

OIE Collaborating Centres Reports Activities

Activities in 2017

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Title of collaborating centre:	Zoonoses in Europe
Address of Collaborating Centre:	Friedrich-Loeffler-Institut Südufer 10 17493 Greifswald - Insel Riems GERMANY
Tel.:	+493835171102
Fax:	+4938351 71151
E-mail address:	thomas.mettenleiter@fli.de
Website:	www.fli.de
Name of Director of Institute (Responsible Official):	Prof. Dr. Dr. h.c. Thomas C. Mettenleiter - President
Name (including Title and Position) of Head of the Collaborating Centre (formally OIE Contact Point):	Prof. Dr. Dr. h.c. Thomas C. Mettenleiter - President
Name of writer:	Dr. Jens Schell

ToR: To provide services to the OIE, in particular within the region, in the designated specialty, in support of the implementation of OIE policies and, where required, seek for collaboration with OIE Reference Laboratories

ToR: To identify and maintain existing expertise, in particular within its region

1. Activities as a centre of research, expertise, standardisation and dissemination of techniques within the remit of the mandate given by the OIE

Disease control	
Title of activity	Scope
Avian Influenza (H5N8)	Between 8th November 2016 and 15th May 2017, more than 1,150 cases of HPAI H5N8 in wild birds and 107 outbreaks in birds kept in captivity (92 poultry holdings and 15 zoos/animal parks) were reported in Germany. This avian flu epidemic was the most severe and longest-lasting epidemic that has occurred in Europe so far. In total, 29 European states have been or still are concerned. However, further sporadic HPAI H5N8 infections have been observed in wild birds in Germany since then. Other European countries reported ongoing HPAI H5N8 activity throughout 2017. FLI was strongly involved in optimizing tailored diagnostic and control tools in Germany. The FLI animal disease task force was involved in outbreak investigations in poultry holdings and shared its experiences with European partners.
Technical Support for Namibia in Eliminating Rabies in Dogs	OIE/German Project to eliminate rabies in dogs in Namibia: Epidemiological Analysis of the Rabies Situation 2011-2016 in Namibia Interims Report: Molecular Characterization of RABVs from Northern communal areas of Namibia and Drafting of Action Plan 2018 in the frame of the Namibian Dog rabies Elimination Programme
Epidemiology, surveillance, risk assessment, modelling	
Title of activity	Scope
Surveillance of porcine influenza	In an ongoing passive surveillance study porcine nasal swab samples from several European countries have been examined by PCR for porcine influenza. More than 18.000Up to 6000 samples have will be examined until end of 2017.—Positive samples were further characterized and molecularly subtyped with respect to characterization of the virus isolates obtained revealed presence of 4 differentiation of 4 and 3 distinct hemagglutinin and 3 distinct neuraminidase lineages, respectively. Virus isolates were subjected to nucleotide sequence and genotypic analysis indicating with frequently occurrenceing of reassortants between several lineages of porcine and human influenza viruses these lineages.

Avian Influenza (H5N8)	The HPAI H5N8 epidemic 2016/2017, which was the most severe and longest-lasting epidemic that has occurred in Europe so far, ebbed away in in Germany and most of the European countries in late spring 2017. However, further sporadic HPAI H5N8 infections have been observed in Germany and Europe since then.—The FLI closely observes the national and international avian influenza situation and has published several risk assessments in 2017.—So far, none of the HPAIV subtypes detected in Europe has been found to cause disease in humans. However, subtype H5N6 of clade 2.3.4.4c and Chinese H7N9 (so far only detected in Asia) are currently observed with increased attention due to its higher zoonotic potential.
Monitoring of wild birds for West Nile virus and Usutu virus	For the systematic monitoring of migratory and resident birds a nationwide wild bird surveillance network for zoonotic arthropod-borne virus infections was set-up. This unique German monitoring network within the frame of the German Centre for Infection Research (DZIF) includes 22 different collection sites distributed all over Germany and brings together veterinary universities or institutes, bird clinics, wild bird rescue stations, zoological gardens as well as ornithologists. We investigated preferential blood samples by WNV and USUV-specific real-time polymerase chain reactions as well as by differentiating virus neutralization tests. In addition, we examined different organ samples from diseased or dead wild birds. No WNV-specific RNA was found in any of the samples to date. Some migratory birds (mainly long-distance migrants and some partial migrants) carried neutralizing antibodies against WNV. But a wide geographical distribution of USUV infection under the resident wild bird population in Germany could be detected.
Global re-emergence of glanders	Surveillance of glanders in Europe, Asia and South America is ongoing testing thousands of samples every year. The improvement of international regulations and developing better tests is a permanent task to prohibit introduction of glanders to free areas and transmission to humans
Re-emergence of human and animal brucellosis in developing countries	Disruption of state structures worldwide, climate change and globalization have favoured the re-emergence of brucellosis in man and animals. Ongoing surveillance in various not EU countries and risk analysis for transmission or importation to EU via infected animals, food, feed or travelers are permanent tasks
Clostridium difficile as potential zoonotic pathogen	Prevalence of C. difficile in farm animals as well as in pets and their owners was studied and an risk assessment was made
Training, capacity building	
Title of activity	Scope
Improved animal disease diagnostics and control in Israel	EU Twinning Project at Kimron Veterinary Institute was completed in 2016, however the network and cooperation remains. —The project purpose is to strengthen the capacities of the Kimron Veterinary Institute (KVI) and supervision of private accredited laboratories to achieve rapid and effective surveillance and control of animal diseases as well as provision of reliable evidence to certify animals and animal- origin products as safe, especially for human consumption, up to European Union (EU) and World Organisation for Animal Health (OIE) standards.—Collaborations are ongoing in the areas of rabies and toxoplasmosis.
Zoonoses	
Title of activity	Scope

<p>Crimean-Congo Hemorrhagic Fever Virus</p>	<p>FLI has developed indirect ELISAs for sheep, goat and cattle CCHFV antibodies in the past. Lately we have developed a competition ELISA for CCHFV which allows the species independent detection of CCHFV infections and most recently we have published a novel Double Antigen CCHF ELISA with even more improved properties and performance characteristics. This DA CCHF ELISA is currently commercialized and will be put on the market by IDVet. In 2017 we have also carried out (together with our local partners) CCHF seroprevalence studies in domestic ruminants in Kosovo, Albania, Greece, Macedonia, Turkey, FYRO Macedonia, DR Congo and Ukraine. The results have been published, however studies are still ongoing.</p>
<p>Rabies research and virus-host interaction</p>	<p>Genetic analysis of a rabies virus host shift event from dogs to foxes: The viral dynamics of RABV in a new host (red fox) are studied after sustained spillover from dogs in Turkey.</p> <p>Virus-host interaction of phylogroup II lyssaviruses studies: The pathogenicity of Lagos bat virus in its reservoir host is analyzed.</p>
<p>Zoonotic Borna Virus</p>	<p>Investigations on the identification of further susceptible species and on the origin of the pathogen are ongoing. VSBV-1 was isolated in cell-culture and further characterized. First animal experiments were started. Thus systems for detection of new borna viruses in oral swabs and faeces samples have been further developed, which allow now testing in live animals.</p> <p>The different aspects of the new borna-viruses will be studied in a new research project funded by the German Ministry of Research.</p> <p>Surveillance studies are ongoing and in international cooperations, the studies are extended to neighboring countries.</p>
<p>Zoonotic Poxviruses</p>	<p>Three cases of orthopoxvirus infections in animals were diagnosed and three different cowpox viruses (CPXV) could be isolated and characterized. In addition to isolates from diseased alpaca samples, an isolate from a reservoir species (common vole) was generated.</p> <p>Three cases of parapox virus infections were confirmed in cattle and sheep.</p>
<p>Wildlife</p>	
<p>Title of activity</p>	<p>Scope</p>
<p>Surveillance of hantaviruses and other pathogens in rodents and other small mammal reservoir hosts</p>	<p>Within the research network "rodent-borne pathogens" the screening of small mammals for hanta-, borna-, adeno- and orthopoxviruses, Leptospira spp., and other bacterial pathogens was continued and national and international collaborations continued or extended to Spain, Italy, Switzerland, Belgium, Slovenia, Great Britain, Czech Republic, France, Poland and Lithuania. Our investigations indicated a broad geographical distribution of Tula hantavirus in voles and rat hepatitis E virus and Leptospira spp. in rats from different European countries. For Puumala hantavirus a limited distribution in bank voles from Germany and Poland was demonstrated. A novel hantavirus was discovered in a bat from Czech Republic; the complete genome of a squirrel adenovirus was determined for a red squirrel from Germany.</p>
<p>Diagnosis, biotechnology and laboratory</p>	

Title of activity	Scope
Francisella tularensis and tularemia in Europe	Surveillance of tularemia in Europe, Asia and Africa is ongoing testing a multiplicity of samples every year. The improvement of serological and molecular tests and the implementation of molecular typing systems is a permanent task to provide new tools that can be used in international control measures
Zoonotic Yersinae	Yersinia (Y.) Y. pseudotuberculosis and Y. enterocolitica still cause severe illnesses in humans and animals in the EU. New diagnostical assays were established and validated and known detection methods for these pathogens, including Y. pestis which is nowadays likely to be imported to EU via infected animals, food, feed or travelers were improved.
NGS and BioIT	NGS and BioIT
Vaccines	
Title of activity	Scope
bovine tuberculosis vaccines	Assessing the safety, immunogenicity and efficacy of novel vaccine candidates for vaccinating ruminants against bovine tuberculosis (M. bovis/M. caprae infections)
Developing new vaccines and candidates for serological diagnosis	Methods for the detection of proteins that may be used in vaccine production and new serological diagnostics were implemented and standardized focusing on Coxiella, Brucella and Yersinia spp..

ToR : To propose or develop methods and procedures that facilitate harmonisation of international standards and guidelines applicable to the designated specialty

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 or animal welfare

Proposal title	Scope/Content	Applicable area
Molecular point-of-care rabies diagnostics	Development of molecular point-of-care methods for swift and easy rabies diagnostics. (HighSpeed rabies RT-qPCR and Isothermal recombinase polymerase amplification) Schlottau et al. 2017. Development of molecular confirmation tools for swift and easy rabies diagnostics. Virol. J. 14, 184.	<input checked="" type="checkbox"/> Surveillance and control of animal diseases <input type="checkbox"/> Food safety <input type="checkbox"/> Animal welfare
Standardization and validation of glanders diagnostics used for serology	Western blot, ELISA and CFT are tested for their diagnostic specificity and sensitivity to facilitate their use for international trade	<input checked="" type="checkbox"/> Surveillance and control of animal diseases <input type="checkbox"/> Food safety <input type="checkbox"/> Animal welfare

ToR: To establish and maintain a network with other OIE Collaborating Centres

designated for the same specialty, and should the need arise, with Collaborating Centres in other disciplines

ToR: To carry out and/or coordinate scientific and technical studies in collaboration with other centres, laboratories or organisations

3. Did your Collaborating Centre maintain a network with other OIE Collaborating Centres (CC), Reference Laboratories (RL), or organisations designated for the same specialty, to coordinate scientific and technical studies?

Yes

Name of OIE CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
Multiple cooperations with other OIE CCs and RLs as well as other organizations	worldwide	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	FLI collaborates with multiple collaborating centers, reference laboratories and other organizations from multiple countries to maintain a network and share information on One Health activities.
Institut Pasteur in Guinea,	Conakry, Guinea	<input checked="" type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	<p>Foresight Study: The Role of Livestock and Wild Animal Species in the Biology of Filoviruses</p> <p>Partners: Sierra Leone Agricultural Research Institute; Njala University in Sierra Leone; Institut Pasteur in Guinea.</p>
ANSES French Agency for Food, Environmental and Occupational Health & Safety	France	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	<p>OIE-RL Rabies, Chlamydiosis and Brucellosis</p> <p>EU-RL equine diseases</p> <p>several Research projects: One Health EJP - Promoting One Health in Europe through joint actions on foodborne zoonoses, antimicrobial resistance and emerging microbiological hazards (Horizon2020: 2018-2022; 41 partners)</p>
Partners for Rabies Prevention / GARC	worldwide	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	<p>Development of the "Blueprint for Rabies Surveillance"</p> <p>Provision of OIE/WHO standards and expert opinion on rabies surveillance in an online blueprint format</p>

APHA: Animal and Plant Health Agency	UK	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	OIE-RL Brucellosis, Influenza, TSE, bovine tuberculosis, rabies several Research projects
Centers for Disease Control and Prevention (CDC), Atlanta	USA	<input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East	OIE_RL Rabies Research projects on rabies and other emerging diseases
Department of Veterinary Tropical Diseases; University of Pretoria	South Africa / Pretoria	<input checked="" type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East	OIE-CC Training in Integrated Livestock and Wildlife Health and Management; Mycobacterium bovis in Sub-Saharan Africa: transmission, virulence, and host susceptibility
Australian Animal Health Laboratory, CSIRO, Geelong, Australia	Geelong, Australia	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East	Harmonization of diagnostic approaches for zoonotic diseases
Canadian Food Inspection Agency (CFIA),	Canada	<input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East	OIE-RL TSE, BSL4ZNet ongoing research projects
China Animal Health and Epidemiology Centre (CAHEC)	Qingdao, China	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Emerging diseases and zoonoses control

Biosafety Level 4 Zoonotic Laboratory Network (BSL4ZNet)	worldwide	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	BSL4ZNet is creating a global alliance of biosafety level 4 laboratories to optimize how we combat the global threat of diseases that spread from animals to humans. Coordinated by the CFIA the network comprises over 60 participants around the world. https://twitter.com/hashtag/BSL4ZNet?src=hash&lang=de
Emerging Viruses Disease Laboratory Network (EVD-LabNet)	Europe	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	An expert laboratory network for networking, external quality assessments and training of laboratories involved in these activities initiated by ECDC and coordinated by Erasmus MC: The network focuses on virus families and genera that are rare, imported and (re)emerging in EU/EEA countries. These include the genera Alphavirus, Bornavirus, Calicivirus, Coronavirus, Flavivirus, Henipavirus, Picornavirus and the families Arenaviridae, Bunyaviridae, Filoviridae, Poxviridae, Paramyxoviridae, Reoviridae and Rhabdoviridae. Risk class 4 pathogens are a primary focus of the EMERGE network www.evd-labnet.eu/index.php#background-evd-labnet
EMERGE consortium (EU funded Joint Action, Health Programme)	Europe	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Efficient response to highly dangerous and emerging pathogens at EU level It contributes to an integrated European laboratory infrastructure and strategy to protect European citizens against exposure to a panel of globally recognized high threat bacteria and viruses (risk group 3 bacteria and 4 viruses). Coordinated by the RKI, Germany, the network comprises about 40 diagnostic laboratories. www.evd-labnet.eu/index.php#background-evd-labnet

4. Did your Collaborating Centre maintain a network with other OIE Collaborating Centres, Reference laboratories, or organisations in other disciplines, to coordinate scientific and technical studies?

Yes

Name of OIE CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
Kimron Veterinary Institute	Israel	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	Improved animal disease diagnostics and control in Israel: EU Twinning Project at Kimron Veterinary Institute completed Maintenance of the network and cooperation in rabies control and toxoplasmosis

Pirbright Institute	UK	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	MoU - Strategic cooperation including joint PhD-programme on topics of common interest. Transboundary diseases, (re-)emerging animal diseases, vector competence studies, poultry immunology) OIE-RL AHS, BT, ASF, CSF, FMD, SVD, Lumpy skin disease, PPR,RP, sheep and goat pox
DELTA-FLU Consortium (Horizon 2020)	Europe, worldwide	<input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	"Dynamics of avian influenza in a changing world" aims at elucidating the mechanisms of bird flu. It will bundle its expertise in different research fields to promote strategies for the prevention and control of this disease. Horizon 2020: SC2 SFS-14-2016 - Understanding host-pathogen-environment interactions; 10 Partner (2017-2022) Coordinator: FLI, Germany
Compare Consortium (Horizon 2020)	Europe, worldwide	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Collaborative Management Platform for detection and Analyses of (Re-)emerging and foodborne outbreaks in Europe Horizon 2020: SC1 HEALTH RIA Research and Innovation action, 29 Partner (2014-2019); http://www.compare-europe.eu/
EVAg Consortium (Horizon 2020)	Europe, worldwide	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East	INFRASTRUCTURES RIA - Research and Innovation action 25 Partner (2015-2019) European Virus Archive goes global; https://www.european-virus-archive.com
VetBioNet Consortium (Horizon 2020)	Europe	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Veterinary Biocontained facility Network for excellence in animal infectiology research and experimentation Horizon 2020: INFRAIA-01-2016-2017 - 19 Partner (2017-2020); http://www.vetbionet.eu
CCHFVaccine Consortium (Horizon 2020)	Europe	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Crimean-Congo Haemorrhagic Fever Vaccine Horizon 2020: SC1-PM-06-2016 - Vaccine development for malaria and/or neglected infectious diseases Funding scheme: 14 Partner (2017-2020); http://www.cchfvaccine.eu/

ToR: To place expert consultants at the disposal of the OIE.**5. Did your Collaborating Centre place expert consultants at the disposal of the OIE?**

Yes

Name of expert	Kind of consultancy	Subject
FLI scientists	FLI experts are available to the OIE at any time for consultation.	Zoonoses and animal diseases, including aquatic diseases. Furthermore, FLI can provide consultancy in the areas of animal welfare, animal feeding and farm animal genetics.
Prof. H. Neubauer	Co-Author: Manual of Diagnostic Tests and Vaccines for Terrestrial Animals and Terrestrial Animal Health Code	Chapter on infection with <i>Brucella abortus</i> , <i>B. melitensis</i> and <i>B. suis</i> (OIE-Manual) Chapters on Glanders (OIE Manual and Code)
Dr. Thomas Müller	Chairman of OIE ad hoc Group	Revision of the chapter on infection with Rabies virus: OIE Terrestrial Manual OIE Terrestrial Code
Dr. C. Schnee	Co-Author: Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2017	Chapters on avian chlamydiosis and enzootic abortion of ewes
Dr. Thomas Müller	WHO Expert Consultation on Rabies, 24-27 April 2017, Bangkok, Thailand	Revision of WHO's Technical Report Series (TRS) on Rabies
Prof. T. Harder	OIE/FAO Network of Expertise on Animal Influenza: Member of the working groups	"Applied Epidemiology" (meeting Rome, FAO headquarters, June 2017) "Avian influenza in wild birds" (meeting Rome, FAO, April 2017).
Prof. T. Harder	Joint FAO/IAEA Programme Nuclear Techniques in Food and Agriculture: Seminars on AI Diagnosis	Training Course on the Diagnosis of Transboundary Animal Diseases: Early Detection and Characterization, Seibersdorf, Austria. (25 September - 6 October 2017)
Prof. T. Mettenleiter	OIE-Working group BSE-status	Evaluation of the BSE-status

ToR: To provide, within the designated specialty, scientific and technical training to personnel from OIE Member Countries

6. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by the OIE, to personnel from OIE Member Countries?

Yes

a) Technical visits: 81

b) Seminars: 0

c) Hands-on training courses: 18

d) Internships (>1 month): 12

Type of technical training provided (a, b, c or d)	Content	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
a	Epidemiological training on rabies epidemiology and elimination programmes for dog rabies	Namibia	1
a	Workshop on "Serological Assays for the Detection of Ebolavirus Specific Antibodies"; calculations, buffer preparations, conducting ELISA, analysis of results/troubleshooting	Sierra Leone, Guinea	15
a	Giving lectures and actively participating at the bat sampling training "Wildlife (Bats) Capture and Sampling for Surveying Emerging Zoonotic Diseases" organized by International Atomic Energy Agency	Algeria, Niger, Nigeria, Burundi, Cameroon, Central African Republic, Ivory Coast, Madagascar, Sierra Leone, Senegal, Togo, Zimbabwe	20
c	Training on the management and operational work flow of biosecurity level 3 laboratory (BSL3) with respect to the biosafety and biosecurity aspects including animal testing facilities. (IAEA/FAO-Fellowship)	Laos	1
c	Training course for Biosafety and Biosecurity	Egypt	2
c	Training course for Diagnosis of Glanders	Iran	1
c	Training course for Diagnosis of Brucellosis	Pakistan	1
c	Training course for Biosafety and Biosecurity	Pakistan	2
c	Training course for Brucellosis-Disease and diagnosis	Malawi	2
c	Training course for i) Biosafety and Biosecurity, ii) Diagnosis of Brucellosis, and iii) IATA regulations	Egypt	2

c	Training course for i) Biosafety and Biosecurity, ii) Diagnosis of Brucellosis, and iii) QMS in Laboratory	Egypt	1
c	Training course for i) Microbiology and Diagnosis of brucellosis and ii) IATA regulations	Palestine	2
c	Training course for Diagnosis of Glanders and IATA regulations	Iran	2
c	Training course for molecular diagnosis of Burkholderia and and Brucella spp.	Ukraine	2
d	laboratory training: introduction, serological assays (especially ELISA), biosafety, general virology (6 weeks)	Sierra Leone; Guinea	2
d	HPAI and ND in wild birds and poultry in Egypt (2 PhD-Student from NLQP Giza/Cairo, National Reference Labopratory for AI/ND in Egypt.	Egypt	2
d	Intership of 10 weeks: Laboratory training and implementation of methods of high resolution genotyping of bacteria belonging to the Mycobacterium tuberculosis complex (MTC) to complete the PhD work of an Algerian veterinary PhD student	Algeria	1
d	Application of a peptide microarray for chlamydial serology	Spain	1
d	Epidemiology of Avian and Swine Influenza in Nigeria; Mapping intra- and inter-species gene reassortment (2 years AvH-grant)	Nigeria	1
a	Workshop on "Molecular and serological assays for the Detection of CCHFV and RVFV infections in Mauretania	Mauretania	15
a	Workshop on "Molecular and serological assays for the Detection of CCHFV and RVFV infections in Ukraine	Ukraine	15
a	Workshop on "Molecular and serological assays for the Detection of CCHFV and RVFV infections in Cameroon	Cameroon	15
d	laboratory training: introduction, serological assays (especially ELISA), biosafety, general virology (6 weeks)	Cameroon, DR Congo, Nigeria	5

ToR: To organise and participate in scientific meetings and other activities on behalf of the OIE

7. Did your Collaborating Centre organise or participate in the organisation of scientific meetings on behalf of the OIE?

Yes

National/International	Title of event	Co-organiser	Date (mm/yy)	Location	No. Participants
international	2nd OIE global Conference on Biothreat Reduction	Member of the Scientific Committee	11/17	Ottawa, Canada	300

ToR: To collect, process, analyse, publish and disseminate data and information relevant to the designated specialty

8. Publication and dissemination of any information within the remit of the mandate given by the OIE that may be useful to Member Countries of the OIE

a) Articles published in peer-reviewed journals: 427

b) International conferences: 100
Each year, FLI researchers present at numerous international conferences.

c) National conferences: 100
Each year, FLI researchers present at numerous international conferences.

d) Other
(Provide website address or link to appropriate information): 2
www.fli.de
<http://www.zoonosen.net/Default.aspx?tabid=1275>