

JSAAE Activities in Alternatives to Animal Experimentation for Undergraduate Schools: Forum for Citizens in Primary and Secondary Schools

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Summary — The aim of this paper is to introduce some educational activities by the Japanese Society of Alternatives to Animal Experiments (JSAAE). The JSAAE is an academic society to promote the Three Rs in Japan and also the international biomedical community. Our activities include the education of not only scientists but also the public. In particular, activities should be focused on the education in schools regarding alternatives. The JSAAE organised a forum for citizens in alternatives education in primary and secondary schools during their 14th annual meeting.

Key words: *alternatives to animals, animals in education, biology teaching, humane education, Japan, JSAAE.*

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The 14th Annual Meeting of the JSAAE Citizens Forum

Four speakers were invited to present at the forum during the 14th Annual Meeting of the Japanese Society of Alternatives to Animal Experiments (JSAAE). Jonathan Balcombe of The Humane Society of the United States discussed “Better science teaching with humane alternatives”. He emphasised the importance of using CD, video and computers as alternatives to vivisection in the classroom. Hiroki Kishimoto, of the Akashi primary school (and also attached to the Faculty of Human Development, Kobe University) presented “Education about the animal at the elementary school”. His activities at a primary school included pet shop observation, aquarium observation, animal hospital visits, farm animal observation, milking experiences and feeding horses, to help children understand animals. He asked his children to talk to the care staff at animal shelters about the euthanasia of stray dogs and cats. They were also asked to talk to farmers on farms where they had the experience of milking cows and drinking milk from the cow udders. Discussions with pet shop owners provided an opportunity for the children to understand proper treatment of animals. He concluded that direct contact with animals helps children to understand living animals and to recognise the significance of death.

Asako Ogawa, of Animal Rights Ishikawa, presented “Alternatives in Japanese primary education”, based upon her experience and activities

in protesting against frog dissection. She reported the results of her survey of frog dissection in 6th grade classes. The number of animal dissections has decreased, but there were some teachers who strongly emphasised the importance of animal dissection. She analysed their attitudes with regard to the existence of the elementary teachers’ manual for science by the Ministry of Education. However, this manual did not rule out dissection. The manual said that dissection of a fish might be used. She emphasised the importance of a better understanding of alternatives by primary school teachers. She discussed the reasons for the decrease in dissection — including the difficulty of obtaining/catching frogs, dissection is unaesthetic, dissections take too much time and the smell of dissected frogs is objectionable. She also raised several positive reasons for the decrease in dissection. In Japan, alternatives are available such as videos, pictures and models (e.g. Koken rats). They might also practise on fried chicken parts, which were eaten and reconstructed as skeletons for dissection, or they might use dead fish as an alternative to animal dissection.

Kazushige Iijima, a teacher from Seisen Junior and Senior High School and a registered veterinarian, presented “A practice for alternatives to animal experiments in high school biology class, in particular, observation of kidney utilising a pig kidney produced for food”. He used a kidney obtained from a butcher, rather than from a live laboratory animal, and was successfully educating students regarding

kidney function. This teaching approach did not require the killing of any animals for experiments, and thus might be considered a Three Rs replacement. He asked his students to observe the whole kidney and the sliced kidney. The students could observe glomeruli and capillary vessels injected with carbon ink through a renal artery. The students were asked to count the number of glomeruli after the filtration of renal cortex tissue.

All the presentations stimulated many questions and comments. We recognised the importance of animal experiments, while alternating the classical teaching methods using live laboratory animals with methods based upon the Three Rs concept in primary and secondary schools. We would like to emphasise the importance of promoting such activities, not only in biomedical universities, but also in primary and secondary schools.