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Med-Vet-Net Communications Unit

In this issue we look at the achievements of Workpackage 4, 'PulseNet Europe – Development of a linked molecular surveillance database system for food-borne infections', which was completed in April.

Teresa Belcher gives us an overview of Module 3 of the Science Communication Internship: Communication with Stakeholders.

We announce Special Interest Group sessions to be held at the 3rd Med-Vet-Net Annual Scientific Conference, Lucca, Italy, on 30th June.

PulseNet Europe Overview

Workpackage 4: PulseNet Europe Development of a linked molecular surveillance database system for food-borne infections

In *Med-Vet-Net News* December 2004 we gave a first overview of Workpackage 4: now at the project completion we outline the achievements and benefits to stakeholders.

Multinational outbreaks of food-borne infections have become frequent events with the increasing trade of raw, semi-processed and ready-to-eat foods between countries. Early detection and response to food-borne infections are therefore important both for public health and for trade of food products.

In Europe, for many years the problem has been that molecular typing results from different countries have not been comparable, even when the same method was used. Further, it is impractical to exchange bacterial strains over long distances to perform the real-time typing necessary for outbreak detection and control. However, it is possible to do molecular typing according to defined and standardized protocols in many places at one time and to send DNA fingerprints electronically to a

central database enabling a comparison of profiles of strains isolated in different countries in real-time.

PulseNet Europe is a network of food, public health, and veterinary laboratories dedicated to molecular surveillance of food-borne infections. It is a unique multi-disciplinary network in the EU and which combines high discriminatory molecular typing with a truly 'farm-to-fork' approach to the existing surveillance at an international level. Strains isolated from patients and food are locally typed by pulsed field gel electrophoresis (PFGE) using a standardized protocol and images of the PFGE-profiles are electronically submitted via the web to the PulseNet Europe central database to be compared with profiles submitted by other laboratories. Comparison is made in real-time using sophisticated image analysis software. The data are also comparable internationally through PulseNet International (PulseNet Asia–Pacific region, PulseNet Canada, PulseNet Latin America and PulseNet USA).

Partners have direct access to the PulseNet Europe central database containing specific databases for *Salmonella*, verocytotoxin-producing *Escherichia coli* and *Listeria monocytogenes*. This direct

access ensures a uniform nomenclature for PFGE-subtypes in all participating countries, provides portable data and allows partners to check and compare their own data to the data that are stored in the database when alerts of infection clusters are posted on the communication forum. This direct access to comparable typing data for isolates from human infections as well as food and animals will significantly improve the surveillance and trace-back of food-borne infections at the national, European and international level. Further, international clusters of food-borne infections that have too few cases in each country to be recognized by the national surveillance systems will be detected through the central PulseNet Europe surveillance system.

PulseNet Europe partners are laboratories submitting typing data for one or more of the pathogens under surveillance in the network. The partnership represents public health, food, and veterinary laboratories across Europe. Partners expressing interest represent 60 institutes from 30 countries. This includes 12 institutes participating in Med-Vet-Net.

The quality of the PFGE gel images and correct band assignments are critical when data is uploaded to the central database

for comparison. The six database curators from AFSSA, DFVE, HPA, IP, SSI and VLA, who were chosen to take care of the quality of the central databases, perform the uniform naming and confirm the PFGE profiles submitted by partners, and perform central cluster detection of all pathogens at regular intervals.



Participants at the curators training course at SSI in April 2006.

In addition, the curators organize training courses and are involved in troubleshooting for participant laboratories whenever requested.

Workpackage 4 achievements Website

The PulseNet Europe homepage (<http://www.pulsenet-europe.org/>) has been established. It contains general information of PulseNet Europe, participants, organization structure, the PNE forum, links to other networks and documents such as protocols, a gel analysis manual (BioNumerics PNE manual) and a troubleshooting help function.

Communication

The PulseNet Europe communication system, PNE forum, <http://www.pulsenet-europe.org/pneforum>, has also been set up. Through the PNE forum, partners will be alerted by email when an international cluster is detected, and the images from clusters of PFGE profiles can be attached to the alert email. It is also a forum where discussions and questions can be asked concerning the PulseNet protocols and the database. The forum contains a public site and a confidential site, the latter is only accessible to PulseNet Europe partners. Curators and administration also have their own confidential discussion forums.

Curator Group

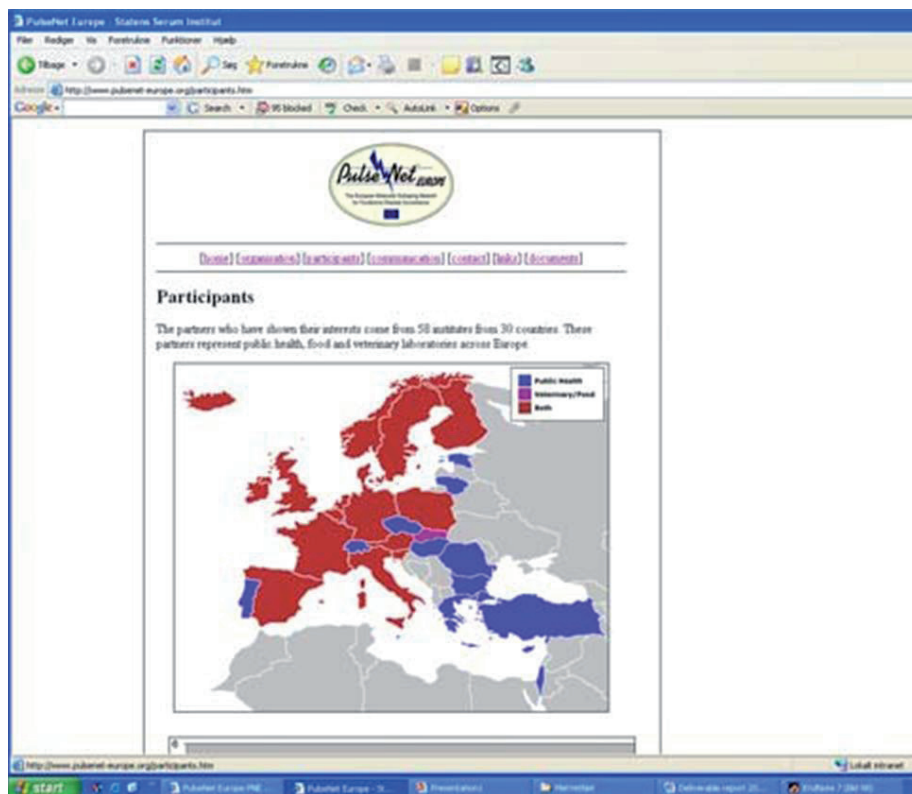
A curator group of six curators from different institutes was trained in 2006 and additional funding from Med-Vet-Net also enabled a training course for 15 PulseNet Europe participants.

A European Quality Assurance System

A European Quality Assurance System (EQAS) has been created and certification started in order to insure the comparability of the data that are uploaded from different laboratories.

Central database

A trial run of the PulseNet Europe central database has been performed and the system is fully functional. Customized BioNumerics software has been developed



PulseNet Europe homepage

with full compatibility with other PulseNet networks and a manual of the customized PulseNet BioNumerics software has been written for partners. The certified partners, who have signed the memorandum of understanding have been given passwords to access the central database

Memorandum of Understanding

A memorandum of understanding (MoU) which defines the rules for collaboration allowing exchange of information and molecular typing data between PulseNet Europe partners is ready for signatures and an MoU with PulseNet USA has been drafted.

Integrator of PulseNet Europe database and activities with ECDC

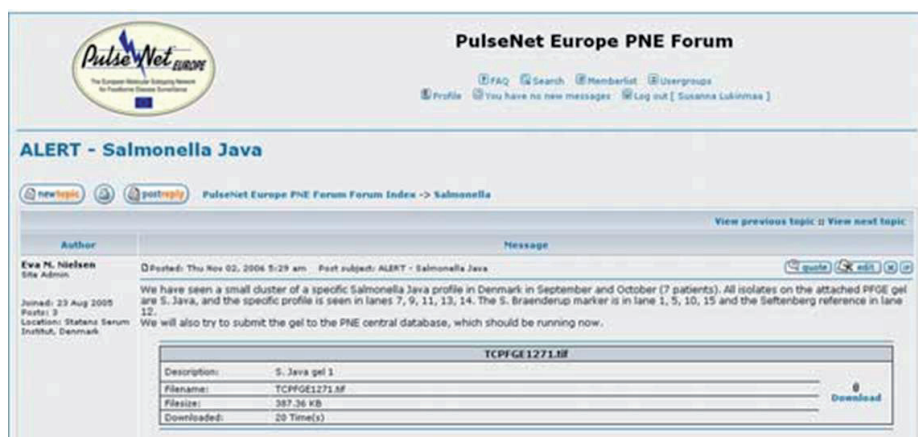
The European Centre for Disease Prevention and Control (ECDC) has the mandate to detect, assess and respond to health threats including multi-national food-borne outbreaks. The operation of

PulseNet Europe supports rapid detection of outbreaks associated with food and animal sources, therefore, close links to ECDC were built up and the integration of PulseNet Europe with ECDC was carefully explored. In November 2006, the PulseNet steering committee was informed that ECDC had included PulseNet Europe in their 2007 action plan. The plan will be made public in December and it includes one co-ordinator and three curators (full time).

Stakeholder benefits from Workpackage 4

The knowledge that has been gained on how to build customized BioNumerics databases with server access via the internet could be valuable for other groups (collaborators from different institutes and countries) aiming to create a place for sharing information on species, strains and different molecular and typing techniques. The structure exemplified by PulseNet Europe databases is easily modified for other pathogens including non-food-borne pathogens and the spectrum of typing methods can be easily expanded.

It is anticipated that the direct access to comparable typing data for isolates from human infections as well as food and animals generated by PulseNet Europe, will significantly improve the surveillance and trace-back of food-borne infections at national, European and international level.



Med-Vet-Net People

Dr Susanna Lukinmaa, Workpackage 4 Leader

Susanna is a microbiologist who completed her Master of Science and PhD (in microbiology) at the Faculty of Sciences, University of Helsinki. Her thesis, '*Salmonella enterica*, *Listeria monocytogenes* and *Clostridium perfringens*: Diversity of human isolates studied by phenotypic and molecular methods', examined the molecular epidemiology of food-borne pathogens.

Susanna has most recently worked as a senior researcher on molecular surveillance of food-borne pathogens at the National Public Health Institute (KTL), Department of Microbiology, Laboratory of Enteric Pathogens in Helsinki, Finland.

She was the Finnish representative in the Salm-Gene project, a European network for strengthening international salmonella surveillance through strain typing and differentiation, founded by European Union. In addition, she was a representative in a bilateral computer-based network for comparison of PFGE profiles of *L. monocytogenes* isolates from humans, food and food production environments in collaboration with The National Veterinary and Food Research Institute (EELA) in Finland.



Dr Trudy Wassenaar, Assistant Project Manager



Trudy joined formally joined Workpackage 2 of earlier this year and has been assisting Diane Newell in Project Management of Med-Vet-Net.

Trudy has a BSc in Biochemistry from the University of Swansea, Wales, UK. She undertook her PhD in Veterinary Science at the University of Utrecht, Netherlands: her dissertation was entitled 'Flagellin gene duplication and antigenic variation in *Campylobacter jejuni*'. She then took a post-doc position in Clinical Microbiology in Mainz, Germany. She has 55 publications in international peer-reviewed journals and 5 contributions to scientific textbooks.

In 1998, Trudy started her own consultancy company 'Molecular Microbiology and Genomics Consultants'. Through MMGC she consults research groups on molecular microbiology and genomics of microorganisms, and assists in research design, planning, problem solving, data analysis, project management and in preparation of proposals and manuscripts. Trudy also teaches courses in applied bioinformatics for microbiologists. Currently Trudy is also a part-time associate professor at DTU, Center for Biological Sequences.

Trudy is a Dutch National, and lives in Germany with her husband and two children.

Med-Vet-Net Governing Board

Results of Governing Board Elections

The new Governing Board Chairperson is Valérie Baduel from Afssa, and the new Vice-Chair is Carmen Audera from ISCIII.

Valérie Baduel and Carmen Audera are elected for two years.

Professor Jan K. Ludwicki, Med-Vet-Net Governing Board Member – PZH



In 2001, Jan was Executive Director of the National Institute of Hygiene. Currently, since January 15, 2007 he has been appointed Deputy Director for Postgraduate Training and Public Health at the same Institute. As the Head of the Department of Environmental Toxicology, Jan continues this activity focusing on training and research, including expertise for health authorities in Poland, and risk assessment.

He was Polish co-ordinator of the European Commission R&D Project, INUENDO, dealing with biopersistent organochlorines and the risk for human fertility (5th Framework Programme). He is leading the Risk Assessment Group for Rapid Alert System Food and Feed (RASFF) and for authorization of plant protection products. He is also a Member of the EFSA Advisory Forum and Government expert for the Standing Committee on the Food Chain and Animal Health – Pesticide Residues for the EU Commission. He is member of the Scientific Councils of the National Institute of Hygiene, the National Institute of Drug Research and the Institute of Organic Industry.

Science Communication Internship

From 23 April to 9 May 2007, two out of the four interns participated in Module 3 of the Med-Vet-Net Science Communication Internship.

Elizabeth Marier, from VLA in UK, and Pawel Stefanoff, from PZH in Poland, continued on from the Modules 1 and 2 training to appreciate that communicating science with different stakeholders (such as industry, government, non-government organizations, public and school children) requires different approaches.

The two and a half week course – ‘Influencing Stakeholders’ was devised by the Med-Vet-Net Communications Unit, Teresa Belcher and Jennie Drew. The course involved many visits and discussions with stakeholders, a mixture of in-house tuition and external companies providing expert training, as well as a three-day trip to Brussels.

The interns were first introduced to how the European Union is structured and works, and gained an overview of the many different types of stakeholders with which Med-Vet-Net must liaise. They were shown how to write a Briefing Paper aimed at a policy maker and then continued to prepare a brief of their research for the upcoming meeting with a Member of the European Parliament (MEP) in Brussels. They were also shown the importance of evaluating communication activities, and then were sent an exercise to design a questionnaire for delegates at the upcoming Med-Vet-Net Annual Scientific Meeting in Lucca, Italy, at the end of June.

On the first Thursday, we travelled to London to meet radio and television producer Ros Smith at the BBC World Service. Ros has worked extensively with communicating science to children and teenagers and used to broadcast ‘The Big Toe Radio Show’. We then watched a live production of the radio broadcast ‘Science in Action’ and spoke to the producers about the work and research that is necessary to produce the show.

On the first Friday we had a packed day of visits in Oxford and Surrey. First we met with Dr David Brooks, Chief Executive of biotech company Oxitec. Oxitec Ltd is developing effective and environment-friendly techniques to control insect pests that are important to agriculture and public health. Their technology, which is based on advances in molecular biology and genetics at

Oxford University, builds on well-established sterile insect techniques. David was interested in getting our opinion and input into how to communicate this new technology to the public. We then attended at PEST (Public Engagement of Science and Technology) meeting at Oxford. This was the start-up meeting for the group who consisted of a vast background of workers in science, technology, research and communication. Lastly, we travelled to Surrey to visit Peter Wareing at Leatherhead Foods International where we discussed risk and communication from the viewpoint of the food industry.

The second week began with a course in Event Management, providing an initial, all-round grounding in managing a successful event. We then travelled to London to visit Professor Nigel Poole to talk about his external affairs and communication experience with the agricultural industry. In particular he told about his experience with the launch of the first genetically modified tomato paste, ten years ago. Following this he gave us a brief overview of how, during the Victorian Era, the future of London was changed by an improvement in the understanding of microbiology when Microbiologist John Snow traced the source of cholera to a water pump that was causing the epidemic.

The following day we were back in London to visit the Science Museum and talk to its staff about their education programme and to sit in on a school



Teresa, Pawel, Jennie and Elizabeth by the pump handle that commemorates John Snow's finding of the source of a cholera outbreak in London. The original handle was removed in 1854, preventing additional deaths from the disease.

show about ‘bubbles’, which aimed to introduce some basics ideas of physics and chemistry to young children. We then spoke to Antenna exhibit designer Natasha Waterson about how exhibits ideas are formulated, researched and created and how they are targeted to certain audiences. Antenna is a constantly updated series of exhibitions devoted to science news, including breaking stories, and we discussed ideas of how the work of Med-Vet-Net could be included in future exhibits.

Back in the office, the interns undertook a course in proposal writing with a particular emphasis on writing proposals for the European Union. On the last Friday, we had another packed day. First we visited Dr Helen Ferrier at the National Farmer’s Union to learn about how they communicate to their members and influence policy makers. This was followed by a visit to Aston University to talk to Microbiologist Dr Anthony Hilton about his recent appearance in the BBC television science series ‘Grime Scene Investigation’, and also to Hannah Brookes from the University’s media team to find out how the university communicates its research to the media and external funders.

On Sunday we boarded the Eurostar to travel to Brussels. Here we visited the offices of European SchoolsNet, to talk about their European science education portals for teaching, learning and collaboration and how this can bring about change in the way pupils learn, and become interested in, science. We also met with Dr Olivier Espeisse, the European Corporate Affairs Manager for Eli Lilly/Elanco. We discussed communications in the veterinary pharmaceutical industry and the extensive work he does lobbying with

If you are employed at a Med-Vet-Net partner institute and would like to participate in the Science Communication Internship, then please contact the Communications Unit. All modules will be repeated again either later this year, or early in 2008. There are also places available to external paying participants.

relevant bodies in Brussels. Later we met with Tim Hall (Head of Unit) and Jean-Charles Cavitte (Med-Vet-Net Project Officer) at the European Commission. On the final day we were lucky enough to visit the European Parliament for a brief tour. Unfortunately, our appointment with Robert Sturdy MEP had to be cancelled last-minute, but his staff were helpful in looking after us and introducing us to two other English MEPs, Martin Callanan and Roger Helmer.

At the conclusion of this Module, the interns definitely felt they had a greater understanding of the different stakeholders, their needs and their preferred modes of communication.

Module Four – ‘Virtual Communications’ will run slightly later than first planned, at the end of Summer.

Teresa Belcher



The European Parliament at Brussels: the interns met MEPs and watched the Parliament in session on the 50th Anniversary of the Rome Treaty.

New Journal

Journal of Infection in Developing Countries:

A new, independent, on-line publication with an international editorial board and open access.

The Journal is intended to publish original research papers, research notes and reviews covering different aspects of human, animal and environmental Microbiology and infections in developing countries with particular emphasis on emerging and re-emerging aetiological agents, diagnosis, and epidemiology and public health.

The aim of the journal is to provide all infectious disease researchers from developing countries with an international forum for publishing their research findings.

The Journal is of interest to medical and clinical microbiologists, virologists, parasitologists, mycologists, immunologists, epidemiologists, pharmacologists, clinicians and public health workers.

The Journal publishes original research manuscripts and state-of-the art review articles as; full research articles, short reports, letters to the Editor, public health reports, case studies, meeting reports and book reports.

Scope and criteria for publication

The journal has a policy of manuscript evaluation, and each manuscript is evaluated by selected referees who are experts in their respective fields. If necessary the editorial board will provide advice on preparing and submitting manuscripts to the Journal, and will act as external expert reviewers. Articles within the remit of the journal will either be accepted or guidance will be given on improving the presentation or the scientific content. Manuscripts submitted for publication must be written in English.



The Journal welcomes:

- Articles concerning research performed in tropical countries and developing countries
- Articles done in collaboration with scientists in developing countries
- Articles regarding main transmissible diseases, in developing countries, carried out by scientists in developed countries.

More information is available from:
<http://www.oloep.org/content.asp?id=678>

Lucca Conference

Late registration

Late registration for the conference is now possible until **10th June**. Please register online at: <http://medvetnet.conference-services.net>

Poster and oral presentations

All authors of submitted abstracts should now have been emailed about acceptance for oral and poster presentations. Please email MVNConf07@medvetnet.org if you would like more information.

Instructions for oral presentations are available from:

<http://www.medvetnet.org/cms/templates/doc.php?id=139>

and for poster presentations from:

<http://www.medvetnet.org/cms/templates/doc.php?id=138>

Conference Programme

The latest version of the conference programme is available at:

http://www.medvetnet.org/pdf/Conferences/Preliminary_Programme.pdf

Please check back regularly for updates.

Shuttle buses:

If you would like a place on the shuttle buses between Pisa Airport and Railway station and the Conference Centre, and have not yet told us, please contact the Communications Unit, MVNConf07@medvetnet.org, with your arrival and departure flight times.

Further information is available from the conference website: www.medvetnet.org/mvnconf07



Special Interest Group Sessions

Med-Vet-Net MRSA Emerging and Neglected Zoonosis Group

We would like to announce a workshop for all those interested in the burgeoning area of MRSA as a potential zoonotic agent. The workshop will be held on Saturday 30th June 2007 at the Med-Vet-Net Annual Scientific Meeting, between 08.30am and 10.30 am: please check the Conference Programme for further details.

The aim of this workshop is to develop, promote and take forward potential paths of research that can be moulded into a consortium bid for the upcoming deadlines for the FP7 funding call. Specifically, we need to identify potential calls that we can answer, decide if we need to lobby for a more specific funding call and identify the important/relevant branches of research that will aid a successful bid. Importantly we need to identify leaders for various areas and potential consortium members. This is an excellent opportunity to network with people you know and meet those you don't and hopefully formulate future research collaborations.

If you are unable to attend the meeting but you are interested in a role within the consortium then please feel free to contact me via email (m.felder@kingston.ac.uk) and I will present/include your comments and contributions at the Lucca workshop.

In the meanwhile I would like to thank those of you who have already contacted me in the past few months. We anticipate that this forthcoming workshop will enable us to work together and take this exciting area forward. I look forward to seeing you all!

Mark Fielder

Host-Pathogen Special Interest Group Session

A discussion session will be held for the host-pathogen interactions special interest group from 9 am to 11 am on Saturday 30th of June at the 3rd Med-Vet-Net Annual Scientific Meeting in Lucca.

The aim of the session will be to outline the current status of the host-pathogen interest group with particular emphasis on the development of databases and networks. There will also be an opportunity to discuss future collaborative funding opportunities in the area of host-pathogen interaction research.

Roberto La Ragione

Please check the conference programme for room allocations for these sessions.

If you would like to book a room for a Workpackage business meeting on Saturday 30th June, please contact the Communications Unit: communications@medvetnet.org

Notices

Good Research Practice 2007 Distance Learning e-Course

Organized by the Veterinary Research Institute, Brno, Czech Republic in collaboration with:

- Veterinary and Pharmaceutical University, Brno;
- Veterinary Biotechnology, Epidemiology and Food Safety Network (CENTAUR);
- EU 6th Frame Programme SSA PCVD: Towards improved food quality and safety within new member states and associated candidate countries (NMSACC-PCVD 518432);
- International journal for veterinary sciences and biomedicine Veterinarni Medicina;
- European Social Fund project CZ.04.1.03/3.2.15.1./0021;
- Dr J. Crowther, IAEA Vienna, Researcher-Training project leader.

Lessons include:

- Communication: an important way to successful collaboration
- Microbiology: laboratory safety and skills
- Supercourse Epidemiology - Internet - Global Health
- Web of Knowledge
- PubMed database
- How to write a paper in a scientific journal style and format
- Biological research in developing countries: some hotspots
- Open learning on enteric pathogens

Who can register?

Students and graduate students of biomedical disciplines, as well as research associates regardless of their age. Communication in English (a chance to improve communication skills), a personal email address and access to the internet are the only requirements. Participation is free for the first 100 registered students.

How to register?

Send an email to the supervisor hruska@vri.cz and attach the registration form, indicating your affiliation, current or finished field of education/university/faculty (if graduated, the year of graduation). The email subject: GRP 2007-registration-your family name

The registration will be confirmed by email.

More information is available from:
<http://centaur.vri.cz/>

Job Vacancy

Risk Analyst, Centre for Epidemiology & Risk Analysis, Veterinary Laboratories Agency, Addlestone, Surrey

Do you want to put your mathematical modelling and/or quantitative risk assessment skills to good use?

Are you interested in biological systems, animal health and/or food safety, and would you find the challenge of these complex issues stimulating?

Are you a team player with excellent communication skills?

Do you want to help inform Government policy in the area of animal health and food safety?

If you can answer yes to all these questions, and are ready to use your modelling and analysis skills to help inform Government policy in the area of animal health and food safety then why not consider a career as a risk modeller in the internationally recognised Risk Analysis workgroup at the Veterinary Laboratories Agency? Using your existing and newly acquired knowledge you will conduct risk assessments on current topics of interest such as *Salmonella*, *E. coli*, avian influenza and BSE.

Further details and an application form can be obtained from the VLA website www.vla.gov.uk or by writing to: Personnel (AMK), Veterinary Laboratories Agency, New Haw, Addlestone, Surrey KT15 3NB quoting reference ADP 4021.

The closing date for receiving completed application forms is 11 June 2007.

New Publication

FAO-WHO Food Safety Risk Analysis: A guide for national food safety authorities

FAO and WHO have developed this Guide to improve food safety regulators' understanding and use of risk analysis in national food safety frameworks. The primary audience is food safety officials at the national government level.

The Guide provides essential background information, guidance and practical examples of ways to apply food safety risk analysis. It presents internationally agreed principles, a generic framework for application of the different components of risk analysis, and wide-ranging examples rather than prescriptive instructions on how to implement risk analysis. It complements and is aligned with other documents that have been, or are being, produced by FAO/WHO and the Codex Alimentarius Commission (CAC), and can be revised and improved as new experiences and knowledge in the field of risk analysis become available.

Available for download from:
<ftp://ftp.fao.org/docrep/fao/009/a0822e/a0822e00.pdf>



4th European Meeting on Viral Zoonoses, June 2–5, 2007, St. Andrews, Scotland, UK

Full details: www.euroviralzoon.com

Genomics for Animal Health: Joint SABRE and EADGENE conference, 5 and 6 June

This 2-day conference features a series of presentations by keynote speakers and leading specialists in their fields which will update delegates on the latest genetics and genomics research in udder health, gut health and functionality, genome wide selection, microarray analyses, and new genomics tools and technologies.

More information is available from: <http://www.sabre-eu.eu/>

IFAH-Europe Conference 2007, 6 June 2007, Brussels Marriott Hotel

'Veterinary medicines regulation – Is Europe still at the cutting edge of innovation?'

The conference aims to examine better regulation in the context of the current regulatory framework for animal health products and discuss ways to further improve it.

For more information see: www.ifahsec.org

NFID Annual Conference on Antimicrobial Resistance, 25–27 June 2007, Bethesda, Maryland, USA

Foundation for Infectious Diseases (NFID) - Annual Conference on Antimicrobial Resistance.

See: www.nfid.org

Society for Applied Microbiology, Summer Meeting, 2–5 July 2007, 'Microbiology of Fresh Produce', Park Plaza Hotel, Cardiff, UK

For more information see www.sfam.org.uk or contact Sally Cryer (sally@sfam.org.uk)

IAFP 2007, 8–11 July 2007, Disney's Contemporary Resort, Lake Buena Vista, Florida, USA

The International Association for Food Protection's Annual Meeting features

over 500 technical papers, posters and symposia, detailing current information on a variety of topics relating to food safety.

For more information see www.foodprotection.org/meetingsEducation/2007ammain.asp

American Society for Virology 26th Annual Scientific Meeting, 14–18 July 2007, Corvallis, Oregon, USA

Contact: email asv@asv.org
Website www.asv.org

14th International Workshop on *Campylobacter*, *Helicobacter* and Related Organisms, 2–5 September 2007, Beurs World Trade Center Rotterdam The Netherlands

For more information see <http://www.chro2007.nl/>

Society for General Microbiology 161st Meeting, 3–6 September 2007, University of Edinburgh, UK

For more information see: <http://www.sgm.ac.uk/meetings/MTGPAGES/Edinburgh07.cfm>

Epidemiology & Control of Infectious Diseases, 3–14 September 2007, Imperial College London

Epidemiology & control of infectious diseases - Introduction to mathematical models of global and emerging infections. A ten-day short course. Contact Ulrika Wernmark on +44 (0)20 7594 6886; email: cpd@imperial.ac.uk; website www.imperial.ac.uk/cpd/epidemiology

World Rabies Day, 8 September 2007

World Rabies Day has several campaigns all with one objective – to end people dying from rabies.

For more information see: www.worldrabiesday.org/

13th International Bioinformatics Workshop on Virus Evolution and Molecular Epidemiology, 9–14 September 2007, Lisbon, Portugal

For more information see: www.kuleuven.ac.be/aidslab/veme.htm

XXI Congress of the Spanish Society of Microbiology, 17–20 September 2007: Seville, Spain.

For more information see: <http://www.congreso.us.es/microSEM2007/>

Prion 2007, 26–28 September 2007: Edinburgh International Conference Centre

For more information see: www.prion2007.com

Surviving as a woman in science, EuroSciCon meeting 2 November 2007

Confirmed talks include:

- Creating Cultures of Success for women in science
- What does it take to get women back into SET work after a career break?
- Fellowship opportunities for women in science
- Scientific Publishing: A female dominated field

For more information see www.euroscicon.com or email enquiries@euroscicon.com



Contact us

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Contributions and suggestions are welcome. Deadline for publication is 1st of each month.

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Visit <http://www.medvetnet.org>