Olinda Kodituwakkku
Director General,
Department of Animal Production
and Health, Ministry
of Livestock Development

1st September 2007
Denmark
Dr Jan Mousing
Chief Veterinary Officer,
Ministry of Food,
Agriculture and Fisheries

13 August 2007
Lebanon
Dr Nabih Ghaouch
Director of Animal Resources,
Ministry of Agriculture

16 August 2007
Nepal
Dr Purushottam Prasad Mainali
Director General,
Department of Livestock Services,
Ministry of Agriculture and Cooperatives

1st September 2007
Jamaica
Dr Osbil Watson
Director of the Veterinary Services,
Ministry of Agriculture and Lands

24 September 2007
Bangladesh
Dr Salehuddin Khan
Director (Animal Health and Administration),
Department of Livestock Services,
Ministry of Fisheries and Livestock

26 September 2007
Guyana
Dr Dwight Walrond
Project Director,
National Dairy Development
Programme, Ministry of Agriculture

26 September 2007
Honduras
Dr Félix Rolando Ramos Rodríguez
National Service of Agriculture and Livestock,
Ministry of Agriculture and Livestock

A new OIE Member: FIJI

The OIE welcomes its 169th Member, the Republic of the Fiji Islands, which joined the Organisation on 18 May 2007.

Fiji, an island State located in the South Pacific Ocean, joins the OIE Regional Commission for Asia, the Far East and Oceania, which now has 32 members.

The government of Fiji has undertaken to participate in the financial budget of the OIE, with an annual contribution in the 6th category.

It has appointed
Dr Joeli N. Vakabua, Director of the Animal Health and Production Division, as its permanent Delegate to the OIE:

Dr Joeli N. Vakabua
Director, Animal Health & Production Division, Ministry of Agriculture
GPO Box 15829  Suva (Fiji)
On 5 June 2007, Georgia notified the OIE of the first occurrence of African swine fever in the country. The causal virus, similar to strains present in South-East Africa, was isolated by the OIE Reference Laboratory in Pirbright (United Kingdom) in various samples from several of the affected regions. By that date, ten of the country’s twelve regions had already been affected. It is therefore very difficult to establish with certainty exactly when and where the virus entered the country and
African swine fever in Georgia: a threat to Europe (cont.)

which outbreak was the first. From the epidemiological data collected it appears that the virus must have been introduced at least two months earlier, probably via contaminated products of animal origin arriving in the port of Poti on the Black Sea. In this respect, it should be noted that the withdrawal of the Georgian Veterinary Services from border inspection posts from the beginning of 2007 was a serious error that has increased the risk of pathogens such as the causal agent of African swine fever being introduced. The long delay in detecting the disease allowed the virus to spread to the majority of the country, aided by the system of pig farming and the absence of biosecurity measures on farms. Given the extent of the epizootic, the existing livestock management conditions and the lack of financial compensation mechanisms for farmers, the animal disease control measures – only partially implemented due to a lack of human resources – have been unable to check the spread of the virus. Furthermore, there is a risk of the disease becoming endemic given the presence of a wild boar population and ticks of the genus *Ornithodoros* that could act as a reservoir for the virus. As feared, the virus has already spread beyond the national borders, Armenia having declared six outbreaks on 29 August, one of which was close to the border with Azerbaijan (see map showing the location of outbreaks. Source: WAHID).
activities of reference laboratories & collaborating centres

Activities 2006

In 2006, there were 160 Reference Laboratories and 20 Collaborating Centres covering 101 diseases or groups of closely related diseases or topics. Annual reports were received from all 160 laboratories and 20 centres. Of these, the following numbers were involved in international activities (the percentage values are based on the reports received).

**Reference Laboratories**

<table>
<thead>
<tr>
<th>Activities</th>
<th>Percentage of Laboratories carrying out these activities</th>
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<tr>
<td><strong>General activities</strong></td>
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</tr>
<tr>
<td>1 Test(s) in use/available for the specified disease</td>
<td>99%</td>
</tr>
<tr>
<td>2 Production and distribution of diagnostic reagents</td>
<td>86%</td>
</tr>
<tr>
<td><strong>Specific OIE activities</strong></td>
<td></td>
</tr>
<tr>
<td>3 International harmonisation/standardisation of methods</td>
<td>71%</td>
</tr>
<tr>
<td>4 Preparation and supply of international reference standards</td>
<td>49%</td>
</tr>
<tr>
<td>5 Research and development of new procedures</td>
<td>88%</td>
</tr>
<tr>
<td>6 Collection, analysis and dissemination of epizootiological data</td>
<td>68%</td>
</tr>
<tr>
<td>7 Provision of consultant expertise</td>
<td>76%</td>
</tr>
<tr>
<td>8 Provision of scientific and technical training</td>
<td>65%</td>
</tr>
<tr>
<td>9 Provision of diagnostic testing facilities</td>
<td>55%</td>
</tr>
<tr>
<td>10 Organisation of international scientific meetings</td>
<td>29%</td>
</tr>
<tr>
<td>11 Participation in international scientific collaborative studies</td>
<td>64%</td>
</tr>
<tr>
<td>12 Presentations and publications</td>
<td>86%</td>
</tr>
</tbody>
</table>

**Collaborating Centres**

<table>
<thead>
<tr>
<th>Activities</th>
<th>Percentage of Collaborating Centres carrying out these activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General activities</strong></td>
<td></td>
</tr>
<tr>
<td>1 Activities as a centre of research, expertise, standardisation and dissemination of techniques</td>
<td>100%</td>
</tr>
<tr>
<td>2 Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the surveillance and control of animal diseases, food safety and animal welfare</td>
<td>77%</td>
</tr>
<tr>
<td>3 Placement of expert consultants at the disposal of the OIE</td>
<td>83%</td>
</tr>
<tr>
<td><strong>Specific OIE activities</strong></td>
<td></td>
</tr>
<tr>
<td>4 Provision of scientific and technical training within to personnel from OIE Member Countries and Territories</td>
<td>83%</td>
</tr>
<tr>
<td>5 Organisation of scientific meetings on behalf of the Office</td>
<td>55%</td>
</tr>
<tr>
<td>6 Coordination of scientific and technical studies in collaboration with other laboratories or organisations</td>
<td>72%</td>
</tr>
<tr>
<td>7 Publication and dissemination of any information that may be useful to OIE Member Countries and Territories</td>
<td>88%</td>
</tr>
</tbody>
</table>
New list of Experts and Reference Laboratories

approved in May 2007

List of experts

New World screwworm (Cochliomyia hominivorax)

Dr Agustin Sagel
COPES (Panama- US Commission for the Eradication and Prevention of NWS), Apartado Postal 0816-07636, Panama
Tel.: (507) 232.60.44
Fax: (507) 232.61.92
E-mail: veter56@yahoo.com
E-mail: tins54@hotmail.com

Porcine reproductive and respiratory syndrome

Dr Tomasz Stadejek
National Veterinary Research Institute, Department of Swine Diseases, Partyzanow str. 57, 24-100 Pulawy, Poland
Tel.: (+48-81) 886.30.51
Fax: (+48-81) 886.25.95
E-mail: stadejek@piwet.pulawy.pl

Enzootic abortion of ewes (ovine chlamydiosis)

Dr Nicole Borel
Institute for Veterinary Pathology (IVPZ), Vetsuisse Faculty, University of Zurich, Winterhurerstrasse 268, CH-8057, Zurich, Switzerland
Tel.: (+41-44) 635.8551
Fax: (+41-44) 635.8534
E-mail: apos@vetpath.unizh.ch

Glanders

Dr Heinrich Neubauer
Friedrich-Loeffler-Institute, Institute of Bacterial Infections and Zoonoses, Naumburger Str. 96a, 07743 Jena, Germany
Tel.: (+49-3641) 80.42.00
Fax: (+49-3641) 80.42.28
E-mail: heinrich.neubauer@fli.bund.de

Scrapie and chronic wasting disease

Dr Aru Balachandran
Canadian Food Inspection Agency, Ottawa Laboratory, Fallowfield, Canada
Tel.: (+1-613) 228.6698
Fax: (+1-613) 228.6669
E-mail: balachandran@inspection.gc.ca

Equine piroplasmosis and bovine babesiosis

Prof. Ikuo Igarashi
National Research Center for Protozoan Diseases, Obihiro University of Agriculture and Veterinary Medicine, Obihiro, Hokkaido, Japan
Tel.: (+81-155) 49.5642
Fax: (+81-155) 49.5643
E-mail: protozoa@obihiro.ac.jp

Koi herpesvirus disease

Dr Keith Way
Centre for Environment, Fisheries and Aquaculture Science (CEFAS), the Nothe, Weymouth, Dorset DT4 8UB, United Kingdom
Tel.: (+44-1305) 206.639
Fax: (+44-1305) 206.601
E-mail: keith.way@cefas.co.uk

Chlamydiosis (ovine and avian)

Dr Konrad Sachse
Friedrich-Loeffler-Institute, Institute of Bacterial Infections and Zoonoses, Naumburger Str. 96a, 07743 Jena, Germany
Tel.: (+49-3641) 80.43.34
Fax: (+49-3641) 80.42.28
E-mail: konrad.sachse@fli.bund.de

Koi herpesvirus disease

Dr Motohiko Sano
Fisheries Research Agency, Research Promotion & Development Department, Yokohama 220-6115, Japan
Tel.: (+81-45) 227.2677
Fax: (+81-45) 227.2703
E-mail: sanogen@fra.affrc.go.jp

Turkey rhinotracheitis

Dr Nicolas Eterradossi
AFSSA, Ploufragan, Unité de virologie, immunologie et parasitologie aviaires et cunicoles
B.P. 53, 22440 Ploufragan, France
Tel.: (+33-[0]2) 96.01.62.22
Fax: (+33-[0]2) 96.01.62.63
E-mail: n.eterradossi@ploufragan.afssa.fr

Equine piroplasmosis and bovine babesiosis

Prof. Noboru Inoue
National Research Center for Protozoan Diseases, Obihiro University of Agriculture and Veterinary Medicine, Obihiro, Hokkaido, Japan
Tel.: (+81-155) 49.5647
Fax: (+81-155) 49.5643
E-mail: protozoa@obihiro.ac.jp

Koi herpesvirus disease

Dr Motohiko Sano
Fisheries Research Agency, Research Promotion & Development Department, Yokohama 220-6115, Japan
Tel.: (+81-45) 227.2677
Fax: (+81-45) 227.2703
E-mail: sanogen@fra.affrc.go.jp

Surra (Trypanosoma evansi)

Prof. Noboru Inoue
National Research Center for Protozoan Diseases, Obihiro University of Agriculture and Veterinary Medicine, Obihiro, Hokkaido, Japan
Tel.: (+81-155) 49.5647
Fax: (+81-155) 49.5643
E-mail: protozoa@obihiro.ac.jp
List of new Collaborating Centres

Wildlife Disease Surveillance, and Monitoring, Epidemiology and Management
Canadian Cooperative Wildlife Health Centre (CCWHC), Canada
Tel.: (+1-800) 567.20.33
ccwhc@usask.ca

Animal Welfare Science and Bioethical Analysis (Asia/Pacific)
Animal Welfare Science and Bioethics Centre (AWSBC) at Massey University, New Zealand
Tel.: (+6) 350.48.07
d.j.mellor@massey.ac.nz

Epidemiology, Training and Control of Emerging Avian Diseases
Istituto Zooprofilattico Sperimentale delle Venezie (IZSVe), Padova, Italy
Tel.: (+39-049) 808.42.79
dirsan@izsvenezie.it

Research on Emerging Avian Diseases
Southeast Poultry and Research Laboratory (SEPRL), United States Department of Agriculture (USDA), Agricultural Research Service, 934 College Station Road, Athens, Georgia 30605, United States of America
Tel.: (+1-706) 546.3433
E-mail: dwayne@seprl.usda.gov

One change of denomination of a Collaborating Centre

The OIE Collaborating Centre for Application of Polymerase Chain Reaction Methods for Diagnosis of Viral Diseases in Veterinary Medicine, Uppsala, Sweden, had requested that its denomination be changed to OIE Collaborating Centre for Biotechnology-based Diagnosis of Infectious Diseases in Veterinary Medicine. This proposal was approved.
**OFFLU**  
**Joint OIE/FAO Influenza Network**

The threat of a rapid global spread of highly pathogenic avian influenza (HPAI) virus has made it imperative to help developing countries to improve their laboratory capabilities for HPAI by adopting harmonised diagnostic standards, technology and tests. Among others, these requirements were recognised at the Pledging Conference in Beijing in January 2006 and the G8 Summit in July 2006, and thereby also the leading role of the World Organisation for Animal Health (OIE) in the area of international animal health policies and governance.

The OIE plays a crucial international role in ensuring transparency on the animal diseases and zoonoses situation of Member Countries and Territories as well as sanitary safety in international trade in animals and animal products, as mandated by the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement). Trade in livestock and livestock products is an important means of economic development for developing countries. The objectives of the OIE, two in particular – ensuring transparency in the global animal disease and zoonosis situation and collecting, analysing and disseminating scientific veterinary information – are increasingly recognised as a global public good. The information on the global spread of animal diseases is made available to OIE Members to help them to improve the methods used to control and eradicate these diseases. Guidelines on the prevention and control of OIE listed animal diseases are prepared by the network of more than 200 OIE Collaborating Centres and Reference Laboratories across the world. In April 2005, the OIE and FAO created the OIE/FAO OFFLU Network on Avian Influenza (OFFLU) for the benefit of Member Countries and Territories.

**The objectives of OFFLU are:**

- To exchange scientific data and biological materials (including virus strains) within the network, and to share such information with the wider scientific community.
- To offer technical advice and veterinary expertise to Members to assist in the diagnosis, surveillance and control of avian influenza.
- To collaborate with the WHO influenza network on issues relating to the animal-human interface, including the prompt development of human vaccines.
- To highlight avian influenza research needs, promote their development and ensure co-ordination.

In the longer term, the proposed objectives of OFFLU, which can be considered a global public good, will help to reduce the risk of human or animal pandemics, such as avian influenza, by ensuring that these are effectively diagnosed at the animal source.

**In particular, OFFLU will ensure that:**

- the OIE (which is recognised as a global expert organisation regarding the adoption of harmonised laboratory standards, technology and tests to improve animal health) widely distributes information concerning OFFLU activities;
- laboratories at international, regional and national level become more involved in the co-ordination and co-operation activities of the worldwide network of OIE recognised laboratories;
- twinnings between OIE Reference Laboratories and candidate laboratories in developing and transitional countries are encouraged, so as to ensure a more even global distribution of scientific and diagnostic expertise and to create more scientific reference points, which will enable countries to formulate sanitary measures and to participate in international standing-setting procedures;
- OFFLU will act as a scientific expert panel in the FAO/OIE Crisis Management Centre (CMC) based in Rome;
- collaboration between OIE and FAO Reference Laboratories is well coordinated.
MIHR and PIPRA Launch Handbook of Best Practices for Intellectual Property Management in Health and Agricultural Innovation

At the Biotechnology Industry Organization (BIO) International Convention, 6-9 May 2007 in Boston, Massachusetts, the Centre for the Management of Intellectual Property in Health Research & Development (MIHR) and the Public Intellectual Property Resource for Agriculture (PIPRA) formally launched the results of their recent and intensive collaboration: Intellectual property management in health and agricultural innovation: a handbook of best practices.

Written by practitioners in the field and offering tools, strategies, and case studies, the Handbook is just over 2,000 pages, with two volumes and 159 chapters and prefatory comments. Themes encompass innovation in health and agriculture to meet the needs of populations in developing countries. The Handbook can be ordered online at www.ipHandbook.org. Generous sponsorship by the Rockefeller Foundation and many other entities will allow free distribution of the handbook to institutions in low income countries. A free online version will also be available beginning autumn 2007.

The Public Intellectual Property Resource for Agriculture (PIPRA) is an organisation created by universities, public agencies, and non-profit institutes engaged in agricultural research and development. PIPRA provides resources and a collaborative framework for achieving the most effective possible utilisation of intellectual property to advance innovation in agriculture, both for humanitarian purposes and for regional or specialised commercial markets. For more information visit www.pipra.org.

The Centre for the Management of Intellectual Property in Health Research and Development is an international NGO based in Oxford, England. The goals of the organisation are to support innovative and strategic management of intellectual property that both promotes the development of medical products and public health tools to reduce global disparities in health status, and ensures access to future products by the poor. For more information visit www.mihr.org.
Decentralization and the Social Economics of Development  
Lessons from Kenya  
July 2007  
In English  
Edited by C.B. Barrett, A.G. Mude & J.M. Omiti  
230 pp.  
Hardback 978 184593 269 5  
£65.00/US$130.00/e105.00  
To order: orders@cabi.org  
Web site: www.cabi.org/bookshop  
Tel.: +44 (0) 1491 832111  

Readership  
Researchers and students in social sciences and development studies; policy makers in international aid agencies, non-governmental development organisations and government ministries.  

Description  
There has been broad agreement in recent years that decentralisation is key in achieving democracy at local level.  

Examining the successes, failures, possibilities and limitations of efforts across rural Kenya, this book analyses the socioeconomic and institutional prerequisites for successful decentralisation, and the role of community groups and producer organisations in reducing poverty and promoting empowerment.  

Original empirical studies explore the fundamental elements of coherent, inclusive and ultimately effective decentralisation, and how these can be applied to efforts across the African continent and beyond.  

Contents  

Part I: Successes and failures of decentralization in rural Kenya  
- A qualitative analysis of success and failure factors of agricultural cooperatives in Central Kenya, J.K. Nyoro & I. Komo Ngugi, both Egerton University (Kenya)  
- Institutional incompatibility and deregulation: explaining the dismal performance of Kenya’s coffee cooperatives, A.G. Mude  
- Decentralisation, community-based organisations and access to agricultural extension services in Eastern Kenya, G.L. Mugunieri, Kenya Agricultural Research Inst. (KARI) & J.M. Omiti  
- Access to and willingness to pay for agricultural extension in Western Kenya, E. Nambiro, University of Bonn (Germany) & J.M. Omiti  
- Decentralisation of pastoral resources management and its effects on environmental degradation and poverty, experience from Northern Kenya, K. Munyao, World Vision (Canada) & C.B. Barrett
Part II: Socioeconomic and institutional preconditions for successful decentralisation

- Linkages between community, environmental, and conflict management: experiences from Northern Kenya, G.O. Haro, GTZ/GEF Indigenous Vegetation Project (Kenya); G.J. Doyo, Arid Lands Resources Management project (Kenya) & J.G. McPeak, Syracuse University (USA)
- The unfulfilled promise of microfinance in Kenya: the KDA experience, S.M. Osterloh, Edgewood College (USA) & C.B. Barrett
- The effects of farmer community group participation on rural livelihoods in Kenya, D.M. Amudavi, Egerton University and International Centre of Insect Physiology and Ecology (ICIPE) (Kenya)
- On economic transfers through social networks in Kenya’s smallholder sector, H. Hogset, Molde University College (Norway)

E-book on Reporting Skills for development professionals launched

Online resource centre of downloadable materials

www.reportingskills.org/resources.htm

At last there is a clear, simple guide to report writing specifically written for people working in the development area’ says Christine Hogan PhD, of Curtin University Centre for Human Rights and author of ‘Facilitating Multicultural Groups’.

We know that progress and evaluation reports are cornerstones of effective programmes. So why are they such a headache for readers and writers alike? This Handbook takes readers through the entire reporting process from setting objectives, through data gathering and analysis tools, to planning, drafting, editing and designing the report. Effective reporting doesn’t have to be hard work. This self-study programme is full of clear explanations and examples, frequent practical exercises, and an extended case study to fully apply all the tools presented.

Although only just released, the Handbook has already been welcomed by development professionals from organisations such as ADRA, UNDP, WHO, the Burnet Institute, IAEA, Family Health International, UNAIDS and the World Bank. Field workers, managers and consultants working with development projects of all sectors will benefit from this new resource.

What’s in the handbook?
You can find out for yourself by downloading two example modules (Data Gathering Methods and Writing Clarity) right now. Just go to http://www.reportingskills.org/resources.htm.

The whole Handbook comprises eight distinct steps on the road to effective reports:
1. Professional writing and the writing process
2. Setting objectives and data gathering methods (entire module available for download)
3. Analysing and interpreting information
4. Planning the report
5. Writing skills – Clarity (entire module available for download)
6. Writing skills – Organisation
7. Putting it all together
8. Finishing off the report

How to get your copy
You can buy and download the entire Handbook (single user edition) right now from http://www.reportingskills.org, and there are special licenses for organisations. The Project Office Edition (50-user licence) also includes a training pack – trainer guide, participant notes, supplementary materials and over 250 slides – a ‘workshop in a box’ – so you can make sure everyone in your office is on track through a ready-made training that’s been tested extensively all over Asia.
Following the very successful first OIE/WHO/EU Conference on rabies, held in Kiev in 2005, the OIE, in collaboration with WHO (World Health Organization) and the EU (European Union), hosted a second Conference on rabies – Towards the elimination of rabies in Eurasia. This very successful conference was held from 27 to 30 May 2007 at OIE headquarters in Paris, bringing together more than 200 participants from all over the world representing veterinarians, scientists, wildlife experts, clinicians and regulatory officials in both animal and public health.

The main aim of the Conference was to take the recommendations of the Kiev Conference one step further by seeking answers to questions on how best to proceed towards the eventual elimination of this most feared zoonotic disease - not only in Eurasia but all over the globe.

In spite of rapid advances in diagnostics, vaccine development and the application of novel technologies to controlling the disease, rabies remains a significant cause of death in humans following exposure to rabid animals, killing an estimated 50,000 to 60,000 people each year worldwide, particularly children. Most of these cases result from the bite of, or other contact with, rabid dogs.

The conference highlighted important epidemiological developments on rabies in Eurasia, while experts shared experiences and opinions on the prevention and control of rabies in dogs, wildlife and bats; the prevention of the disease in humans and cooperation between public health and animal health authorities; advances in technologies and vaccine development.

Delegates to the Conference acknowledged that it is the prime responsibility of the veterinary profession, together with colleagues in the public health sector, to apply their knowledge and skills in animal disease control by creating an immune buffer between the animal source of the disease and susceptible human beings. An important prerequisite in achieving this goal is the ability of the Veterinary Services of countries to institute and apply the international standards for the control of animal diseases and zoonoses. The recommendations adopted at the conference reiterated that improved surveillance, good veterinary governance and the application of oral and parenteral vaccinations, in conjunction with other control strategies such as population management or animal birth control, are the methods of choice for the control and eradication of rabies in wildlife and canine populations.

In addressing delegates, the Director General of the OIE, Dr Bernard Vallat, confirmed the commitment of the OIE to the global fight against rabies. He also announced that the OIE would add its support for plans to initiate an annual ‘World Rabies Day’ (the first of these was held on 8th September 2007), to elicit worldwide support for the control of the disease.
Octobre
(event not included in Vol. 3-2007)

9-11 October
Washington DC (United States of America)
m.riela@oie.int

November
(updated since Vol. 3-2007)

History of Gynecology and Andrology in Domestic Animals
2-3 November
Hanover (Germany)
Dr Johann Schaeffer
Secretariat: Margrit Weidlich,
Fax: +49 (0) 511 856 7676
johann.schaeffer@tiho-hannover.de

APHA - 135th Annual Meeting and Exposition
3-7 November
Washington DC (United States of America)
American Public Health Association
APHA Housing Bureau
Tel.: + 1 514 228 3080 (international)
www.apha.org/meetings

ESF-EMBO Symposium: Probing Interactions between Nanoparticles, Biomaterials and Biological Systems - Alternative Approaches to Bio- and Nano-Safety
3-8 November
Sant Feliu Guixols (Spain)
European Science Foundation Conferences Unit Brussels (Belgium)
conferences@esf.org

4th Pan Commonwealth Veterinary Conference
4-8 November
St. Michael (Barbados)
commonwealthvetsass.org/Home/BarBarbados.htm

Poultry in the 21st Century
5-7 November
Bangkok (Thailand)
Animal Health and Production Division
poultry21century@fao.org

OIE Permanent Animal Production Food Safety Working Group
6-8 November
OIE headquarters, Paris (France)
www.oie.int/fr/secu_sanitaire/fr_introduction.htm

Ecology and Management of Wildlife Diseases
12-16 November
The Lakeside Conference Centre York (United Kingdom)
Elizabeth Olsen
Tel.: +44 (0) 1453 860777
Fax: +44 (0) 1453 860132
wildlifediseases@csl.gov.uk
www.wildlifediseases2007.co.uk

8th OIE/WAVLD (World Association of Veterinary Laboratory Diagnosticians) Seminar on the Application of Biotechnology to the Diagnosis and Pathology of Animal Diseases
12-14 November
Melbourne (Australia)
www.wavld2007.com
13th International WAVLD Symposium
11-14 November
Melbourne (Australia)
www.wavld2007.com

5th International Course in Animal Experimentation
12-24 November
Sidi Thabet (Tunisia)
Prof. Ouajdi SOULEM
Physiology and Pharmacologie Department
Ecole Nationale de Médecine Vétérinaire
2020 Sidi Thabet
Tel.: +216 71 552 200
Fax: +216 71 552 441
souilem.ouajdi@iresa.agrinet.tn

Global Animal Health Conference
15-19 November
EMEA London, (United Kingdom)
diaeurope@diaeurope.org

4th International Meeting of Associations, Colleges, Institutions and Freelance Professionals of the Veterinary Sciences, ‘Friends Forever’
19-24 November
Pinar del Río (Cuba)
The meeting will also include the 5th Post-Graduate Seminar on Obstetrics and Reproduction in Small Animals, under the auspices of the World Small Animals Veterinary Association (WSAVA) and the Norwegian Small Animals Veterinary Association (NSAVA)
Veterinary scientific board,
Pinar del Río (Cuba)
Tel. +53 48 753922; +53 48 751931;
+53 48 776766
vetcouncilpr@gmail.com
ccvpr@princesa.pri.sld.cu

2nd International Meeting on the Control of Neglected Zoonoses: Integrated Control of Neglected Zoonoses in Africa
13-15 November
Nairobi (Kenya)
Organised by WHO with the cosponsorship of FAO, OIE and the European Union
Isabel.minguez-tudela@ec.europa.eu

Regional Seminar on OIE Communication
14-15 November
Buenos Aires (Argentina)
nr.americas@oie.int

5th International Conference on Emerging Zoonoses
15-19 November
Limassol (Cyprus)
Tel.: +972 3 5175150
Fax: +972 3 5175150
zoo2007@targetconf.com

From Safe Food to Healthy Diets – EU Risk Assessment: Past, Present and Future
20-21 November
Brussels (Belgium)
conferences@esf.org
scientific.forum@efsa.europa.eu
www.efsa.europa.eu/fr/about_efsa/efsa_5th_anniversary/events/forum.html

ESF-UB Conference in Biomedicine. Functional Genomics: Synthetic Biology
24-29 November
Sant Feliu de Guixols (Spain)
European Science Foundation
Conferences Unit
Brussels (Belgium)
conferences@esf.org

Biological and Toxins Weapons Convention (BTWC)
26-30 November
New York (United States of America)
www.opbw.org/

Joint FAO/WHO/OIE Expert Meeting on Critically Important Antimicrobials
26-30 November
Rome (Italy)
2007

25th Conference of the OIE
Regional Commission for Asia, the Far East and Oceania
26-30 November
Queenstown (New Zealand)
OIE Regional Activities Department:
regactivities.dept@oie.int
events.lincoln.ac.nz/oie

OIE ad hoc Group
on Biotechnology
28-30 November
OIE headquarters, Paris (France)
scientific.dept@oie.int

Workshop on
Bovine Tuberculosis
28 November
Arusha (Tanzania)

December

American Association
of Equine Practitioners (AAEP)
Annual Convention
1-5 December
Orlando, Florida
(United States of America)
Phone: +1 (859) 233-0147
Fax: +1 (859) 233-1968
aaepoffice@aaep.org
www.aaep.org

2nd Annual Veterinary Vaccines
Conference (Animal Pharm)
4-5 December
Cologne (Germany)
Phone: +44 (0) 20 7017 7481
Fax: +44 (0) 20 7017 7823
registrations@informa-ls.com
www.animalpharmevents.com

OIE ad hoc Group
on Laboratory Animal Welfare
5-7 December
OIE headquarters, Paris (France)
trade.dept@oie.int

2008

January

Ad hoc Group on Identification
and Traceability of Live Animals
15-17 January
OIE headquarters, Paris (France)
trade.dept@oie.int
www.oie.int

7th Meeting of the Upper
Mekong Working Group
on FMD Zoning and Animal
Movement Management
Thailand
OIE SEAFMD Regional Coordination Unit
rcu.seafmd@oie.int
www.seafmd-rcu.oie.int/contacts.php

Apoptosis World 2008: from
Mechanisms to Applications
23-26 January
European Congress Centre,
Luxemburg (Luxemburg)
Dr Marc Diederich
Research foundation on Cancer and
Blood Diseases
Cancer Laboratory of Molecular and
cellular Biology (LBMCC)
Hôpital Kirchberg, Luxembourg
Phone: +352 24 68 40 40
Fax: +352 24 68 40 60
marc.diederich@lbmcc.lu
February

Meeting of the OIE Administrative Commission
20-22 February
OIE headquarters, Paris (France)

March

14th Meeting of the OIE Sub-Commission for FMD in Southeast Asia
10-14 March
OIE SEAFMD Regional Coordination Unit
www.seafmd-rcu.oie.int/contacts.php

Veterinary Medicinal Products in Africa: Towards the Harmonisation of Registration, Distribution and Quality Control
25-28 March
Dakar (Senegal)
scientific.dept@oie.int

April

Comparative Models of Immune Responses
9-11 April
Lake Arrowhead, San Diego, California (United States of America)
Tom R. Phillips
tphillips@westernu.edu
www.westernu.edu/xp/edu/veterinary/cmire_home.xml

10th Pan-American Dairy Congress
8-10 April
San José (Costa Rica)
info@fepale.org
lecheros@comunicacionexpresiva.com

May

Meeting of the OIE Administrative Commission
22-23 May
OIE headquarters, Paris (France)

76th General Session of the OIE
25-30 May
OIE, Paris (France)
July

**XXV Jubilee World Buiatrics Congress**
6-11 July
Budapest (Hungary)
Endre Brydl
Brydl.Endre@aotk.szie.hu
Otto Szenci
Szenci.Otto@aotk.szie.hu
www.xxwbwc2008.com

**16th International Congress on Animal Reproduction**
13-17 July
Budapest (Hungary)
Dr György Gábor
Research Institute for Animal Breeding and Nutrition
2053 Herceghalom, Gesztenyés út 1.
Hungary
Tel.: +36 23 319 133 / 117
h12617gab@helka.iif.hu
www.icar2008.org

August

**Meetings of the Three Divisions of the International Union of Microbiological Societies (IUMS),**
5-15 August
Istanbul (Turkey)
- XII International Congress of Bacteriology and Applied Microbiology
  5-9 August
- XII International Congress of Mycology
  5-9 August
- XIV International Congress of Virology
  10-15 August
Tel.: +90 216 330 90 20
Fax: +90 216 330 90 05/06
iums2008@topkon.com
www.iums2008.org

September

**23rd Conference of the OIE Regional Commission for Europe**
September
Vilnius (Lithuania)
regactivities.dept@oie.int

**Brucellosis 2008 International Research Conference**
10-13 September
Royal Holloway,
University of London,
Egham (United Kingdom)
Dr Adrian M. Whatmore
Dept. of Statutory and Exotic Bacterial Diseases
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a.whatmore@vla.defra.gsi.gov.uk
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November

19th Conference of the OIE Regional Commission for the Americas
18-22 November
Havana (Cuba)
regactivities.dept@oie.int

December

International conference on foot and mouth disease
1-5 December
(Paraguay)
scientific.dept@oie.int

October

2nd OIE Global Conference on Animal Welfare ‘Putting the OIE standards to work’
20-22 October
Cairo (Egypt)
trade.dept@oie.int
a.balmont@oie.int
www.oie.int/eng/A_AW2008/home.htm

February

18th Conference of the OIE Regional Commission for Africa
February, N’Djamena (Chad)
regactivities.dept@oie.int

Conference on Identification and Traceability of Livestock and their Products
Beginning of 2009
(Argentina)

October

Conference of Deans: Improving veterinary training for a better world
12-14 October
OIE, Paris (France)
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<th>OIE Members (170)</th>
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Virulent Kabete O strain of rinderpest expressing GFP (green fluorescent protein) from a novel transcription unit inserted between the P and M genes

(Banyard et al. [2007]. - Virulent rinderpest expressing GFP from a separate transcription unit: effects on pathogenicity (manuscript in preparation)

green: GFP in a soluble form and seen throughout the syncytia yellow: rinderpest N protein red: rinderpest H protein

A syncytium of cells infected with the virulent Kabete O strain of rinderpest that has had GFP inserted in frame into the polymerase (L) gene


green: GFP (and therefore the polymerase) blue: nuclei red: tubuline
“Putting the OIE Standards to work”

Cairo (Egypt), 20-22 October 2008

http://www.oie.int/eng/A_AW2008/home.htm