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1 BACKGROUND

1.1 ICLAS Monitoring and Reference Centres Program (MRCP)

Since its creation, one of ICLAS's core objectives has been to promote international harmonization in the quality of animals used in research. From 1983 until 2006, ICLAS's main scientific initiative in this area was the 'ICLAS Monitoring and Reference Centers Program' (MRCP).

This program was set up in 1983 to promote the breeding and maintenance of microbiologically and genetically standardized laboratory animals and to standardize and harmonize research and testing procedures. The goal was to establish several laboratories around the world to assist countries in standardizing animals in accordance with ICLAS guidelines for international standardization.

Under the MRCP, laboratories could apply for formal recognition by ICLAS to serve as either a Monitoring or Reference Centre or both. As a Monitoring centre, the lab was required to provide animal microbiological and/or genetic testing for organizations either free or on a fee-for-service basis. As a Reference Centre, the lab maintained reference reagents and provided reagents, information and support to Monitoring Centres.

Written applications were made to the ICLAS GB detailing the lab's staff, their achievements over the previous 3-5 years, a description of their genetic and or microbiological monitoring techniques and their R&D program relating to testing procedures. If the application was approved, the lab was given ICLAS recognition for 12 months and to maintain designation, the lab was required to send an annual report of activities to the Governing Board for approval.

While attempts were made to revitalize the program, by 2004, a number of shortcomings had become apparent. Firstly, the program was not really international in scope. Applications were restricted to certain laboratories, only one laboratory had been designated as a Monitoring centre and no more than 6 Reference Centers were regularly sending in annual reports. Secondly, without inspections, which would have been prohibitively expensive, it was impossible for the ICLAS GB to verify the content of applications or reports.

1.2 ICLAS Network for Promotion of Animal Quality in Research

In 2004, Patri Vergara (then ICLAS Secretary General) and Cecilia Carbone (then ICLAS Treasurer) began discussions with internationally recognized scientists in the field of health monitoring with the aim of finding a replacement for the MRCP. The goal was to create a new initiative which would be more international in scope and able to serve as a truly international reference in the field of high-quality laboratory animal models.

These discussions led to the creation, in 2006, of the ICLAS Network for Promotion of Animal Quality in Research (LAQ Network) which was set up to develop programs to help achieve ICLAS's objective of improving the quality of animals used in research.

The Network's founding members were: Patri Vergara & Cecilia Carbone (ICLAS GB); Bill Shek (RADS, Charles River, USA); Lela Riley (RADIL, University of Missouri); Werner Niclas (German Cancer Research Center); Esther Schoondermark (Radboud University, the Netherlands); Marge Strobel (The Jackson Laboratory, USA).

The focus was in two areas: animal health and genetic monitoring. For its first initiative, the Network focused on health monitoring, and in 2007, established the ICLAS Performance Evaluation Program (PEP). The aim of the program was to improve health monitoring by providing diagnostic laboratories with a tool to monitor the sensitivity of their diagnostic techniques.

1.3 Overview of PEP

Under PEP, Network member laboratories would prepare standardized sera and microbiological specimens and send them by World Courier for analysis to any diagnostic laboratory (participating laboratory) wishing to participate.

A comparison of the participant lab's results with the actual biological contents of the specimens as detailed in a report (Expected Results) sent later by the Network laboratory could be used to indicate the accuracy/ sensitivity of the lab's assay performance.

1.4 PEP's key features

PEP would be developed in line with the following principles.

1. Self- assessment. Diagnostic performance would be self-assessed. Participating laboratories would not be required to submit any reports of their results to ICLAS or any other agency. One reason for self-assessment was because the alternative - external assessment would have been prohibitively expensive. Secondly, the aim of the program was to improve animal health monitoring not through external accreditation or assessment as with the MRCP but by providing a practical diagnostic tool to enable laboratories to measure the sensitivity of their own diagnostic techniques.

2. No specific eligibility requirements. The aim was to develop a truly international initiative which would be open to any diagnostic laboratory worldwide.

3. Self-financing. While ICLAS agreed to make \$3,000 available to help set up the program, PEP would have to be self-financing in that it could not depend on subsidies from ICLAS funds for development. Accordingly, participating laboratories would be required to pay a participation fee to cover the costs of producing and shipping the specimens and administering the program. In the end, the \$3,000 pledged by ICLAS was not required as the cost of the production and shipment of the first batch of specimens was paid for by Charles River and RADIL, USA.

4. Despite the fact that the majority of Network scientists and labs were not ICLAS members, PEP would be developed as an ICLAS project. This was important for ICLAS because for the first time it would enable the organization to be actively involved in an international scientific LA quality program. It was also important for the Network because ICLAS was the only organization with sufficient international reach and prestige that could successfully develop an international LAQ program.

5. Self-management: As PEP would not be financed from ICLAS member fees or reserves and as the Network had direct representation from the ICLAS Governing Board, all matters relating to PEP strategy, management and finance would be made the LAQ Network. Another important consideration was the fact that Network

scientists were all working on a voluntary basis and in order to maintain their motivation and interest, it was felt important to establish a management structure which would give them democratic control over the programs they were developing. The original proposal for the management of the LAQ Network and its programs is contained in Appendix 13.

1.5 Program implementation

PEP would be developed in two stages: a development phase with only two designated specimen production laboratories - Charles River (RADS), USA and RADIL, (University of Missouri) and up to six diagnostic laboratories from the Network.

This would be followed by an operational phase, when the project would be open for applications from laboratories worldwide, in accordance with the capacity of the network to supply specimens.

Following a successful development stage in 2007, PEP became fully operational in 2008 with 9 participating labs offering the following programs: a Serology only program for a fee of \$1,500; a Microbiology only program for a fee of \$ 1,500; and a Combination program comprising both serology and microbiology specimens for a fee of \$3,000.

13% of the participation fee was used to cover administrative costs and the remainder to cover the costs of producing and shipping specimens.

1.6 PEP Distribution Centre

For the first two years of the program, shipments were made from the two specimen production laboratories to participating labs three times a year with each shipment comprising 4 specimens per program. However, by the end of 2008, it had become apparent that a number of changes needed to be made to the program.

Firstly, more Network labs needed to be involved in specimen production. So far, specimen supply had been dependent on the generosity and enthusiasm of two individuals: Lela Riley (RADIL) and Bill Shek (Charles River). However, production had proved both time consuming and costly and the only way to ensure future consistency in supply would be for other Network labs to become involved.

Secondly, specimen production needed to be made simpler and less time consuming. To this end, specimens would be shipped only once a year and the Network agreed to look for funding to establish a PEP distribution centre (DC). A centralized DC would make the production task easier and less costly as producer labs would only need to focus on producing samples and sending them in bulk to the DC and not be involved in time consuming logistic work liaising with World Courier and participating labs.

In March 2009, with the agreement of the Network, Patri Vergara applied to the Spanish Ministry of Science (SMS) under their Internationalization of Science program for a grant to set up a specimen DC for PEP at the Universitat Autonoma de Barcelona (UAB). In order to satisfy SMS's grant requirements, the application was made in the name of Patri Vergara as principle investigator on behalf of the UAB with three other individuals: Lela Riley, Bill Shek and Werner Nicklas, together with letters of support from participating labs and the ICLAS Secretary General.

The application was successful and the UAB was awarded €65,000 over three years to cover the cost of a -80°C storage freezer as well as the costs of administration and a part-time technician (8 hours per week). The grant was paid directly to the UAB and as principal investigator, Patri Vergra would be responsible for approving the use of the money and, as with all grants paid to the UAB, the university would be responsible for providing annual audits in accordance with Spanish financial legislation.

1.7 LAQ Network Management

In November 2010, the ICLAS Governing Board approved a Network proposal to formalize the management of the PEP program (see Appendix 14). Under this agreement, the LAQ Network was constituted as an autonomous decision-making body empowered to take all management, financial and operational decisions relating to PEP. The Network would be managed by a Network Management Group comprising two representatives from the ICLAS Governing Board, one representative from the PEP Distribution Centre (DC) and one representative from each Network laboratory. The current Network Management group comprises: -

LAQ Network Members (as from J	LAQ Network Members (as from June 2019)					
Representative	Institution					
Patri Vergara, (Network	SIAL (DC), Universitat Autonoma de Barcelona, Spain					
Coordinator)						
Cynthia Pekow, USA (ICLAS	University of Washington, USA					
President)						
William Shek	Charles River Laboratories (RADS), USA					
Atsushi Yoshiki	RIKEN BioResource Center, Japan					
Martin Toft	QM Diagnostics, Radboud University, Netherlands					
Cynthia Besch-Williford	IDEXX RADIL, Missouri, USA					
Ana Perez	Humodigen, USA					
Greg Ballard	The Jackson Laboratory, USA					
Nobuhito Hayashimoto (ICLAS	Central Institute for Experimental Animals, Japan					
Governing Board member)						
Bob Stevenson	Cerberus Sciences, Australia					
Katja Smitdt	Deutsches Krebsforschungszentrum (DKFZ), Germany					

Since 2012, Network members have met every 18 months in conjunction with AALAS and FELASA meetings. In addition, when necessary, teleconferences have been organised.

2 PEP SPECIMEN PRODUCTION

The new DC began trials in November 2009 and became fully operational in 2010. By 2011, five Network labs were producing specimens and in 2014, they were joined by Cerberus Sciences, Australia. As at July 2020, there are 6 specimen production laboratories, as follows: -

2.1 PEP Network Laboratories (as at July 2020)

PEP Network Laboratories (as at July 2020)					
Institution	Representatives				
Central Institute for Experimental Animals, Japan	Nobuhito Hayashimoto				
Charles River Laboratoires (RADS), USA	William Shek (PEP Scientific Director)				
QM Diagnostics, Radboud University, Netherlands	Arletta van Lent-Bol				
IDEXX RADIL, Missouri, USA	Cynthia Besch-Williford				
Cerberus Sciences, Australia	Bob Stevenson				
Deutsches Krebsforschungszentrum (DKFZ), Germany	Katja Smitdt				
LAQ Specimen Distribution Center					
SIAL Laboratory, Universitat Autonoma de Barcelona)	Patri Vergara (Network Coordinator)				

2.2 Stages of specimen production

- I. Network labs produce standardised serology and/or microbiology specimens.
- II. Specimen samples are exchanged between Network labs for confirmation, i.e., to confirm that target agent(s) can be detected. This is important because specimens must be standardized. If the target agent cannot be detected or if it proves positive for an unintended agent, the batch is rejected.
- III. Network labs analyse samples to confirm standardization.
- IV. When specimens have been confirmed, Network labs send specimens to the DC at the UAB.

2.3 Production and Characterization of PEP Specimens

- All specimens are generated under strict conditions and rigorously characterized.
- Infectious agents are obtained from known sources and sequenced to confirm identity.
- Experimental animals are then inoculated, and the serum and relevant tissues are collected and aliquoted for use as standardized specimens.
- Aliquoted specimens are evaluated by two laboratories to confirm quality

2.4 PEP Specimen Quality Control

- Acceptance Criteria: Pure and Potent
- Immune Serum
 - -Seropositive to inoculated pathogen only
 - -Moderate to strong reaction by standard assays
- Infectious Specimen
 - -Free of extraneous pathogens

-Easily detected concentration of pathogen

2.5 Overview of PEP specimens sent to participants 2007-2019

imal		In PEP distributionlist	pathogen for PCR	In PEP distributionlist (year in which samples have been received)
ecies	pathogen	(year in which samples have been received)	Minute virus of Mice (MVM)	2011, 2016, 2017
use	Minute virus of Mice (MVM)	2007, 2010, 2011, 2015, 2017	Mouse Hepatitis Virus (MHV)	2008, 2011, 2014, 2016, 2018
um	Mouse Hepatitis Virus (MHV)	2010, 2014,2016	Mouse Parvovirus (MPV)	2007, 2009, 2011, 2017
	Mouse Parvovirus (MPV)	2009, 2012, 2016, 2019	Mouse rotavirus (EDIM)	2014, 2019
	Parvo general (rNS1)	2009, 2010, 2011, 2012, 2015	Pneumonia virus of Mice (PVM)	2011, 2015
	Mouse rotavirus (EDIM)	2009, 2014, 2018, 2019	Sendai Virus Theiler's murine encephalitis virus (TMEV)	2008, 2017
	Pneumonia virus of Mice (PVM)	2009, 2012, 2018	Ectromelia virus	2014, 2019 2009, 2011, 2017
	Sendai Virus	2010, 2015, 2018	Lymphocytic choriomeningitis virus (LCMV)	2008
	Theiler's murine encephalitis virus (TMEV)	2009, 2011	LDV	2019
	Ectromelia virus (vaccinia?)	2014, 2018, 2019	Adenovirus Fl (type 1)	2012, 2016
	Lymphocytic choriomeningitis virus (LCMV)	2008, 2010, 2011, 2014, 2019	Adenovirus K87 (type 2)	2017
	Adenovirus Fl (type 1)	2011, 2014, 2015	MAV Muis Cytomegalo virus (MCMV)	2017
	Adenovirus K87 (type 2)	2009	Reovirus type 3	
	Mouse Cytomegalo virus (MCMV)	2009, 2015, 2018	Mycoplasma pulmonis	2009, 2012, 2018
	Reovirus type 3	2009, 2012, 2017	Lactic Dehydrogenase Virus	2009
			K virus	
	Mycoplasma pulmonis	2007, 2012, 2016	Mouse polyomavirus	
	Encephalomyocarditis virus (EMCV)		Kilham Rat Virus	
	Clostridium piliforme Hantavirus	2010 2014	Murine Norovirus (MNV)	2012, 2019
		2010, 2014	Rat coronavirus (RCV / SDA)	2015
	Mouse Thymic Virus	2000 2010 2011 2015 2016 2010 2010	Toolan H-1 virus Hantavirus	2009, 2012
	Murine Norovirus (MNV)	2009, 2010, 2011, 2015, 2016, 2018, 2019	Clostridium piliforme	
	Mouse polyomavirus	2012, 2017	Corynebacterium bovis	
	CAR Bacillus	2017	Helicobacter spp	
	Puumala	2019	Helicobacter bilis	
			Helicobacter hepaticus	2007, 2008, 2010, 2016
2	Kilham rat virus (KRV)	2011, 2015, 2017	Helicobacter typhlonicus	
um	Pneumonia virus of Mice (PVM)	2009, 2014	Helicobacter ganmani	1
	Rat coronavirus (RCV / SDA)	2008, 2010, 2012, 2016, 2018		
	Rat parvovirus (rNS1)	2010, 2012, 2015, 2016		
	Sendai virus	2007, 2011, 2012, 2016	Helicobacter muridarum	
	Toolan H-1 virus	2009, 2010, 2014	Helicobacter rodentium	2014
	Theiler's murine encephalitis virus (TMEV) Rat minute virus (RMV) rNS1	2009, 2012, 2017, 2018 2009, 2015, 2018	Pasteurellaceae	2010
	Rat Parvovirus (RPV)	2011, 2012, 2014, 2016, 2017, 2019	Pasteurella pneumotropica	2014
	Adenovirus Fl (type 1)	2017	Actinobacillus muris Pneumocystis murina	2017 2012, 2015
	Adenovirus K87 (type 2)		Pneumocystis carinii	2012, 2013
	Reovirus type 3	2011, 2016	Pneumocystis spp	2018
	Mycoplasma pulmonis	2010, 2015, 2016, 2018, 2019		
	CAD Pacillus	2015 2016 2010	Trichomonas	2018
	CAR Bacillus Lymphocytic choriomeningitis virus (LCMV)	2015, 2016, 2019	Trichomonas Chilomastix spp	2018 2019
	CAR Bacillus Lymphocytic choriomeningitis virus (LCMV) Clostridium piliforme	2016		
	Lymphocytic choriomeningitis virus (LCMV) Clostridium piliforme Hantavirus	2016 2011, 2014, 2017		
	Lymphocytic choriomeningitis virus (LCMV) Clostridium piliforme	2016	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCMV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi	2016 2011, 2014, 2017 2009, 2010, 2017	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCMV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi	2016 2011, 2014, 2017 2009, 2010, 2017	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCMV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila	2016 2011, 2014, 2017 2009, 2010, 2017 2019 In PEP distributionlist (year in which samples have been received) 2010	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCMV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetella bronchiseptica	2016 2011, 2014, 2017 2009, 2010, 2017 2019 2019 2010 2009, 2010, 2011, 2015, 2018	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCINV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetella bronchiseptica Bordetella hinzii	2016 2011, 2014, 2017 2009, 2010, 2017 2011 2010 2010 2010, 2011, 2015, 2018 2014, 2018	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCMV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetella hinzii Citrobacter freundii	2016 2011, 2014, 2017 2009, 2010, 2017 2019 2019 2010 2010, 2011, 2015, 2018 2014, 2018 2011, 2017	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCMV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetella hinzii Citrobacter freundii Citrobacter redentium	2016 2011, 2014, 2017 2009, 2010, 2017 2019 2019 2010 2010 2009, 2010, 2011, 2015, 2018 2014, 2018 2014, 2018 2014, 2018 2014, 2018 2014, 2012, 2016, 2019	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCINV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetella bronchiseptica Bordetella hinzii Citrobacter freundii Citrobacter freundii Citrobacter freundii	2016 2011, 2014, 2017 2009, 2010, 2017 2019 2019 2010 2010 2010, 2011, 2015, 2018 2014, 2019 2009	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCMV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetella hinzii Citrobacter freundii Citrobacter redentium	2016 2011, 2014, 2017 2009, 2010, 2017 2019 2010 2010 2010, 2011, 2015, 2018 2014, 2018 2014, 2018 2014, 2018 2014, 2017 2010, 2012, 2016, 2019 2009, 2010, 2014, 2019	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCMV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetella bironchiseptica Bordetella hinzii Citrobacter freundii Citrobacter freundii Citrobacter freundii Citrobacter freundii	2016 2011, 2014, 2017 2009, 2010, 2017 2019 2019 2010 2010 2010, 2011, 2015, 2018 2014, 2019 2009	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCMV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetella bronchiseptica Bordetella bronchiseptica Bordetella hinzii Citrobacter refundii Citrobacter rodentium Corynebacterium boyis Corynebacterium boyis Corynebacterium mastiditis Enterobacter cloacea	2016 2011, 2014, 2017 2009, 2010, 2017 2011 In PEP distributionlist (year in which samples have been received) 2010 2010 2010, 2011, 2015, 2018 2014, 2018 2014, 2018 2019, 2010, 2012, 2016, 2019 2009, 2010, 2014, 2019 2009, 2010, 2014, 2014, 2019 2009, 2011, 2015, 2018	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCINV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetella bronchiseptica Bordetella hinzii Citrobacter freundii Citrobacter freundii Citrobacter freundii Citrobacter freundii Corynebacterium sop Corynebacterium povis Corynebacterium kutscheri Corynebacterium mastiditis Enterobacter cloacea Escherichia coli	2016 2011, 2014, 2017 2009, 2010, 2017 2011 In PEP distributionlist (year in which samples have been received) 2010 2009, 2010, 2011, 2015, 2018 2014, 2018 2014, 2018 2015, 2016, 2019 2009 2009, 2010, 2014, 2019 2009, 2011, 2016, 2018 2017, 2018 2017, 2018 2017, 2018 2017, 2018 2015, 2016 2015	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCINV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetalla bronchiseptica Bordetalla hinzii Citrobacter redentium Corynebacterium paysi Corynebacterium poyis Corynebacterium poyis Corynebacterium bovis Corynebacterium bovis Enterobacter cloacea Escherichia coli	2016 2011, 2014, 2017 2009, 2010, 2017 2011 2010 2011 2011 2011 2011 2012 2013 2014 2015 2014, 2017 2014, 2017 2014, 2017 2010, 2012, 2016, 2019 2009, 2010, 2014, 2019 2009, 2011, 2016, 2018 2015, 2016 2012, 2018	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCINV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetella binzil Citrobacter rodentium Corynebacterium spp Corynebacterium spp Corynebacterium kutscheri Corynebacterium kutscheri Corynebacterium kutscheri Corynebacterium kutscheri Corynebacterium kutscheri Scherichia coli Klebsiella oxytoca	2016 2011, 2014, 2017 2009, 2010, 2017 2011 In PEP distributionlist (year in which samples have been received) 2010 2010 2010, 2011, 2015, 2018 2014, 2018 2014, 2018 2019, 2010, 2011, 2015, 2018 2019, 2010, 2014, 2019 2009, 2010, 2014, 2019 2009, 2011, 2015, 2018 2017, 2018 2017, 2018 2012, 2018 2012, 2018 2009, 2015, 2019 2009, 2015, 2019	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCINV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetella bronchiseptica Bordetella hinzii Citrobacter freundii Citrobacter freundii Citrobacter freundii Citrobacter rodentium Corynebacterium sop Corynebacterium movis Corynebacterium kutscheri Corynebacterium mastiditis Enterobacter cloacea Escherichia coli Klebsiella pneumoniae Pseudomonas auriginosa	2016 2011, 2014, 2017 2009, 2010, 2017 2011 In PEP distributionlist (year in which samples have been received) 2010 2010, 2011, 2015, 2018 2014, 2018 2014, 2018 2011, 2017, 2018, 2014, 2018 2009, 2010, 2014, 2019 2009, 2010, 2014, 2019 2009, 2010, 2014, 2019 2009, 2015, 2016 2018 2015, 2016 2015, 2016 2019, 2015, 2019 2019 2009, 2015, 2019 2019	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCMV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetella binochiseptica Bordetella binochiseptica Bordetella binochiseptica Citrobacter freundii Citrobacter freundii Citrobacter freundii Citrobacter freundii Citrobacter rodentium Corynebacterium bovis Corynebacterium bovis Enterobacter cloacea Escherichia coli Klebsiella oxytoca Klebsiella oxytoca Klebsiella pneumoniae Pseudomonas auriginosa Salmonella spp.	2016 2011, 2014, 2017 2009, 2010, 2017 2011 2010 2010 2011 2010 2010 2010 2010 2010 2010 2010 2010, 2011, 2015, 2018 2014, 2018 2010, 2012, 2016, 2019 2009, 2010, 2014, 2019 2009, 2010, 2014, 2019 2017, 2018 2015, 2018 2019, 2018 2019, 2018	Chilomastix spp	
	Lymphocytic choriomeningitis virus (LCINV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetella binzii Citrobacter rodentium Corynebacterium spp Corynebacterium spp Corynebacterium spp Corynebacterium sustiditis Enterobacter cloacea Escherichia coli Klebsiella portuca Klebsiella portuca Klebsiella perumoniae Pseudomonas auriginosa Salmonella spp. S. cholerasuis	2016 2011, 2014, 2017 2009, 2010, 2017 2011 In PEP distributionlist (year in which samples have been received) 2010 2010 2009, 2010, 2011, 2015, 2018 2014, 2018 2014, 2018 2019, 2012, 2016, 2019 2009, 2010, 2014, 2019 2009, 2010, 2014, 2019 2009, 2011, 2016, 2018 2017, 2018 2017, 2018 2019, 2015, 2019 2019 2019 2019 2019 2019 2019 2019 2019 2019 2019 2019 2019 2019 2019 2017	Chilomastix spp	
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	Lymphocytic choriomeningitis virus (LCINV) Clostridium piliforme Hantavirus Encephalitozoon cuniculi Mouse Hepatitis virus pathogen for bacteriology Aeromonas hydrophila Bordetella binzii Citrobacter rodentium Corynebacterium spp Corynebacterium spp Corynebacterium spp Corynebacterium sustiditis Enterobacter cloacea Escherichia coli Klebsiella portuca Klebsiella portuca Klebsiella perumoniae Pseudomonas auriginosa Salmonella spp. S. cholerasuis	2016 2011, 2014, 2017 2009, 2010, 2017 2011 In PEP distributionlist (year in which samples have been received) 2010 2010 2009, 2010, 2011, 2015, 2018 2014, 2018 2014, 2018 2019, 2012, 2016, 2019 2009, 2010, 2014, 2019 2009, 2010, 2014, 2019 2009, 2011, 2016, 2018 2017, 2018 2017, 2018 2019, 2015, 2019 2019 2019 2019 2019 2019 2019 2019 2019 2019 2019 2019 2019 2019 2019 2017	Chilomastix spp	
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3 PEP PROGRAMS & PARTICIPANTS:

3.1 PEP Programs

PEP runs 3 programs, as follows:-

Programs	Shipments/Specimens	Annual
		Fee €
Serology only	1 annual shipment of 10 sera specimens	1,560
Microbiology only	1 annual shipment of 10 microbiology specimens	1,350
Combination	1 annual shipment of 10 sera & 10 microbiology specimens	2,150

3.2 Participants

By 2012, PEP had a truly international participation with labs from all five continents. With the program well established, it was felt appropriate to invite more labs to join the program. As the following table shows, since 2012, new labs have steadily joined the program with a maximum of 29 participants in 2016.

	PEP Participating Laboratories: 2008-2019												
 Serology only 	Microbiology onl	У		Com	binat	ion		No	t par	ticipa	ting		
Participat	ting Laboratories	08	09	10	11	12	13	14	15	16	17	18	19
001 Biolytix AG, Sv	witzerland				•	•	•			•	•	•	•
002 Harlan Labora	tories UK											•	•
003 QM Diagnosti	cs, Netherlands												
004 Mic. Diagnost	ics, Germany												
005 MVMS, Austra	alia	•											
006 Un.of Miami-0	Comp.Pat.Lab, USA	•	•	•	•	•	•	•	•	•	•	•	•
007 The Jackson La	ab, USA			•	•	•	•	•	•	•	•	•	•
008 CIEA, Japan													
009 Cerberus Scier	nces, Australia												
010 Dynamimed S	.L. Spain							•	•	•	•	•	•
011 Charles River	Lab., France	•											
012 BioDoc, Hanov	ver, Germany	•	•	•	•	•	•	•	•	•	•	•	•
013 Taconic, Rock	ville, USA				•	•						•	•
014 National An. L	ab			•						•			
015 Charles River	Laboratories, Japan,			•									
016 IDEXX RADIL, I	Missouri, USA												
017 Charles River	Laboratories, USA,												
019 Guangdong La	ab An Mon.					•		•	•		•	•	•
018 CEMIB, Brazil													

020 Harlan Laboratories SRL, Italy												
021 AnLab Ltd, Czech Republic						•	•	•		•	•	•
022 National An. Lab Center, Tainan,						•	٠		•	•	•	•
023 XpressBio, Maryland, USA					•	•	•	•			•	•
024 GIM Gesellschaft.,Mikroökologie										•	•	•
025 Division of Laboratory Animal												
026 GVG Diagnostics GmbH, Germany						•	•		•	•	•	•
027 NLAC, Mahidol University,												
028 Model An. Res Center, China							•	•		•	•	•
029 Laboratory Animal Monitoring							•	•	•		•	•
030 IDEXX Bioresearch, Germany												
031 Belki-Biotechnologies, Russia									•	•	•	•
032 Micro. Monitoring Lab., Korea									•		•	•
033 Vebio Laboratory, France										•	•	•
034 Universiteit Utrecht, Netherlands											•	•
035 Biosait Europe SLU, Spain,										•	•	•
036 Daegu-Gyeongbuk Med, Korea												
037 Taiwan University, Lab. Taiwan									•	•	•	•
038 Suzhou Xishan Biotech Inc. China										•	•	•
039 The Francis Crick Institute BRF., UK												
040 VRL Maryland, LLC, USA												
041 GemPharmatech CO.,Ltd. Nanjing,												
Total Serology only	4	2	4	2	2	4	4	4	4	4	4	5
Total Microbiology only	0	0	0	0	1	2	2	3	5	4	3	3
Total Combination	6	9	1	1	16	18	1	1	20	18	15	16
Total Participants	10	11	14	13	19	24	23	25	29	26	22	24

Most of the labs who have left the program have done so for financial reasons or because the lab has closed

3.3 Terms and Conditions of participation in the ICLAS PRP Program

Participation in the ICLAS PEP program is in accordance with the following terms and conditions:

Eligibility: Any diagnostic laboratory worldwide can participate in the program. There are no specific eligibility requirements.

Programs and fees: Participating laboratories may choose to participate in any of the following programs. Fees must be paid in advance:-

Serology program: €1,560.1 shipment per year of 10 serology specimens

Microbiology program: €1,350 1 shipment per year of 10 microbiology specimens

Combination program: € 2,150 for 1 shipment of 10 serology specimens and 10 microbiology specimens

Shipment of Specimens: Specimens are shipped from the Network's distribution centre by World Courier normally in January. Participants may be required to apply for an import license and carry out other related administrative tasks as requested by World Courier

Reporting of results: PEP is a self-assessment program and participating laboratories are under no obligation to submit any reports of their results to ICLAS or any other agency.

Assistance to Network specimen producer laboratories: While evaluation is self-assessed, participating laboratories are encouraged to report any differences between their analysis and expected results to help specimen production labs monitor their performance in the production of standardised samples.

Certificate of Participation: Participating laboratories will be issued with a certificate of participation for a twelve month period running from 1st July to 30th June the following year.

ICLAS logo: Participating laboratories are not authorised to use the ICLAS logo on any of their own electronic or paper documents.

4 PEP INCOME & COSTS

4.1 Income

The only source of income for PEP is from fees paid by PEP participants, which are paid into an ICLAS bank account with the Caixa Bank on the UAB campus. This account was set up in April 2011 for the exclusive use of the LAQ Network to run the PEP program.

Around 90% of shipping costs are related to the weight and volume of dry ice required to maintain specimens at -18° C. As the volume and weight of specimens is relatively small compared to the volume and weight of the dry ice, the quantity of dry ice required for 20 specimens is not that much greater than the quantity required for 10 specimens. As a result, the cost of the combination program is only 30% more than the serology only program.

In order to cover the real costs of specimen production, shipment costs and administration, the following increases in PEP fees were agreed at the 2016 Network meeting in Brussels.

Program	Participation fee: 2008-2016	Fee: 2017- present			
Microbiology only program	€1,260	Increased by 5% to €1,350			
Serology only program:	€1,360	increase by 15% to €1,560			
Combination program	€1,950	increase by 10% to €2,150			

4.2 Costs

Income from fees are used to cover the costs of specimen production, confirmation and shipping to the DC, shipping specimens from the DC to PEP participants and program administration, as follows:-

4.2.1 Specimen production costs

In order to cover real costs of specimen production costs, the following changes to the amounts paid to network labs for specimen production were agreed at the 2016 Network meeting in Brussels. The costs of specimen production incurred by each producer lab is deducted from their participation fee so that no money is paid direct to producer labs.

Specimen type	Payments to producer labs per aliquot, 2008-2016	Payments to producer labs per aliquot 2017- present
Sera specimens	€17.50	€40
Microbiology specimens	€7.50	€4

4.2.2 Specimen confirmation analysis costs

These are costs of analysing specimens to ensure standardization and are currently met by the Network labs at an estimated cost of €100 per Network lab = € 500 for five labs. These costs are shared between participating labs.

4.2.3 Specimen confirmation shipping costs

These costs are for shipping specimens between Network labs for confirmation. Specimens are shipped by World Courier and payments are made direct to World Courier by the DC.

4.2.4 Specimen shipping costs from Network labs to DC

When specimens have been confirmed, they are shipped by World Courier to the DC at the UAB. Payments are made direct to World Courier by the DC.

4.2.5 Distribution shipping costs from DC to PEP participants.

Specimens are shipped by World Courier from the DC to individual participants. Payments are made direct to World Courier by the DC.

4.2.6 Distribution Centre costs

The Network is currently using space for its fridge and a work area for handling specimens from the SIAL laboratory at the UAB, Barcelona. Costs include:

- I. Equipment depreciation: Cost of fridge € 9,000 over 10 years = € 900 per year
- II. Equipment maintenance: Estimated annual premium
- III. Personnel costs: Lab technician: Full time employee of UAB. Estimated time allocated to
- IV. PEP = 40 hours per year @ \leq 30/hour = \leq 1,200
- V. Personnel costs: Shipping Administrator: Full time employee of UAB. Estimated time
- VI. allocated to PEP = 20 hours per year @ €30/hour = € 600
- VII. Program administration: Costs estimated at 2 hours per PEP participant at a gross cost of €33 hour as originally agreed by ICLAS Governing Board, to cover the following tasks:
 - Sending out application forms to participants.
 - Receiving applications and transferring data to shipping list.
 - Creating and sending invoices to participants.
 - Sending acknowledgements and participation certificates to participants.
 - Sending expected results to participants
 - Maintaining records of receipt of fees and payments to World Courier
 - Providing copies of all financial transactions to auditor.
 - Writing annual reports

From 2017, it was agreed that the DC could claim €100 per PEP participant per year to partially cover these expenses.

4.2.7 LAQ Network annual income & expenditure on ICLAS bank account.

There are two forms of financial reporting for LAQ Network programs: annual accounts covering the financial year January to December and indicative income and costs to estimate the cost of each individual program.

The following table shows all income and expenditure on the LAQ Network bank account from January to December for the years 2017 and 2018:

	2017	2018
Income	EURO	EURO
Balance at 31st Dec brought forward from previous year	47,025.17	50,650.35
PEP Participant fees	43,054.00	29,877.00
GENRef Participant fees	5,975.00	4,080.00
Total Income	96,054.17	84,607.35
Expenditure		
PEP Bank Charges	183.00	278.37
PEP Specimen production costs: Shipping costs of specimens to DC	8,450.07	3,169.45
GENRef Specimen production costs: Shipping costs of DNA specimens to DC	5,952.39	
PEP Specimen distribution costs from DC to participants	27,918.37	34,167.85
Meetings		
DC Admin Costs	2,899.99	
Total Expenditure	45,403.82	37,615.67
+ Balance at 31 st December	50,650.35	46,991.68

4.2.8 Indicative income & expenditure for each PEP Program

The problem with annual accounts is that they don't present a real picture of the financial state of PEP because the income and expenditure of each program runs over two and sometimes 3 financial years. The following figures show indicative income and expenditure for the 2017 and 2018 PEP programs. As can be seen, for both 2017 and 2018, the programs generated a small surplus.

	2017	20
Number of Participants	26	
	EURO	EUI
Income		
Participant fees	50,340.00	42,540.
Total Income	50,340.00	42,540.
Expenditure		
Bank Charges	141.00	152
Admin Costs	2,900.00	2,900
Meetings / Presentations		
Specimen production costs discounted from fees	8,600.00	4,720
Specimen production costs: shipping to DC	1,787.07	3,165
Specimen distribution costs: DC to participants	35,479.70	30,020
Total Expenditure	48,907.77	40,957.
Balance	+1,432.23	+1,582.

5 PEP REPORTS

The LAQ Network provides two types of Reports, as follows:

5.1 LAQ Network Annual Report

As shown in Appendix 12, this report details:

- Changes in Network Members and Network laboratories .
- Changes in PEP and GENRef fees and specimen production costs .
- The number of PEP and GENRef participants and program types for the previous year.
- PEP & GENRef income & expenditure on ICLAS bank account for the previous two years.
- Indicative income & expenditure for the previous year's PEP and GENRef programs.
- Objectives for the following year.

5.2 PEP Program Report for Participants

As shown in Appendix 13, this report details:

- The Network Laboratories Performing Sample Preparation and QC.
- Number of shipments made for each program.
- Contents of the specimens shipped.
- Remarks from Participating Labs on quality and labelling of specimens and discrepancies between their test results and expected results.
- Comments from the Distribution Center regarding quality and labelling of specimens and confirmation of expected results.

6 MANAGEMENT OF PEP PROGRAM

PEP programs run over two calendar years with tasks as follows:

6.1 Task 1: Send out PEP application forms

From May -July (year 1), send renewal PEP application form to all of the previous year's participants (see Appendix 1). Application forms for new PEP applicants (Appendix 2) can be downloaded from the ICLAS webpage:

http://iclas.org/animal-quality-network/application

6.2 Task 2: Receive PEP application forms

Check applications are correctly completed and signed and dated

6.3 Task 3: Update PEP Shipping List

Update shipping list with information, as in Appendix 3.

6.4 Task 4: Send PEP Invoices

Create and send invoices to participants acknowledging receipt of their application. For the majority of participants, the invoice will be for the cost of the program they have applied for (Appendix 4). However, in the case of the Network labs who have produced samples, the invoice may include a discount (Appendix 5) or may be in the form of a credit note (Appendix 6)

6.5 Task 5: Check LAQN bank account

Check LAQN bank account (Appendix 7) to see which participants have paid their fee.

6.6 Task 6: Transfer bank data to Excel sheet

Transfer bank data to Excel sheet showing movements on LAQN Account number 2100 0424 31 02 00242020 Jan - Dec 2017 (Appendix 8)

6.7 Task 7: Send acknowledgement of fee and Participation Certificate

June -December Year 1

To those participants who have paid their fee, send acknowledgement of receipt of fee (Appendix 9) and Participation Certificate (Appendix 10)

6.8 Task 8: Specimens are shipped to Participants

In July each year, a call is made to all Network laboratories for new samples, which must be confirmed and then sent to the DC (see section 2.2 above).

By December (year 1), the total number of participants is known and the DC coordinator (Patri Vergara) together with the PEP Scientific Director (currently W. Shek), discuss which samples from the stock can be used for the current year, with the aim of ensuring that no sample is repeated for two years.

Once all the samples have arrived in the DC, the agreed specimens are prepared for each participant together with the documentation for each shipment in collaboration with World Courier, the participating laboratory and the export authorities at Barcelona airport.

Once the import of specimens has been approved by the customs/health authorities of country in which the participating lab is located, (a task that may take months in the case of some countries), PEP samples are shipped by World Courier.

6.9 Task 9: Send Expected Results and Feedback Form

From January of year 2 onwards, PEP participants request expected results (Appendix 11), which are sent together with a feedback form (Appendix 12) to provide the project with information to include in the PEP Program Report for Participants (see section 5.1 above). The results provided by participants are completely anonymous and given on an entirely voluntary basis.

6.10 Task 10: Write LAQ Network Annual Report

In May /June each year, an annual report is compiled to contain all information relating to PEP and GENRef, as detailed in the 8 sections in ICLAS Laboratory Animal Quality Network (LAQ Network) Report 2019, shown in Appendix 13: LAQ Network Annual Report. (See section 5.1 above)

6.11 Task 11: DC Coordinator writes PEP Program Report for Participants

When most of the Expected Results have been sent, the DC coordinator writes and sends a PEP Program Report for Participants (see Appendix 14 and section 5.2 above)

6.12 Task 12: Prepare PEP invoices and bank statements for ICLAS Auditor

June, Year2: Make PDF copies of all PEP invoices and all related bank statements for the previous calendar year (Jan-Dec) . PEP bank statements can be downloaded from the CaixaBank LAQ Network current account, as shown in Appendix 7. Combine all documents in a single PDF binder and send to DC

7 APPENDICES

7.1 Appendix 1: Renewal PEP Application Form

Appendix 1: Renewal PEP Application Form

INTERNATIONAL COUNCIL FOR LABORATORY ANIMAL SCIENCE



ICLAS ANIMAL QUALITY NETWORK

Application to participate in the 2020 ICLAS Performance Evaluation Program

Please check that the following contact data we have for your lab is correct and indicate which program you wish to apply for. Please make any additions or corrections in red, date your application and return to: lagnetwork@iclas.org

PEP Identification Reference:	PEP025DLA					
Name of Lab:	Division of Laboratory Animal Monitoring, NIFDC, Beijing, China					
Name and mailing address of person to receive sample shipment:	Hong Wang Division of Laboratory Animal Monitoring, National Institutes for Food and Drug Control, No.31 HUATUO ROAD DAXING DISTRICT Beijing 102629, CHINA					
E-mail, tel. & fax. of person to receive sample shipment:	littstar@163.com Tel.: 86-10-53852659					
Contact person and e-mail address for invoice (if different from lab contact person):						
Name and e-mail address of person to receive copy of invoice (if required):						
Your lab's web address for link from ICLAS PEP web page:	www.nifdc.org.cn					
2020 Programs Please put an x in the box for the program you wish to apply for: Serology only: fee = €1,560 for 1 shipment of 10 specimens Microbiology only: fee = €1,350 for 1 shipment of 10 specimens Combination (Serology + Microbiology): fee = € 2,150 for 1 shipment of 20 specimens Please note: if your shipment requires either a Health Certificate and/or Certificate of Origin, you will be charged an additional €100 for each certificate. Any subsequent amendments to these certificates will cost an additional €100 per amendment. Date of Application:						
Name and title (Prof. Dr. Mr. M	s.) of person making application:					

Please make any suggestions to help us improve the program:

7.2 Appendix 2: PEP Application Form for new PEP Applicants

INTERNATIONAL COUNCIL FOR LABORATORY ANIMAL SCIENCE



ICLAS ANIMAL QUALITY NETWORK

Application to participate in the ICLAS Performance Evaluation Program

Name of Lab:							
Please briefly describe activities of the laboratory:							
Name and mailing address of person to receive sample shipment:							
E-mail, tel. & fax. of person to receive sample shipment:							
Contact person and e-mail address for invoice (if different from lab contact person):							
Name and e-mail address of person to receive copy of invoice (if required):							
Your lab's web address for link from ICLAS PEP web page:							
Serology only: fee Microbiology only Combination (Ser Please note: if your shipment	the program you wish to apply for: e = €1,560 for 1 shipment of 10 specimens v: fee = €1,350 for 1 shipment of 10 specimens ology + Microbiology): fee = € 2,150 for 1 shipment of 20 specimens requires either a Health Certificate and/or Certificate of Origin, you will be r each certificate. Any subsequent amendments to these certificates will mendment.						
Date of Application:							
	s.) of person making application: cipation in the ICLAS Performance Evaluation Program for Diagnostic						
Eligibility: Any diagnostic labora requirements.	atory worldwide can participate in the program. There are no specific eligibility						
Programs and fees: Participating laboratories may choose to participate in any of the following programs detailed above. Fees must be paid in advance.							
	mens are shipped from the Network's distribution centre by World Courier s may be required to apply for an import license and carry out other related d by World Courier						
	self assessment program and participating laboratories are under no obligation ults to ICLAS or any other agency.						

Assistance to Network specimen producer laboratories: While evaluation is self-assessed, participating laboratories are encouraged to report any differences between their analysis and expected results to help specimen production labs monitor their performance in the production of standardised samples.

Certificate of Participation: Participating laboratories will be issued with a certificate of participation for a twelve month period running from 1st July to 30th June the following year.

ICLAS logo: Participating laboratories are not authorised to use the ICLAS logo on any of their own electronic or paper documents.

7.3 Appendix 3: PEP Shipping List

LO	*	\therefore \checkmark f_x					
A		В	С	D	E	F	G
ICLAS 2	2019 PE	P Program: Directory & Shipping List					
PEP Identifi n Refere	N catio	ame of Lab	# 2019 Partic- ipants	Name and Address of person to receive shipment	E-mail, Tel & Fax of person to receive shipment	Qty 2019 Serology progs applied	Qty 2019 Microbiology progs applied
TOT			24			20	20
PEP003Q	AWD Q	M Diagnostics, he Netherlands	1	Arletta Bol QM Diagnostics Transistorweg 5	Arletta.bol@qmdiagnostics.org qmdiagnostics@qmdiagnostics.org Tel.+31 24 3615433	1	1
PEP004N		licrobiological Diagnostics, Germany	1	6534 AT Nijmegen The Netherlands Dr. Katja Schmidt, German Cancer Research Centre, Im Neuenheimer Feld 280,	Fax.+31 24 3616375 qmdiagnostics@qmdiagnostics.org <u>katja.schmidt@dkfz.de</u> Tel. +49 6221 42 4299 Fax.+49 6221 42 4258	1	1
PEP005N	VVM C	omPath, Australia	1	69120 Heidelberg, Germany Amy Gathercole SAHMRI- ComPath 101 Blacks Road Gilles Plains SA 5086	<u>info@compath.com.au</u> Tel.:+61881284617 Fax.+61882612280	1	1
PEP008C		entral Institute for Experimental Animals, JIEA), Japan	1	Australia Dr. Masafumi Yamamoto CIEA 3-25-12 Tonomachi Kawasaki-ku Kawasaki 210-0821	yamamotoma@ciea.or.jp	1	1
PEP009C	ISC C	erberus Sciences, Australia	1	Japan Dr. Bob Stevenson Cerberus Sciences Unit 3/49 Holland Street, Thebarton, Adelaide, South Australia, 5031 Australia	Bob@cerberus.net.au Tel.:+61 8 8234 8780	1	1
PEP010D	DYN D	ynamimed S.L. Madrid, Spain	1	Carlos S. Agustín Dynamimed S.L. Parque Científico de Madrid (Lab. 0.05) Campus de Cantoblanco C/Faraday 7, 28049 Madrid. Spain	<u>laboratorio@dynamimed.com</u> Tel. +34 91 806 00 38 / +34 678 48 00 57 Fax. +34 91 188 07 33	0	1
PEP011C	RL C	harles River Laboratorie France,	1	Ms. Karine Martelet Charles River Laboratoire France RADS Bâtiment H5, SAS échantillons Domaine des Oncins, BP 0109 69 592 L'Arbresle Cedex France	karine.martelet@crl.com stephanie.durand@crl.com Tel : 00 33 (0)4 74 01 69 73 Invoice copy: stephanie.bissuel@crl.com and valerie.pasqual@crl.com	0	1

7.4 Appendix 4: Standard PEP Invoice

INTERNATIONA									
ICLAS Network	ICLAS Network for the Promotion of Animal Quality in Research								
NETWORK MEMBERS Central Institute for Experimental Animals, Japan	Carmen Calabresi Envigo RMS srl Via Vincenzo Monti 78 20832 Desio (MB)								
Charles River Laboratories (RADS), USA,	Italy C/A Laboratorio								
Cerberus Sciences, Australia	13 July 2020								
German Cancer Research Center, Germany	PEP reference number: PEP020HIT								
Institute for Experimental Animals, Hamamatsu University School of Medicine, Japan	Your PO number 657298 Ref: ICLAS 2020 Performance Evaluation Program invoice.								
International Council For Laboratory Animal Science QM Diagnostics, Radboud University Medical Centre, Netherlands IDEXX RADIL, Missouri, USA SIAL Laboratory, Universitat Autonoma de Barcelona, Spain Taconic Health Diagnostic Laboratory, USA The Jackson Laboratory, USA	 Dear Ms. Calabresi, Further to your application to participate in the ICLAS 2020 Performance Evaluation Program, could you please remit a fee of EUR 2,150 to cover the participation of Envigo RMS srl , Ml, Italy in the Serology and Microbiology programs. This fee is in respect of 1 shipment per year containing 10 sera specimens and 10 microbiological specimens. Please pay in EURO € by bank transfer to the following account: ACCOUNT NAME: International Council for Laboratory Animal Science BANK: Caja de Ahorros y Pensiones de Barcelona, ACCOUNT NUMBER: 2100 0424 310 200242020 IBAN: ES27 2100 0424 3102 0024 2020 SWIFT: CAIX ES BB IMPORTANT: Please state your PEP reference number to facilitate payment identification. If you have any queries about this invoice please contact me at lagnetwork@iclas.org Yours sincerely, Andrew Hudson ICLAS LAQ Network Administrator 								
Room \/0_141	ICLAS LAQ Network Veterinary Faculty, Edifici V,Universitat Autonoma de Barcelona, 08193 Bellaterra, Spain								

7.5 Appendix 5: PEP Invoice to Network Lab with discount for sample production

Appendix 5: PEP Ir	nvoice to Network Lab with discount for sample production	
	AL COUNCIL FOR LABORATORY ANIMAL SCIENCE	
NETWORK MEMBERS Central Institute for Experimental Animals, Japan Charles River Laboratorias, (RADS), USA, Cetheoug, Sciences, Justitute for Experimental Animals, Hamamatsu University School of Medicine, Japan International Council For Laboratory Animal Science OM Diagnostics, Radboud University Medical Centre, Netherlands IDEXX RADIL, Missouri, USA SIAL Laboratory, Universitat Autonoma de Barcelona, Spain Taconic Health Diagnostic Laboratory, USA	Transistorweg.5 6534 AT Nijmegen The Netherlands 18 July 2019 PEP reference number: PEP003QMD Ref: ICLAS 2019 Performance Evaluation Program fee. Dear Ms van Lent , Further to your application to participate in the ICLAS 2019 Performance Evaluation Program, could you please remit a fee of EUR 1.850 to cover the participation of QM Diagnostics, Nijmegen,	

7.6 Appendix 6: PEP Credit Note to Network Lab with invoice fee discounted

ppendix 6: PEP Credit I	endix 6: PEP Credit Note to Network Lab with invoice fee discounted										
INTERNATION	INTERNATIONAL COUNCIL FOR LABORATORY ANIMAL SCIENCE										
IC	ICLAS Network for the Promotion of Animal Quality in Research										
NETWORK MEMBERS	Steve definings										
Central Institute for Experimental Animals,	Senior Manager Research Animal Diagnostic Services Charles River										
Japan Charles River Laboratories (RADS),	251 Ballardvale Street Wilmington, MA 01887										
USA, Cerberus Sciences, Australia	USA 29 July 2019										
German Cancer Research Center, Germany	PEP reference number: PEP017CRU										
Institute for Experimental Animals, Hamamatsu University School of Medicine.	Ref: Credit Note : ICLAS 2019 Performance Evaluation Prog Dear Mr Jennings,	gram									
Japan International Council For Laboratory Animal	School of Medicine, Japan Further to your application to participate in the ICLAS 2019 Performance Evaluation International Council Program, please be advised that your account is in credit to the sum of EUR 2.230.										
Science OM Diagnostics, Radboud University	This credit has been calculated as follows: 2019 PEP combination fee:	EUR -2,150									
Medical Centre, Netherlands IDEXX RADIL,	Amount of credit from 2018 invoice Credit for 2019 Specimen production 60 aligot sera 0.1 mI Mouse a-Ectromelia 30 x €8 per aligot	+1,300									
Missouri, USA SIAL Laboratory, Universitat Autonoma de Barcelona, Spain	60 aliqot sera 0.1 ml Mouse a-LCMV 30 x €8 per aliqot 60 aliqot sera 0.1 ml Mouse a-MPV-I 30 x €8 per aliqot 58 aliqot sera 0.25 ml Rat a-M pulmonis x €20 per aliqot 60 aliqot Ectro specimen €4 per aliqot	+480 +480 +1,160 +240									
Taconic Health Diagnostic Laboratory, USA	60 aliqot SDA V specimen €4 per aliqot Total Specimen prod credit Amount of credit to be deducted from your 2020 PEP fee:	+240 +3,080 2,230									
The Jackson Laboratory, USA	Thank you for supporting ICLAS Kind regards,										
	A.C. Chedree										
	Andrew Hudson ICLAS LAQ Network Administrator										
Room	ICLAS LAQ Network /0-141,Veterinary Faculty, Edifici V,Universitat Autonoma de Barcelona, 08193 Bi http://www.ICLAS.org E-mail: LAQNetwork@ICLAS.org	ellaterra, Spain									

7.7 Appendix 7: CaixaBank movements of LAQ Network current account

K <u>CaixaBank</u>	CaixaB	ankNow						
Liquid assets	Cards	Investments	Financing	Foreign trade	Services	Files Mobile		
Position ^	Descrip	stion	Date Value	date More data		Amount	Balance	
Of accounts	Descrip	Juon	Date Value	date More data		Amount	Balance	
Numerical global position	TRANS	FERENC. DIV.	08/07/2020	KRIBB		+ 1.560,00	+ 33.712,95	
Graphic global position	TRANS	F.DIVISAS	03/07/2020	Wiebke Kohl		+ 1.560,00	+ 32.152,95	
Most common	TRANS	F.DIVISAS	03/07/2020	CHARLES RIVER	LABORATOIRE FRANCE	+ 1.350,00	+ 30.592,95	
transactions	DEP. M	AINT. COMM.	01/07/2020			- 12,00	+ 29.242,95	
Balance and statement	TRANS	COMM. RCVED.	16/04/2020	WANG HONG		- 18,00	+ 29.254,95	
Favourite transactions	TRANS	FERENC. DIV.	16/04/2020	WANG HONG		+ 1.285,00	+ 29.272,95	
My certificates	TRANS	COMM. RCVED.	16/04/2020	NATIONAL APP	LIED RESEARCH LABORA	- 18,00	+ 27.987,95	
Transfers Bring money from	TRANS	FERENC. DIV.	16/04/2020	NATIONAL APP	LIED RESEARCH LABORA	+ 2.250,00	+ 28.005,95	
other entities	DEP. M	AINT. COMM.	01/04/2020			- 12,00	+ 25.755,95	
MailBox V	ALIEN	TRANS.FEE	06/03/2020			- 54,22	+ 25.767,95	
Taxes, bills, enrolments and fines	invoice	s 96400391	06/03/2020	world courier		- 13.554,44	+ 25.822,17	
Drafts	TRANS	FERENC. DIV.	11/02/2020	VRL SHARED SE	RVICES LLC	+ 2.150,00	+ 39.376,61	
Bills	ALIEN	TRANS.FEE	07/02/2020			- 54,44	+ 37.226,61	
Microdonations	invoice	s 96400027	07/02/2020	world courier		- 13.610,73	+ 37.281,05	
Online direct debit bills invoicing	TRANS	F.DIVISAS	05/02/2020	The Francis Crie	ck Institute Limi	+ 2.150,00	+ 50.891,78	
Solicitud moratoria hipotecaria y suspensión de cuotas de préstamos y tarjetas de credito	TRANS	FERENC. DIV.	03/02/2020	EXPRESS BIOTE	CH INTERNATIONAL IN	+ 1.560,00	+ 48.741,78	

7.8 Appendix 8: Excel sheet showing movements on LAQN bank account

	Clipbo	ard	G)	Fo	nt 🕞	Alignme	nt 🔤 Number 🔤		
KS)	•	X	f _x					
	A	В	с	D	E	F	G	н	
1		_	-	_	0 0424 31 02 00242020 Jan - De		<u>u</u>		
-	Prog. Year		Invoice	Code	Description	Payment	Description	Amount	Balance
2			year			date			
3									
4									
5	2017	PEP	2017	2.2.1	PEP Participants Fees	13/12/2017	PEP023BXP XpressBio, Maryland, USA EXPRESS BIOTECH INTERNATIONAL IN	1,560.00	50,65
6		PEP	2017	4.2.2	Bank Charges	08/12/2017	PEP025DLA Division of Lab An Monitoring, NIFDC, China WANG HONG part of €3,635	-15.00	49,09
7	2017	PEP	2017	2.2.1	PEP Participants Fees	08/12/2017	PEP025DLA Division of Lab An Monitoring, NIFDC, China WANG HONG part of €3,635	2,335.00	49,10
8	2017	GENRef	2017	4.1	GENRef Part. fees	08/12/2017	GENRef-025DLA-11-2017 WANG HONG part of €3,635	1,300.00	46,77
9	0017	PEP	2017	4.2.2	Bank Charges	30/11/2017	CHARLES RIVER LABORATORIES JAPAN	-15.00	45,47
10 11	2017	PEP	2017	2.2.1	PEP Participants Fees	30/11/2017 10/11/2017	CHARLES RIVER LABORATORIES JAPAN	2,150.00	45,48
12	2017	PEP	2017	4.2.2	Bank Charges PEP Participants Fees	10/11/2017	PEP014NLA National Animal Lab Center, Taipei, Taiwan NATIONAL APPLIED RESEARCH PEP014NLA National Animal Lab Center, Taipei, Taiwan NATIONAL APPLIED RESEARCH	-15.00 2,264.00	43,33 43,35
13	2017		2016	3.6.4	DC Admin Charges	06/11/2017	UAB Invoice Admin charges	-2,899.99	41,08
14	2017		2010		bornammentalges	06/11/2017	Cert Origin Bank charges 11062017	-7.15	43,98
15	2017	PEP	2017	3.6.1.3	Specimen production costs	06/11/2017	WC Invoice 0096390210 Charles River USA -> DC	-1,787.07	43,99
16	2017	PEP	2017	2.2.1	PEP Participants Fees	24/10/2017	PEP032MML PEP Microbiological Monitoring Lab., Korea 2000 0000-KRIBB	1,560.00	45,78
17						09/10/2017	Cert Origin Bank charges 10092017	-4.81	44,22
8	2017	PEP	2017	3.6.2	Specimen production costs	09/10/2017	WC Invoice 0096389967 DC → PEP025DLA Division of Laboratory Animal Monitoring, NIFD0	-1,201.60	44,22
19	2017	PEP	2017	2.2.1	PEP Participants Fees	09/10/2017	PEP011CRL CHARLES RIVER LABORATOIRE FRANCE	1,350.00	45,42
20			2017	4.2.2	Bank Charges	06/10/2017	PEP005MVM ComPath SOUTH AUSTRAL HEALTH AND MEDICAL	-15.00	44,07
21	2017	PEP	2017	2.2.1	PEP Participants Fees	06/10/2017	PEP005MVM ComPath SOUTH AUSTRAL HEALTH AND MEDICAL	2,145.00	44,09
22	2017	PEP	2017	2.2.1	PEP Participants Fees	03/10/2017	PEP021ANL AnLab Ltd, Czech Republic	1,560.00	41,94
23			2017	4.2.2	Bank Charges	01/10/2017	PEP002HUK ENVIGO RMS (UK) LIMITED	-12.00	40,38
24	2017	PEP	2017	2.2.1	PEP Participants Fees	10/08/2017	PEPO02HUK ENVIGO RMS (UK) LIMITED	2,150.00	40,39
25	2016	PEP	2017	4.2.2	Bank Charges	31/07/2017	CENTRAL INSTITUTE FOR EXPERIMENT	-15.00	38,24
26	2016	GENRef	2016	4.1	GENRef Part. fees	31/07/2017	GENRef-008CIE-11-2016 CENTRAL INSTITUTE FOR EXPERIMENT	490.00	38,26
27						28/07/2017	Cert Origin Bank charges 07282017	-5.33	37,77
28	2017	PEP	2017	3.6.2	Specimen distribution costs	28/07/2017	WC Invoice 009638935 DC-> PEP018 CEM Brazil	-1,331.25	37,77
29						26/07/2017	Cert Origin Bank charges 07262017	-3.95	39,11
30						26/07/2017	Cert of Origin F17002462	-45.00	39,11
31	2017	PEP	2017	2.2.1	PEP Participants Fees	20/07/2017	PEPO30IBG Vet Med Labor GmbH	2,150.00	39,15
2	2017	PEP	2017	2.2.1	PEP Participants Fees PEP Participants Fees	13/07/2017		2,150.00	37,00
33 34	2017 2017	PEP GENRef	2017 2017	2.2.1 4.1	GENRef Part, fees	07/07/2017	PEP027NMU NATIONAL LABORATORY ANIMAL CENTE GENReF027NMU-06-2017 NATIONAL LABORATORY ANIMAL CENTE	1,350.00 300.00	34,85 33,50
,4 35	2017	PEP	2017	3.6.2	Specimen distribution costs		Cert Origin Bank charges 07052017	-3.95	
36	2016	PEP	2017	3.6.2	Specimen distribution costs		Certificate of Origin F17002270	-45.00	33,20
37	2017	PEP	2017	4.2.2	GENRef Bank Charges	01/07/2017	PEP-GENRef-018CEM 2016 (FUNDACAO DE DESENVOLVIMENTO DA U)	-12.00	33,25
88	2016	GENRef	2017	4.1	GENRef Part. fees		PEP-GENRef-018CEM 2016 (FUNDACAO DE DESENVOLVIMENTO DA U) (part of EUR 3,250)	1,300.00	33,27
39	2016	PEP	2017	2.2.1	PEP Participants Fees		PEP018CMB (FUNDACAO DE DESENVOLVIMENTO DA U) (part of EUR 3,250)	1,950.00	31,97
40	2017	PEP	2017	2.2.1	PEP Participants Fees	21/06/2017	PEP034GDL UNIVERSITEIT UTRECHT	1,350.00	30,02
41	2017	PEP	2017	3.6.2	Specimen distribution costs	27/04/2017	WC Invoices 0096388278 DC-> PEP010DYN (part of EUR 608.94)	-368.45	28,67
42	2017	PEP	2017	3.6.2	Specimen distribution costs	09/06/2017	WC Invoices 0096388279 DC -> PEP035BEU (part of EUR 608.94)	-240.49	29,03
43	2017		2017	2.2.1	PEP Participants Fees	24/05/2017	PEPO38SXB SUZHOU XISHAN BIOTECH INC	1,560.00	29,27
44	2017	PEP	2017	3.1.5	Bank Charges	24/05/2017	PEP0009CSC STEVENSON SCIENTIFIC SERVICES PT	-15.00	27,71

7.9 Appendix 9: Acknowledgment of receipt of PEP fee

7.10 Appendix 10: PEP Participation Certificate

Appendix 10: PEP Participation Certificate
ICLAS
INTERNATIONAL COUNCIL FOR LABORATORY ANIMAL SCIENCE
CONSEIL INTERNATIONAL DES SCIENCES DE L'ANIMAL DE LABORATOIRE Established in 1956 under the auspices of UNESCO In official interaction with: OIE World Organization for Animal Health World Health Organisation (WHO), International Council of Scientific Unions (ICSU) Council for International Organisations of Medical Sciences (CIOMS) World Veterinary Association (WVA)
ICLAS LABORATORY ANIMAL QUALITY NETWORK
Certificate of Participation in the ICLAS Performance Evaluation
Program for Diagnostic Laboratories
This is to certify that Envigo RMS S.R.L., Bresso, Italy is a participant in the Serology and Microbiology ICLAS Performance Evaluation Programs for diagnostic laboratories for the period 1 July 2019 – 30 June 2020.
P. Verves
Patri Vergara Director, ICLAS Laboratory Animal Quality Network

7.11 Appendix 11: PEP Expected Results

ICLAS Diagnostic Laboratory Performance Evaluation Program Expected results for Distribution Specimens Distribution # 50: PEPJ019 Serology and Microbiology Shipped To: OM Diagnostic, de Netherland: (M) Diagnostic, and Netherland: Reseline Allon 50: 10: 12: 13: 43: 61: 12: 43: 61: 61: 75: Tamiltarway 5, 65: 44 CPU and 50: 75: 75: 75: 75: 75: 75: 75: 75: 75: 75				KLAS	URB Universitat Autònoma de Barcelona
Distribution # 50: PEP21019 Serology and Microbiology Distributed Br: Distributed Br: Distr					
Shipped To: QM Disputotics: die Netherland: QM Disputotics: die Netherland: Metadissonie Abstraßel Artension: Artensin Artension: Artension: Artension: Artension: Artension:			Expected re	sults for Distributed	Specimens
Optimization Canimerization of Bosting Diffusion Science	Shinne	ad To:	Distribution #		Microbiology
D# Description Quantity Tet For Expected Positive Findings 50-1 Mouse serum dihued 5 fold in PBS 0.50 mL x1 Microbial Anthodies CAR Bacillux Anthodies 50-2 Mouse serum dihued 5 fold in PBS 0.40 mL x1 Microbial Anthodies CAR Bacillux Anthodies 50-3 Rat serum dihued 5 fold in PBS 0.50 mL x1 Microbial Anthodies PVM Anthodies 50-4 Rat serum dihued 5 fold in PBS 0.50 mL x1 Microbial Anthodies PVM Anthodies 50-5 Rat serum dihued 5 fold in PBS 0.50 mL x1 Microbial Anthodies Seedai virus Anthodies 50-6 Rat serum dihued 5 fold in PBS 0.50 mL x1 Microbial Anthodies Rat parvorius (KRV) Anthodies 50-7 Mouse serum dihued 5 fold in PBS 0.50 mL x1 Microbial Anthodies Rat parvorius (KRV) Anthodies 50-7 Mouse serum dihued 5 fold in PBS 0.50 mL x1 Microbial Anthodies Return Anthodies 50-7 Mouse serum dihued 5 fold in PBS 0.50 mL x1 Microbial Anthodies Return Anthodies 50-8 Mouse serum dihued 5 fold in PBS 0.50 mL x1 Microbial Anthodies<	QM Di QM Dis Transist Attentis Tel/Far Emsil:	agnostics, the Netherlands agnostics forwag 5, 634 AT Nijmogan. The Netherlands on: Arlotta Bol r: +31 24 3615433 / +31 24 3616375 Arlotta bol@qundiagnostics.org /		Universitat Autonoma Unitat Fisiologia Facult 06193 - Bellaterra (Barr Attention: Patri Vergar Tel: +34 93 5811848	at Voterinaria elona), Spain a
Startum diluted 3 fold in PBS 0.50 mL xl Microbial Antibodies Adeenovirus FL Antibodies 30-1 Mouse serum diluted 3 fold in PBS 0.40 mL xl Microbial Antibodies CAR Bacillus Antibodies 30-2 Mouse serum diluted 3 fold in PBS 0.50 mL xl Microbial Antibodies PVM Antibodies 30-3 Rat serum diluted 3 fold in PBS 0.50 mL xl Microbial Antibodies Preumocyteis carini (P. Jarovecii) + CARBAntibodies 30-4 Rat serum diluted 5 fold in PBS 0.50 mL xl Microbial Antibodies Sendai virus Antibodies 30-5 Rat serum diluted 5 fold in PBS 0.50 mL xl Microbial Antibodies Sendai virus Antibodies 30-6 Rat serum diluted 5 fold in PBS 0.50 mL xl Microbial Antibodies Rat parvovirus (KRV) Antibodies 30-7 Mouse serum diluted 5 fold in PBS 0.50 mL xl Microbial Antibodies Polyouns virus Antibodies 30-8 Mouse serum diluted 5 fold in PBS 0.50 mL xl Microbial Antibodies EMCV Antibodies 30-9 Rat serum diluted 5 fold in PBS 0.50 mL xl Microbial Antibodies TofEV Antibodies 30-10 Moruse serum diluted 5 fold in				Specimens	
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No. Rat national direct interaction of the large series	50-4	Rat serum diluted 5 fold in PBS	0.50 mL xl	Microbial Antibodies	Pneumocystis carinii (P. Jirovecii) + CARBAntibodies
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Structure Instrume Instrume Instrume 50-9 Rat serum diluted 5 fold in PBS 0.50 mL xl Microbial Antibodies Reovirus Antibodies 50-10 Moure serum diluted 5 fold in PBS 0.50 mL xl Microbial Antibodies TMEV Antibodies 50-11 Rat spleen homogenate 0.50 mL xl Virus Toolan's Hl 50-12 Bacterial culture 0.50 mL xl Bacteria Streptococus agalactiae 50-13 Bacterial culture 0.50 mL xl Bacteria Streptococus agalactiae 50-14 Bacterial culture 0.50 mL xl Bacteria Streptococus agalactiae 50-15 Moure faces 0.50 mL xl Bacteria Rodeutibacter heylii 50-16 Lung homogenate 0.50 mL xl Bacteria Helicobacter rodeutium 50-16 Lung homogenate 0.50 mL xl Bacteria PVM 50-17 Bacterial culture 0.50 mL xl Bacteria Escherichia coli 50-18 Rat fluid dilated 10 fold 1.0 mL xl Virus SDAV 50-18 Bacterial culture 0.50 mL xl Bacteria Aeromoas hydrophila </td <td>50-7</td> <td>Mouse serum diluted 5 fold in PBS</td> <td>0.50 mL xl</td> <td>Microbial Antibodies</td> <td>Polyoma virus Antibodies</td>	50-7	Mouse serum diluted 5 fold in PBS	0.50 mL xl	Microbial Antibodies	Polyoma virus Antibodies
S0-10 Mouse serum diluted 5 fold in PBS 0.50 mL xl Microbial Antibodies TMEV Antibodies 50-11 Rat spleen homogenate 0.50 mL xl Virus Toolan's Hl 50-12 Bacterial culture 0.50 mL xl Bacterial Streptococcus agalactiae 50-13 Bacterial culture 0.50 mL xl Bacterial Streptococcus agalactiae 50-14 Bacterial culture 0.50 mL xl Bacteria Serratia marcescent 50-15 Mouse faces 0.50 mL xl Bacteria Rodentibacter heylii 50-16 Lung homogenate 0.50 mL xl Bacteria PVM 50-17 Bacterial culture 0.50 mL xl Bacteria Escherichia coli 50-18 Rat fhild diluted 10 fold 1.0 mL xl Virus SDAV 50-18 Bacterial culture 0.50 mL xl Bacteria SDAV 50-19 Bacterial culture 0.50 mL xl Bacteria Escherichia coli 50-18 Rat fhild diluted 10 fold 1.0 mL xl Virus SDAV 50-18 Bacterial culture 0.50 mL xl Bacteria Aeromonas hydrophila <td>50-8</td> <td>Mouse serum diluted 5 fold in PBS</td> <td>0.50 mL xl</td> <td>Microbial Antibodies</td> <td>EMCV Antibodies</td>	50-8	Mouse serum diluted 5 fold in PBS	0.50 mL xl	Microbial Antibodies	EMCV Antibodies
Solari Rat spisen homogenate 0.50 mL xi Virus Toolan's Hi 50-12 Bacterial culture 0.50 mL xi Bacteria Streptococus agalactiae 50-13 Bacterial culture 0.50 mL xi Bacteria Streptococus agalactiae 50-14 Bacterial culture 0.50 mL xi Bacteria Streptococus agalactiae 50-15 Moruse faces 0.50 mL xi Bacteria Rodentibacter heytii 50-16 Lung homogenate 0.50 mL xi Bacteria Helicobacter rodentium 50-17 Bacterial culture 0.50 mL xi Bacteria Etcherichia coli 50-18 Rat fluid dhuted 10 fold 1.0 mL xi Virus SDAV 50-19 Bacterial culture 0.50 mL xi Bacteria Aeromonas hydrophila	50-9	Rat serum diluted 5 fold in PBS	0.50 mL xl	Microbial Antibodies	Reovirus Antibodies
Solution Streptococus agalactiae Solita Bacterial culture 0.50 mL xl Bacteria Solita Bacterial Wirus FVM Solita Lung homogenate 0.50 mL xl Bacteria Solita Lung homogenate Solita xl Virus	50-10	Mouse serum diluted 5 fold in PBS	0.50 mL xl	Microbial Antibodies	TMEV Antibodies
S0-13 Bacterial culture 0.50 mL xl Bacteria Serratia marcescem 50-14 Bacterial culture 0.50 mL xl Bacteria Rodeutibacter heylii 50-15 Mouse faces 0.50 mL xl Bacteria Helicobacter rodeutium 50-16 Lung homogenate 0.50 mL xl Bacteria Helicobacter rodeutium 50-17 Bacterial culture 0.50 mL xl Bacteria Fyth 50-18 Rat fluid ditured 10 fold 1.0 mL xl Virus SDAV 50-18 Bacterial culture 0.50 mL xl Bacteria Aeromoast hydrophila	50-11	Rat spleen homogenate	0.50 mL xl	Virus	Toolan': Hl
Social Social Culture 0.50 mL xi Bacteria 50-14 Bacterial culture 0.50 mL xi Bacteria 50-15 Mouse faces 0.50 mL xi Bacteria 50-16 Lung homogenate 0.50 mL xi Bacteria 50-17 Bacterial culture 0.50 mL xi Bacteria 50-18 Rat fluid ditured 10 fold 1.0 mL xi Virus 50-19 Bacterial culture 0.50 mL xi Bacteria	50-12	Bacterial culture	0.50 mL xl	Bacteria	Streptococus agalactiae
S0-15 Mome faces 0.50 mL xl Bacteria Helicobacter rodentium 50-16 Lung homogenate 0.50 mL xl Virus PVM 50-17 Bacterial culture 0.50 mL xl Bacteria Escherichia coli 50-18 Rat fluid diluted 10 fold 1.0 mL xl Virus SDAV 50-19 Bacterial culture 0.50 mL xl Bacteria SDAV	50-13	Bacterial culture	0.50 mL xl	Bacteria	Serratia marcescens
S0-16 Lung homogenate 0.50 mL xl Virus PVM 50-17 Bacterial culture 0.50 mL xl Bacteria Escherichia coli 50-18 Rat fluid diluted 10 fold 1.0 mL xl Virus SDAV 50-19 Bacterial culture 0.50 mL xl Bacteria Aeromonas hydrophila	50-14	Bacterial culture	0.50 mL xl	Bacteria	Rodeutibacter heylii
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S0-18 Rat fluid diluted 10 fold 1.0 mL x1 Virus SDAV 50-19 Bacterial culture 0.50 mL x1 Bacteria Aeromonas hydrophila	50-16	Lung homogenate	0.50 mL xl	Virus	PVM
50-19 Bacterial culture 0.50 mL xl Bacteria Aeromonas hydrophila	50-17	Bacterial culture	0.50 mL xl	Bacturia	Escherichia coli
	50-18	Rat fluid diluted 10 fold	1.0 mL x1	Virus	SDAV
50-20 DNA 0.1 mL x1 Bacteria Streptobacillus monififormis	50-19	Bacterial culture	0.50 mL xl	Bacturia	Aeromona: hydrophila
	50-20	DNA	0.1 mL x1	Bacturia	Streptobacillus moniliformis
To be completed by Recipient				o be completed by Recipien	
Received By:Date: Condition:			I	Date:	

7.12 Appendix 12: PEP Expected Results Feedback Form

Appendix 12: PEP Expecte	d Results	Feedback	Form								
Dear PE	Dear PEP Participant, To help us improve PEP and to provide us with information to include in our PEP annual report, we'd be very grateful if you would complete the column "Your Results and/ or comments" in the table below.										
we'd be											
	Your results and any comments will be completely anonymous and although the information you provide is entirely voluntary, we would really appreciate your feedback.										
Please r	eturn the compl	leted form to m	e at: laqnetw	ork@iclas.org							
Thanks	for your coopera	ation.									
Best reg	ards,										
Patri Ve	rgara										
Feedba	ck Form: PEP 201	9 Combination P	rogram (Serol	ogy + Microbiology)							
ID #	Description	Quantity	Test For	Expected Positive Findings	Your Results and/ or comments						
50-1	Mouse serum diluted <u>5 fold</u> in PBS	0.50 mL x1	Microbial Antibodies	Adenovirus FL Antibodies							
50-2	Mouse serum diluted <u>5 fold</u> in PBS	0.40 mL x1	Microbial Antibodies	CAR Bacillus Antibodies							
50-3	Rat serum diluted <u>5 fold</u> in PBS	0.50 mL x1	Microbial Antibodies	PVM Antibodies							
50-4	Rat serum diluted <u>5 fold</u> in PBS	0.50 mL x1	Microbial Antibodies	Pneumocystis carinii (P. Jizovecji) + CARBAntibodies							
50-5	Rat serum diluted <u>5 fold</u> in PBS	0.50 mL x1	Microbial Antibodies	Sendai virus Antibodies							
50-6	Rat serum diluted <u>5 fold</u> in PBS	0.40 mL x1	Microbial Antibodies	Rat parvovirus (KRV) Antibodies							
50-7	Mouse serum diluted <u>5.fold</u> in PBS	0.50 mL x1	Microbial Antibodies	Polyoma virus Antibodies							
50-8	Mouse serum diluted <u>5.fold</u> in PBS	0.50 mL x1	Microbial Antibodies	EMCV Antibodies							
50-9	Rat serum diluted <u>5 fold</u> in PBS	0.50 mL x1	Microbial Antibodies	Reovirus Antibodies							
50-10	Mouse serum diluted <u>S.fold</u> in PBS	0.50 mL x1	Microbial Antibodies	TMEV Antibodies							

50-11	Rat spleen homogenate	0.50 mL x1	Virus	Toolao's H1	
50-12	Bacterial culture	0.50 mL x1	Bacteria	Streptococus. agalactiae	
50-13	Bacterial culture	0.50 mL x1	Bacteria	Serratia marcescens	
50-14	Bacterial culture	0.50 mL x1	Bacteria	Badeotibacter bevlü	
50-15	Mouse feces	0.50 mL x1	Bacteria	Helicobacter rodentium	
50-16	Lung homogenate	0.50 mL x1	Virus	PVM	
50-17	Bacterial culture	0.50 mL x1	Bacteria	Escherichia coli	
50-18	Rat fluid diluted <u>10.</u> fold	1.0 mL x1	Virus	SDAV	
50-19	Bacterial culture	0.50 mL x1	Bacteria	Aeromonas bydrophila	
50-20	DNA	0.1 mL x1	Bacteria	Streptobacillus moniliformis	

7.13 Appendix 13: LAQ Network Annual Report

ICLAS Laboratory Animal Quality Network (LAQ Network) Report 2019

1. Network Members

Network Members	
Patri Vergara, (Network Coordinator)	Veterinary Faculty, Universitat Autonoma de Barcelona, Spain
Cynthia Pekow, USA (ICLAS President)	University of Washington, USA
William Shek	Charles River Laboratories (RADS), USA
Atsushi Yoshiki	RIKEN BioResource Center, Japan
Martin Toft	QM Diagnostics, Radboud University, Netherlands
Cynthia Besch-Williford	IDEXX RADIL, Missouri, USA
Ana Perez	Humodigen, USA
Greg Ballard	The Jackson Laboratory, USA
Nobuhito Hayashimoto (ICLAS Governing	Central Institute for Experimental Animals, Japan
Board member)	
Bob Stevenson	Cerberus Sciences, Australia

2. PEP Fees and Specimen production costs applied since 2017:

Microbiology only program: €1,350.00 Serology only program: €1,560 Combination program: €2,150.00.

Costs: payments to producer laboratories to cover specimen production costs: Sera specimens: €40 per aliquot Microbiology specimens: €4 per aliquot

3. PEP Participants

PEP Participating Laboratories: 2008-2019												
Serology only	Microbiology only Combination				ticip	ipating						
Participating Laboratories		08	0	1	1	12	13	1	1	1	1	18
		00	9	0	1	12	15	4	5	6	7	10
001 Biolytix AG, Switzerland					•	•	•			•	•	•
002 Harlan Laboratories UK												•
003 QM Diagnostics, Netherlands												
004 Mic. Diagnostics, Gerr	nany											
005 MVMS, Australia		•										
006 Un.of Miami-Comp.Pat.Lab, USA		•	•	•	•	•	•	•	•	•	•	•
007 The Jackson Lab, USA				•	•	•	•	•	•	•	•	•
008 CIEA, Japan												
009 Cerberus Sciences, Au	stralia											

010 Dynamimed S.L. Spain							•	•	•	•	•
011 Charles River Lab., France	•										
012 BioDoc, Hanover, Germany		•	•	•	•	•	•	•	•	•	•
013 Taconic, Rockville, USA				•	٠						•
014 National An. Lab Center, Taipei, Taiwan			•						•		
015 Charles River Laboratories, Japan,			•								
016 IDEXX RADIL, Missouri, USA											
017 Charles River Laboratories, USA,											
019 Guangdong Lab An Mon. Institute, China					•		•	•		•	•
018 CEMIB, Brazil											
020 Harlan Laboratories SRL, Italy											
021 AnLab Ltd, Czech Republic						•	•	•		•	•
022 National An. Lab Center, Tainan, Taiwan						•	•		•	•	•
023 XpressBio, Maryland, USA					•	•	•	•			•
024 GIM Gesellschaft., Mikroökologie mbH, Germany										•	•
025 Division of Laboratory Animal Monitoring, China											
026 GVG Diagnostics GmbH, Germany						•	•		•	٠	•
027 NLAC, Mahidol University, Thailand											
028 Model An. Res Center, China niversity, China							•	٠		٠	•
029 Laboratory Animal Monitoring Center, China							•	•	٠		•
030 IDEXX Bioresearch, Germany											
031 Belki-Biotechnologies, Russia									•	•	•
032 Micro. Monitoring Lab., Korea									•		•
033 Vebio Laboratory, France										•	•
034 Universiteit Utrecht, Netherlands											•
035 Biosait Europe SLU, Spain, Barcelona, Spain										•	•
036 Daegu-Gyeongbuk Med, Korea											
037 Taiwan University, Lab. Taiwan									•	•	•
038 Suzhou Xishan Biotech Inc. China (VRL Asia)										•	•
039 The Francis Crick Institute BRF., UK											
040 VRL Maryland, LLC, USA											
Total Serology only	4	2	4	2	2	4	4	4	4	4	4
Total Microbiology only	0	0	0	0	1	2	2	3	5	4	3
Total Combination	6	9	1	1	16	18	1	1	2	1	15
Total Participants	10	1	1	1	19	24	2	2	2	2	22

4. PEP Network Laboratories:

Specimen production laboratories	Representatives
Central Institute for Experimental Animals, Japan	Nobuhito Hayashimoto
Charles River Laboratoires (RADS), USA	William Shek (PEP Scientific Director)
QM Diagnostics, Radboud University, Netherlands	Arletta van Lent-Bol
IDEXX RADIL, Missouri, USA	Cynthia Besch-Williford
Cerberus Sciences, Australia	Bob Stevenson
LAQ Specimen Distribution Center	
SIAL Laboratory, Universitat Autonoma de Barcelona)	Patri Vergara (Network Chair)

5. PEP & GENRef income & Expenditure on ICLAS bank account Jan-Dec 2018

	2017	2018
Income	EURO	EURO
Balance at 31st Dec brought forward from previous year	47,025.17	50,650.35
PEP Participant fees	43,054.00	29,877.00
GENRef Participant fees	5,975.00	4,080.00
Total Income	96,054.17	84,607.35
Expenditure		
PEP Bank Charges	183.00	278.37
PEP Specimen production costs: Shipping costs of specimens to DC	8,450.07	3,169.45
GENRef Specimen production costs: Shipping costs of DNA specimens to DC	5,952.39	
PEP Specimen distribution costs from DC to participants	27,918.37	34,167.85
Meetings		
DC Admin Costs	2,899.99	
Total Expenditure	45,403.82	37,615.67
+ Balance at 31 st December	50,650.35	46,991.68

6. PEP Indicative Income & Expenditure for 2018 PEP Program

The problem with yearly accounts is that they don't present a real picture of the financial state of PEP because the income and expenditure of each program runs over two and sometimes 3 financial years. The following figures show indicative income and expenditure for the 2018 program.

	EURO	EUR	
	2017	20:	
Number of Participants	26		
Income			
Participant fees	50,340.00	42,540.0	
Total Income	50,340.00	42,540.0	
Expenditure			
Bank Charges	141.00	152.3	
Admin Costs	2,900.00	2,900.	
Meetings / Presentations			
Specimen production costs discounted from fees	8,600.00	4,720.0	
Specimen production costs: shipping to DC	1,787.07	3,165.4	
Specimen distribution costs: DC to participants	35,479.70	30,020.	
Total Expenditure	48,907.77	40,957.	
Balance	+1,432.23	+1,582.	

7. Genetic Monitoring Reference Program (GENRef)

Launched at the end of 2016, the ICLAS GENRef program provides reference DNA from the 12 most common inbred strains/ sub-strains of laboratory mice, e.g. C57BL/6N, C57BL/6J, BALB/cJ, BALB/cN, C3He, 129S6, etc. As the program develops other mice strains and the most common rat strains will be incorporated.

4.1 GENRef Program Details

7.1 Samples: Sample concentration: each sample = 250 nanograms/10 microliters Sample quantity: maximum of 1 sample of each strain per applicant

7.2 Fees:

Sample cost: €100 per sample

7.3 Shipping costs:

For labs participating in the ICLAS PEP program, DNA samples are sent with PEP specimens for an additional shipping cost of €100 for 1-12 samples.

For labs not participating in the ICLAS PEP program or who want their DNA specimens sent separately, shipping costs are as follows:

Europe: €800 for 1-12 specimens

Rest of the world: €1,300 for 1-12 specimens Rest of the world if health and origin certificates are required: €1,600 for 1-12 specimens.

On request DNA samples can be sent at room temperature to reduce shipping costs as stability has been proven although we recommend sending the samples with dry ice.

7.4 GENRef Participating Laboratories

GENRef Parti	icipating Labora	tories 2016-201	8	
Not participating:				
Participating Laboratory:	2016 DNA strains ordered	2017 DNA strains ordered	2018 DNA strains ordered	
008 Central Institute for Experimental Animals, (CIEA), Japan	(1,2,5,6)	•	•	
018 CEMIB- Multidisciplinary Center, Brazil	(1-12)	(1-12)	(1-12)	
019 Guangdong Lab. Animal. Mon. Institute, Guangzhou, China	(1-12)	•	•	
025 Division of Lab. Animal Mon. Inst., (NIDF), China	(1-12)	(1-12)	•	
027 National Laboratory Animal Center, Mahidol University, Thailand		(5,6)	1,2,3,5,6,7,9, 10,11	
028 Microbiological Detection Center, Nanjing University, China		(1,5,6,7,8)	•	
Total Participants	4	4	2	
Total Strains	40	31	21	
DNA strains/sub-strains available:				
1. C57BL/6NTac	5. C57BL/6J (r	5. C57BL/6J (reg. #664)		
2. BALB/cAnNTac	6. BALB/cJ (re	g. #651)	10.C3H/HeJJcl	
3. C3H/HeNTac	7. NOD/LtJ (re	g. 1976)	11. DBA/2NJcl	
4. 129S6/SvEvTac	8. A/J (reg.#64	16)	12. FVB/NJcl	

8. Objectives for 2019

A meeting of all Network members took place on June 10th, 2019 in Prague, where both programs were thoroughly discussed.

Summary of decisions:

Performance Evaluation Program: main week points identified:

1) Serology program: there is a need for production of more sera samples and to diversify the list of microorganisms available. Although these problems are difficult to tackle, several solutions were discussed. As a starting point, a short list of organisms that should be added to PEP stock will be prepared.

2) Microbiology program: although the problem is not so acute, it was also discussed that instead of providing samples of isolated DNA it would be more relevant to provide a diluted sample where the microorganism could be isolated either by traditional microbiology methods or by molecular techniques. Some labs still do not do DNA testing.

3) In both programs, labs producing PEP samples must complete a common data sheet with details about the sample (origin, organ etc) to facilitate testing by participants.

4) SOPs for PEP sample preparation and retesting will be revised.

5) A new database will be created.

6) Feedback from participants will be encouraged and a form allowing them to report their results will be prepared. These data will be presented anonymously to all participants.

For the GENRef Program it was agreed that the program needed to be better advertised and for this the following actions were agreed:

- Ana Perez would give a presentation of the ICLAS GENRef program at the FELASA Congress Scientific Program to increase awareness.
- A publication on how the GENRef program works, how it can be applied at an institution was
 agreed as the next step. Some points to be included will be : What this program does to assist
 with quality assurance of lab animals (Inbred strains); Who needs it (labs versus individuals); How
 to use it; What equipment do labs need, what tests should be run, what samples to take from the
 in-house colony, how many animals to test. Example cases should be given on how labs have
 successfully used the program; strain information; markers to differentiate from other substrains, etc.
- Publication should be open access, so that we can provide links available on ICLAS and other web pages.

Patri Vergara, LAQ Network Coordinador June 2019

7.14 Appendix 14: 2017 PEP Program Report for Participants

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I. Network Laboratories Performing Sample Preparation and QC Laboratory	Preparation	QC
IDEXX, Columbia, MO	V	v
RADS, Wilmington MA	V	٧
CIEA, Kawasaki, Japan	V	٧
QM, Nijmegen, Netherlands	V	٧
DKFZ, Heidelberg, Germany	V	٧
Cerberus, Adelaide, Australia	V	V

I. Specimens Sample ID	Species	Matrix-Source	Target	Agent
41-1, 42-1	Mouse	Serum	Antibodies	Reovirus
41-2, 42-2	Mouse	Serum	Antibodies	Adenovirus FL
41-3, 42-3	Mouse	Serum	Antibodies	Polyoma virus
41-4, 42-4	Rat	Serum	Antibodies	Encephalitozoon cuniculi
41-5, 42-5	Rat	Serum	Antibodies	RTV
41-6, 42-6	Rat	Serum	Antibodies	KRV
41-7, 42-7	Mouse	Serum	Antibodies	CARB
41-8, 42-8	Rat	Serum	Antibodies	Tyzzer
41-9, 42-9	Rat	Serum	Antibodies	RPV
41-10, 42-10	Mouse	Serum	Antibodies	MVM
41-11, 43-1	Mouse	Spleen homogenate	DNA Viruses	Ectromelia

Page 2 of 3 Sample ID	Species	Matrix-Source	Target	Agent
41-12, 43-2	Mouse	Fluid	DNA Viruses	MPV-1
41-13, 43-3	NI	Culture	Microbe	Actinobacillus muris
41-14, 43-4	NI	Culture	Microbe	Citrobacter freundii
41-15, 43-5	NI	Culture/ from eye lession	Microbe	Corynebacterium mastiditis
41-16, 43-6	Mouse	Lung homogenate	RNA viruses	Sendai virus
41-17, 43-7	Mouse	Liver	DNA viruses	MAdV-1
41-18, 43-8	Mouse	Fluid	Bacteria	Salmonella cholerasuis
41-19 <i>,</i> 43-9	Mouse	Fecal sample	DNA viruses	MVM
41-20, 43-10	NI	Culture	Microbe	Yersinia pseudotuberculosis

Page 3 of 3

4. Salmonella cholerasuis Mouse fluid (Samples 41-8, 43-8)

Remarks: One lab reported additional microbe identification.

5. MVM Mouse fecal sample (Samples 41-19, 43-9)

Remarks: One lab reported that Mycoplasma DNA and not MVM had been identified.

V. Comments from the Distribution Center:

All specimens were analyzed by a different network lab before samples were sent to the distribution center. Only samples confirmed are used for PEP.

Once the PEP specimens had been determined, all aliquots were labeled as PEP samples at the same time to avoid any mixing or mislabeling of samples. In view of the discrepancies reported by some participants one of the Network labs was asked to confirm the expected results. This lab confirmed all the results.

7.15 Appendix 15: Proposal for the management of the ICLAS Network

Proposal for the administration of the ICLAS Network for Promotion of Animal Quality in Research (Agreed November 2010)

BACKGROUND

ICLAS has always emphasized international harmonization in respect of the quality of laboratory animals and the ethics of animal experimentation with the overall aim of improving scientific and ethical standards.

Until recently, ICLAS was promoting the *Monitoring and Reference Center Program* (M&RCP) which contributed significantly to the establishment of genetic and microbiological monitoring and to important improvements in the quality of scientific research, especially in Asia.

This program, however, was limited in two main respects. Firstly, the program was not applicable to all laboratories around the world. Secondly, continuation of the program would have required implementation of a prohibitively expensive quality assurance program and the standardization of methods and procedures, neither of which were objectives of ICLAS.

For these reasons and also to accommodate the growing number of laboratories seeking ICLAS recognition, the ICLAS Governing Board (Argentina, 2004) decided to create a Laboratory Animal Quality sub-committee to evaluate the need and to make proposals for a new laboratory animal quality program.

ICLAS NETWORK FOR PROMOTION OF ANIMAL QUALITY IN RESEARCH

The ICLAS sub committee met with Monitoring and Reference Center representatives and experts from around the world in St Louis, 2005. Participants unanimously agreed on the necessity to replace the M&RCP with a new program that was more international in scope and which could serve as an international reference in the field of high quality laboratory animal models. The proposal was approved by the ICLAS Governing Board (Jeju, August 2006) (ICLAS GB meeting minutes 2006 Jeju, Korea) and it was agreed that:

- 1. ICLAS would provide funding for the development phase of the programs with the condition that the operational phase would be self-financing.
- 2. as one of ICLAS's key objectives was to promote scientific programs that improve the quality of laboratory animal health, the ICLAS Network for Promotion of Animal Quality in Research would be considered an ICLAS project.
- 3. there was need for a legal and financial framework for the management and administration of the LAQN, in particular for the PEP program.

PROPOSAL FOR THE ADMINISTRATION OF THE ICLAS NETWORK FOR PROMOTION OF ANIMAL QUALITY IN RESEARCH

Over the next year, the ICLAS LAQ Network completed the planning stage for the implementation of the ICLAS Performance Evaluation Program (PEP). Following successful trials in 2007, PEP became fully operational in 2008, starting with 4 founder labs and ending the year with a total of 9 PEP Participants and a total of 11

participants for the 2009 PEP program.

With the PEP program established, in 2010, the Network submitted the following proposal to the ICLAS Governing Board for the creation of a management group to manage ICLAS LAQ programs, as follows: **Proposal for the administration of the ICLAS Network for Promotion of Animal Quality in Research**

1. Name of the program:

ICLAS Network for Promotion of Animal Quality in Research (Short name: LAQ Network) hereinafter referred to as the Network.

2. Terms of reference of the Network

To manage and develop health and genetic monitoring programs that will fulfil ICLAS aims of improving the quality of animals used in research in compliance with international principles.

3. Composition of Network Management Group (NMG):

The Network to be composed of the following:

i. two representatives from the ICLAS Governing Board

ii. one representative from the PEP Distribution Centre (DC), that should be the responsible of the DC

iii. the expert representative from each LAQ Network member laboratory nominated by the laboratory/unit/department of the institution to which the laboratory belongs as their expert representatives to sit on the Network Management Group. They are network members and are to be selected among prestigious laboratories around the world by the representatives of the founder labs.

iv. according to specific needs, the NMG can invite up to two representatives from the LAS community with expertise in Network programs as ad-hoc experts.

4. Network Meetings:

The Network shall meet every 18 months normally in conjunction with ICLAS scientific member meetings e.g., FELASA and AALAS to facilitate member participation without additional costs. Any decisions required between meetings will be made by telephone conference or by electronic ballot at the discretion of the Network scientific Director. Members of the Network will normally be responsible for paying their own travel costs and expenses incurred in attending Network meetings.

5. Network Executive.

i. Members of the Network Executive elected by Network members.

ii. The responsibility for implementing Network policy shall be vested in the Network Executive, consisting of the following members:

- a. one of the ICLAS Governing Board representatives;
- b. the DC representative;
- c. two of the LAQ Network member laboratory representatives

A Network Cordinator will be elected by the Network members among the Network executive members.

iii. Duties of the Network Cordinator will include:

a. having executive responsibility for conducting the affairs of the Network;

b. calling and chairing Network meetings, telephone conferences and electronic ballots;

c. preparing and sending minutes of all types of Network meetings;

d. co-ordinating the work of the Network Executive and other Network members;

e. allocating Network administrative tasks together with the Network Executive.

f. preparing and sending in collaboration with the NMG and the network executive Network budgets and annual reports detailing the Network's activities. The annual report of activities and the budget for the following year will be prepared no later than March 31st and presented by an ICLAS Governing Board representative to the ICLAS Governing Board during its annual meeting.

g. ensuring that proper income and expenditure accounts are kept;

h. acting as legal representative of the Network in its dealings with other organisations.

i. making payments from ICLAS LAQ Network account

6. Quorum and Decision making

Seven members of the Network shall constitute a quorum. All decisions shall be made by simple majority of the votes of those present and taking part.

7. Outline of future management of the ICLAS Performance Evaluation Program (PEP).

7.1 PEP will be an ICLAS project managed and developed by the LAQ Network

7.2 Current and new PEP participant laboratories will be considered as LAQ-PEP Participants.

7.3 The Network will send an invoice to LAQ-PEP participants depending on whether they wish to participate in only one or both PEP programs. The annual fee should cover the cost of their participation in the program and may have to be changed periodically as the program grows and/or changes.

7.4. LAQ-PEP participants will pay in Euro their fees to the new ICLAS LAQ Network Account which will be set up at La Caixa, UAB, specifically to receive fees from participants in Network programs and donations specifically made to Network projects. The Network Scientific Director will be a signatory on this account and able to make direct payments from this account as agreed by the Network.

7.5 LAQ-PEP participant fees will accumulate in the ICLAS's LAQ Network account and the funds will be used to support the costs of specimen production, shipping, administration and all other costs incurred by the PEP project and any other expenditure as agreed appropriate by the Network.

7.6 The PEP distribution centre, already functioning under a grant received from the Spanish Ministry of Science, will continue to be based at the UAB for the duration of the grant i.e., until 2013. In the event that funding is not available from this grant after this date, then it will be necessary for other funding mechanisms to be identified and possibly to relocate the DC.

7.7 All legal agreements relating to PEP, i.e., in respect of specimen production, shipping, insurance and terms and conditions with PEP participant laboratories will be made between the DC (now at the UAB), ICLAS and the

parties concerned with all terms and conditions decided by the Network.

8. Powers/ responsibilities of the NMG in respect of PEP.

The Network will be an autonomous decision-making body and empowered to take all management, financial and operational decisions relating to PEP including:

8.1 determining the terms of agreements or MOUs between the DC and producer labs;

8.2 determining the terms and conditions between the DC and participating labs (LAQ- PEP participants);

8.3 determining the terms of insurance cover required;

8.4 determining the administrative structure appropriate to the needs of PEP, including the administrative tasks required and the rates of pay for those tasks;

8.5 determining the disbursement of all funds from ICLAS LAQ Network account received by the Network in the form of participation fees, donations or grants, including decisions on how to spend the received money. It will continuously be accumulated and be available. If LAQN program comes to an end, the available money will be kept into ICLAS.

8.6 determining in collaboration with the ICLAS Governing Board the strategy for the future development of PEP;

8.7 determining in collaboration with the ICLAS Executive the content of all information relating to PEP appearing on the ICLAS.org web site.

8.8 determining the location of the PEP Distribution Centre;

8.9 responsibility for sending invoices to LAQ-PEP participants;

8.10 responsibility for paying all payments and costs incurred by the project through ICLAS LAQ Network account;

8.11 responsibility for ensuring that proper accounts are kept in respect of all PEP income and expenditure;

8.12 responsibility for compiling and sending annual reports to ICLAS, NMG members and to any donor organization, detailing the work of the Network and how donations have been spent.

9. Duties and responsibilities of ICLAS in respect of the PEP program. ICLAS will:

9.1 ICLAS will be supportive to the implementation and development of the LAQN program,

9.2 Set up a new ICLAS Euro account at la Caixa, UAB, to receive ICLAS LAQ-PEP participants fees and possibly LAQ-GENPEP participants fees and to nominate the Network Scientific Director as a signatory on these accounts;

9.3 set up a new e-mail account: LAQNetwork@ICLAS.org to be used for correspondence for all Network programs;

9.4, continue to make space available on its website ICLAS.org for the Network to publish material relating to PEP, as determined by the Network.

9.5 Transfer all past PEP participant fees received since July 2007 (less bank charges, PEP administration fees, specimen production and shipment costs and any other costs related to the program already paid by ICLAS from these fees) to the new ICLAS LAQ Network account.

9.6 Authorise two members of the ICLAS Governing Board to serve on the Network.

10. Outline of future management and development of the ICLAS Genetic Quality Monitoring Program (GQMP).

10.1The GQMP will be managed and developed as an ICLAS project.

10.2 The GQMP, as previously detailed in a report considered by the ICLAS Governing Board at their last meeting in May 2009, has five phases. Phases 1-4 are concerned with education and training and phase five is the establishment of a self- assessment genetic monitoring program (GENPEP) along similar lines to the current PEP program.

10.3 The Network will implement phases 1-4 and continue discussions on how and when to implement a GENPEP program which, as with PEP, may require a trial period. For the implementation of phase 5 the LAQ Network will present a proposal to the ICLAS G. Board following the terms established for the PEP management and administration. This means that Network will be empowered to take all management, financial and policy decisions in accordance with the PEP management structure.

11. Future Projects

Future projects may be initiated by either ICLAS or the Network only following an agreement with the ICLAS Governing Board.