

**CRITERIA FOR APPOINTING ROSTER OF EXPERTS FOR  
BIOSAFETY CLEARING HOUSE**

<b>i)</b>	<b>GENERAL INFORMATION</b>	
	Name of the country of the Government making appointment	Kenya
	Title of the expert and name (s)	Dr. Joseph Mwangi Macharia
	Nationality	Kenyan
	Job Title	Senior Assistant Director
	Department	Department of Veterinary Services
	Organization	Ministry of Livestock & Fisheries Development
	Street address	Off Waiyaki Way, Kabete
	City	Nairobi.
	Country	Kenya
	Contact information	P.O. Private Bag 00625 Kangemi Nairobi
	Fax	
	Email	jmmacharia@excite.com
	Website	
<b>ii)</b>	<b>SPECIALIZATION TO BE CONSIDERED</b>	
<b>A</b>	<b>DATA MANAGEMENT AND INFORMATION SHARING</b>	
	1 Database	√
<b>B</b>	<b>INSTITUTIONAL DEVELOPMENT</b>	
	1 Public health	√
<b>C</b>	<b>LEGISLATION AND REGULATION</b>	
	1 Biosafety regulations	√
<b>D</b>	<b>PUBLIC AWARENESS AND PARTICIPATION</b>	
	1 Community participation	√
<b>E</b>	<b>RESEARCH AND DEVELOPMENT</b>	
	1 Biotechnology research	√
<b>F</b>	<b>RISK ASSESSMENT AND RISK MANAGEMENT IN: -</b>	
	1 Animal ecology	√
	2 Marine Biology/ecology	√
	3 Taxology	√

<b>G</b>	<b>ORGANISM TRAITS</b>	
	1 Other growth development and product quality	√
<b>H</b>	<b>SOCIAL AND ECONOMIC SCIENCES</b>	
	1 Sustainable development	√
<b>I</b>	<b>TEACHING AND TRAINING</b>	
	1 Informal Teaching (e.g. workshop facilitation)	√
<b>(iii)</b>	<b><u>DETAILS OF CURRENT EMPLOYMENT</u></b>	
	Start date of employment (year)	2005
	Organization type	Academic
	Main areas of responsibility	<ol style="list-style-type: none"> <li>1. Confirmation of animal viral disease diagnosis; disease investigation, sero-surveillance, sero-monitoring and research.</li> <li>2. Quality regulation for veterinary viral vaccines and other veterinary biologics to assure their purity, safety, potency, and efficacy.</li> <li>3. Certifying imports/exports of animals and animal products to be free from pathogens and other contaminants.</li> <li>4. General administration as the Senior Assistant Director of Veterinary Services and Head of the Central Veterinary Laboratories at Kabete, comprising six laboratories (Pathology, Chemistry, Bacteriology, Parasitology, Virology &amp; Acarology) and which are the national referral veterinary laboratories.</li> </ol>
	<b>Employment History</b> Main countries/regions worked	Kenya

<b><u>Previous employer one</u></b>		
Name of employer/organization	Ministry of Livestock & Fisheries Development (Department of Veterinary Services)	
Job title	Assistant Director of Veterinary Services & Head, Central Veterinary Laboratories, Kabete	
Duration of time employed	(Feb 2004 – June 2005)	
Address	P.O. Private Bag 00625 Kangemi Nairobi	
Main areas of responsibility		
<b><u>Previous Employer two</u></b>		
Name of employer/organization	Ministry of Livestock & Fisheries Development (Department of Veterinary Services)	
Job title	Assistant Director of Veterinary Services & Head of Virology Section, Central Veterinary Laboratories, Kabete	
Duration of time employed	(Apr 2001 – Feb 2004)	
Address	P.O. Private Bag 00625 Kangemi Nairobi	
Main areas of responsibility		
<b>(iv)</b>	<b>PUBLICATIONS</b>	
Three most relevant publications  Please, list complete citations of _____ reviewed articles, books, book chapters' conference papers and other relevant publications	<ol style="list-style-type: none"> <li>1. <b>Macharia, M.J.</b>, on behalf of the National Coordination Committee of the National Council for Science and Technology (2003). "Biotechnology and Biosafety Policy for Kenya". In: 'Workshop for the Parliamentary Committee on Agriculture, Science and Environment and Scientists, on Biotechnology and Biosafety Policy and Draft Bill for Kenya' held in Whitesands Hotel, Mombasa, Kenya, 30 October to 1 November 2003.</li> <li>2. <b>Macharia, M.J.</b>, (2004). "Monitoring and Inspection Manuals for Genetically Modified Organisms in Kenya". In: 'Workshop on</li> </ol>	

		<p>handling requests for GMO introductions for members of the National and Institutional Biosafety Committees in Kenya' held in Merica Hotel, Nakuru, Kenya, 25 – 28 August 2004.</p> <p><b>3. Macharia, M.J.</b>, on behalf of the National and Institutional Biosafety Committees in Kenya (2004).  “Progress on Implementing Confined Field Trials in Kenya”. In: ‘Training Course on Evaluation of Biosafety Applications for Contained Use and Confined Field Trials in Uganda’ organised by Uganda’s National Agricultural Research Organisation (NARO) and USAID’s Programs for Biosafety Systems East Africa and held in Jinja Nile Resort, Jinja, Uganda, 8 - 10 November 2004.</p>
<b>(v)</b>	<b>AWARDS AND MEMBERSHIPS</b>	
	<p>Scientific award, professional societies honorary memberships, and membership in advisory committees/panels</p>	<p><b><u>Awards &amp; Fellowships held:</u></b></p> <p><b>1983/1987</b> Government of Kenya Undergraduate Scholarship, University of Nairobi, Kenya.</p> <p><b>1993/1996:</b> World Bank Scholarship, University of Nairobi, through the Agricultural Sector Management Project II (ASMP II) of the Kenya Ministry of Agriculture.</p> <p><b>1994/2001:</b> United States Agency for International Development (USAID) Research Grant, through the US-Israel Co-operative Research Program (CDR).</p> <p><b>1997:</b> United States Department of Agriculture (USDA) scholarship, through the Institute for International Cooperation in Animal</p>

		<p>Biologics (IICAB), to familiarize with the operations of the US Animal and Plant Health Inspection Service; the US Center for Veterinary Biologics, the US National Veterinary Services Laboratories, the USDA Agricultural Research Service National Animal Disease Center and the Iowa State University College of Veterinary Medicine.</p> <p><b>1999:</b> International Atomic Energy Agency (IAEA) Fellowship, Animal Production Unit, FAO/IAEA Agriculture and Biotechnology Laboratories, Department of Nuclear Sciences and Applications, Seibersdorf, AUSTRIA.</p> <p><b>2004:</b> Scholarship from the Arab Bank for Economic Development in Africa (BADEA); the Egyptian Fund for Technical Cooperation with Africa (EFTCA) and the Cattle Information Systems/Egypt (CISE) of Cairo University's Faculty of Agriculture. One month Training Workshop on '<i>The Use of Biotechnology in Developing Agriculture in African States</i>', Cairo, Egypt.</p> <p><b>2005:</b> Fellowship from the Cochran Fellowship Program of the United States Department of Agriculture. Two week training and a speaker at</p>
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		<p>the 'Foreign Animal Disease Diagnosticians' Course, USDA/USDHS's Plum Island Animal Disease Center, New York, USA.</p> <p><b>2005:</b> Scholarship from FAO project TCP KEN 3001 (T). Two week Training on regulation of Genetically Modified Organisms at the Indian Agricultural Research Institute (IARI) including the National Phytotron Facility, New Delhi, India.</p> <p><b>2006:</b> Scholarship from United States Department of Agriculture (USDA). One week Training on the diagnosis of Highly Pathogenic Avian Influenza (HPAI) at the National Veterinary Services Laboratory of the USDA's Animal and Plant Health Inspection Service and at the Iowa State University, Ames, Iowa, USA.</p> <p><b><u>Membership/Affiliation to Professional Organizations and Committees:</u></b></p> <ol style="list-style-type: none"> <li>1. Member since 1987 to present, <b>Kenya Veterinary Board</b> (<i>Reg. No. 908</i>).</li> <li>2. Member since 1987 to present, <b>Kenya Veterinary Association</b>.</li> <li>3. Member since 2000 to present, <b>Institutional Biosafety Committee of the Kenya Agricultural Research Institution (KARI)</b>.</li> <li>4. Interim committee member, <b>Kenya Poultry Association</b>.</li> <li>5. Interim committee member, <b>Kenya Association of Veterinary Laboratory Diagnosticians</b>.</li> </ol>
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		<p>6. Committee member since 1993 to present, <b>Poultry sub-committee of the Agricultural Society of Kenya (ASK).</b></p> <p>7. <b>Steward</b> since 1993 to present, <b>Nairobi International ASK show</b>, for both the Poultry Parade and the Young Farmers Clubs Poultry Judging Competition.</p> <p>8. <b>Judge</b> since 1993 to present, <b>Nairobi International ASK show</b>, for Meat birds, Commercial layers, Ostriches and the Young Farmers Clubs Poultry Judging Competition.</p> <p>9. Member since 1999 to present, <b>Secretariat on the review of legislation and policies regulating the delivery of veterinary services</b>, comprising representation from the Director of Veterinary Services (DVS), the Kenya Veterinary Board (KVB), the Kenya Association of Laboratory Technicians (KALT), Kenya Veterinary Association (KVA), Faculty of Veterinary Medicine, University of Nairobi (FVM), OAU/IBAR, NGOs and other stakeholders.</p> <p>5. Since June 2003, a member of the <b>National Coordination Committee of the National Council for Science and Technology</b>, as a representative of the Department of Veterinary Services. This committee collected stakeholder submissions and drafted the National Biosafety Framework for Kenya; the Biotechnology and Biosafety Policy; the Biotechnology and Biosafety Bill; Biotechnology and Biosafety Regulations; the National Biotechnology Strategy; Procedures for handling GMO applications; GMO Monitoring and Inspection Guidelines; Internal manuals for</p>
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		<p>administration, risk assessment and decision-making processes; and, awareness materials and brochures.</p> <p>6. Since September 2003, a member of the <b>Agriculture and Allied Sciences Specialist Committee of the National Council for Science and Technology</b>, representing the Department of Veterinary Services. The role of the committee is to advise the National Council for Science and Technology on all issues related to agriculture and allied sciences.</p> <p>7. A member of the <b>Country Programme Framework Committee of the National Council for Science and Technology</b>, representing the Department of Veterinary Services. The role of the committee is to draw the Country Programme Framework that will guide the FAO/IAEA assistance to Kenya, on all matters pertaining to the peaceful use of nuclear energy, for the period 2003 to 2007.</p>
<b>(vi)</b>	<b>KNOWLEDGE OF LANGUAGES</b>	
	Which ones do you read well, speak well, and write well	English and Swahili
<b>(vii)</b>	<b>REFERENCES</b>	
	List of references	<p>1. <b>Dr. Joseph O. Musaa</b>, Director, Department of Veterinary Services, Veterinary Research Laboratories, P.O. Private Bag, 00625 Kangemi, Nairobi, Kenya. Telephone: +254 – 020 – 631567 Fax: +254 - 020 - 631273</p> <p>2. <b>Dr. Ariel K. Karuga</b>, Chief Veterinary Investigation Officer, Department of Veterinary Services, Veterinary Research Laboratories,</p>

		<p>P.O. Private Bag, 00625 Kangemi, Nairobi, Kenya.  Telephone: +254 – 020 - 631390, 631287, 632231  Fax: +254 - 020 - 631273</p> <p>3. <b>Professor P.N. Nyaga</b>,  Department of Veterinary Pathology and Microbiology,  Faculty of Veterinary Medicine, University of Nairobi,  P.O. Box 29053, Nairobi, Kenya.  Telephone: +254 – 733 – 944899</p> <p>4. <b>Harrison K. Macharia</b>  Chief Science Secretary  National Council for Science and Technology  P.O Box 30623, Nairobi, Kenya  Tel/Fax: +254-20-318249</p>
<b>(viii)</b>	<b>ADDITIONAL INFORMATION</b>	
	<p>Any other information relevant to your role as an expert.</p>	<p><b><u>Scientific Meetings and Tours:</u></b></p> <ol style="list-style-type: none"> <li>1. FAO Regional Workshop on Production and Quality Control of Vaccine against Contagious Bovine Pleuropneumonia. 7<sup>th</sup> - 12<sup>th</sup> November 1988: Muguga, KENYA.</li> <li>2. PARC Training Workshop on Rinderpest Diagnosis and Serosurveillance. 29<sup>th</sup> - 30<sup>th</sup> April 1991: Mombasa, KENYA.</li> <li>3. ODA/GoK Rinderpest Diagnostic Training course. 28<sup>th</sup> March - 2<sup>nd</sup> April 1993: Muguga, Kenya.</li> <li>4. Tour of the Iowa State University, College of Veterinary Medicine, May 28, 1997.</li> <li>5. Tour of the Center for Veterinary Biologics Laboratory, June 5-11, 1997, Ames, Iowa, USA.</li> <li>6. Tour of the USDA Animal and Plant Health Inspection Service National Veterinary Services Laboratories, June 5-11, 1997, Ames, Iowa, USA.</li> <li>7. Tour of the Iowa State University of Science and Technology, Flow Cytometry and Hybridoma Facilities, Molecular Biology</li> </ol>

		<p>Building, May 29, 1997, Ames, Iowa, USA.</p> <p>8. Tour of the USDA Agricultural Research Service National Animal Disease Center, June 12, 1997, Ames, Iowa, USA.</p> <p>9. Tour of the Hy-Vac Specific-Pathogen-Free Poultry Biologics Facility, June 18, 1997, Adel, Iowa, USA</p> <p>10. Tour of Fort Dodge<sup>R</sup> Animal Health Laboratories, worldwide manufacturers of Veterinary Pharmaceuticals and Biologicals, June 24, 1997, Fort Dodge, Iowa, USA.</p> <p>11. Tour of ARKO Laboratories Ltd., a small biologics production, testing and distribution facility, June 26, 1997, Jewell, Iowa, USA.</p> <p>12. Third Annual Coordination Meeting of the Pan African programme for the Control of Epizootics (PACE), June 23 – 26, 2003, Arusha, Tanzania.</p> <p>13. National Biosafety Workshop on ‘Reviewing Applications for Confined Testing of Genetically Modified Plants and Animals’ organised by the National Council for Science and Technology, the African Biotechnology Stakeholder’s Forum and USAID’s Program for Biosafety Systems. 19<sup>th</sup> – 22<sup>nd</sup> April 2004: Naro Moru River Lodge, KENYA.</p> <p>14. Accompanied Kenya’s Members of Parliament on a tour of existing biotechnological installations in Kenya (KARI’s Biotechnology Centre, KEPHIS’ Muguga Station, KARI’s Confined field trials in Kiboko and KARI’s Plant Breeding Farm in Njoro) coordinated by the National Council for Science and Technology. 27<sup>th</sup> – 28<sup>th</sup> May 2004.</p>
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		<ol style="list-style-type: none"> <li>15. Tour and training in Faculty of Agriculture (including Genetic Engineering Center and Center of Virology), Cairo University, September 8, 2004, El-Gamma St, Giza, Egypt.</li> <li>16. Tour of Mubarak Scientific City, September 15, 2004, Egypt.</li> <li>17. Tour and Training in Agricultural Research Center, Agricultural Genetic Engineering Research Institute (AGERI), biotechnology Information Center, International Livestock Management Training Center and Animal Reproduction Research Institute, Ministry of Agriculture and Land Reclamation, September 23, 2004, 9 Gammaa St, Giza, Egypt.</li> <li>18. Member of the Kenyan Delegation to the 33<sup>rd</sup> Session of the Codex Committee on Food Labelling, May 9 – 13, 2005, Kota Kinabalu, Sabah, Malaysia.</li> <li>19. Tour and ‘Foreign Animal Disease Diagnosticians’ training at the USDA/USDHS’s Plum Island Animal Disease Center, June 6 – 17 2005, New York, USA.</li> <li>20. Tour and Training on the regulation of genetically modified organisms at the Indian Agricultural Research Institute (IARI) including the National Phytotron Facility, 22 August – 3 September 2005, New Delhi, India. Also visited, among others, the National Resource Centre for Plant Biotechnology (NRCPB) – Virology Centre; the National Bureau of Plant Genetic Resources (NBPGR) including its Germplasm Exchange Unit and the Gene Bank; the Biotech Consortium India Limited (BCIL); the Department of Biotechnology; the Ministry of Environment and Forests; and, selected farmers fields with</li> </ol>
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genetically modified cotton in Sirsa district in Haryana.

**Professional Courses attended:**

1. *ODA/GOK Rinderpest Diagnostic Training course. 28<sup>th</sup> March - 2<sup>nd</sup> April, 1993: Muguga, Kenya.*
2. *Veterinary Biologics Training Program, 27<sup>th</sup> May - 27<sup>th</sup> June, 1997: Ames, Iowa, USA. Sponsored by: the Institute for International Cooperation in Animal Biologics; the USDA Animal and Plant Health Inspection Service; Center for Veterinary Biologics and National Veterinary Services Laboratories; the USDA Agricultural Research Service National Animal Disease Center; and the Iowa State University College of Veterinary Medicine. Course contents: Information technology e.g. Data Transmission and Information Sharing via the Internet, Potential uses of the Internet, Internet's Web Sites and Literature Search Software; Overview and update of basic immunology as it applies to resistance to infectious diseases; Overview of the current understanding of the pathogenesis of disease, characteristics of the infectious agent, identity of protective antigens, and nature of the protective immune response for important diseases of cattle, swine, poultry, dogs, cats, and horses; Overview of the principles of molecular biology as related to vaccine production and evaluation - including laboratory exercises*

		<p>of commonly used molecular biology techniques like DNA extraction, PCR, Southern blots, Agarose gel electrophoresis, SDS-PAGE, and Western blots; Review of the requirements and processes for licensing/registration and testing of veterinary biological products covered under the Virus-Serum-Toxin Act (USA) - including laboratory exercises of methods used to test for sterility, efficacy and potency so as to give quality assurance of veterinary biological products; Review of the inspection and compliance process for production, release and post-marketing surveillance of veterinary biological products covered under the Virus-Serum-Toxin Act (USA) - including tour of a Large and a Small Biologics Production, Testing and Distribution Facility.</p> <p>3. <i>Research Skills Development Seminar No. 1/97. 24<sup>th</sup> November - 5<sup>th</sup> December, 1997: Kenya Institute of Administration.</i> The seminar targets senior officers in the public, private and non-governmental organization (NGO) sectors whose responsibilities involve research initiatives. Topics covered: The research process, Types of research approaches, Research design, Research data collection, Data analysis and interpretation, Computer application in research using MS Word and the SPSS, Writing and presenting research reports.</p>
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		<p>4. <i>Training Workshop for National Co-coordinators/Epidemiologists, organised under the FAO Regional Project TCP/RAF/8821 (E) for the emergency analysis and control of Rift Valley Fever and other vector-borne viral diseases in eastern Africa. 16<sup>th</sup> November - 20<sup>th</sup> November, 1998: International Livestock Research Institute (ILRI), Kenya. Course contents: Management of disease information systems and databases, surveillance and early warning, how to analyse epidemiological data by hand and using computers (TAD Info and GIS).</i></p> <p>5. <i>Fellowship Training in Animal Diseases. 23 August - 18 September 1999: IAEA's Department of Nuclear Sciences and Applications, Animal Production and Health Unit, Seibersdorf Laboratories, Austria. The areas covered were: Processing of ELISA IQC data; troubleshooting the ELISA; Good Laboratory Practices; Calibration checks for ELISA equipment; and, Introduction to PCR.</i></p> <p>6. <i>IAEA/Government of Senegal Regional Workshop on Internal Quality Control of the Rinderpest ELISA and ELISA Troubleshooting (RAF-5.043-004). 1 - 5 November 1999: Laboratoire National d'Elevage et de Recherches Veterinaires (LNERV), Dakar, Senegal. The programme of the workshop covered the</i></p>
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		<p>following areas: monitoring the performance of the ELISA; identifying problems of assay performance; troubleshooting the ELISA; and, analysing ELISA results.</p> <p>7. <i>Third Research Co-ordination Meeting (RCM) of the FAO/IAEA/EU Co-ordinated Research Programme on “Rinderpest seromonitoring and surveillance in Africa using immunoassay technologies” organized by the Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture and held in Vienna, Austria, 16 - 20 October 2000.</i></p> <p>8. <i>Project Planning and Proposal Writing Course No. 10/2000. 30<sup>th</sup> October – 3<sup>rd</sup> November 2000: Kenya Institute of Administration.</i> The seminar targets senior officers in the public, private and non-governmental organization (NGO) sectors whose responsibilities involve project planning and proposal writing. Topics covered: The concept of project management, project planning components, problem identification, project objectives/strategies, the logical framework, project scheduling/planning for implementation, project monitoring and evaluation, project costs and benefits/project budget, project proposal writing, negotiation skills for proposal presentation and proposal presentation and defence.</p> <p>9. <i>Policy Analysis Seminar for Veterinary Officers. 7<sup>th</sup> – 11<sup>th</sup></i></p>
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		<p><i>May 2001: Kenya Institute of Administration.</i> The programme of the seminar covered the following topics: Introduction to policy analysis; the concept of public policy; agenda setting; strategic approach to policy analysis; the policy environment - institutions and stakeholder analysis; Methodologies of policy analysis, namely, Rational Method, General Analysis Framework, Criteria Oriented Methodologies, Systems Analysis and Cost Benefit Analysis; review of select policies; implementation, monitoring and evaluation; and, logical framework.</p> <p>10. <i>'Peoples Participation in Policy Debate: Collection of views through the use of Participatory Methods', 31<sup>st</sup> July – 1<sup>st</sup> August 2001: Kenya Agricultural Research Institute (KARI) headquarters, Kabete.</i> This was a training Course for the Policy and Legal Review Secretariat members, organised by the Intermediate Technology Development Group (ITDG).</p> <p>11. <i>Senior Management Seminar No. 117/2003. 31<sup>st</sup> March – 18<sup>th</sup> April 2003: Kenya Institute of Administration.</i> The programme of the seminar covered the following topics: Aspects of political development and governance; Strategic management and planning for mission-driven effective performance; Management functions and practices in the public service</p>
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		<p>and business management; Effective leadership approaches; public policy making and policy analysis strategy as a new profession in the government administration; Effective conduct of meetings; Implementation of the public service integrity programme; The practice of IT in the public service for improved service delivery; TQM fundamentals for effective performance in the 21<sup>st</sup> century; Project management and planning; Effective management communication in the public service and business organizations; Negotiation strategy and tactics in practice; and, Techniques for project implementation, monitoring and evaluation.</p> <p>12. <i>Training Workshop on 'The Use of Biotechnology in Developing Agriculture in African States', 7<sup>th</sup> September - 4<sup>th</sup> October, 2004: Giza, Cairo, Egypt.</i> Sponsored by: the Arab Bank for Economic Development in Africa (BADEA); the Egyptian Fund for Technical Cooperation with Africa (EFTCA) and the Cattle Information Systems/Egypt (CISE) of Cairo University's Faculty of Agriculture. Course contents included: Genetic Engineering Strategies in Egypt; Bioinformatics; Molecular Approaches to Management and Control of Infectious diseases; The Biotechnology Controversy; Embryo transfer and in-vitro fertilisation; Chromosomal Aberration in relation to</p>
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		<p>Cattle Fertility; Radio-immunoassay Technique; Semen Processing and Evaluation; Quantitative Trait Loci in Animal Breeding; Immunology; Methods of Antibody Determination; Integrating Recent Biotechnologies and Traditional Breeding Techniques; Prospects, challenges and Precautions on the use of Biotechnology in African Agriculture.</p> <p>13. <i>Training and a speaker at the 'Foreign Animal Disease Diagnosticians' Course, USDA/USDHS's Plum Island Animal Disease Center, June 6 – 17 2005, New York, USA. Course content included: Bio-containment; Clinical, Necropsy and Laboratory Diagnosis of major trans-boundary domestic animal and wildlife diseases foreign to USA; and Emergency Management Response System (EMRS).</i></p> <p>14. <i>Training on the regulation of genetically modified organisms at the Indian Agricultural Research Institute (IARI) including the National Phytotron Facility, 22 August – 3 September 2005, New Delhi, India. Course content included the detection of a known transgene in plant and animal material, the detection of an event in a transformed plant, PCR techniques, and instrumentation and maintenance of the Phytotron Facility.</i></p> <p>15. <i>Training sponsored by the United States Department of Agriculture (USDA), and the Institute for International</i></p>
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		<p><i>Cooperation in Animal Biologics (IICABO entitled 'Highly Pathogenic Avian Influenza (HPAI) Diagnostic Training Workshop, at the National Veterinary Services Laboratory of the USDA's Animal and Plant Health Inspection Service and at the Iowa State University, May 15 - 19 2006, Ames, Iowa, USA. The training focused on updating participants on how to perform correctly the current available techniques for the diagnosis of HPAI including AGID, Virus Isolation, ELISA and PCR.</i></p>
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