

# OIE Collaborating Centres Reports Activities

## *Activities in 2021*

**This report has been submitted : 2022-03-29 23:05:22**

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**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
Rapid and Sustained Response by Laboratory Rapid Response by Laboratory Animal Research Institutions During the COVID-19 Pandemic: Lessons Learned	This Workshop was held on March 9-10, 2021, as a free global webcast. Content included protection of animal research populations from transmission of COVID-19 from staff, animal models for vaccine development, CRISPER/Cas9 technology, acquisition and international transport issues to gain access to research animals necessary for COVID-19 related animal modeling and vaccine development, monitoring and tracking for COVID-19 on campuses with laboratory animal facilities, etc.). The link for the event is: <a href="https://www.nationalacademies.org/event/03-09-2021/rapid-response-by-laboratory-animal-research-institutions-during-the-covid-19-pandemic-lessons-learned">https://www.nationalacademies.org/event/03-09-2021/rapid-response-by-laboratory-animal-research-institutions-during-the-covid-19-pandemic-lessons-learned</a> . There were 5 sessions and a total of 24 presentations. The agenda, speaker bios, Powerpoint presentations as pdf files, and complete audio-video recordings of the entire workshop are freely available at the link provided above. Workshop Proceedings are also freely available and can be found at: <a href="https://nap.nationalacademies.org/catalog/26189/rapid-response-by-laboratory-animal-research-institutions-during-the-covid-19-pandemic-lessons-learned">https://nap.nationalacademies.org/catalog/26189/rapid-response-by-laboratory-animal-research-institutions-during-the-covid-19-pandemic-lessons-learned</a> .
One Health Fellowship in Pakistan	To create a model for fostering enduring international and national research collaborations that could be adapted and applied in different country settings. To pilot this model, a first step to building a One Health research network in Pakistan using one cohort of young scientists/researchers. To provide a broader context for One-Health issues (i.e., legal/regulatory structures, ethical and related issues, pedagogy for teaching One Health as part of an academic science curriculum) and promote a non-proliferation culture using tenets of Responsible Science. These activities continued in 2021 as in a virtual-only format given continued COVID-19 restrictions. The expert committee convened and training workshops including participation by the Fellows occurred.
Enhance One Health Capacity for Biorisk Management	Activities included a four-day virtual workshop on safe and secure biological sample collection; a second workshop was organized and convened to draft regional zoonosis control guidelines.
Training, capacity building	
Title of activity	Scope
Animal Welfare Challenges in Research and Education for Wildlife, Non-Model Species, and Biodiversity - A Workshop	Formation of Workshop Planning Committee, and convening of weekly workshop planning committee meetings (e.g. to develop workshop agenda, session objectives, select speakers, moderators, and create a communications toolkit). Workshop is expected to be held as a free global webcast on February 9-10, 2022.
ILAR Journal Issue 60(3), 2020, entitled Bioethics in Translational Research; and ILAR Journal Issue 61(1) entitled Balancing Animal Welfare, Human Safety, and Research in Agriculture High Containment	The ILAR Journal is the peer-reviewed, theme-based publication that providing timely original articles for all who study, care for, use and oversee the use of animals in research either as direct subjects or as models of human disease. The thematic issues serve as educational tools and are part of the required reading material for ACLAM board-certification exams. Volume 60(3) was released in 2021, and focuses on how contemporary ethics scholarship can be relevant to animal research. The articles were selected to highlight how clear thinking about values and the implications of those values can inform which research is conducted and how it is conducted. The link to this issue is: <a href="https://academic.oup.com/ilarj">https://academic.oup.com/ilarj</a> . Journal Issue 61(1). Volume 61(1) was also released in 2021. It is a themed issue that spans the spectrum of concerns related to this special niche within the animal research community with an emphasis on a review of available research, current trends, and novel approaches relevant to those conducting large animal research with high-risk agents and those charged with regulating these facilities and programs. Articles are authored by those embedded in the high- and maximum-containment community, directly involved with the work, detailing the unique challenges associated with BSL-3 and BSL-4 livestock research. The link to this issue is <a href="https://academic.oup.com/ilarjournal/issue/61/1">https://academic.oup.com/ilarjournal/issue/61/1</a> .

ILAR Journal Issue 61(2-3)entitled Marmoset: Current Topics in Research, Care and Welfare	The goal of the ILAR Journal Issue 61(2-3), a double issue, is to review current literature relevant to topics that impact marmoset health, welfare, and use in research. As the population of captive marmosets increases worldwide, the editors urge scientists, veterinary clinicians, and colony managers to continue conducting and publishing robust studies to develop evidence-based standards related to marmoset care and use. The editors also encourage IACUCs and other institutional review bodies to seek training on topics relevant to marmoset welfare and develop related policies prior to acquiring animals as a novel species.  The link to these issues is: <a href="https://academic.oup.com/ilarjournal/issue">https://academic.oup.com/ilarjournal/issue</a> .
Roundtable on Science and Animal Welfare in Laboratory Animal Use	Established by the U.S. National Academies of Sciences, Engineering and Medicine under the Institute for Laboratory Animal Research, the Roundtable on Science and Welfare in Laboratory Animal Use provides a neutral forum to stimulate dialogue, catalyze movement around an issue, and collaborate among those interested in promoting more effective, efficient, and humane use of animals in research, testing, and education. Various contemporary topics were discussed and considered as candidates for upcoming workshops. The topic selected for this reporting year was Rapid Response by the Laboratory Animal Research Community During the COVID-19 Pandemic: Lessons Learned (see additional information above in Disease Control).
One Health Fellowship in Pakistan	To create a model for fostering enduring international and national research collaborations that could be adapted and applied in different country settings. This is a multi-year effort that continued in 2021.
<b>Zoonoses</b>	
<b>Title of activity</b>	<b>Scope</b>
One Health Fellowship in Pakistan	To pilot this model as a first step to building a One Health research network in Pakistan using one cohort of young scientists/researchers.  To provide a broader context for One-H issues (i.e., legal/regulatory structures, ethical and related issues, pedagogy for teaching One Health as part of an academic science curriculum) and promote a non- proliferation culture using tenets of Responsible Science.
Standing Committee on the Care and Use of Animals in Research	Thirteen experts were appointed to serve on this Standing Committee. A full member meeting was held in May 2021. Subsequently, sub-groups met 20 times during the remainder of the year to discuss and understand issues and concerns related to the current edition (Eighth; 2011) of the Guide for the Care and Use of Laboratory Animals.
Rapid Response by the Laboratory Animal Research Community During the COVID-19 Pandemic: Lessons Learned - A Workshop	Development of prospectuses on COVID-19 and zoonosis control, appointment of experts in this area to the planning committee, development of session objectives and weekly planning meetings with committee and meetings with session speakers to discuss targeting session objectives.
<b>Wildlife</b>	
<b>Title of activity</b>	<b>Scope</b>

Roundtable on Science and Animal Welfare in Laboratory Animal Use	The topic Roundtable members selected during this reporting year for a workshop next year is entitled, Animal Welfare Challenges in Research and Education for Wildlife, Non-Model Species, and Biodiversity. The purpose of the workshop will be to identify the knowledge base and knowledge gaps available within a variety of stakeholder communities. This workshop will consider the conduct of animal studies and research for the benefit of animals (not for research being conducted on animals serving as models of human disease). This will include field laboratories and other terrestrial and marine settings.
Standing Committee on the Care and Use of Laboratory Animals	Funds were raised to support activities of the new standing committee to provide a venue for the exchange of ideas and knowledge sharing among federal government agencies, the private sector, academic communities, and other stakeholders engaged in animal research, animal studies and humane animal use by scientists in a variety of topical areas and settings, including activities being conducted under field conditions. Activities will include consideration of important and relevant topics to field researchers and IACUC members about the conduct of the care and use of animals in nature settings. Three wildlife experts were appointed to the committee.
Expansion of membership of the Roundtable on Science and Welfare of Laboratory Animal Use to include of members conducting field studies and field research.	The Director gave presentations to the IACUC members of the US Fish and Wildlife Service, US Geological Society and National Parks Service. Topics included activities being done at our Collaborating Centre to expand into research, studies and education in the areas of wildlife, non-model species and biodiversity.
<b>Animal welfare</b>	
<b>Title of activity</b>	<b>Scope</b>
Roundtable on Science and Welfare of Laboratory Animals and Standing Committee on the Care and Use of Animals in Research - Joint Activity	Development of prospectus, appointment of experts to the workshop planning committee on wildlife, non-model species and biodiversity, weekly activities to prep and plan animal welfare challenges that should be addressed and appropriate formats to be used at a 2022 workshop. For continuity and integrity of ILAR operations, the workshop was endorsed by the Standing Committee on the Care and Use of Animals in Research and served as the first of a series of workshop that will provide input into Standing Committee deliberations.
Animal Welfare Challenges in Research and Education for Wildlife, Non-Model Species, and Biodiversity - A Workshop	A committee of eleven animal welfare experts with extensive knowledge, experience and skill sets were appointed to understand and discuss the animal welfare challenges in vertebrates (e.g., aquatic species, amphibians and reptiles, birds, mammals) in the content of the care and use in research, studies and education toward developing a workshop for 2022. They combed through the current edition (Eighth; 2011) of the Guide for the Care and Use of Laboratory Animals as well as current versions of taxon-specific guidelines to determine objectives for the upcoming workshop.
<b>Other (Name the category)</b>	
<b>Title of activity</b>	<b>Scope</b>
Expert Committee Review of Monograph 1 on the use of trained service dogs versus emotional support dogs on health outcomes for Veterans with PTSD.	Congressional mandate, part one of two. Report released. Congress unleashes service dogs for veterans with PTSD - Roll Call: A Department of Veteran's Affairs' study showed veterans with mental health conditions stand to benefit tremendously from canine companions.

Expert Committee Review of Monograph 2 on the use of trained service dogs versus emotional support dogs on economic outcomes for Veterans with PTSD.	Congressional mandate, part two of two. Review and deliberations continued. Report anticipated in 2022.
Animal Welfare Challenges in Research and Education for Wildlife, Non-Model Species, and Biodiversity - A Workshop	In addition to wildlife, this workshop will also include animal welfare challenges in *non-model species and biodiversity - both under natural and captive conditions. *Non-model species are animals under study for benefit of the species itself (not for human translational studies).

**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
Standing Committee on the Care and Use of Animals in Research	The Standing Committee was appointed and convened throughout 2021 for the exchange of ideas and for knowledge sharing among federal government agencies, the private sector, academic communities, and other stakeholders engaged in the care, use, science and welfare of animals in research, training programs, experimentation, biological testing or for other related purposes or other special categories involving animals. Standing committee activities will have a very broad reach, well beyond laboratory animals, to include: wildlife, agricultural animals, non-model species, service animals, companion animals and other animals used in natural and captive research, field, exhibition settings. The committee will be used to inform any future updates or additions to The Guide for the Care and Use of Laboratory Animals (renamed to the Guide for the Care and Use of Animals in Research), and related products that will be generated by separate, ad hoc committees associated with this project. We are removing the word "Laboratory" from our name and expanding to include the science and animal welfare for all animal use in research, teaching and testing. We are implementing a new five phase process for revisions to the Guide. Phase 1 includes the new standing committee holding listening sessions so stakeholder communities are given the opportunity to contribute. Since 1963 the Guide has been the single document used globally to facilitate harmonization of international standards and guidelines.	<input checked="" type="checkbox"/> Surveillance and control of animal diseases <input type="checkbox"/> Food safety <input checked="" type="checkbox"/> Animal welfare
2021 Update regarding changes at ILAR	This was a Special Topics Lecture we held at the 72nd AALAS National Meeting which was held as an in-person meeting and several sessions also being available virtually. Registration was open for global participation.	<input type="checkbox"/> Surveillance and control of animal diseases <input type="checkbox"/> Food safety <input checked="" type="checkbox"/> Animal welfare
Animal Welfare Challenges in Research and Education for Wildlife, Non-Model Species and Biodiversity - A workshop	This workshop is currently under development and will facilitate harmonization of international regulations applicable to animal welfare.	<input type="checkbox"/> Surveillance and control of animal diseases <input type="checkbox"/> Food safety <input checked="" type="checkbox"/> Animal welfare

Enhance One Health Capacity for Biorisk Management	Transporting and Collecting Priority Pathogen Samples in Pakistan in accordance with the BioRisk Management Curriculum	<input checked="" type="checkbox"/> Surveillance and control of animal diseases <input type="checkbox"/> Food safety <input type="checkbox"/> Animal welfare
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**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
International Council for Laboratory Animal Science	Virtual	<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	International cooperation in laboratory animal science. Our aims are to promote and coordinate the development of laboratory animal science throughout the world, to promote international collaboration and quality monitoring and definition of laboratory animals, to collect and disseminate information and to promote the humane use of animals in research through recognition of ethical principles and scientific responsibilities.
AAALAC international	Virtual	<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	The Guide for the Care and Use of Laboratory Animals institutions and researchers is the foundation and sole publication for all CC's and others to use as the bridge between progress and animal well-being. This is done through AAALAC's voluntary accreditation process in which research programs demonstrate that they meet the minimum standards required by law, and are also going the extra step to achieve excellence in animal care and use. Our CC also works with AAALAC so they can anticipate possible changes to the Guide for preparing themselves and working with accredited institutions on changes we are making to Guide. See Standing Committee activities.

**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?**

No

**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
Too numerous to list	Experts serve on all our activities: Roundtable (RT), Workshop planning committees, ICLAS, Service dog monograph reviews, the Guide activities, ILAR Journal and One Health Fellowship in Pakistan. All of our activities are conducted in association with experts in animal health and welfare and many work in a global context.	Capacity Building in Pakistan (e.g. live animal wet markets, agricultural animals),
Too numerous to list	Experts served on the Biodiversity Committee and in association with staff formed a global team of experts to produce a booklet. The document was published in 2021 and can be found at: <a href="https://nap.nationalacademies.org/search/?term=biodiversity+book++risk&amp;v%3Aproject=uweb_proj_ext">https://nap.nationalacademies.org/search/?term=biodiversity+book++risk&amp;v%3Aproject=uweb_proj_ext</a>	Biodiversity at Risk: Today's Choices Matter

**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: 0  
 b) Seminars: 16  
 c) Hands-on training courses: 0  
 d) Internships (>1 month): 0

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
b	A 4-day virtual training program was held to address safe and secure sample collection and transportation for priority zoonotic pathogens through a One Health lens. The training focused on sample collection techniques to ensure that the right samples are collected at the right time, sampling types and quality controls for improved detection, biosafety measures to protect personnel from infection and biosecurity measures for relevant priority zoonotic agents to prevent illicit access and misuse. Current standard operating procedures developed by the Association for Biorisk Management were reviewed, discussed and shared among participants. Our Fellows were invited to participate.	Pakistan	30

b	<p>A 3-day virtual training program was held to raise awareness on the importance of creating cross-sectoral communications, coordinations, and collaborations among government agencies and institutes of higher education;</p> <p>to ensure the control of priority zoonotic pathogens for the human, agricultural, and wildlife sectors; and to introduce a system for the detection, reporting and biorisk management of priority zoonotic pathogens.</p>	Pakistan	20
b	<p>The interface between humans and animals is ever changing, due to crowding, commerce and agricultural intensification, human encroachment on previously undisturbed habitats and animal encroachment on the human habitat. These factors create a perfect environment for the rapid spread of zoonotic diseases. There is an urgent need for innovative disease control and prevention efforts that address linkages between environmental change and human and animal health in an integrated, "One Health" manner.</p>	Pakistan (3), Thailand (1) US (7), UK(1), New Zealand (1)	13

**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
National	2021 Updates Regarding ILAR	Organizer: AALAS	October 23	October 27	2747

**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: 38

Volume 60, Issue 3, 2019 Ethical Questions Around Animal Research (15)•An Introduction to Ethical Questions Around Animal Research•Beyond the 3 Rs to a More Comprehensive Framework of Principles for Animal Research Ethics•Engaging Ethicists in Animal Research Policymaking•Why IACUCs Need Ethicists•The Symbiotic Relationship Between Scientific Quality and Animal Research Ethics•Harm-Benefit Analyses Can Be Harmful•The Pursuit and Advancement of Knowledge as a Justification for the Use of Animals in Research•Moving Beyond the

Absence of Pain and Distress: Focusing on Positive Animal Welfare • A Good Life for Laboratory Rodents? • Behavioral Management is a Key Component of Ethical Research • Holding Animal-Based Research to Our Highest Ethical Standards: Re-seeing Two Emergent Laboratory Practices and the Ethical Significance of Research Animal Dissent • From Unpleasant to Unbearable—Why and How to Implement an Upper Limit to Pain and Other Forms of Suffering in Research with Animals • Virtue Ethics and Laboratory Animal Research • Neuroethics and Animals: Report and Recommendations From the University of Pennsylvania Animal Research Neuroethics Workshop • The Ethics of Creating and Using Human-Animal Chimeras. Volume 61, Issue 1, 2020 Balancing Animal Welfare, Human Safety, and Research in Agriculture High Containment(10) • Balancing Animal Welfare, Human Safety, and Research in Agriculture High Containment • IACUC and Veterinary Considerations for Review of ABSL3 and ABSL4 Research Protocols • High-Containment Agriculture Animal Research: An AAALAC International Perspective • The Use of Arthropod-Borne Challenge Models in BSL-3Ag and BSL-4 Biocontainment • Challenges and Solutions With Agricultural Animal High Containment Waste Disposal • The Evaluation of the Containment Efficacy of Semi-Rigid Isolators for Housing Cages of Laboratory Animals Infected With BSL-3 Agents • Challenges and Opportunities in the Use of High and Maximum Biocontainment Facilities in Developing and Licensing Risk Group 3 and Risk Group 4 Agent Veterinary Vaccines • The Ferret as a Model for Filovirus Pathogenesis and Countermeasure Evaluation • Outside the Box: Working With Wildlife in Biocontainment • Livestock and Risk Group 4 Pathogens: Researching Zoonotic Threats to Public Health and Agriculture in Maximum Containment. Volume 61, Issue 2-3, 2020 Marmoset: Current Topics in Research, Care and Welfare(13) • An Introduction to the Callithrix Genus and Overview of Recent Advances in Marmoset Research • Research Relevant Conditions and Pathology in Nonhuman Primates • Marmosets: Welfare, Ethical Use, and IACUC/Regulatory Considerations • Marmoset Metabolism, Nutrition, and Obesity • The Gastrointestinal Microbiota of the Common Marmoset (Callithrix jacchus) • Clinical Management of Gastrointestinal Disease in the Common Marmoset (Callithrix jacchus) • Current Topics in Marmoset Anesthesia and Analgesia • The Importance of Complementary Collaboration of Researchers, Veterinarians, and Husbandry Staff in the Successful Training of Marmoset Behavioral Assays • The Marmoset: The Next Frontier in Understanding the Development of the Human Brain • Comparative Functional Anatomy of Marmoset Brains • Magnetic Resonance Imaging of Marmoset Monkeys • Assisted Reproductive Techniques and Genetic Manipulation in the Common Marmoset.

b) International conferences: 6

One Health Fellowship Committee Meetings, two training workshops, Rapid Response to COVID-19 by Laboratory Animal Research Institutions: Lessons Learned - A Workshop; and virtual ICLAS Meeting.

c) National conferences: 1

Special Topics Lecture given at 72nd National AALAS Meeting.

d) Other

(Provide website address or link to appropriate information): 0

## 9. Additional comments regarding your report:

International and national meetings were held virtually in 2021 (e.g. One Health Fellowship Committee Meetings and Training Workshops, Rapid Response to COVID-19 by Laboratory Animal Research Institutions: Lessons Learned; ICLAS Meeting) due to restrictions associated with the ongoing COVID-19 pandemic.