News Release

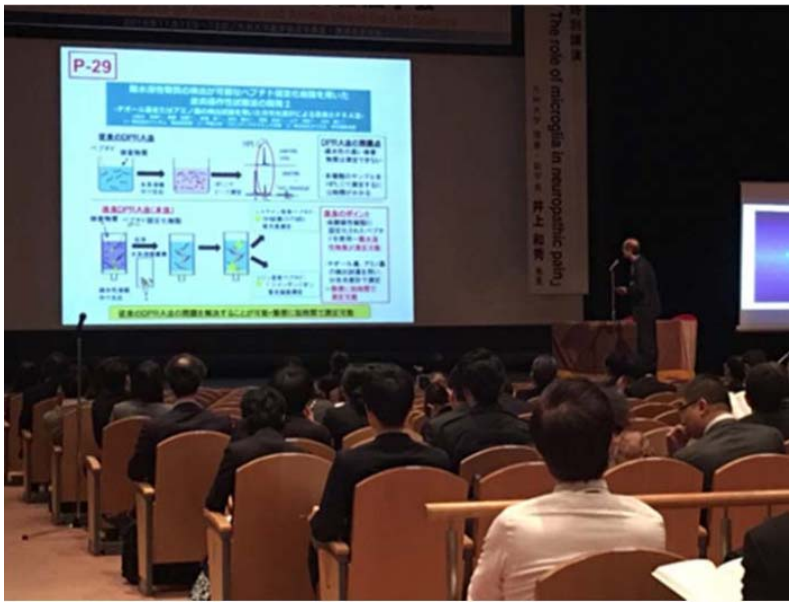
November 30, 2016

Mandom Wins Excellent Poster Award at the 29th Annual Meeting of the Japanese Society for Alternatives to Animal Experiments

Mandom Corporation (Head Office, Osaka; President Executive Officer & Director, Motonobu Nishimura; "Mandom"), respecting the principles of animal welfare, has been engaged in the development of alternatives to animal experiments. As part of this activity, the company every year since 2007 has invited application for grants for international research on alternatives to animal experiments. A total of 21 research projects, including those of the current fiscal year, have received grants.

At the 29th Annual Meeting of the Japanese Society for Alternatives to Animal Experiments, our research into the development of a new skin sensitization test based on the DPRA test[*1], an alternative to animal experiments, won the Excellent Poster Award. It was a joint research project with the Faculty of Frontiers of Innovative Research in Science and Technology (FIRST) of Konan University, and the R&D Headquarters of Daicel Corporation. Six out of all the 83 research projects presented won this award.

Conventional DPRA test sometimes cannot identify accurately the skin's reaction to water-insoluble substances which are widely used in cosmetics. However, the new test method identifies reaction to such substances both precisely and easily and proves to be a promising alternative to animal experiments.



Presentation at the meeting

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[Outline of the award-winning research]

(1) Title

Development of a skin sensitization test method using peptide*2 immobilization polymer material which detects water-insoluble substances (2): Improved spectrophotometric DPRA method using thiol or amino detection reagent

(2) Researchers

Hideaki Mekata (presenter), Masayuki Takaishi, Hidefumi Ikeda, Product Assurance Div. Mandom Corporation

Kenji Usui, Yuuki Minamino, Usui Lab., FIRST, Konan University

Kunihiko Yamashita, Hiroshi Miyazaki, R&D Headquarters, Daicel Corporation

(3) Research

The DPRA test, an alternative test for skin sensitization (skin allergy reactions), has been widely used as the established guideline method of recognized assays, but has several problems.

1. Reaction to water-insoluble substances cannot be identified accurately.
2. Peptides used in the DPRA test oxidize with each other and reaction cannot be identified accurately.
3. Identification of reaction takes time and is not easy.

Efforts were made to solve these problems and develop a new test method to predict skin allergy reactions.

The new method will be verified for validity before being applied to the prediction of skin allergy reactions.

<Notes>

*1 A skin sensitization (skin allergy) test method to replace animal experiments; abbreviation of Direct Peptide Reactivity Assay; identifies potential skin allergy reaction of chemicals based on binding (sensitization) between a test substance and protein (peptide)

*2 A compound consisting of two or more amino acids linked in a chain