

## 研究業績

## 論文等

## 食品衛生学

**Development of Enzyme-Linked Immunosorbent Assay for Analysis of Total Aflatoxins Based on Monoclonal Antibody Reactive with Aflatoxins B<sub>1</sub>, B<sub>2</sub>, G<sub>1</sub> and G<sub>2</sub>.**

Yamazaki T<sup>1,2</sup>, Miyake S<sup>2,3,4</sup>, Sato N, Hirakawa Y<sup>1,2</sup>, Iwasa S<sup>5</sup>, Narita H<sup>1</sup>, Watanabe T

<sup>1</sup>Kyoto Women's University, <sup>2</sup>Advanced Science, Technology & Management Research Institute of Kyoto, <sup>3</sup>HORIBA, Ltd., <sup>4</sup>Azabu University, <sup>5</sup>Toyohashi University of Technology.

*Food Hyg. Saf. Sci.*, 2018; **59**: 200-205, <https://doi.org/10.3358/shokueishi.59.200>

**Comparison of Assigned Values from Participants' Results, Spiked Concentrations of Test Samples, and Isotope Dilution Mass Spectrometric Results in Proficiency Testing for Pesticide Residue Analysis.**

Yarita T<sup>1</sup>, Otake T<sup>1</sup>, Aoyagi Y<sup>1</sup>, Takasaka N, Suzuki T, Watanabe T

<sup>1</sup>National Metrology Institute of Japan (NMIJ), National Institute of Advanced Industrial Science and Technology (AIST).

*J. AOAC Int.*, 2018; **101**: 1199-1204, <https://doi.org/10.5740/jaoacint.17-0218>

**Enhancement of pesticide peak response in GC-MS in the presence of multiple co-existing reference pesticides.**

Yoshimitsu M<sup>1</sup>, Akutsu K<sup>1</sup>, Kitagawa Y<sup>1</sup>, Takatori S<sup>1</sup>, Fukui N<sup>1</sup>, Osakada M<sup>1</sup>, Yamaguchi S<sup>2</sup>, Namikawa M<sup>3</sup>, Ban S<sup>3</sup>, Okubo Y<sup>4</sup>, Nakashima R<sup>4</sup>, Maruyama R<sup>4</sup>, Kakutani N<sup>1</sup>, Miyamoto I<sup>1</sup>, Yamashita K<sup>5</sup>, Nishiyama T<sup>5</sup>, Shinto M<sup>6</sup>, Yamamoto N<sup>6</sup>, Takai Y<sup>7</sup>, Hinoshita K<sup>8</sup>, Kajimura K<sup>1</sup>, Obana H<sup>9</sup>, Watanabe T

<sup>1</sup>Osaka Institute of Public Health, <sup>2</sup>Osaka Prefecture Fujiidera Public Health Center, <sup>3</sup>Kyoto City Institute of Health and Environmental Sciences, <sup>4</sup>Kobe Institute of Health, <sup>5</sup>Nara Prefectural Institute of Health, <sup>6</sup>Sakai City Institute of Public Health, <sup>7</sup>Wakayama Prefectural Research Center of Environment and Public Health, <sup>8</sup>Wakayama Prefecture Shingu Public Health Center Kushimoto Branch Office, <sup>9</sup>San-Ei Gen F.F.I., Inc.

*Food Hyg. Saf. Sci.*, 2018; **59**: 146-150, <https://doi.org/10.3358/shokueishi.59.146>

## 実験動物学

### **Male Hatano low-avoidance rats show more active sexual behavior with lower plasma testosterone than high-avoidance rats.**

Nakayama A<sup>1</sup>, Okawa H<sup>2</sup>, Zheng M<sup>3,4</sup>, Pu S<sup>3,4</sup>, Watanabe G<sup>3,4,5</sup>, Ohta R, Kawaguchi M<sup>1,2</sup>

<sup>1</sup>Laboratory of Animal Behavior and Environmental Science, Graduate School of Agriculture, Meiji University, <sup>2</sup>Laboratory of Animal Behavior and Environmental Science, School of Agriculture, Meiji University, <sup>3</sup>Department of Basic Veterinary Science, United Graduate School of Veterinary Sciences, Gifu University, <sup>4</sup>Laboratory of Veterinary Physiology, Cooperative Department of Veterinary Medicine, Faculty of Agriculture, Tokyo University of Agriculture and Technology, <sup>5</sup>Basic Animal Medicine, Cooperative Division of Veterinary Sciences, Tokyo University of Agriculture and Technology.

*J. Vet. Med. Sci.*, 2018; **80**: 1179-1182, <https://doi.org/10.1292/jvms.17-0668>

### **Hatano rats are a suitable metabolic syndrome model for studying feeding behavior, blood pressure levels, and percent body fat.**

Isobe A<sup>1</sup>, Shimada T<sup>2,3</sup>, Aburada M<sup>3</sup>, Yanagisawa R<sup>4</sup>, Sakawa T<sup>5</sup>, Nakamura T<sup>5</sup>, Himi T<sup>3</sup>, Ohta R, Kawaguchi M<sup>1,3</sup>

<sup>1</sup>Laboratory of Animal Behavior and Environmental Science, Graduate School of Agriculture, Meiji University, <sup>2</sup>Department of Hospital Pharmacy, University Hospital, Kanazawa University, <sup>3</sup>Musashino University, <sup>4</sup>Center for Health and Environmental Risk Research, National Institute for Environmental Studies, <sup>5</sup>Faculty of Pharmaceutical Sciences, Teikyo Heisei University.

*J. Vet. Med. Sci.*, 2019; **81**: 147-154, <https://doi.org/10.1292/jvms.18-0342>

### **Effects of pregnancy experience on ovarian senescence and longevity in Hatano rats bred for high-and low-avoidance learning.**

Ohta R, Ohmukai H

*Exp. Gerontol.*, 2019; **117**: 91-98, <https://doi.org/10.1016/j.exger.2018.11.015>

## 医療機器

### **Intravenous injection of artificial red cells and subsequent dye laser irradiation causes deep vessel impairment in an animal model of port-wine stain.**

Rikiyama N<sup>1</sup>, Tominaga M<sup>1</sup>, Watanabe S<sup>2</sup>, Mitsukawa N<sup>3</sup>, Saito Y, Sakai H<sup>4</sup>

<sup>1</sup>Chiba Rosai Hospital, <sup>2</sup>Saitama Children's Medical Center, <sup>3</sup>Department of Plastic, Reconstructive, and Aesthetic Surgery, Chiba University Graduate School of Medicine, <sup>4</sup>Department of Chemistry, Nara Medical University.

*Lasers in Medical Science*, 2018; **33**: 1287-1293, <https://doi.org/10.1007/s10103-018-2480-2>

## 遺伝毒性学

### **Collaborative study of thresholds for mutagens: proposal of a typical protocol for detection of hormetic responses in cytotoxicity tests.**

Sutou S<sup>1</sup>, Koeda A<sup>2</sup>, Komatsu K<sup>2</sup>, Shiragiku T<sup>3</sup>, Seki H<sup>4</sup>, Yamakage K, Niitsuma T, Kudo T<sup>1</sup>, Wakata A<sup>5</sup>,  
(The Mammalian Mutagenicity Study Group, the Japanese Environmental Mutagen Society)

<sup>1</sup>Shujitsu University, <sup>2</sup>Ina Research Inc., <sup>3</sup>Otsuka Pharmaceutical Co., Ltd. <sup>4</sup>BML Inc.,

<sup>5</sup>Astellas Pharma Inc.

*Genes Environ.*, 2018; **40**: 20, <https://doi.org/10.1186/s41021-018-0108-1>

## 動物実験代替法

### **Predictive performance and inter-laboratory reproducibility in assessing eye irritation potential of water- and oil-soluble mixtures using the Short Time Exposure test method.**

Abo T<sup>1</sup>, Hilberer A<sup>2</sup>, Behle-Wagner C<sup>3</sup>, Watanabe M, Cameron D<sup>4</sup>, Kirst A<sup>5</sup>, Nukada Y<sup>1</sup>, Yuki T<sup>1</sup>,  
Araki D<sup>1</sup>, Sakaguchi H<sup>1</sup>, Itagaki H<sup>6</sup>

<sup>1</sup>Kao Corporation, Safety Science Research Laboratories, <sup>2</sup>Institute for In Vitro Sciences, Inc.,

<sup>3</sup>Envigo CRS GmbH, <sup>4</sup>Kao USA Inc., <sup>5</sup>Kao Germany GmbH, <sup>6</sup>Faculty of Engineering, Department of Materials Science and Engineering, Yokohama National University.

*Toxicol. In. Vitro.*, 2018; **48**: 78-85, <https://doi.org/10.1016/j.tiv.2017.12.018>

### **Cause of and countermeasures for oxidation of the cysteine-derived reagent used in the amino acid derivative reactivity assay.**

Fujita M<sup>1</sup>, Yamamoto Y<sup>1</sup>, Watanabe S<sup>2</sup>, Sugawara T<sup>2</sup>, Wakabayashi K<sup>3</sup>, Tahara Y<sup>3</sup>, Horie N<sup>4</sup>,  
Fujimoto K<sup>4</sup>, Kusakari K<sup>5</sup>, Kurokawa Y<sup>5</sup>, Kawakami T<sup>6</sup>, Kojima K, Kojima H<sup>7</sup>, Ono A<sup>8</sup>, Katsuoka Y<sup>1</sup>,  
Tanabe H<sup>9</sup>, Yokoyama H<sup>9</sup>, Kasahara T<sup>1</sup>

<sup>1</sup>Fujifilm Corporation, Safety Evaluation Center, <sup>2</sup>Lion Corporation, Human & Environmental Safety Evaluation Center, <sup>3</sup>Mitsui Chemicals, Inc., Chemical Safety Department, <sup>4</sup>Sumitomo Chemical Co., Ltd., Environmental Health Science Laboratory, <sup>5</sup>Nissan Chemical Corporation, Biological Research Laboratories, <sup>6</sup>National Institute of Health Sciences, Division of Environmental Chemistry, <sup>7</sup>National Institute of Health Sciences, Biological Safety Research Center, Division of Risk Assessment, <sup>8</sup>Okayama University, Graduate school of Medicine, Dentistry and Pharmaceutical Sciences, Division of Pharmaceutical Sciences, <sup>9</sup>Fujifilm Corporation, Research & Development Management Headquarters, Analysis Technology Center.

*J. Appl. Toxicol.*, 2018; **39**: 191-208, <https://doi.org/10.1002/jat.3707>

### **Transferability and within- and between-laboratory reproducibilities of EpiSensA for predicting skin sensitization potential in vitro: A ring study in three laboratories.**

Mizumachi H<sup>1</sup>, Sakuma M<sup>2</sup>, Ikezumi M, Saito K<sup>1</sup>, Takeyoshi M<sup>2</sup>, Imai N<sup>2</sup>, Okutomi H, Umetsu A,  
Motohashi H, Watanabe M, Miyazawa M<sup>1</sup>

<sup>1</sup>Kao Corporation, R&D, Safety Science Research, <sup>2</sup>KOSÉ Corporation, Research Laboratories.

*J. Appl. Toxicol.*, 2018; **38**: 1233-1243, <https://doi.org/10.1002/jat.3634>

**Effect of essential oils contained linalool on skin sensitization using human cell line activation test.**

Doi M<sup>1,2</sup>, Watanabe M, Ariumi H<sup>1</sup>, Yoshiyama Y<sup>1</sup>

<sup>1</sup>Laboratory of Community Pharmacy, Division of Clinical Pharmacy, Research and Education Center for Clinical Pharmacy, School of Pharmacy, Kitasato University.

<sup>2</sup>Medical System Network Corporation.

AATEX., 2018; **23**: 9-15, <https://doi.org/10.11232/aatex.23.9>

**学会発表等**

**医療機器**

生物学的安全性試験における国内外のギャップと対策例

小島幸一

第45回日本毒性学会2018年7月18日～7月20日(大阪)

**生殖・発生毒性学**

ホメオボックス因子に注目したフルシトシン誘発性過剰肋骨の発現機序解明

熊本隆之<sup>1</sup>, 鈴木愛美<sup>1</sup>, 今井 元<sup>2</sup>, 鈴木礼子<sup>2</sup>, 小川哲郎<sup>3</sup>, 熊谷文明, 等々力舞, 瀬沼美華, 桑形麻樹子

<sup>1</sup>奥羽大学 薬学部, <sup>2</sup>奥羽大学 歯学部, <sup>3</sup>埼玉医科大学 医学部

第45回日本毒性学会2018年7月18日～7月20日(大阪)

フルシトシンのラット妊娠9日および13日投与による胎児骨格発生への影響

瀬沼美華, 等々力舞, 熊谷文明, 熊本隆之<sup>1</sup>, 小川哲郎<sup>2</sup>, 桑形麻樹子

<sup>1</sup>奥羽大学 薬学部 <sup>2</sup>埼玉医科大学 医学部

第58回日本先天異常学会学術集会2018年7月27日～7月29日(東京)

ラット胎生期フルシトシン投与による過剰肋骨の生後変化

桑形麻樹子, 熊谷文明, 瀬沼美華, 等々力舞

第58回日本先天異常学会学術集会2018年7月27日～7月29日(東京)

**Research on the mechanism of thoracolumbar rib development after birth using CT scanning.**

桑形麻樹子

9th Berlin-Workshop on development toxicology as a satellite event to the 46th Annual meeting of the European Teratology Society. September 13-14, 2018 (Berlin)

**発がん性**

Di(n-butyl) phthalateの膀胱発がんプロモーター作用に関する検討

杉山 光<sup>1</sup>, 岡山祐弥<sup>1</sup>, 鷹橋浩幸<sup>2</sup>, 池上雅博<sup>2</sup>, 武藤朋子, 和久井信<sup>1</sup>

<sup>1</sup>麻布大学 獣医学部 比較毒性学, <sup>2</sup>東京慈恵会医科大学 病理学

第45回日本毒性学会2018年7月18日～7月20日(大阪)

## 食品衛生学

アレルギー物質(卵タンパク質)を含む特定原材料検査のための技能試験プログラムのパイロットスタディ

若栗 忍, 久保田佳子, 佐藤夏岐, 鈴木達也, 渡辺卓穂

日本食品衛生学会 2018年11月15日～11月16日(広島)

玄米試料を用いた残留農薬技能試験プログラムのパイロットスタディ

池田真季, 久保田佳子, 八木真美, 平林尚之, 高坂典子, 鈴木達也, 渡辺卓穂

日本食品衛生学会 2018年11月15日～11月16日(広島)

## 細胞毒性学

Bhas 42細胞を用いる形質転換試験における吸光度測定による判定法の開発

山影康次, 佐々木澄志, 梅田 誠

日本動物実験代替法学会第31回大会 2018年11月23日～11月25日(熊本)

## 遺伝毒性学

イニシエーションアッセイとプロモーションアッセイを一つにしたプロトコルによるBhas 42細胞形質転換試験

山影康次

日本環境変異原学会第47回大会 2018年11月1日～11月2日(京都)

小核試験と染色体異常試験で相反する結果であった化合物の検証

高橋俊孝, 新妻 健, 佐々木澄志, 倉富美紀, 川上久美子, 田村沙記, 須井 哉

日本環境変異原学会第47回大会 2018年11月1日～11月2日(京都)

実用的ハイ・スループット微生物遺伝毒性試験法の構築

須井 哉, 川上久美子, 田村沙記, 添田美里, 滝沢壮治, 成田和人

日本環境変異原学会第47回大会 2018年11月1日～11月2日(京都)

変異原の閾値に関する共同研究：細胞毒性試験におけるホルミシス検出の一般的方法の提案

須藤鎮世<sup>1</sup>, 小枝暁子<sup>2</sup>, 小松佳奈<sup>2</sup>, 白菊敏之<sup>3</sup>, 関 博<sup>4</sup>, 山影康次, 新妻 健, 工藤季之<sup>1</sup>, 若田明裕<sup>5</sup>

<sup>1</sup>就実大学, <sup>2</sup>株式会社イナリサーチ, <sup>3</sup>大塚製薬株式会社, <sup>4</sup>株式会社ビー・エム・エル, <sup>5</sup>アステラス製薬株式会社

日本環境変異原学会第47回大会 2018年11月1日～11月2日(京都)