World Organisation for Animal Health

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WOAH Collaborative Centre Reports Activities 2025

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CENTRE INFORMATION

***Title of WOAH Collaborating Centre**	Zoonoses in Europe
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***Name Director of Institute (Responsible Official):**	Prof. Dr. Christa Kühn
***Name (including Title and Position) of Head of the Collaborating Centre (WOAH Contact Point):**	Prof. Dr. Christa Kühn
***Name of the writer:**	Dr. Jens Schell

TOR 1 AND 2: SERVICES PROVIDED

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

Category	Title of activity	Scope
Disease control (true)	Scientific support of national and international veterinary services in developing and implementing control measures	- High pathogenic avian influenza in Germany and Europe - Technical Support in Eliminating Rabies in Dogs by oral vaccination in Namibia and Turkey - Transmissible spongiforme encephalopathies: Surveillance, Diagnosis and Control
Epidemiology, surveillance, risk assessment, (true)	Serological studies on notifiable zoonotic diseases (viral, bacterial, parasitic)	West Nile virus: occurrence, distribution, monitoring, and characterization (moderate virus activity in 2025) Mycobacterium tuberculosis complex (MTBC): Diagnostic and Surveillance in livestock (ruminants/camelids) and wildlife Systematic review and modelling of Toxoplasma gondii seroprevalence in humans, Europe, 2000 to 2021. In: Eurosurveillance. DOI: 10.2807/1560-7917.ES.2025.30.34.2500069.
Training, capacity building (true)	German Epidemic Preparedness Team (SEEG): working against epidemics-	FLI is together with Charite, BNITM, RKI and GIZ a SEEG member. SEEG supports partner countries to prepare for and respond to disease outbreaks that otherwise may develop into epidemics or even pandemics. In 2025 FLI was involved in several

		missions in Africa.
Zoonoses (true)	Scientific studies on the diagnosis, characterisation and pathogenesis of zoonotic pathogens (viral, bacterial, parasitic)	1.) Studies on viral Zoonoses (excerpt) FLI activities covered studies on zoonotic influenza infections in birds and mammals (Halwe et al. (2025): H5N1 clade 2.3.4.4b dynamics in experimentally infected calves and cows. In: Nature 637 (8047), S. 903–912. DOI: 10.1038/s41586-024-08063-y.) Highly pathogenic zoonotic viruses of risk group 4 (filoviruses, henipaviruses, arenaviruses and Crimean Congo Hemorrhagic Fever virus): Host-pathogen interactions were studied to develop/improve diagnostic tools, prevention strategies including vaccines/antivirals. (Mbu'u et al. (2025): Serological and molecular analysis of henipavirus infections in synanthropic fruit bat and rodent populations in the Centre and North regions of Cameroon (2018-2020). In: BMC Veterinary Research 21 (93), S. 1–15. DOI: 10.1186/s12917-025-04530-4. or Vallbracht et al. (2025): Nucleocapsid assembly drives Ebola viral factory maturation and dispersion. In: Cell 188 (3), 704-720.e17. DOI: 10.1016/j.cell.2024.11.024.) or Jia et al. (2025): Development of a Point-of-Care Immunochromatographic Lateral Flow Strip Assay for the Detection of Nipah and Hendra Viruses. In: Viruses 17 (7), S. 1021.) Regarding other zoonotic viruses a study characterized monkeypox virus clade IIb lineage B1 strains in animal models and gave insights into virulence. (Ulrich et al. (2025) In: Emerging Microbes & Infections 14 (1), S. 2508762. DOI: 10.1080/22221751.2025.2508762.). An additional study revealed acquisition of Seoul Virus Infection at private Pet Rat Breeding Facility in Germany in 2024 (Baalmann et al. (2025): Seoul Virus Infection Acquired at Private Pet Rat Breeding Facility, Germany, (2024). In: Emerging Infectious Diseases 31 (10), S. 1988–1991. DOI: 10.3201/eid3110.250362.) The Arthropod vector monitoring and studies of the vector-pathogen interactions were continued. 2.) Bacterial Zoonoses (excerpt) Notifiable bacterial zoonosis are in the focus of our work (e.g. Brucella, Burkholderia, Clostridia, Coxiella, Franciscella, Mycobacteria, etc.) . Serological, phenotypic and molecular characterization of brucellosis in small ruminants in northern Algeria. (Nabi et al. (2024): In: Frontiers in Microbiology 15 (1505294), S. 1–12. DOI: 10.3389/fmicb.2024.1505294.) Brucellosis in livestock and companion animals was reviewed with focus on Etiology, pathogenesis, and epidemiological perspectives. (Nazir et al. in Dadar (Hg.): Brucellosis. The Silent Threat to Livestock and Human Health: Elsevier, S. 83–113.) Molecular Characterization of Presumptive Klebsiella pneumoniae Isolates from Companion and Farm Animals in Germany Reveals Novel Sequence Types. (Bassiouny et al. 2025 In: Pathogens 14 (3), S. 259. DOI: 10.3390/pathogens14030259.) Genomic characterization of Staphylococcus aureus isolated from mastitis in small ruminants in Sardinia, Italy. (Moawad et al. (2025): In: Frontiers in Microbiology 16 (1661122), S. 1–11. DOI: 10.3389/fmicb.2025.1661122. Resistant E. coli persist

		in pigsties even in the absence of antibiotics and new resource saving monitoring methods (Pfeifer et al. 2025. Appl Environ Microbiol 91:e01386-24./ Pell et al. 2025 One Health, Volume 20, 2025) In regard to Q-fever serological detection of Coxiella burnetii in Rodents of Punjab, Pakistan was shown and a risk analysis was performed (Amin et al. (2025): Serological Detection and Risk Analysis of Coxiella burnetii in Rodents of Punjab, Pakistan. In: Vector-Borne and Zoonotic Diseases. DOI: 10.1177/15303667251409801.) 3.) Parasites (excerpt) Nationwide serological survey and risk factors for Toxoplasma gondii and Neospora caninum infections in alpacas (Vicugna pacos) and llamas (Lama glama) in Italy was also completed (Castaldo et al. (2025):. In: Research in Veterinary Science 192 (Aug 2025), S. 105729. DOI: 10.1016/j.rvsc.2025.105729. Additional studies are ongoing
Wildlife (true)	Understanding the role of Wildlife as hosts, vectors and/or reservoirs	Adaptive ecosystem restoration to mitigate zoonotic risks Flying fox H9N2 influenza virus: evidence for potential zoonotic properties
Diagnosis, biotechnology and laboratory (true)	Development and Validation of diagnostic test including proficiency testing	FLI organises proficiency testings on the national level and participates internationally. Studies to develop or improve diagnostic test are ongoing: Abdel-Glil et al. (2025): High intra-laboratory reproducibility of nanopore sequencing in bacterial species underscores advances in its accuracy. In: Microbial Genomics 11 (3), S. 1372. DOI: 10.1099/mgen.0.001372. Heuser et al. Application of a comprehensive approach to pathogen screening in a stowaway rat on an airplane. Sci Rep 15, 31963 (2025). https://doi.org/10.1038/s41598-025-13199-6
Vaccines (true)	Development of vaccines and/or therapeutics	The first mRNA vaccine against foot-and-mouth disease successfully tested in cattle by FLI as part of an international collaboration New antibody therapy for hepatitis E: successful tests in pigs Immunogenicity and Protective Efficacy of Five Vaccines Against Highly Pathogenic Avian Influenza Virus H5N1, Clade 2.3.4.4b, in Fattening Geese

TOR 3: HARMONISATION OF STANDARDS

2. Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the main fucus area for which you were designated

Proposal title	Scope/Content	Applicable Area
GHPP 'One Health Institutionalisation in Namibia'	Development of standard operating procedures for wildlife disease surveillance and sampling (e.g., seal mortality investigations), strengthening of AMR surveillance aligned with Namibia's National Action Plan on AMR and international AMR frameworks.	Training and Education Health Management Wildlife Health and Biodiversity
Establishement of a service-based NGS/WGS workflow for notifiable priority livestock pathogens	Harmonisation of in silico analysis of NGS/WGS data for tracing of bacterial strains. Validation of bacterial whole-genome-sequencing for genotyping and outbreak analysis.	Laboratory Expertise Training and Education Animal Production

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	Implementation of bioinformatics pipelines.	Wildlife Health and Biodiversity

3. In exercising your activities, have you identified any regulatory research needs* relevant for WOAH?

No

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

Yes

Name of WOAH CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
Multiple cooperations with other WOAH CCs and RLs as well as other organizations	worldwide	África América Asia y el Pacífico Europa Oriente Medio	FLI collaborates with multiple national and international partner within international research networks and research consortia to gain and share information on animal diseases and zoonoses especially in the One Health context. Active participation in worldwide (e.g. BSL4ZNet, International alliance against health risks in wildlife trade) or European (EVD- LabNet, VectorNet). FLI is also leading partner in several European research projects like the European Partnership for Animal Health and Welfare (EUP-AH&W) coordinating Kappa-Flu etc.
ANSES French Agency for Food, Environmental and Occupational Health & Safety	France	Europa	Strategic cooperation on animal diseases and zoonoses in the context of the One Health approach. (MoU) Ongoing research projects on different topics: e.g. EUP-AH&W, SPIDVAC, WiLiMAN-ID, EVA Global; PREPMEDVET, BROILERNET, SPIDVAC, ICRAD-project: PIGIE, ASFVInt, FMDV_PersIstOmics, Q-Net-Assess, TCWDE
Institute Pasteur and Institute Pasteur in Guinea	Conakry, Guinea and France	África Europa	Emerging Diseases: Hemorrhagic Fevers (CCHFV, RVFV, Ebola virus, etc.), transboundary diseases. Ongoing research projects on different topics: e.g. EUP-AH&W, VEO; CCHVACIM; DURABLE, TRACE2022, NOVEL Cameroon
			Strategic cooperation (MoU) on topics of common

Pirbright Institute	UK	Europa	interest: Transboundary diseases, (re-)emerging animal diseases, vector competence studies, poultry immunology ongoing research projects: e.g; DURABLE, REPRODIVAC, biv NiV Vac
APHA: Animal and Plant Health Agency	UK	Europa	One Health: Animal disease and zoonoses several ongoing research projects; Kappa-Flu;; ENETWILD2, VEO; SPIDVAC, ICRAD-project:, FLUSwitch, ScIce, EraBSE
Canadian Food Inspection Agency (CFIA),	Canada	América	Emerging disease: High consequence viruses and TSEs Biosafety Level 4 Zoonotic Laboratory Network (BSL4ZNet) several ongoing research projects: e.g. Kappa-Flu; PanFiloVaxRR
Centers for Disease Control and Prevention (CDC), Atlanta	USA		Emerging and transboundary diseases, WOAH-RABLAB (Joint coordination), Biosafety Level 4 Zoonotic Laboratory Network (BSL4ZNet),
Australian Animal Health Laboratory, CSIRO, Geelong, Australia	Australia		Harmonization of diagnostic approaches for zoonotic diseases, participation in ring trials for the detection of henipavirus infections organized by AAHL, Biosafety Level 4 Zoonotic Laboratory Network (BSL4ZNet), Foot and Mouth Disease (FMD-Ready Project)
Zanzibar Livestock Research Institute ZALIRI in Unguja, Zanzibar	Zanzibar		Long-term Partnership: Establishment of a One Health-Field Presence for collaborative basic and applied research studies and capacity building:

TOR 4 AND 5: NETWORKING AND COLLABORATION

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

Yes

Name of WOAH CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
			As Federal Research Institute

Multiple cooperations with other WOAH CCs and RLs as well as other organizations	worldwide	Africa Americas Asia and Pacific Europe Middle East	for Animal Health in Germany the expertise of the FLI covers in addition to animal diseases and zoonoses the areas of animal welfare, animal nutrition and farm animal genetics. FLI contributes to the transition of animal production and collaborations with national and international partners to gain and share information are ongoing. The FLI together with Universities of Wageningen and Aarhus is appointed as European Reference Centre for Animal Welfare of Pigs

TOR 6: EXPERT CONSULTANTS

6. Did your Collaborating Centre place expert consultants at the disposal of WOAH?

Yes

Name of expert	Kind of consultancy	Subject
FLI scientists	FLI experts are available on request by the WOAH for consultation. Regularly draft chapters of the WOAH Terrestrial Manual and Terrestrial Code are commented	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. T. Mettenleiter	One Health High Level Expert Panel (OHHLEP) - Member	Four partite Initiative of FAO, WOAH, UNEP and WHO
Prof. S. Knauf	WOAH Collaborating Centre Network for Wildlife Health	Member of the Core Leadership Team
Prof. M. Beer	WHO Coronavirus Network (CoViNet) (FLI participates as 1 of 2 WOAH Collaborating Centres)	The WHO Coronavirus Network (CoViNet) aims to bring together surveillance programs and reference laboratories to support enhanced epidemiological monitoring and laboratory (phenotypic and genotypic) assessment of SARS-CoV-2, MERS-CoV and novel coronaviruses of public health importance.:
Prof. S. Knauf	WHO Skin NTD Working Group “One Health”	Strengthening WHO’s NTD control programmes through an integrated One Health approach
Prof. T. Harder	JOINT WOAH-FAO SCIENTIFIC NETWORK ON ANIMAL INFLUENZA	OFFLU Executive Committee OFFLU Technical Groups: - Wildlife Group - Applied Epidemiology Working Group
Dr. T. Müller	WOAH AD HOC GROUP on dog-mediated rabies	Assessment of country applications for endorsement of dog rabies control program

Dr. T. Müller; Dr. C. Freuling; Dr. A. Fahrion; Dr. F. Busch	RABLAB Scientific Opinion on request by WOAH	Rabies point-of-care tests (lateral flow devices)
Dr. F. Busch; Dr. A. Fahrion	United Against Rabies Forum (UARF) - Contributions in defined working groups	Rabies control Working together to end human deaths from dog-mediated rabies

TOR 7: SCIENTIFIC AND TECHNICAL TRAINING

7. Did your Collaborating Centre provide advice/services to requests from Members in your main focus area?

Yes

Requests from several European member states for advice on diagnositic protocols and reference materials. Currently FLI provides diagnostic services (molecular and serological methods) for Rift Valley Fever and Henipavirus infections in animals (Denmark) and for histological BSE confirmation and for the proteinbiochemical

8. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by WOAH, to personnel from WOAH Members?

Yes

a) Technical visit : 42

b) Seminars : 52

c) Hands-on training courses: 4

d) Internships (>1 month) : 10

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	Training in the diagnostics of hemorrhagic fevers (13.-25.02.2025)	Tunesia	10
A	Training in the diagnostics of hemorrhagic fevers (9.-17.06.2025)	Tunesia	12
A	Global Health Protection Programm: Biosafety and Diagnostics of hemorrhagic fevers	Namibia	5
A	SEEG deployment in Uganda Mpox + Anthrax (3.-8.11.2025)	South Sudan, DRC, Uganda	15
B	Annual Field School Zanzibar "Risk Analysis – Anthrax" Pemba, Zanzibar (15.-21.09.2025)	Tanzania	26
C	Hands-on training at FLI on Antimicrobial resistance diagnosis (03.-10.01.2024)	Morocco	1
C	Hands-on training at FLI on Antimicrobial resistance diagnosis (15.-26.04.2024)	Algeria	1

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C	LabTraining at FLI on diagnostics of hemorrhagic fevers (June 2025)	Tunesia	1
C	Hands-on training at FLI on Antimicrobial resistance diagnosis (21.10-03.11.2024)	Algeria	1
D	IDOH Internship (Master students): Overview on skin NTDs (01-06 2025)	Germany	1
D	IDOH Internship (Master students): non-invasive sampling of small mammals for zoonotic pathogens (01-06 2025)	Nepal	1
B	Unlimit Health: One Health and Neglected Tropical Diseases (NTD) on Zanzibar workshop (30.04 - 02-05.2025)	Tanzania	26
D	2 ongoing PhD-thesis jointly supervised by ZALIRI & FLI	Tanzania	2
D	Initiation of 6 junior research projects (incl. 2 months internship at FLI) (ZALIRI & FLI)	Tanzania	6

TOR 8: SCIENTIFIC MEETINGS

9. Did your Collaborating Centre organise or participate in the organisation of scientific meetings related to your main focus area on behalf of WOAH?

Yes

National/International	Title of event	Co-organiser	Date	Location	No. Participants
Internationally	Oral Rabies Vaccination (ORV) in dogs: Advancing the fight against rabies, a disease that continues to claim thousands of lives each year, particularly in Africa and Asia.	Directorate of Veterinary Services (DVS) in Namibia, Friedrich-Loeffler-Institut (FLI) in Germany, and the World Organisation for Animal Health (WOAH)	2025-11-05	Windhoek, Namibia,	20
Internationally	German-Nigerian Workshop: International One Health Initiative on the Island of Riems	Nigerian Centre for Disease Control (NCDC), the National Veterinary Research Institute (NVRI), the University of Ibadan (UI), the Robert Koch Institute (RKI) and Friedrich-Loeffler-Institut (FLI)	2025-07-07	Greifswald - Insel Riems, Germany	24

TOR 9: DATA AND INFORMATION DISSEMINATION

10. Publication and dissemination of any information within the remit of the mandate given by WOAH that may be useful to Members of WOAH
a) Articles published in peer-reviewed journals:
293
As Germanys Federal Research Institute for Animal Health the work of the FLI focusses on farm animal health and welfare and on the protection of humans from zoonoses. The FLI has published about 293 peer-reviewed articles in 2025. Selected publications are listed here:

Bozicevic, Ivana; Oreskovic, Stjepan; van der Graaf, Rieke; McKee, Martin; on behalf of the 479 WHO Collaborating Centres signatories (2025): Open letter in support of WHO. In: The Lancet 405 (10497), S. 2272–2273.

Virology / Immunology
Simmonds, Peter; Butković, Anamarija; Grove, Joe; Mayne, Richard; Mifsud, Jonathon C. O.; Beer, Martin et al. (2025): Taxonomic expansion and reorganization of Flaviviridae. In: Nature Microbiology 10 (11), S. 3026–3037. DOI: 10.1038/s41564-025-02134-0.
Kellner, Max J.; Monteil, Vanessa M.; Zelger, Patrick; Pei, Gang; Jiao, Jie; Onji, Masahiro et al. (2025): Bat organoids reveal antiviral responses at epithelial surfaces. In: Nature Immunology 26 (6), S. 934–946. DOI: 10.1038/s41590-025-02155-1.

Highly Pathogenic Avian Influenza A
Halwe, Nico Joël; Cool, Konner; Breithaupt, Angele; Schön, Jacob; Trujillo, Jessie D.; Kwon, Taeyong et al. (2025): H5N1 clade 2.3.4.4b dynamics in experimentally infected calves and cows. In: Nature 637 (8047), S. 903–912. DOI: 10.1038/s41586-024-08063-y.
Krammer, Florian; Barclay, Wendy S.; Beer, Martin; Brown, Ian H.; Cox, Rebecca Jane; Jong, Menno D. de et al. (2025): Europe needs a sustainably funded influenza research and response network. In: Lancet Infectious Diseases 25 (4), P369-P372. DOI: 10.1016/S1473-3099(25)00068-4.
Licheri, Matthias; Mwanga, Mike; Licheri, Manon F.; Graaf-Rau, Annika; Sägesser, Cora; Bittel, Pascal et al. (2025): Optimized high-throughput whole-genome sequencing workflow for surveillance of influenza A virus. In: Genome Medicine 17 (1), S. 103. DOI: 10.1186/s13073-025-01512-x.

Zoonotic Viruses: Henipavirus, Ebola, Monkeypox, Seoul-Virus
Ulrich, Lorenz; Schlottau, Kore; Ahrens, Ann Kathrin; Halwe, Nico Joël; Schön, Jacob; Bugert, Joachim Jakob et al. (2025): Characterization of monkeypox virus clade IIb lineage B1 strains in animal models: Insights into virulence. In: Emerging Microbes & Infections 14 (1), S. 2508762. DOI: 10.1080/22221751.2025.2508762.
Baalmann, Fabian; Hönemann, Mario; Drewes, Stephan; Eiden, Martin; Tappe, Dennis; Pantenburg, Birte et al. (2025): Seoul Virus Infection Acquired at Private Pet Rat Breeding Facility, Germany, 2024. In: Emerging Infectious Diseases 31 (10), S. 1988–1991. DOI: 10.3201/eid3110.250362.
Haring, Viola C.; Diederich, Sandra; Beer, Martin; Pfaff, Florian (2025): Henipavirus in Northern Short-Tailed Shrew, Alabama, USA. In: Emerging Infectious Diseases 31 (8), S. 1683. DOI: 10.3201/eid3108.250401.
Vallbracht, Melina; Bodmer, Bianca S.; Fischer, Konstantin; Makroczyova, Jana; Winter, Sophie L.; Wendt, Lisa et al. (2025): Nucleocapsid assembly drives Ebola viral factory maturation and dispersion. In: Cell 188 (3), 704-720.e17. DOI: 10.1016/j.cell.2024.11.024.

Rabies:
Ghimire, Rabina; Okech, Samuel George; Fahrion, Anna S.; Odoch, Terence; Matern, Jan; Bohnes, Tina et al. (2025): Strengthening intersectoral cooperation for control and integrated surveillance of rabies in Uganda: A multistakeholder engagement workshop. In: One Health 21 (Dec 2025), S. 101206.
Hurmuzache, Mihnea; Gradinaru, Maria A.; Bărbuceanu, Florica; Moțiu, Răzvan; Popescu, Rodica; Lutic, Andrada et al. (2025): Death in the EU/EEA from autochthonous human rabies, Romania, July 2025: a call for action. In: Eurosurveillance 30 (43), S. 2500794. DOI: 10.2807/1560-7917.ES.2025.30.43.2500794.
Müller, Thomas; Denzin, Nicolai; Vos, Ad; Freuling, Conrad (2025): Incubation periods and mortality outcomes following rabies virus infection in mesocarnivorous reservoir hosts: implications for experimental design and veterinary policy - a review and meta-analysis. In: Virology Journal 22 (374), S. 1–22. DOI: 10.1186/s12985-025-02996-0.

Bacterial Zoonoses:
Pradhan, Kabita; Reuber, Emelie E.; Sletten, Eric T.; Tomaso, Herbert; Seeberger, Peter H. (2025): A Synthetic Oligosaccharide Resembling Francisella tularensis Strain 15 O-Antigen Capsular Polysaccharide as a Lead for Tularemia Diagnostics and Therapeutics. In: Angewandte Chemie (International ed. in English) 64 (4), e202416432. DOI: 10.1002/anie.202416432.
Mixão, Verónica; Pinto, Miguel; Brendebach, Holger; Sobral, Daniel; Santos, João Dourado; Radomski, Nicolas et al. (2025): Multi-country and intersectoral assessment of cluster congruence between pipelines for genomics surveillance of foodborne pathogens. In: Nature Communications 16 (3961), S. 1–27. DOI: 10.1038/s41467-025-59246-8.
Dadar, Maryam (Hg.) (2026): Brucellosis. The Silent Threat to Livestock and Human Health: Elsevier.Nazir, Shahid; Khan, Aman Ullah; Farooq, Muhammad; El-Adawy, Hosny; Neubauer, Heinrich; Ali, Shahzad (2026): Brucellosis in livestock and companion animals: Etiology, pathogenesis, and epidemiological perspectives. In: Maryam Dadar (Hg.): Brucellosis. The Silent Threat to Livestock and Human Health: Elsevier, S. 83–113.
Tetzlaff, Felix; Methner, Ulrich; Heyl, Theresa von; Menge, Christian; Schusser, Benjamin; Berndt, Angela (2025): Compensatory mechanisms in γδ T cell-deficient chickens following Salmonella infection. In: Frontiers in Immunology 16 (1576766), S. 1–22. DOI: 10.3389/fimmu.2025.1576766.
Möbius, Petra; Price-Carter, Marian; Köhler, Heike U. (2025): High Molecular Diversity of Mycobacterium avium subsp. paratuberculosis in Germany Revealed by Multitarget Genotyping. In: International Journal of Molecular Sciences 26 (11), S. 5273. DOI: 10.3390/ijms26115273.
Wiethoff, Johanna Pauline; Omar, Khadija Noor; Othman, Juma Othman; Moh'd, Ali Zahran; Suleiman, Talib Saleh; Mlenge, Mlenge Hassan et al. (2025): Situation analysis and prospects for One Health implementation in Zanzibar, Tanzania. In: One Health 21 (Dec 2025), S. 101198. DOI: 10.1016/j.onehlt.2025.101198.

One Health:
Nuvey, Francis Sena; Fink, Günther; Hattendorf, Jan; Haydon, Daniel T.; Fokou, Gilbert; Addo, Kennedy Kwasi et al. (2025): Effects of community action on animal vaccination uptake, antimicrobial usage, and farmers' wellbeing in Ghana: study protocol for a cluster-randomized controlled trial. In: One Health 20 (June 2025), S. 100952. DOI: 10.1016/j.onehlt.2024.100952.
Wiethoff, Johanna Pauline; Omar, Khadija Noor; Othman, Juma Othman; Moh'd, Ali Zahran; Suleiman, Talib Saleh; Mlenge, Mlenge Hassan et al. (2025): Situation analysis

and prospects for One Health implementation in Zanzibar, Tanzania. In: One Health 21 (Dec 2025), S. 101198. DOI: 10.1016/j.onehlt.2025.101198.

Parasites:
Castaldo, Elisa; Basso, Walter; Moré, Gastón; Ciaramelli, Alessia; Schares, Gereon; Veneziano, Vincenzo (2025): Nationwide serological survey and risk factors for Toxoplasma gondii and Neospora caninum infections in alpacas (Vicugna pacos) and llamas (Lama glama) in Italy. In: Research in Veterinary Science 192 (Aug 2025), S. 105729. DOI: 10.1016/j.rvsc.2025.105729.
Friesema, Ingrid H. M.; Waap, Helga; Swart, Arno; Györke, Adriana; Le Roux, Delphine; Evangelista, Francisco et al.: Systematic review and modelling of Toxoplasma gondii seroprevalence in humans, Europe, 2000 to 2021. In: Eurosurveillance. DOI: 10.2807/1560-7917.ES.2025.30.34.2500069.

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

c) National conferences:
100
Each year, FLI researchers present at numerous (>100) national conferences

d) Other (Provide website address or link to appropriate information):
Website of the Friedrich-Loeffler-Institut, including general information and actual information on animal diseases (https://www.fli.de/en/startpage/)

Radar Bulletin Germany – it compiles and evaluates information on the global situation and on the spread of the most important animal diseases which are relevant for Germany and Switzerland. (https://www.fli.de/en/publications/radar-bulletin-germany/)

Rabies - Bulletin – Europe: Rabies Information System of the WHO (https://www.who-rabies-bulletin.org/)

The German One Health Plattform (OHP) started in Dec. 2023 expanding the work of the The German Research Platform for Zoonoses. Both information and service network are mainly funded by the Federal Ministry of Research, Technology and Space (BMFTR). https://onehealthplatform.net/index.php/en

11. What have you done in the past year to advance your area of focus, e.g. updated technology?
In addition to the existing high containment research facility including (BSL2 to BSL4) including large animal BSL4 room at Greifswald – Insel Riems, FLI is currently expanding its research facilities at our locations in Jena and in Lower Saxony (Lifestock research – Animal Welfare).
At FLI-Jena a new research complex (BSL-2/-3) dedicated to our bacteriological research is currently under construction. Commissioning is foreseen in 2027.
At FLI-Mecklenhorst a new research complex dedicated to lifestock research is also currently under construction. It will focus on animal husbandry and welfare, animal nutrition and farm animal genetics. Commissioning is foreseen in 2026.

12. Additional comments regarding your report: