

실험동물 관리에 관한 최신 국제 동향 파악을 위한 국외출장 계획

I 출장목적

- 국제실험동물관리인증협회(AAALAC International), 유럽실험동물수의사협회(ESLAV), 유럽실험동물의학원(ECLAM) 및 스페인실험동물과학회(SECAL)가 공동으로 주최하는 Conference에 참석하여,
 - 연구원에서 실시하는 동물관리 프로그램을 발표하고 실험동물 관련 최신 정보 수집, 해외 동물실험 선진기관과의 네트워크 구축 및 전문가들과의 컨퍼런스를 통해 최신 연구동향 및 국제적 추세 등의 정보를 교류하고자 함
- ※ 연구원 흡입독성연구센터는 AAALAC-I 인증을 '18. 3. 7. 취득 - 국제교류 필요
- 본 컨퍼런스는 실험동물의 관리, 마취, 진통 및 수술, 안락사, 동물 복지, 동물 시설의 설계 및 관리, 작업자의 안전보건 등 다양한 주제를 포괄적으로 수용하고 있음

II 출장개요

- 학회명 : ESLAV-ECLAM-AAALAC-SECAL Conference 2018
- 출장지 : 스페인 바르셀로나 AXA auditorio
- 출장자 및 출장기간

소 속	출장자	출 장 기 간
시험기획부	이도희 대리	2018년 10월 14일(일) ~ 10월 18일(목) 【3박 5일간】
	이하영 대리	

※ 컨퍼런스 : 2018년 10월 15일(월) ~ 10월 16일(화)

○ 주 관

- ESLAV (European Society for Laboratory Animal Veterinarians)
- ECLAM (European College of Laboratory Animal Medicine)
- AAALAC International (Association for Assessment and Accreditation of Laboratory Animal Care International)
- SECAL (Sociedad Española para las Ciencias del Animal de Laboratorio)

III 주요 수행사항

○ 산업안전보건연구원 AAALAC 인증 유지·관리 방안 모색

- 실험동물의 취급에 따른 복지 및 윤리 프로그램 운영
- 수의학적 관리(예방 의학, 사육 관리, 마취 및 안락사 등)
- 동물실험 시설의 유지·관리
- 작업자의 안전보건 프로그램 등

○ 국제 실험동물 컨퍼런스 참가를 통한 세계적 수준의 실험동물 연구동향 파악

- AAALAC에서 인정하는 국제적 수준의 실험동물 관리방법 벤치마킹
- ESLAV, ECLAM 등 선진 기관의 실험동물 최신 정보 및 동향 파악
- 실험데이터 품질을 향상시키기 위한 통합적인 접근법 모색

○ 산업화학연구실의 동물관리 프로그램에 대한 발표 및 토론

- 국제학술대회 포스터 발표(총 2편), 산업화학연구실 동물실험윤리위원회 운영 및 동물실험시설의 개선·운영방안 토론 등

○ 발표주제

연번	발 표 주 제	구 분	발 표
1	An Introduction on Improved Animal Care and Use Program through AAALAC-I Accreditation and IACUC Activity	포스터	이하영
2	Occupational Health & Safety Activities for Workers engaged in Animal Testing Work	포스터	이도희

※ [첨부 2] 발표 초록 2부

IV

출장일정

일 정	내 용	비 고
'18. 10. 14(일)	<ul style="list-style-type: none"> ○ 출국 - 인천(14일, 12:45) → 바르셀로나(14일, 18:55) 	현지기준 14일 도착
'18. 10. 15(월)	○ ANIMAL MODELS: REFINEMENT AND TRANSLATIONAL RESEARCH	-
	○ Key note: Translatability of pain models: from the gate control theory to clinical outcome	-
	○ Oral Communications	-
	○ ETHICAL REVIEW & OVERSIGHT	-
	○ REFINING EXPERIMENTAL DESIGN	-
	○ Poster Session	포스터 발표
'18. 10. 16(화)	○ VETERINARY CARE AND INTEGRITY OF RESEARCH	-
	○ Key note: A consorted approach to improve preclinical data quality – implications for animal care & use	-
	○ Oral Communications	-
	○ COMMUNICATION IN EXPERIMENTAL ANIMAL RESEARCH	-
	○ CULTURE OF CARE	-
	○ Poster Session	포스터 발표
'18. 10. 17(수) - 10. 18(목)	<ul style="list-style-type: none"> ○ 입국 - 바르셀로나(17일, 13:50) → 인천(18일, 11:50) 	-

※ 세부 컨퍼런스 일정은 [첨부 3] 참조 (구체적인 포스터발표 일정은 학회 측에서 추후 공지 예정)

An Introduction on Improved Animal Care and Use Program through AAALAC-I Accreditation and IACUC Activity

Ha-Young Lee, Buhyun Kwon, In-Seop Lee

Occupational Safety and Health Research Institute (OSHRI), KOSHA, Republic of Korea

The Occupational Safety and Health Research Institute (OSHRI) as Good Laboratory Practice (GLP) organization has increased the number of toxicity tests including carcinogenicity study. The management of animal suffering is needed as the use of laboratory animals increases each year and housing period becomes longer. To improve the level of animal welfare, OSHRI has been certified Full Accreditation from AAALAC International in March 2018 and are actively operating IACUC.

OSHRI conducted PSE(Program Status Evaluation), consulting program by AAALAC-I specialists, before AAALAC-I accreditation program. Recently there has been a growing interest in PSE because it helps to improve all aspects of our animal research program, including husbandry, institutional policies, and the facility. By carrying out the PSE, It were made to building adequate operation system for veterinary management and care, optimized facility environment for stable animal experiment, and other foundation work such as SOP amendment. AAALAC-I accreditation program was carried out after supplementing the weakness found through PSE. As a result of audit, there were no significant concern and only four suggestions were advised. Two related to the humane care of the animals, another related to the facility and the other related to the safety and health of the employees. We have improved on all of these.

The IACUC has reviewed the protocols in compliance with OECD test guideline and IACUC guideline. A remarkable achievement in recent years has been the reduction in the number of animals to be used by changing the OECD test guideline. In addition, OSHRI is regularly revising SOPs on animal care, and having training to related staff.

We will continue to strengthen standard concerning laboratory animal care and use in accordance with international trends and also maintain AAALAC-I certification. We also expect the reliability of GLP data to be improved through the reliable management of laboratory animals.

keyword: IACUC, AAALAC, Animal Care and Use

Occupational Health & Safety Activities for Workers engaged in Animal Testing Work

Dohee Lee, Buhyun Kwon, Inseop Lee

Inhalation Toxicity Research Center, Occupational Safety and Health Research Institute, Daejeon, 34122

Introduction

The study using laboratory animals can cause psychological burden and musculoskeletal disorders to the investigator or researcher in the course of exposing, observing, and autopsy of living animals to toxic chemicals according to the test guidelines. In order to prevent occupational stress and musculoskeletal disorders for employees, we conducted two occupational disease prevention programs. The aim of this study is to analyze and evaluate the results of the two programs.

Methods

Program to prevent and manage job stress was operated in 2017. We conducted a total of two job stress questionnaires using Psychosocial Well-being Index (PWI-SF) and Korean Occupational Stress Scale Short Form (KOSS-SF) for all workers. After the first measurement, counseling and education were conducted. Second questionnaire was used to compare the stress level before and after the education and counseling.

Prevention and management program for musculoskeletal disorders is in operation since March 2018. Based on the "Notice on the Scope of Musculoskeletal Work and how to investigate harmful factors" (Notification No. 2018-13 of the Ministry of Employment and Labor), it was investigated whether there was musculoskeletal system-related work.

Results

According to the results of the first evaluation by PWI, 'Health group (≤ 8 points)', 'potential stress group (9 ~ 26 points)' and 'risk group (≥ 27 points)' were 0(0%), 26(86.7%) and 4(13.3%), respectively. Secondary evaluation was performed after education and counseling. The results were as follows: 4(13.3%), 23(76.7%), and 3(10.0%). Stress index mean and standard deviation were 17.4 ± 6.4 in the first and 16.2 ± 8.5 in the second. According to the results of KOSS-SF, the top 50% of the stressed workers were workplace culture (43.3%) > job requirement (30.0%) > job autonomy (13.3%), organizational system (13.3%) and inadequate compensation (13.3%) > relationship conflict (10.0%) > job instability (3.3%). In the work period, the occupational stress was higher in workers who worked for more than one year, and male workers by sex.

As a results of investigation into musculoskeletal system-related work, there is a risk that musculoskeletal disorders may occur due to handling of heavy weight, repetitive motion and awkward positions during work such as laboratory animal breeding management and pathological examination. Based on the results, we conducted ergonomic work evaluation for the unit work and it is in the process of being analyzed.

Discussions

In order to contribute to prevention of health problems and improvement of job satisfaction by identifying and managing the risk factors that may affect the health of laboratory workers, occupational health and safety activities such as program to prevent and manage job stress and musculoskeletal health program were performed. It is hoped that this study will help to establish and implement preventive measures for health risks of workers engaged in animal experiments.

keyword: Occupational Health and Safety Activities, Occupational stress, Musculoskeletal disorders

Congress

**ESLAV - ECLAM
AAALAC - SECAL
Conference 2018**

**Improving quality and translation
of experimental animal studies**

15 - 16 October 2018,
Barcelona Spain

Program

  **eclam**
European College of
Laboratory Animal Medicine

 **aaalac**
INTERNATIONAL

 **SECAL**
sociedad española
para las ciencias
del animal de laboratorio



Program

ESLAV - ECLAM AAALAC - SECAL Conference 2018

Improving quality and
translation of experimental
animal studies

MONDAY 15th

08.00 - 08.30 **REGISTRATION**

08.30 - 08.45 **OPENING**

08.45 - 10.30 **SESSION 1. ANIMAL MODELS: REFINEMENT AND
TRANSLATIONAL RESEARCH**

Francoise Piguet (INSERM U119, France): Modelisation of neurodegenerative human disease; From modelisation of disease to development of therapeutical approaches

Jacob Fog Bentzon (CNIC, Madrid, Spain): Gene modified minipigs: translational animal models for atherosclerosis imaging

Lluís Montoliu (CNB-CSIC and CIBERER-ISCIII, Madrid, Spain): Biomedical applications of CRISPR-mediated gene editing: facts and challenges

10.30 - 11.00 **COFFEE BREAK**

11.00 - 11.45 **KEY NOTE: Michele Curatolo** (Univ. Washington, Seattle, USA): Translatability of pain models: from the gate control theory to clinical outcome

11.45 - 12.30 **ORAL COMMUNICATIONS**

12.30 - 13.30 **LUNCH**

13.30 - 15.15 **SESSION 2. ETHICAL REVIEW & OVERSIGHT**

Aurora Brønstad (Univ. Bergen, Norway, AAALAC Council Member): Typical Findings and Quality Expectations for Ethical Review and Oversight. The AAALAC Experience.

Tristan Fuller (European Commission): The H2020 Ethics Appraisal Process: Research Involving Animals.

David Anderson (Technical Advisor to European Commission): Continuous Refinement - Tackling Cumulative Severity

15.15 - 15.45 **COFFEE BREAK**

15.45 - 17.00 **SESSION 3. REFINING EXPERIMENTAL DESIGN**

Anne-Dominique Degryse (Former ESLAV President): How Veterinarians can help refining experimental design

Nathalie Percie (NC3Rs, UK): Improving the translation of animal research with robust experimental design

4

20.30 **GALA DINNER**



Program

ESLAV - ECLAM AAALAC - SECAL Conference 2018

Improving quality and
translation of experimental
animal studies

TUESDAY 16th

- 08.45 - 10.30** **SESSION 4. VETERINARY CARE AND INTEGRITY OF RESEARCH**
- Gabi Itter** (Sanofi-Aventis, Frankfurt, Germany; AAALAC Council Member): Typical findings and Quality Expectations for Veterinary Care. The AAALAC Experience.
- Axel Kornerup Hansen** (Department of Veterinary Disease Biology, University of Copenhagen, Denmark): The impact of the microbiota on animal studies and how to handle it.
- Aleksandar Popovic** (Charles River Laboratories): Opportunistic organisms, a friend or a foe?
- 10.30 - 11.00** **COFFEE BREAK**
- 11.00 - 11.45** **KEY NOTE: Thomas Steckler** (Janssen, Bersee, Belgium). EQIPD: A concerted approach to improve preclinical data quality – implications for animal care & use
- 11.45 - 12.30** **ORAL COMMUNICATIONS**
- 12.30 - 13.30** **LUNCH**
- 13.30 - 15.15** **SESSION 5. COMMUNICATION IN EXPERIMENTAL ANIMAL RESEARCH**
- Kirk Leech** (EARA): Animal Research: Time to talk
- Janet Rodgers** (AAALAC International): Typical Findings and Quality Expectations for Internal Communication in Animal Care and Use Programs. The AAALAC Experience.
- Alejandra Clark** (PLOS ONE): Trends in Publication of Experimental Animal Studies
- 15.15 - 15.45** **COFFEE BREAK**
- 15.45 - 17.00** **SESSION 6. CULTURE OF CARE**
- Kathryn Bayne** (AAALAC International): The benefits of AAALAC International Accreditation in establishing a culture of care and its impact on supporting translational research
- David Whittaker** (Oxford University): Internal oversight, how to implement a culture of care
- 17.00 - 17.15** **CLOSURE**