



CONFERENCE/WORKSHOP ORGANISER'S REPORT

“Updated Diagnosis and Epidemiology of Animal Prion Diseases for Food Safety and Security”

The opinions expressed and arguments employed in this report are the sole responsibility of the authors and do not necessarily reflect those of the OECD or of the governments of its Member countries.

Brief Description of what the conference/workshop was about

The symposium was a follow-up of a previous workshop organized by EU-supported NeuroPrion task groups, Cervid and TSE goat, and EU project goat BSE. Since past workshops were organized by EU groups, venues were in Europe, USA or Canada. This is the first global workshop in this kind held in Asian-Pacific Regional area. In the mini-symposium, bovine spongiform encephalopathy (BSE) is reviewed for adoption of One Health approaches. Current animal Prion diseases Status were summarized, and novel sensitive assays were discussed of their applicability not only in humans but also in many kinds of animals. The development of novel diagnostic technology for prion diseases were also summarized for the further food safety, and to promote human health.

Participation – details of total number of participants, countries they came from, backgrounds (academia, industry, etc.)

Total: 135 participants

(Europe: 51, North America: 35, Japan: 35, Asia: 9, Australia: 4, South America: 1).

(Academia: 106, Government: 19, Industry: 4, Others: 6)

Major highlights from the presentations

Animal prion diseases (BSE, atypical BSEs, CWD) and their zoonotic potential, and evaluating the species barriers. Recent developing sensitive diagnostic procedure, and their applicability for preclinical diagnosis of prion diseases and prion pathogenesis study.

Major outcomes/conclusions in terms of policy relevance

World-wide and close co-operation is essential, especially on the rarity of the diseases, the evidence of infectivity and the absence of any treatment. The numbers of researchers and experts of Prion diseases are limited. Furthermore, the decline of BSE outbreaks has led to a reduction in the number of BSE researchers. The decline in the number of BSE cattle cases and variant CJD patients may lead people to misunderstand and wrongly believe that Prion diseases are diseases in the past, whereas prion mechanisms appear to be a critical target in developing new strategies against neurodegenerative diseases. The BSE experience will be a good sample to conquer the other animal and human prion diseases. We should 1) aim to increase and improve the understanding of prion diseases in the general population, 2) facilitate more research to elucidate prion mechanisms, develop new treatments and overcome the diseases, 3) promote more international collaboration to pursuit this goal.



Relevance to CRP theme(s)

Prion diseases in field and farm animals pose a risk to animals, their environment and our food. The mechanisms of agent development and its spread in the host and environment are challenging subjects for scientists and policy makers. While some prion diseases seem to be disappearing thanks to adequate knowledge on diagnosis, detection and breeding, there is also more awareness of the potential emergence of new prion disease forms as with the susceptibility of goats, atypical variant in ruminant, chronic wasting disease (CWD) in cervid species, PrP related disorders in humans, and potentially the susceptibility of certain rodent species. Updated diagnosis systems are critical for risk assessment and risk management in the Food Chain of meat products. The meeting contributed to technical advances to sustain the global food and agriculture systems from input to final consumption, taking into account changing consumer and social interests.

Website for further details – please also indicate if the presentations are/will be available on the website

Proceedings will be published in the WEB journal, "Food safety".

<https://www.jstage.jst.go.jp/browse/foodsafetyfscj> .