

Poster Sessions

A) Sources and Products: Fermented Foods and Beverages

PA0101 Co-fermentation of *Monascus purpureus* and *Saccharomyces cerevisiae* enhanced the flavor of Chinese sweet rice wine

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PA0102 Effect of the *Lactobacillus*-lemon fermented product on antioxidative activity in Clone-9 cells

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PA0103 Development of Tempeh from jack bean and soybean and its functional properties as ACE (angiotensin converting enzyme) inhibitor

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PA0104 Evaluation of bioactivity of abalone visceral fermented product by lactic acid bacteria

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PA0105 Novel transglycosylation products, ethyl-d-(iso)maltosides, in a traditional Japanese alcoholic beverage, sake

Yusuke Kojima¹, Satomi Matsumura², Ryo Katsuta¹, Izumi Kobayashi¹, Chihiro Honda¹, Izumi Wagatsuma¹, Hitoshi Shindo¹, Masaru Hosaka¹, Masafumi Tokuoka¹

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PA0106 Structural analysis of oligosaccharides in a traditional Japanese alcoholic beverage, sake

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PA0107 An exopolysaccharide from *Lactobacillus plantarum* H31 in pickled cabbage inhibits pancreas α -amylase

Zhenghua Huang, Fuxing Lin, Xiaoyu Zhu, Mengxi Jiang, Zhaoxin Lu

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- PA0108 Influence on Cheddar cheese proteolysis and sensory characteristics of non-starter strain *Lactobacillus plantarum***
Weiwei Bi^{1,2,4}, Guixing Zhao^{2,3,4}, Guangjin Wang², Bixian Zhang^{1,2}, Shuwen Lu⁵, Haofei Liu², Jinrong Li², ,Lei Chen²
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- PA0109 Effects of sake lees materials in the adipocyte differentiation gene expression**
Yuki Motono¹, Takeshi Imai², Takafumi Iguchi³, Motoko Takaoka⁴
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- PA0110 Study of conditions and product development of beer brewed with djulis (*Chenopodium formosarum Koidz*) and barley malt**
 Shih-Yu Wang, Te-Hua Liu, Meng-Chun Cheng, Tsung-Yu Tsai
 Dept. of Food Sci., Fu Jen Cathol.Univ., Taiwan
- PA0114 Improvement in the catalytic performance of LpPPR, a *Lactobacillus plantarum* phenylpyruvate reductase, based on the rational design**
Jianfang Li¹, Minchen Wu², Ting Zhang¹, Bochun Hu³, Xiongfeng Xu³, Fengjiao Yuan¹
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A) Sources and Products: Fruits and Vegetables

- PA0201 Microwave-assisted extraction and ultrasound-assisted extraction for quantifying triterpenoid in *Momordica charantia* Linn. var. *abbreviata* Ser.**
 Sui Qing Huang¹, Yi Jou Lin², Yu Tsung Lee², Jen Fang Liu^{1,2}, Li Heng Pao¹, Chun-Hui Chiu^{1,3}
¹Grad. Inst. of Health Ind. and Technol., Chang Gung Univ. of Sci. and Technol., Taiwan, ²Dept. of Nutr., Chang Gung Memorial Hosp., Taiwan, ³Dept. of Traditional Chinese Med., Chang Gung Memorial Hosp., Taiwan
- PA0202 Analysis of the aroma components of Niigata edible chrysanthemums *Chigusa Tateyama***¹, Kiharu Igarashi²
¹Fac. of Human Life Studies, Univ. of Niigata Prefecture, Japan, ²Fac. of Agric., Yamagata Univ., Japan
- PA0203 Deterioration inhibitory effect on citrus fruit flavor by the functional ingredient included in immature persimmon “Tekka-kaki”**
Natsumi Ohnishi¹, Mizusa Wada¹, Miho Inoue¹, Yoshiyuki Watanabe², Kenich Kanno³, Akiyoshi Sawabe¹
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- PA0204 Changes in amounts of quercetin and monosaccharides in onion bulb during dry by a characteristic hanging method in Awaji Island**
Ko Kanazawa¹, Fumika Himoto¹, Hiroyuki Okui²
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- PA0206 Preparation of immobilized pectinase and clarification effects on *Physalis pubescens* L. juice**
Ying-Hua Tian, Xiao-lan Liu
Coll. of Food and Biological Eng., Qiqihar Univ., China
- PA0207 Effect of controlled pre-treatments on α -glucosidase inhibitory activity of wild edible vegetable (*Stenochlaena palustris*) extract**
Della Rahmawati¹, Maria DPT Gunawan Puteri¹, Jevon Ardi Santoso¹, Stevan Teji¹, Eisuke Kato², Yanetri Asi Nion³
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- PA0208 Anticancer, antioxidant, and α -glucosidase inhibitory activity of selected Thai indigenous vegetables**
Anuchita Moongngarm, Siriporn Lawan, Jintana Sangsopha, Sunisa Roiduong
Dept. of Food Tech. and Nutr. Fac. of Technol., Mahasarakham Univ., Thailand
- PA0209 Agri-food by-products as source of bioactive compounds: polyphenols and polysaccharides**
Mohamad Khatib¹, Lorenzo Cecchi¹, Enrica Bargiacchi², Sergio Miele², Nadia Mulinacci¹
¹Dept. of Neurofarba, Nutraceutical Section, UNIFI, Italy, ²Consortium INSTM, Italy
- PA0210 Assessment of the putative healthy effect of the green noodle from banana flour and natural green colorant**
Rujikarn Chaisanam^{1,3}, Wattanathorn Jintanaporn^{2,3}
¹Physiol. Dept., Grad. Sch. (NSc Program), Fac. Med., Khon Kaen Univ., Thailand, ²Physiol. Dept., Fac. Med., Khon Kaen Univ., Thailand, ³Res. Inst. For HHP&HP, Khon Kaen Univ., Thailand
- PA0211 Regulatory/modulatory effect of prune essence concentrate on the intestinal function and blood lipids**
Kamesh Venkatakrisnan, Chin-Kun Wang
Sch. of Nutr., Chung Shan Med. Univ., Taiwan
- PA0212 Effects of vitamin B₁₂ supplementation on vitamin C synthesis in hydroponic vegetables**
Mahiro Seki, Yukinori Yabuta, Fumio Watanabe, Tomohiro Bitō
Fac. of Agric., Tottori Univ., Japan

PA0213 Chemoprevention of 1,2-dimethoxybenzoquinone isolated from *V. coignetiae* on NNK induced lung tumorigenesis in A/J mice

Hirono Nakashima¹, Kyohei Daimaru¹, Kensuke Sasaki¹, Yusuke Saiki¹, Ryoko Hida¹, Naoko Miyake¹, Nana Fujii¹, Hisao Kubo², Katsuyuki Kiura², Sakae Arimoto-Kobayashi¹
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PA0214 The effect of Japanese persimmon (*Diospyros kaki*) extract on the prevention of sarcopenia

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PA0215 Effect of apple juice on intestinal microbiota for gastrointestinal health

Risako Kon, Mayumi Okuma, Rei Tomimoto, Misato Toyonaga, Nahoko Mochizuki, Natsumi Fujitate, Takumi Togashi, Manami Ozaki, Nobutomo Ikarashi, Hiroyasu Sakai, Junzo Kamei

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PA0216 Effect of daily intake of the High-Lycopene Tomato, a variety named “PR-7”, on lipid metabolism: a randomized, double-blind, placebo-controlled study

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PA0217 Metabolomics-based approach for the evaluation of different postharvest treatment in climacteric tropical fruits

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PA0218 Choline esters and choline in cultivated vegetables and fruits

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PA0219 Consideration on the relationship between the change of raspberry cultivation condition and the amount of flavan-3-ol derivatives

Ryo Kobori¹, Seiya Hashimoto¹, Takashi Kawasaki², Akiko Saito¹

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PA0221 Antibacterial effects and the mechanisms of pterostilbene against foodborne pathogens

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A) Sources and Products: Herbs and Spices

PA0301 Anti-glycation effects of *Silybum marianum* extracts on human α A-crystallins

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PA0302 Chemical composition and antioxidant activities of nutmeg essential oil

Rong Li¹, Ying Wang¹, Jin Tan¹, Shu-Hua Tang¹, Zi-Tao Jiang^{1,2}

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PA0303 *Kaempferia parviflora* extract and its polymethoxyflavonoid enhance testosterone production in mouse testis-derived tumor cells

Satoru Horigome^{1,2}, Misato Maeda², Hsin-Jung Ho², Hitoshi Shirakawa², Michio Komai²

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PA0304 Constituents of coriander leaves involved in antioxidant and anti-allergic activities

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PA0305 The potential neuroprotective effect against stroke of five Thai spice

Thongwong Putthiwat^{1,3}, Wattanathorn Jintanaporn^{2,3}, Muchimapura Supaporn^{2,3}, Thukham-mee Wipawee^{2,3}, Wannanon Panakaporn^{2,3}

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PA0306 Assessment the neuroprotective potential of “TJ1”, the novel polyherbal functional drink

Thuntiva Nakyam^{1,3}, Jintanaporn Wattanathorn^{2,3}, Supaporn Muchimapura^{2,3}, Wipawee Thukham-mee^{2,3}, Panakaporn Wannanon^{2,3}

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PA0307 Study on the effect of dioscin on anxiety/depression-like behavior in ovariectomized mice

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PA0308 Effect of *Cratoxylum formosum* ssp. *pruniflorum* extract on cell cycle and proliferation of carcinoma liver cancer cell HepG2

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¹Grad. Sch. (Res. and Dev. in Pharm. program), Khon Kaen Univ., Thailand, ²Div. of Pharm. Chem., Fac. of Pharm. Sci., Khon Kaen Univ., Thailand, ³Human High Performance and Health Promotion (HHP&HP) Res. Inst., Khon Kaen Univ., Thailand

PA0309 Erucic acid-rich yellow mustard oil prevents both obesity/type 2 diabetes and low turnover osteoporosis

Asako Takahashi, Mayu Ishizaki, Yukari Egashira, Shizuka Hirai

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PA0310 Preparation of heat-induced semen armeniacae amarum protein nanoparticles and the encapsulation of paclitaxel

Jianwu Zhou¹, Dai Lin², Guanzhen Gao¹, Huiqin Wang¹, Lijing Ke¹, Pingfan Rao¹

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PA0311 Optimization of solar and mechanical drying methods to obtain the optimum flavor and bio-activities in ginger (*Zingiber officinale* L) powders

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A) Sources and Products: Japanese Diet**PA0401 Differences in the amount of functional components in leaf mustard (*Brassica juncea*) cooked by various methods**

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¹Kyushu Okinawa Agric. Res. Cent., NARO, Japan, ²Okinawa Pref. Agric. Res. Cent., Japan

- PA0402 Inhibition of the DNA polymerase activities of HIV-1 reverse transcriptase and HIV-1 replication by *Brasenia schreberi* (Junsai)**
Keiko Ishizuka¹, Yuto Tsutsumi¹, Misato Baba¹, Kosaku Nishimura^{1,2}, Keishi Hata³, Saori Takahashi³, Shozo Sakuda⁴, Teisuke Takita¹, Kenji Kojima¹, Kiyoshi Yasukawa¹
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- PA0403 The effect of cooking of onion (*Allium cepa* L.) on functional ingredient levels in mice**
Jiaqing Xu, Tsuyoshi Tsuduki
Grad. Sch. of Agric. Sci., Tohoku Univ., Japan
- PA0404 Development of functional seasonings using the perilla squeezed seeds**
Takahiro Kashima¹, Eri Mizutani¹, Hisashi Suzuki¹, Hisae Mizuguchi², Tatsuo Shibata²
¹Gifu Pref. Res. Inst. for Food Sci., Japan, ²Koji-ya Shibata Haruji Shoten Co.Ltd., Japan
- PA0405 Evaluation of postprandial glycemic response and physical properties of high-amylose rice “Koshinokaori” cooked by pressure cooker**
Tomoko Yamaguchi¹, Masumi Kobayashi¹, Makoto Mizutani¹, Shinobu Fujimura², Yasuaki Enoki³
¹Fac. of Education, Niigata Univ., Japan, ²Fac. of Agric., Niigata Univ., Japan, ³Bourbon Institutes of Health, BOURBON Co., Japan
- PA0406 Difference in antioxidant capacity of rice extracts among rice categories and degree of milling and processing**
Hongyan Wu, Miho Hirooka, Toshiyuki Nakamura, Shintaro Munemasa, Yoshiyuki Murata, Yoshimasa Nakamura
Grad. Sch. of Environ. Life Sci., Okayama Univ., Japan
- PA0407 Isolation, identification and biological activity of lignans from Japanese apricot**
Yuriko Ueda¹, Yoshiharu Okuno¹, Shiho Maehara¹, Hisae Nishiyama¹, Ryohei Kono², Sachiko Nomura², Hirotochi Utsunomiya²
¹Dept. of Appl. Chem. and Biochem., Natl. Inst. of Technol., Wakayama Coll., Japan, ²Dept. of Strategic Surveillance for Functional Food and Comprehensive Traditional Med., Wakayama Med. Univ., Japan
- PA0408 Comprehensive dipeptide analysis in Japanese sake by LC-MS/MS**
Ushio Takeda¹, Akiyoshi Hirayama²
¹SCIEX, Japan, ²Inst. for Advanced Biosci., Keio Univ., Japan

A) Sources and Products: Marine Products

- PA0501 Studies on novel bioactivity of Kombu (*Laminaria japonica*)**
Ichiro Shirasugi¹, Dempo Keiji¹, Yoichi Sakakibara², Masahito Suiko²
¹Kurakon Foods Co. Ltd., Japan, ²Dept. of Biochem. and Appl. Biosci., Univ. of Miyazaki, Japan

- PA0502 Characteristic of yellowfin tuna skin (*T. albacares*) gelatin enriched with cinnamon and roselle powder**
Andriati Ningrum¹, Martina Widhi Hapsari¹, Heli Siti Halimatul Munawaroh²
¹Dept. of Food Sci. and Agric. Product Technol., Fac. of Agric. Technol., Gadjah Mada Univ., Indonesia,
²Dept. of Chem., Fac. of Mathematics and Sci., Indonesia Univ. of Education, Indonesia
- PA0503 Protein hydrolysates and peptides from Atlantic sea cucumber (*Cucumaria frondosa*): Antioxidant potential in food and biological systems**
Tharindu R.L. Senadheera¹, Deepika Dave^{1,2}, Fereidoon Shahidi¹
¹Dept. of Biochem., Memorial Uni. of Newfoundland, Canada, ²Fisheries and Marine Inst. of Memorial Uni. of Newfoundland, Canada
- PA0504 Chlorophyll C2 uptake by Caco-2 Cells through modulation of the human ATP-binding cassette transporter family**
Eko Susanto^{1,2}, Fumiaki Beppu¹, Masashi Hosokawa¹, Kazuo Miyashita¹
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- PA0505 Brown alga extract reduces harmful components from particular matters through expression of aldehyde dehydrogenases in respiratory cells**
 Sang Min Cho¹, Ju-Young Ko², Min-Gyun Kim¹, Ji-Hyeok Lee¹, Kkonnip Son
¹Inst. for Lee Gil Ya Cancer and Diabetes., Gachon Univ., Korea, ²Dept. of Marine Life Sci., Jeju Natl. Univ., Korea
- PA0506 *Sargassum thunbergii* alga reduces harmful components from particular matters via expression of aldehyde dehydrogenases in keratinocytes**
Ju-Young Ko¹, Sang Min Cho², Min-Gyun Kim², Ji-Hyeok Lee²
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- PA0507 Effects of brief bitter water treatment on *Streptococcus mutans* growth and biofilm formation**
David Pei-Cheng Lin¹, Tung-Yu Lin¹, Han-Hsin Chang²
¹Dept. of Med. Lab. and Biotechnol., Chung Shan Med. Univ., Taiwan, ²Dept. of Nutr., Chung Shan Med. Univ., Taiwan
- PA0508 *Caulerpa lentillifera* extract, a functional ingredient and its antioxidant effect**
Doungporn Amornlerdpison^{1,2}, Kriangsak Mengumphan^{1,2}
¹Fac. Fish. Tech., Maejo. Univ., Thailand, ²EC. Agri. Inno. for Grad. Entrepreneur., Maejo. Univ., Thailand
- PA0509 Value added of *Caulerpa lentillifera* as antioxidant and anti-diabetic agents**
Sittikorn Yoojam¹, Narissara Lailerd², kriangsak Mengumphan^{1,3}, Doungporn Amornlerdpison^{1,3}
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A) Sources and Products: Soy and Legumes

PA0601 A study on the physiological function of manninotriose, an important oligosaccharide in fermented soybean product

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PA0602 Effect of germination under salinity condition on phenolic content and antioxidant capacity of selected legumes

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PA0603 Improvement of freeze-thaw stability of oil-in-water emulsions prepared with modified soy protein isolates

Xiaodan Zang^{1,3}, Chonghui Yue¹, Mujun Liu¹, Huanyu Zheng², Xiufang Xia¹, Guoping Yu¹

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PA0604 Effects of black soybean seed coat extracts on blood lipid levels in ApoE deficient mice

Wataru Tanaka¹, Hiroki Matsuyama¹, Daigo Yokoyama¹, Yoko Yamashita², Hitoshi Ashida², Masanobu Sakono¹, Hiroyuki Sakakibara¹

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PA0605 Effects of S-equol on pancreatic β -cell function as incretin mimetics

Naoki Harada¹, Hiroko Horiuchi¹, Hiroshi Inui², Ryoichi Yamaji¹

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A) Sources and Products: Tea, Coffee and Cocoa

PA0701 Coffee consumption and psychological mood: the Korea nurses' health study

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PA0702 Preparation and characterization of coffee extract-loaded chitosan-tripolyphosphate nanoparticles with addition of surfactant Tween 80

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- PA0703 Protective effects of tea seed oil from *Camellia tenuifolia* on di-(2-ethylhexyl) phthalate-induced locomotive defects in *Caenorhabditis elegans***
Chia-Cheng Wei^{1,2}, Shang-Wei Li², Vivian Hsiu-Chuan Liao²
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- PA0704 Development of lower caffeine content processing in commercialization Oolong tea**
Wen-Chang Chang, Bi-Heng Wang, Yan-Cheng Lin, Chih Y. Lo
Dept. of Food Sci., Natl. Chiayi Univ., Taiwan
- PA0705 Rooibos extract, containing eriodictyol-6-C- β -D-glucoside as the active component, stimulate the M₃ muscarinic acetylcholine receptor**
Takao Iwai¹, Saori Nishimachi¹, Noriyuki Monoi¹, Megumi Aono¹, Seiji Nakamura²
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- PA0706 Comparative study of bioactive compounds and antioxidant activities between Japanese green tea and roasted green tea infusion during *in vitro* gastrointestinal digestion**
Wei Qin, Sunantha Ketnawa, Yukiharu Ogawa
Grad. Sch. of Hortic., Chiba Univ., Japan
- PA0707 Theaflavin induces browning in inguinal white adipose tissue**
Nayuta Hirashima¹, Kenta Suzuki¹, Ryo Sukegawa¹, Yasuyuki Fujii¹, Ayaka Yamamoto², Tomoya Ueno², Naomi Osakabe¹
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- PA0708 Novel honey from tea flower (*Camellia sinensis*) as a functional food**
Kieko Saito^{1,2}, Yoriyuki Nakamura²
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- PA0709 Profile of bioactive compounds and antioxidant capacity of Indonesian cocoa powder: A case of food processing authentication**
Besty R Ulvia¹, Nuri Andarwulan^{1,2}, Dase Hunaefi¹
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- PA0710 Tea consumption attenuate macrophagic foam cell formation through inhibition of the α 9-nicotinic-acetylcholine receptor expression in monocytes**
Yuan-Soon Ho¹, Li-Ching Chen¹, Chi-Tang Ho²
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PA0711 Bioactive incidental food nanoparticles in black tea infusion exhibiting elevated antioxidant activity

Lijing Ke, Huan Han, Guanzhen Gao, Jianwu Zhou, Pingfan Rao

Food Nutr. Sci. Centre, Sch. of Food Sci. and Biotech., Zhejiang Gongshang Univ., China

PA0712 Effects of polysaccharides and polyphenolics fractions of Zijuan tea (*Camellia sinensis* var. *kitamura*) on a-glucose activity and blood glucose level and glucose tolerance of hyperglycaemic mice

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A) Sources and Products: Others**PA0801 The physical properties of cooking rice**

Yukiko Kagohashi, Anon Tanaka, Shiho Takahashi

Dept. of Health and Dis., The Univ. of Shimane, Japan

PA0802 Effect of glycosylation on the functional properties and conformational characteristics of oat proteins

Hailing Wang^{1,2}, Benyang Wu^{1,2}, Yuande Shi¹, Pingping Su¹, Sheng Chen¹, Shaoyun Wang³, Leiwen Xiang

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PA0803 Comparison of protein and bioactive compounds in different germinated rice cultivars

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PA0804 Antioxidant activity, glycemic response and acceptance of novel tea based isotonic sport beverages

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PA0805 Hydrophobic solvent extraction of glycyrrhetic acid from dried licorice root involved with size distribution and part of licorice root in sample

Kouhei Wada, Masanao Imai

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PA0806 May phytochemical rich chokeberry pomace extract mitigate health hazards of processed meat?

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PA0807 The functional characteristics of coix seed ingredients

Jianjun Cheng, Gaopeng Zhang, Chunlei Ni, Yangyue Ding

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PA0808 Diet of anaogue rice increase insulin serum and TCF7L2 gene expression on rat model of type 2 diabetes mellitus

Rumiyati¹, Rizqa Salsabila Firdausia¹, Gravinda Widyaswara², Agung Endro Nugroho¹, Yekti Asih Purwestri², Yudi Pranoto³, Sri Widyastuti⁴, Satrijo Saloko⁴, Muktasam⁵

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PA0809 Changes in imidazole dipeptide content of chicken meat after domestic cooking and during food manufacturing process

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PA0810 Effects of organic soil remedying fertilizer RA-I on food plants' potentials as functional food sources in Indonesia

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PA0811 Evaluation of phenolic and flavonoid contents in young rice leaves (RD6)

Natthida Weerapreeyakul^{1,2}, Kawintra Tamprasit², Khaetthareeya Sutthanut^{1,2}, Wipawee Thukhammee^{2,3}, Jintanaporn Wattanathorn^{2,3}

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PA0812 Assesment of bread crust melanoidins isolated by different ultrafiltration membranes

Gonzalo Salazar-Mardones, M. Dolores Rivero-Pérez, Mónica Cavia-Saiz, M Luisa González-SanJose, Pilar Muñoz

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- PA0813 Implementing food based dietary guidelines; field experience in Maldives**
Roshan Delabandara¹, Visakha Thilekeratne¹, Anoma Chandrasekara^{1,2}
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- PA0814 Cordycepin-induced unfolded protein response-dependent cell death, and AKT/MAPK-mediated drug resistance in mouse testicular tumor cells**
 Ming-Min Chang, Bo-Syong Pan, Bu-Miin Huang
 Dept. of Cell Biol. and Anatomy, Coll. of Med., Natl. Cheng Kung Univ., Taiwan
- PA0815 Harvesting bioactive colloidal nanoparticles in soup made from freshwater clams (*Corbicula fluminea* Muller)**
Guanzhen Gao^{1,3}, Lijing Ke¹, Huiqin Wang¹, Jianwu Zhou¹, Jingjen Lin², Bonnie Sun Pan², Pingfan Rao¹, Toshiro Matsui³
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- PA0816 Fermentation characteristics of Cheonggukjang (*Bacillus* fermented soybean fermented products) by various *Bacillus subtilis* isolates**
 Hee-Jong Yang¹, Kenji Sato², Myeong Seon Ryu¹, Su-Ji Jeong¹, Jiwon Seo¹, Do-Youn Jeong¹, Dong-Hwa Shin³
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- PA0817 Effects of dehulled adlay instant product by extrusion on blood lipids in dyslipidemic subjects**
 Chieh Chung, Shu-Chen Hsieh
 Inst. of Food Sci. and Technol., Natl. Taiwan Univ., Taiwan
- PA0818 Evaluation of functional components in golden pickled cabbage during storage**
Chieh-Yin Su, Tsai-Hua Kao
 Dept. of Food Sci., Fu Jen Catholic Univ., Taiwan

B) Food Factors: Amino Acids

- PB0101 L-lysine supplementation suppressed DPPiV and neprilysin expressions in the liver and kidney and increased circulating pancreatic polypeptide in rats**
Chao-Wu Xiao, Amy Hendry, Jesse Bertinato
 Nutr. Res. Div., Bureau of Nutr. Sci., Food Directorate, Health Products and Food Branch, Health Canada, Canada
- PB0102 Taurine regulates immune-related gene expression in macrophage-like cells**
Midori Fukumura¹, Kenji Watari¹, Hideo Satsu²
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PB0103 Effects of long-term dietary methionine restriction on bone turnover in high-fat-fed miceChangxing Feng², Haitao Guo², Yanan Wang², Jiahong Zhang², Yonghui Shi², Guowei Le^{1,2}¹State Key Lab. of Food Sci. and Technol., China, ²Sch. of Sci. and Technol., Jiangnan Univ., China
Jiangnan Univ., China**PB0104 The mechanism of FGF21-induced suppression of liver lipid accumulation during protein malnutrition**Hiroki Kosaka¹, Yori Ozaki-Masuzawa², Rino Abiru², Keigo Kawate², Yuki Kohno², Atsushi Miura^{1,2}, Morichika Konishi³, Nobuyuki Itoh⁴, Asako Takenaka⁵, Takashi Hosono^{1,2}, Taiichiro Seki^{1,2}¹Dept. of Appl. Life Sci., Grad. Sch. of Bioresour. Sci., Nihon Univ., Japan, ²Dept. of Chem. and Life Sci., Coll. of Bioresour. Sci., Nihon Univ., Japan, ³Lab. of Microbial Chem., Kobe Pharm. Univ., Japan, ⁴Dept. of Genetic Biochem., Kyoto Univ. Grad. Sch. of Pharm. Sci., Japan, ⁵Dept. Agric. Chem., Sch. of Agric., Meiji Univ., Japan**PB0105 γ -Aminobutyric acid induces biosynthesis of a novel imidazole peptide in skeletal muscle**Kanako Sato¹, Takeshi Arima², Takumi Komaru³, Noriyuki Yanaka¹, Mikako Sato⁴, Yasuyuki Oishi⁴, Thanachaporn Kumrungsee¹¹Grad. Sch. of Integ. Sci. for Life, Hiroshima Univ., Japan, ²Grad. Sch. of Biosphere Sci., Hiroshima Univ., Japan, ³Sch. of Appl. Biosci., Hiroshima Univ., Japan, ⁴R&D Cent., NH Foods Ltd., Japan**PB0106 Absorption and distribution and biological function of D-proline on mice**Aoi Miyazaki, Kenji Sato

Div. of Appl. Biosci., Grad. Sch. of Agric., Kyoto Univ., Japan

PB0107 Effects of dietary methionine restriction on cardiac function in elderly miceLe Han^{1,2}, Guoqing Wu², Yuncong Xu², Yuge Jiang², Bowen Li², Yonghui Shi², Guowei Le^{1,2}¹The State Key Lab. of Food Sci. and Technol., Jiangnan Univ., China, ²Cent. for Food Nutr. and Functional Eng., Sch. of Food Sci. and Technol., Jiangnan Univ., China**PB0108 Inhibitory effect of taurine on fatty acid/triglyceride synthesis in hypertriglyceride HepG2 cells**Wen Chen^{1,2}, Yuxun Ma¹, Qi Song¹¹Beijing Key Lab. of Bioactive Substances and Functional Foods, Beijing Union Univ., China, ²Dept. of Food Sci., Coll. of Biochem Eng., Beijing Union Univ., China**PB0109 Effects of roasting method on nutritional properties of sweet potato**Ayano Furutani¹, Wataru Tanaka², Hiroki Matsuyama², Hayato Tajiri¹, Masakatsu Takashima¹, Rio Uragami¹, Masanobu Sakono^{1,2}, Hiroyuki Sakakibara^{1,2}¹Fac. of Agric., Univ. of Miyazaki, Japan, ²Grad. Sch. of Agric., Univ. of Miyazaki, Japan

B) Food Factors: Carbohydrates

PB0201 Protein expression and growth medium optimization for the overexpression of a heat-stable amylosucrase in a *Bacillus* host system

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PB0202 *In vitro* digestibility of hyper-branched glucan particles produced by various branching enzymes

Jaehoon Bae, Sang-Ho Yoo

Dept. of Food Sci. and Biotechnol. and Carbohydr. Bioprod. Res. Cent., Sejong Univ., Korea

PB0203 Enzymatically synthesized glycogen inhibits allergic responses in basophilic and mast cells

Yasukiyo Yoshioka¹, Masako Inoue², Takashi Furuyashiki³, Hitoshi Ashida²

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PB0204 Enzymatically synthesized glycogen prevents UVB damage in normal human epidermal keratinocytes

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¹Fac. of Clin. Nutr. Diet., Konan Women's Univ., Japan, ²Grad. Sch. of Agric. Sci., Kobe Univ., Japan, ³Inst. of Health Sci., Ezaki Glico Co., Ltd, Japan

PB0205 Effects of increasing dietary intake of high amylose wheat on gastrointestinal health in lean male and female mice

See Meng Lim^{1,3,4}, Amanda Page^{2,3}, Hui Li^{2,3}, Rebecca O'Rielly^{2,3}, John Carragher¹, Iain Searle¹, Sarah Robertson², Beverly Muhlhauser^{1,3,5}

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PB0206 Neural regulation of plasma adipokine levels in rats fed excessive fructose

Naoto Hashimoto, Manabu Wakagi, Katsunari Ippoushi, Yuko Takano-Ishikawa

Div. of Food Function, Food Res. Inst., NARO, Japan

PB0207 Enhanced stability and bioactivity of curcumin by encapsulation in phytoglycogen nanoparticles

Jinling Fan, Xingman Han, Pan Wang

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PB0208 Dietary cellulose nanofiber modulates obesity and gut microbiota in high-fat-fed mice

Takao Nagano¹, Hiromi Yano²

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PB0209 Application potential of konjac oligosaccharide in functional foods for people with irregular and long time work

Yan Zeng, Chaoyu Tian, Tong Zhang, Xuerong Xing, Yueming Zhu

Tianjin Inst. of Industrial Biotechnol., Chinese Academy of Sci., China

PB0211 Effects of paramylon from *Euglena gracilis* on gastric stress ulcer in rats

Misa Ogushi^{1,2}, Naoki Harada¹, Momoko Imai³, Minako Yoshizawa⁴, Kengo Suzuki⁵, Yoshihisa Nakano¹

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B) Food Factors: Carotenoids

PB0301 Bioactivities and intestinal absorption of halocynthiaxanthin, a carotenoid from sea squirts

Chiaki Ikeda¹, Yuki Manabe¹, Nami Tomonaga¹, Takashi Maoka^{1,2}, Tatsuya Sugawara¹

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PB0302 Characterization and stability of 9Z- β -carotene high-loaded nanostructured lipid carriers with higher bioaccessibility

Cheng Yang^{1,2}, Xin Jiang^{1,2}, Hongxiao Yan^{1,2}, Qingrui Sun³, Huaneng Xu^{1,2}, Rong Tsao⁴, Lianfu Zhang^{1,2}

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PB0303 Cognitive function improvement with astaxanthin and tocotrienols intake –A randomized, double-blind, placebo-controlled study–

Yuki Kizawa¹, Takahiro Sekikawa¹, Yanmei Li², Tsuyoshi Takara³

¹BGG Japan Co., Ltd., Japan, ²Beijing Ginkgo-Group Biol. Technol. Co., Ltd., China, ³Med. Co. Seishinkai, Japan

B) Food Factors: Lipids

PB0401 Precise analysis of plant sterols in human blood and search for factors related to its concentration

Eriko Nakatsukasa, Tsuyoshi Tsuduki

Grad. Sch. of Agric., Tohoku Univ., Japan

PB0402 Effect of salt on the lipid absorption capacity

Nao Hayashi, Tsuduki Tsuyoshi

Grad. Sch. of Agric., Tohoku Univ., Japan

PB0403 Allyl isothiocyanate induced lipid composition changes in Tet-regulated TRPA1 expressing HEK293 cells

Akika Nagata, Tsutomu Hashidume, Nanami Senoo, Yuko Terada, Keisuke Ito, Shinji Miura, Noriyuki Miyoshi

Grad. Sch. of Integrated Pharm. and Nutri. Sci., Univ. of Shizuoka, Japan

PB0404 A highly unsaturated diacylglycerol-enriched plastic fat for novel healthier margarine formulations

Ning Zhang^{1,2}, Zun Liu¹, Zhen Zhang^{1,2}, Ying Li^{1,2}, Yong Wang^{1,2}

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PB0405 Fundamental study for promoting the utilization of sunflower seed oil and strained lees made in Kagoshima, Japan

Haruna Kawasoe¹, Saki Sato², Yuji Minami^{1,2}, Katsuko Kajiya^{1,2}

¹Grad. Sch. of Agric., Forest. and Fish., Kagoshima Univ., Japan, ²Fac. of Agric., Kagoshima Univ., Japan

PB0406 Oxyphytosterols generated by ozone reaction with β -sitosterol

Igor Rodrigues Martins¹, Janice Onuki², Sayuri Miyamoto³, Miriam Uemi¹

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PB0407 New oxysterol generated by ozone reaction with cholesterol

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PB0408 Correlating trans fatty acids and key flavor compounds in youtiao using partial least squares regression analysis

Xuelian Yang^{1,2,3}, Xiangyu Zhang³, Jianchun Xie^{1,2,3}

¹Beijing Advanced Innovation Cent. for Food Nutr. and Human Health, China, ²Beijing Eng. and Technol. Res. Cent. of Food Additives, China, ³Sch. of Food and Chemical Eng., Beijing Technol. and Business Univ., China

PB0409 The metabolic conversion of alpha-eleostearic acid to conjugated linoleic acid relates to cytochrome P450 enzymes

Qiming Wu, Tsuyoshi Tsuduki

Grad. Sch. of Agric. Sci. Tohoku Univ., Japan

PB0410 Health benefits of olive leaf tea for adults with pre-diabetes: An exploratory randomized controlled trial

Risa Araki¹, Keiko Fujie¹, Nanako Yuine^{1,2}, Yuta Watabe^{1,2}, Yoshio Nakata¹, Hiroaki Suzuki³, Hiroko Isoda⁴, Koichi Hashimoto¹

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PB0411 A new method applied in the analysis of volatile compounds of rapeseed oils: monolithic material sorptive extraction

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PB0412 Digestion of dietary phospholipids and the physiological role of the digestive products in the intestine

Kaeko Murota^{1,2}, Shun Kumamoto², Akane Hirano², Nobuyuki Fukushima², Takeshi Ohkubo³, Akira Tokumura⁴

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PB0413 Analysis of high-fat-diet-induced aggravation in postprandial lipidemia through saturated fatty acid-induced inflammation in the intestine

Hiroyuki Tsuyama¹, Mayu Kikuchi¹, Manae Matsuda¹, Miori Morikawa¹, Rie Katsumata-Tsuboi¹, Miori Tanaka¹, Hirofumi Inoue¹, Tsuyoshi Goto², Teruo Kawada², Kaeko Murota³, Mariko Uehara¹, Noubuyuki Takahashi¹

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PB0414 The effect of fatty acids on the oxidative stress exposure in vascular endothelial cells

Fumika Nakano, Tsuyoshi Tsuduki

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PB0415 Effect of eicosapentaenoic-enriched phospholipids on basal and pro-inflammatory cytokines-induced lipolysis in 3T3-L1 adipocytes

Lei Du¹, Yuhong Yang², Koretaro Takahashi³

¹Dept. of Nutr. and Food Hyg., Sch. of Public Health, Shandong Univ., China, ²Sch. of Food Sci. and Eng., Qilu Univ. of Technol., China, ³Fac. of Eng., Kitami Inst. of Technol., Japan

PB0416 Improved bioaccessibility and hydrolysis of lipid emulsions in crowded medium

Zhongxiu Chen

Mol. Food Sci. Lab., Coll. of Food and Biol. Eng., Zhejiang Gongshang Univ., China

PB0417 Omega 9-enriched crocodile oil and its insulin sensitivity

Metas Ngernjan¹, Narissara Lailerd², Kriangsak Mengumphan^{1,3}, Doungporn Amornlerdpison^{1,3}

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PB0418 Freshwater fish oil from catfish on anti-hyperglycemic and anti-hyperlipidemic effects in obese rats

Kriangsak Mengumphan^{1,2}, Supaporn Sattang¹, Narissara Lailerd³, Doungporn Amornlerdpison^{1,2}

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³Fac. Physiol. Med. CMU., Thailand

B) Food Factors: Minerals

PB0501 A solubility-based separation of group B soyasaponins with zinc transporter protein (ZIP4)-enhancement activity from whole soybean flour

Masakazu Takahashi¹, Keitaro Kaneda¹, Fuka Okawa¹, Haruna Yamauchi¹, Taiho Kambe², Hajime Katano¹

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PB0502 Analysis of ESR spectra in different parts of mushrooms and their hydroxyl radical scavenging activities

Tomomi Kanno¹, Shigeaki Nakazawa², Etsuko Harada³, Hiroki Okumura⁴, Yoshiaki Miyake¹, Kazunobu Sato², Takeji Takui², Toshihiko Osawa⁵

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PB0503 Effect of soluble dietary fiber on plasma phosphorus and endothelial function

Sarasa Tanaka^{1,2}, Mariko Tani¹, Hiromi Kawamura¹, Shiori Sakaue², Mayu Matsui², Midori Ishitani¹, Motoyoshi Sakaue^{1,2}, Mikiko Ito^{1,2}

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B) Food Factors: Peptides and Proteins

PB0601 Comparative experiments of fibril formation from whey protein concentrate with homogeneous and secondary nuclei

Hong-Hua Xu, Mei-Li Shao, Fei Teng, Jun-Yan Tan, Guo-Ping Yu, Xiu-Ling Zhang
Key Lab. of Dairy Sci., Ministry of Education, Northeast Agric. Univ., China

PB0602 Nutritional constituents of spirulina (*Arthrospira platensis*) and the nitrogen balance in spirulina-fed rat

Yudai Shioji^{1,2}, Takuya Yoshida², Tatsuya Sasada¹, Noriyuki Miyoshi²

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PB0603 Purification of a novel anti-angiotensin converting enzyme inhibitory peptides from neutrase hydrolysate of flounder fish muscle

Ju-Young Ko¹, Ji-Hyeok Lee²

¹Dept. of Marine Life Sci., Jeju Natl. Univ., Korea, ²Inst. for Lee Gil Ya Cancer and Diabetes., Gachon Univ., Korea

PB0604 Daily intake of pyroglutamyl peptides-rich fermented rice drink changed gut microbiota who have particular pattern of microbiota in healthy volunteers

Sayori Wada¹, Mayuko Kotani¹, Chihiro Itoh¹, Toko Kasuno¹, Hirokazu Taniguchi¹, Kenji Sato², Akane Higashi¹, Yuji Naito³

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PB0605 Pro-Hyp is specifically incorporated in fibroblast expressing p75NTR

Kazuhiro Sawada¹, Kazunobu Yoshikawa¹, Tomoko Asai², Kenji Sato¹

¹Div. of Appl. Biosci., Grad. Sch. of Agric., Kyoto Univ., Japan, ²Dept. of Food Sci. and Nutr., Fac. of Human Life and Env. Sci., Nara Women's Univ., Japan

PB0606 Screening of various peptide sequences of food proteins for their potential as prolyl endopeptidase inhibitors

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PB0607 Albumin extracted from rice bran is resistant to digestion and adsorbs glucose

Chiaki Sugimoto¹, Aya Hamada¹, Shigenobu Ina¹, Yusuke Yamaguchi¹, Hitoshi Kumagai², Hitomi Kumagai¹

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PB0608 Effect of HCl-treated wheat protein on antigen-presenting cells

Hayato Kobayashi, Ryosuke Abe, Narumi Matsukaze, Yusuke Yamaguchi, Hitomi Kumagai

Coll. of Bioresour. Sci., Nihon Univ., Japan

PB0609 The novel plant derived supplement containing the protein hydrolysate "JPS" enhances functional recovery of spinal cord injury

Jintanaporn Wattanathorn^{1,2}, Parichart On-ong-arj¹

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PB0610 Liver hydrolysate improves depressive-like behavior in olfactory bulbectomized mice: involvement of hippocampal neurogenesis through AMPK/BDNF/CREB pathway

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PB0611 Flaxseed proteome as precursors of antioxidant peptides: an *in silico* studyDawei Ji¹, Chibuike C. Udenigwe^{2,3}, Dominic Agye^{1,2}¹Dept. of Food Sci., Univ. of Otago, New Zealand, ²Sch. of Nutr. Sci., Univ. of Ottawa, Canada, ³Dept. of Chem and Biomol. Sci., Univ. of Ottawa, Canada**PB0612 Dipeptides can transport across the blood-brain barrier in mouse brain**Hayato Kiyohara¹, Mitsuru Tanaka¹, Shinya Dohgu², Genki Komabayashi¹, Fuyuko Takata², Yasufumi Kataoka², Takashi Nirasawa³, Toshiro Matsui¹¹Div. of Biores. and Bioenviron. Sci., Grad. Sch. of Agric. Sci., Kyushu Univ., Japan, ²Div. of Pharm. Care and Health Sci., Fukuoka Univ., Japan, ³Bruker Japan K.K., Japan**PB0613 Generation of Pro-Hyp and p75NTR- positive cell in cultured skin**Xin Wei¹, Shiro Jimi², Kazunobu Yoshikawa³, Tomoko Asai⁴, Kenji Sato¹¹Div. of Appl. Biosci., Grad. Sch. of Agric., Kyoto Univ., Japan, ²Cent. Lab. for Pathol. and Morphol., Fac. of Med., Fukuoka Univ., Japan, ³Div. of Appl. Biosci., Grad. Sch. of Agric., Kyoto Univ., Japan, ⁴Dept. of Food Sci. and Nutr., Fac. of Human Life and Environ. Sci., Nara Women's Univ., Japan**PB0614 Dipeptidyl peptidase IV inhibitory activities of bonito dashi in human**Eiji Seki¹, Yoshifumi Fujiwara¹, Junko Suzuki², Takuya Yamane³, Hideo Satsu⁴, Iwao Ohkubo⁵¹Katuobushi Dashi Lab., Yamaki Co., Ltd., Japan, ²Dept. of Nutr. Sch. of Nursing and Nutr., Tenshi Col., Japan, ³Grad Sch. of Life and Environ. Sci., Osaka Pref. Univ., Japan, ⁴Dept. of Biotech., Maebashi Inst. of Technol., Japan, ⁵Mikasa City Hosp., Japan**PB0615 Antioxidant properties and myogenic differentiation of protein hydrolysates in soybean and mealworm (*Tenebrio Molitor*) larvae**Yang Hou, Xiaotong Yu, Yookyung Kim

Dept. of Human Ecology, Grad. Sch., Korea Univ., Korea

PB0616 Characterization and functional properties of gelatin extracted from chinese giant salamander (*Andrias davidianus*) skinWen-gang Jin¹, Jinjin Pei¹, Yi-nan Du², Jingfeng Pan², Ruichang Gao³, Haitao Wu²¹Bio-resources Key Lab. of Shaanxi Province, Sch. of Biol. Sci. and Eng., Shaanxi Univ. of Technol., China, ²Natl. Eng. Res. Cent. for Seafood, Sch. of Food Sci. and Technol., Dalian Polytech. Univ., China, ³Coll. of Food and Biol. Technol., Jiangsu Univ., China**PB0617 Novel ghrelin-releasing peptide derived from wheat protein**Kana Tani¹, Shimon Abe¹, Hiroshi Iwakura², Masaru Sato³, Atsushi Kurabayashi³, Hideyuki Suzuki³, Miki Makita⁴, Hiroyuki Ikemoto⁴, Shigenobu Matsumura¹, Kazuo Inoue¹, Kousaku Ohinata¹¹Div. of Food Sci. and Biotechnol., Grad. Sch. of Agric., Kyoto Univ., Japan, ²The First Dept. of Med., Wakayama Med. Univ., Japan, ³Dept. of Appl. Genomics, Kazusa DNA Res. Inst., Japan, ⁴Health Care Res. Cent., Nisshin Pharma Inc, Japan**PB0619 Study on the structure of oligopeptides with beauty effect in industrial-scale produced rice protein hydrolysate**Yuqing Wang

China Natl. Res. Inst. of Food and Fermentation Ind., China

PB0620 Study on the structure of oligopeptides with the function of improving athletic ability in industrial-scale produced corn gluten meal hydrolysate

Liang Chen

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B) Food Factors: Polyphenols and Antioxidants

PB0701 The beneficial effects of pomegranate polyphenols in regulating lipid metabolism

Jianke Li, Chen Hou

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PB0702 Effect of wine pomace product on IFN- γ and TNF- α inflammation and tumor invasion on endothelial cells

Pilar Muñiz, Gisela Gerardi, Monica Cavia-Saiz, M. D. Rivero-Pérez, Gonzalo Salazar-Mardones, M. Luisa Gonzalez-SanJose

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PB0703 Gallic acid suppresses hepatic steatosis, apoptosis, and inflammation caused by the interaction with macrophages

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PB0704 Search and analysis of food components regulating urate transporter ABCG2

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PB0705 The antioxidant activity of epigallocatechin gallate (EGCG) esters in lipidic systems

Han Peng, Fereidoon Shahidi

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PB0706 The nutritional compositions and antioxidant activities of bee pollen collected in various areas of Korea

Gil-Ran Lee^{1,2}, Mok-Ryeon Ahn^{1,2}

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- PB0707 Screening of compounds that inhibit the interaction between curcumin and bovine serum albumin to improve the physiological activity of curcumin**
Mayuko Itaya¹, Taiki Miyazawa², Takahiro Eitsuka¹, Atsushi Imaizumi³, Kiyotaka Nakagawa¹
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- PB0708 Antioxidant capacity of deep-fried products prepared using millet flour batter**
Asuka Taniguchi¹, Nami Kyogoku², Rie Kobayashi¹
¹Grad. Sch. of Humanities and Life Sci., Tokyo Kasei Univ., Japan, ²Dept. of Food and Nutr., Kanazawa Gakuin Coll., Japan
- PB0709 Studies on the polyphenols bioaccessibility and antioxidant activity during simulated in vitro digestion of Japanese pickled plums**
Jutalak Suwannachot, Sunantha Ketnawa, Yukiharu Ogawa
Grad. Sch. of Hort., Chiba Univ., Japan
- PB0710 The distinguishable absorption and metabolism of quercetin coexisted with other food components**
Rikito Mitsuzane¹, Toshiyuki Nakamura¹, Shintaro Munemasa¹, Yoshiyuki Murata¹, Yoshimasa Nakamura¹
Grad. Sch. of Environ. Life. Sci., Okayama Univ., Japan
- PB0711 Evaluation of the antioxidant activity of *Petasites japonicus* Maxim. flower bud extracts**
Miki Hiemori-Kondo^{1,2}, Daisuke Shinya², Mika Nii³
¹Dept. of Food Nutr. Sci., Tokushima Bunri Univ., Japan, ²Dept. of Food Nutr. Sci., Grad. Sch. of Human Life Sci., Tokushima Bunri Univ., Japan, ³Dept. of Resour. Environ. Res., TAFF TSC, Japan
- PB0712 Phenyl ethanoid glycosides from *Lantana montevidensis* and their antioxidant and cell antiproliferative activity**
Yoshiharu Okuno, Keiji Yamasaki
Dept. of Appl. Chem. and Biochem., Natl. Inst. of Technol., Wakayama Coll., Japan
- PB0713 Antioxidant activity and polyphenols in main woody plant leaves growing forest floor in beech coppice in Uonuma, Niigata**
Tomoko Yamaguchi¹, Chika Nakashima¹, Keigo Mikame², Tomohiko Kamitani²
¹Fac. of Edu., Niigata Univ., JPN, ²Fac. of Agric., Niigata Univ., JPN
- PB0714 Change of microwave-cooked pigmented rice structure and antioxidant phytochemicals before and during in vitro digestion**
Sukanya Thuengtung, Yukiharu Ogawa
Grad. Sch. of Hort., Chiba Univ., Japan

PB0715 Analysis of the cytotoxic mechanisms of sulforaphaneSeiya Nishiba¹, Shigeki Takeda¹, Noritaka Adachi², Aya Kurosawa^{1,2,3}¹*Div. of Mol. Sci., Grad. Sch. of Sci. Tech., Gunma Univ., Japan*, ²*Grad. Sch. of Nanobiosci., Yokohama City Univ., Japan*, ³*Cent. Food Sci. Wellness, Gunma Univ., Japan***PB0716 The effects of resveratrol and piceid on macrophage efferocytosis**Naomi Abe-Kanoh¹, Yuki Hashimoto², Haruka Yamamoto², Miyuki Uemura²¹*Inst. of Biomed. Sci., Tokushima Univ. Grad. Sch., Japan*, ²*Sch. of Med. Nutr., Tokushima Univ., Japan***PB0717 Evaluation of the preventive effect of glucosyl-hesperidin on adenine-induced kidney injury by using *in vivo* Saa3-promoter bioluminescence imaging**Kotaro Hashimoto¹, Taishi Kariya¹, Nao Yazawa¹, Yohei Sanada¹, Takayuki Koyano², Takao Hashimoto¹, Makoto Matsuyama², Thanutchaporn Kumrungsee¹, Fons AJ van de Loo³, Noriyuki Yanaka¹¹*Grad. Sch. of Integrated Sci. for Life, Hiroshima Univ., Japan*, ²*Div. of Mol. Genetics, Shigei Med. Res. Inst., Japan*, ³*Dept. of Rheumatol., Radboud Univ. Med. Cent., The Netherlands***PB0718 Effect of matcha green tea on endoplasmic reticulum stress in monocytic cells**Yoshimi Kishimoto¹, Ikue Takeuchi², Tomomi Iwashima³, Chie Taguchi¹, Kazuo Kondo^{1,2}¹*Endowed Res. Dept. 'Food for Health', Ochanomizu Univ., Japan*, ²*Grad. Sch. of Food Nutr. Sci., Toyo Univ., Japan*, ³*Dept. of Food Nutr. Sci., Grad. Sch. of Humanities and Sci., Ochanomizu Univ., Japan***PB0719 Bioactive properties of saba banana and their changes during simulated *in vitro* digestion process**Florencio. C. Reginio Jr.^{1,2}, Wei Qin¹, Sunantha Ketnawa¹, Yukiharu Ogawa¹¹*Dept. of Environ. Sci. for Bioprod., Grad. Sch. of Hortic., Chiba Univ., Japan*, ²*Inst. of Food Sci. and Technol., Coll. of Agric. and Food Sci., Univ. of the Phil., Philippines***PB0720 Riceberry bran oil ameliorates oxidative stress and hepatotoxicity induced by acetaminophen overdose in mice**Rawiwan Wongpoomchai^{1,2}, Warunyoo Phannasorn¹, Napaporn Khuaphram¹, Suphachai Charoensin³¹*Dept. of Biochem., Fac. Med., Chiang Mai Univ., Thailand*, ²*Func. Food Res. Cen. for Well-Being, Chiang Mai Univ., Thailand*, ³*Div. Nutr., Sch. Med Sci, Univ. Phayao, Thailand***PB0721 Green tea polyphenol EGCG enhances anticoagulation factor TFPI expression by activating 67LR signaling**Ren Yoshitomi, Hirokatsu Kanzaki, Takuya Takakura, Shigeyuki Totoki, Motofumi Kumazoe, Yoshinori Fujimura, Hirofumi Tachibana*Div. of Appl. Biol. Chem., Grad. Sch. of Bioresour. and Bioenviron. Sci., Kyushu Univ., Japan***PB0722 Black garlic extract suppresses oxidation of low-density lipoprotein**Hirofumi Arai¹, Akari Yasunaga^{1,2}, Daishi Yahagi², Shunichi Yasutake², Ryota Hosomi³, Kenji Fukunaga³, Mikako Takasugi⁴¹*Dept. of Biotechnol. and Environ. Chem., Kitami Inst. of Technol., Japan*, ²*Nihon Seiyaku Kogyo Co. Ltd., Japan*, ³*Fac. of Chem., Materials and Bioeng., Kansai Univ., Japan*, ⁴*Dept. of Life Sci., Kyushu Sangyo Univ., Japan*

- PB0723 Apigenin and luteolin display differential hypocholesterolemic mechanisms in mice fed a high-fat diet**
Tsz Yan Wong¹, Yan Qin Tan¹, Shu-mei Lin², Lai K. Leung¹
¹Food and Nutr. Sci. Programme, Sch. of Life Sci., The Chinese Univ. of Hong Kong, Hong Kong, ²Dept. of Food Sci., Natl. Chiayi Univ., Taiwan
- PB0724 Dose reduction of the α -glucosidase inhibitor acarbose by xanthenes from *Cyclopia genistoides*–enhanced nutraceutical potential through synergism**
Neil Miller^{1,2}, Christiaan Malherbe¹, Elizabeth Joubert^{1,2}
¹Plant Bioactives Group, Agric. Res. Council (ARC), South Africa, ²Dept. of Food Sci., Stellenbosch Univ., South Africa
- PB0725 Eugenol ameliorates 2 diabetes mellitus in mice via activation on muscle glucose uptake through TRPV1/AMPK/GLUT4**
Yuge Jiang^{1,2}, Qiuli Gao², Yuncong Xu², Bowen Li², Yonghui Shi^{1,2}, Guowei Le^{1,2}
¹The State Key Lab. of Food Sci. and Technol., Jiangnan Univ., China, ²Sch. of Food Sci. and Tech. Jiangnan Univ., China
- PB0726 *In vitro* antioxidant and anti-inflammatory ability of lignin molecules from the sclereids of *Psidium guajava* fruits by NaOH extraction**
Chia-En Li, Zwe-Ling Kong
Dept. of Food Sci., Natl. Taiwan Ocean Univ., Taiwan
- PB0727 Solvent extraction and discrimination of Kyoho skin, seed, and flesh antioxidant activities: An unsupervised case study using advanced chemometrics**
Kandi Sridhar, Albert Linton Charles
Dept. of Tropical Agric. and Intl. Cooperation, Natl. Pingtung Univ. of Sci. and Technol., Taiwan
- PB0728 Color stability of anthocyanin extract from wastewater of purple sweet potato starch processing**
Elisa Julianti, Ridwansyah, Era Yusraini
Dept. of Food Sci. and Tech., Fac. of Agric., Universitas Sumatera Utara, Indonesia
- PB0729 In-depth phenolic characterisation of *Cyclopia pubescens* (honeybush tea) using 2D chromatography and structure elucidation**
Nico A. Walters^{1,2}, Elizabeth Joubert^{1,2}, Andre De Villiers³, Ombeline Danton⁴, Dalene De Beer^{1,2}
¹Plant Bioactives Group, Agricultural Res. Council (ARC), South Africa, ²Dept. of Food Sci., Stellenbosch Univ., South Africa, ³Dept. of Chem. and Polymer Sci., Stellenbosch Univ., South Africa, ⁴Pharm. Biol., Pharmacenter, Univ. of Basel, Switzerland
- PB0730 Biological activity of subcritical water extracts from citrus peel**
Dong-Shin Kim, Sang-bin Lim
Dept. of Food Bioeng., Jeju Natl. Univ., Korea

- PB0731 Biosynthesis of novel highly water soluble hesperetin phosphate conjugates via a unique microbial biotransformation pathway**
Chen Hsu¹, Yuan-Po Liu², Nan-Wei Su^{1,2}
¹Dept. of Agric. Chem., Natl. Taiwan Univ., Taiwan, ²Dept. of Biochem. Sci. and Technol., Natl. Taiwan Univ., Taiwan
- PB0732 A new enzyme for biosynthesis water-soluble flavonoid O-phosphate from *Bacillus subtilis* BCRC80517**
Chen Hsu, Nan-Wei Su
Dept. of Agric. Chem., Natl. Taiwan Univ., Taiwan
- PB0736 Combined effect of α -tocopherol and antioxidants on liposome oxidation by hydroxyl radicals**
Ikuko Minami¹, Ayumi Umeda¹, Chikako Inaba¹, Hiroshi Kobayashi², Hiroya Ishikawa²
¹Intl. Coll. of Arts and Sci., Fukuoka Women's Univ., Japan, ²Grad. Sch. of Health and Environ. Sci., Fukuoka Women's Univ., Japan
- PB0738 Augmentation of anti-proliferative and anti-tumor effects of oxaliplatin by luteolin in colorectal tumor model**
Chan ho Jang¹, Nayoung Moon¹, Jisun Oh², Jong-Sang Kim^{1,2}
¹Sch. of Food Sci Biotechnol, Kyungpook Nat'l Univ., Korea, ²Inst. Agric. Sci. Technol., Kyungpook Natl. Univ., Korea
- PB0741 Neuroprotective potential of novel ferulic acid-rutinoside enzymatically synthesized using rutinose in *C. elegans***
Kanako Matsumoto¹, Patipark Kueanjinda², Takakazu Mitani¹, HyunYoung Park³, Dhiraj A. Vatterm³, Soichiro Nakamura¹, Shigeru Katayama^{1,2}
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B) Food Factors: Probiotics and Prebiotics

- PB0801 *In vitro* adsorption mechanism of acrylamide by lactic acid bacteria**
Meili Shao, Honghua Xu, Fei Teng, Guoping Yu
Coll. of Food Sci., Northeast Agric. Univ., China
- PB0802 Amelioration of hepatic steatosis by ingestion of raffinose via modulation of bile acid metabolism in rats**
Kenta Maegawa¹, Satoshi Ishizuka²
¹Grad. Sch. of Agric., Hokkaido Univ., Japan, ²Res. Fac. of Agric., Hokkaido Univ., Japan
- PB0803 Developing simple extraction of potato arabinogalactan acts as prebiotics**
Masahiro Saito¹, Masaaki Konishi²
¹Dept. of Biotech. and Environ. Chem., Grad. Sch. of Eng., Kitami Inst. of Technol., Japan, ²Biotech. and Food Chem. Crs. Program, Sch. of Regional Innov. and Social Design Eng., Kitami Inst. of Technol., Japan

- PB0804 Search and analysis for probiotics which could enhance IL-12 expression in macrophage-like cells**
Tsukiho Hiura¹, Kana Umetani², Masahiko Suzuki³, Kanata Hagiwara², Mizuki Honda¹, Yuji Tsujikawa³, Iwao Sakane³, Hidenori Hayashi², Hideo Satsu²
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- PB0805 The effect of combination with water-soluble and -insoluble dietary fiber on mice microbiota**
Hiroyuki Sasaki^{1,3}, Aya Watanabe¹, Yuki Nakayama¹, Fumiaki Nakamura², Yoichi Nakao², Shigenobu Shibata¹
¹Lab. of Physiol. and Pharmacol., Sch. of Advanced Sci. and Eng., Waseda Univ., Japan, ²Lab. of Chemical Biol., Sch. of Advanced Sci. and Eng., Waseda Univ., Japan, ³AIST-Waseda Univ. Computational Bio Big-Data Open Innovation Lab. (CBB-D-OIL), Japan
- PB0806 An assessment of the stability and prebiotic potential of crude flaxseed mucilage**
 Thu M. Nguyen¹, Dominic Agyei^{1,2}, Ian Sims^{2,3}, Gerald Tannock^{2,4}
¹Dept. of Food Sci., Univ. of Otago, New Zealand, ²Microbiome Otago., Univ. of Otago, New Zealand, ³Ferrier Res. Inst., Victoria Univ. of Wellington, New Zealand, ⁴Dept. of Microbiol. & Immunol., Univ. of Otago, New Zealand
- PB0807 Application of isomalto-oligosaccharide: development of functional food formula for risk reduction of chronic kidney disease**
Kridsada Keawiyok¹, Santad Wichienchot¹, Saowakon Wattanachant², Nualpun Sirinupong¹, Preeya Dat-arun¹, Suwikran Wongpraphairo³
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- PB0808 Preventive effect of allicin-free garlic on gut microbiome dysbiosis**
Keyu Chen¹, Kun Xie¹, Kozue Sakao^{1,2}, De-Xing Hou^{1,2}
¹United Grad. Sch. of Agric. Sci., Kagoshima Univ., Japan, ²Dept. of Food Sci. and Biotech., Fac. of Agric., Kagoshima Univ., Japan
- PB0809 Evaluation of the prebiotic effects of inulin-type fructans on human colonic microbiota**
Sho Yamamoto, Itsuko Fukuda
 Dept. of Agrobiosci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan
- PB0810 The host immunoresponsiveness influences probiotic functions of inulin**
Yu Arima¹, Kenjiro Shiozawa², Masayuki Noguchi², Yori Ozaki-Masuzawa², Takashi Hosono^{1,2}, Taiichiro Seki^{1,2}
¹Dept. of Appl. Life Sci., Grad. Sch. of Bioresour. Sci., Nihon Univ., Japan, ²Dept. of Chem. and Life Sci., Coll. of Bioresour. Sci., Nihon Univ., Japan

PB0811 Effect of combined consumption of *Lactobacillus brevis* KB290 and β -carotene on minor diarrhea-predominant irritable bowel syndrome-like symptoms

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PB0812 Efficacy of partially hydrolyzed guar gum on high fat diet-induced metabolic syndrome in mice

[Aya Abe](#)^{1,2}, Keiko Abe², Ryo Inoue³, Yuji Naito⁴, Zenta Yasukawa^{1,5}, Makoto Ozeki^{1,5}, Tsutomu Okubo^{1,5}, Shinji Okada²

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PB0813 Co-expression of alcohol dehydrogenase and aldehyde dehydrogenase in food-grade *Bacillus subtilis* for alcohol detoxification

[Yingjian Lu](#)¹, Jing Lu², Xiangfei Li¹, Xiaoyu Zhu², Chong Zhang², Fengxia Lu², Zhaoxin Lu²

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PB0814 Screening and study of probiotics with antiviral potential

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B) Food Factors: Sulfur Compounds

PB0901 Garlic-odor precursor suppresses melanoma tumor growth by inducing apoptosis

[Tomoya Sakaguchi](#)¹, Tomoaki Yazaki¹, Yusuke Yamaguchi¹, Hiroyuki Hara², Hitomi Kumagai¹

¹Coll. of Bioresource Sci., Nihon Univ., Japan, ²Sch. of Med., Nihon Univ., Japan

PB0902 Suppressive effect of garlic-odor precursor on blood-ethanol elevation

[Taisei Hagio](#)¹, Ayumu Hase¹, Yusuke Yamaguchi¹, Harumi Uto-Kondo¹, Takeshi Saito², Hitomi Kumagai¹

¹Coll. of Bioresour. Sci., Nihon Univ., Japan, ²ACERA Food R&D Cent., ACERA Co., Ltd, Japan

PB0903 Induction of phase II enzymes by a flavor compound from radish sprouts

[Kazuki Ogawa](#), Mikio Sugiki, Yusuke Yamaguchi, Hitomi Kumagai

Dept. of Chem. and Life Sci., Nihon Univ., Japan

PB0904 Improvement of the benzyl isothiocyanate stability in aqueous solutions

[Toshiyuki Nakamura](#), Yoshiyuki Murata, Yoshimasa Nakamura

Grad. Sch. of Environ. Life Sci., Okayama Univ., Japan

PB0905 Radiation-protective abilities of DADS, a garlic oil component in X-ray irradiated mice

Tetsuo Nakajima¹, Yasuharu Ninomiya¹, Mitsuru Neno²

¹Dept. of Radiation Effects Res., Natl. Inst. of Radiol. Sci., QST, Japan, ²Dept. of Safety Administration, Natl. Inst. of Radiol. Sci., QST, Japan

PB0906 Benzyl isothiocyanate enhances insulin signaling in adipocytes

Sayuri Nakata, Ying Liang, Toshiyuki Nakamura, Shintaro Munemasa, Yoshiyuki Murata, Yoshimasa Nakamura

Grad. Sch. of Environ. Life Sci., Okayama Univ., Japan

PB0907 Effects of 6-(methylsulfinyl)hexyl isothiocyanate on induction of aldehyde dehydrogenase in hepatocytes

Tomoya Kitakaze, Sihao Yuan, Hitoshi Ashida

Dept. of Agrobiosci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan

PB0908 Analysis of mechanism underlying gastric mucosal cell death induced by sodium sulfite

Moeri Oshimo, Kenji Kai, Mitsugu Akagawa

Grad. Sch. of Life and Environ. Sci., Osaka Pref. Univ., Japan

PB0909 Oral galactooligosaccharide administration diminishes the improvement in allergy severity induced by oral immunotherapy in an allergic mouse model

Akihiro Maeta, Risako Katahira, Kyoko Takahashi

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B) Food Factors: Vitamins

PB1001 Characterization of vitamin B₁₂ compounds in food ingredients used in chinese cuisine

Fei Teng, Guoping Yu, Meili Shao, Honghua Xu

Coll. of Food Sci., Northeast Agric. Univ., China

PB1002 Vitamin A plays a pivotal role in hepatic-retinal axis under dual effects of acetaminophen injections and excessive ocular LED exposure

Min-Chun Chang¹, David Pei Cheng Lin², Han-Hsin Chang¹

¹Dept. of Nutr., Chung Shan Med. Univ., Taiwan, ²Dept. of Med. Lab. and Biotechnol., Chung Shan Med. Univ., Taiwan

PB1003 Characterization of the monoclonal antibody to α -carboxyethyl hydroxychroman

Daiki Moriya, Toshiyuki Nakamura, Shintaro Munemasa, Yoshiyuki Murata, Yoshimasa Nakamura

Grad. Sch. of Environ. Life. Sci., Okayama Univ., Japan

PB1004 Development of a method to analyze the water-soluble vitamins in vegetables

Yu-Tsung Lee¹, Hui-Yi Chang¹, Li-Heng Pao¹, Chun-Hui Chiu^{1,2}

¹Chang Gung Univ. of Sci. and Technol., Taiwan, ²Dept. of Traditional Chinese Med., Chang Gung Memorial Hosp., Taiwan

PB1005 Vitamin B₁₂ and folate contents of commercially available *Chlorella* supplements

Hiroyasu Harada, Kyohei Koseki, Tomohiro Bito, Fumio Watanabe

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PB1006 Characterization of vitamin B₁₂ compounds in edible insects

Naho Okamoto¹, Fumi Nagao², Tomohiro Bito², Yukinori Yabuta^{1,2}, Prangthip Pattaneeya³, Fumio Watanabe^{1,2}

¹United. Grad. Sch. of Agric. Sci., Tottori Univ., Japan, ²Fac. of Agric., Tottori Univ., Japan, ³Fac. of Trop. Med., Mahidol Univ., Thailand

PB1007 Identification of vitamin K binding protein by using magnetic beads to reveal vitamin K metabolic mechanism

Masaharu Kobayashi¹, Satoshi Asano², Ayako Furukawa³, Maya Kamao⁴, Yoshitomo Suhara^{1,2}, Yoshihisa Hirota^{1,2}

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PB1008 Fortification of brown rice with folic acid through surface modification and absorption

Rhowell N. Tiozon Jr.^{1,3}, Aldrin P. Bonto^{1,3}, Drexel H. Camacho^{1,2}, Glen Oyong², Nese Sreenivasulu³, Catleya Rojviriyaya⁴

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PB1009 Comparative analysis of the female reproductive functions among genetically modified rats in *Cyp27b1* or vitamin D receptor

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PB1010 Effects of vitamin D on development of bone and skeletal muscle in *Cyp27b1*-KO and *Vdr*-KO rickets rat models

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PB1011 Evaluation of the vitamin K side-chain cleavage mechanism by use of hydrogenated vitamin K₁

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PB1012 Effects of vitamin D on the differentiation of mouse embryonic cerebrum derived neural stem cells

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PB1013 Transcriptome analysis reveals mechanism of Vitamin K-induced neuronal differentiation

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PB1014 Structure-activity correlation of vitamin K revealed by neural differentiation activity

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PB1015 Comparison of breast milk vitamin D and 25-hydroxyvitamin D concentration of Japanese breastfeeding women in 1989 and 2016-2017

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PB1016 Cross-sectional survey for vitamin D status of healthy Japanese adults in the health life research complex program

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PB1017 Protein engineering of CYP105A1 to produce active forms of vitamin D

Teisuke Takita¹, Yuya Yogo², Kaori Yasuda³, Hiroshi Sugimoto⁴, Yoshitsugu Shiro⁴, Shinichi Ikushiro², Sho Nemoto¹, Ren Ohashi¹, Moeka Wada¹, Kiyoshi Yasukawa¹, Toshiyuki Sakaki³

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PB1018 Vitamin D supplementation protects against cerebral ischemia/reperfusion injury in Sprague-Dawley rats

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B) Food Factors: Others

PB1101 Analysis of food-derived nucleic acids and their effects on claudin-4 mRNA expression in differentiated Caco-2 models

Naomi Abe-Kanoh¹, Erika Nuka¹, Mao Aoki², Kotono Minami², Miyuki Uemura², Hiroataka Sekiguchi³, Keita Sutoh³, Koji Usumi³, Kohta Ohnishi¹, Yoshichika Kawai¹

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PB1102 Characterization of glucosyl rebaudioside a produced by dextranucrase from *Leuconostoc lactis*

Hyejin Kang, Ha-Nul Lee, So-Hyeon Lee, Young-Min Kim

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PB1103 The green tea polyphenol epigallocatechin-3-gallate attenuates age-associated muscle loss via regulation of myostatin and miR-486

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PB1104 Quality evaluation and stabilized of food-grade microemulsions with the evening primrose oil

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PB1105 α -Monoglucosyl hesperidin but not hesperidin induces brown-like adipocyte formation and suppresses white adipose tissue accumulation in mice

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PB1106 Loss of key components, methylglyoxal and 2'-methoxyacetophenone, in manuka honey by heat processing

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PB1107 Vegetable nitrate intake is associated with better memory and lower risk of depression: The AusDiab study

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PB1108 Functionality assessment of dried persimmon fruits and persimmon-derived tannins

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C) Functions and Mechanisms: Allergy and Immune Modulation

PC0101 Immunostimulatory effects of subcritical water extract of *Gnoderma*

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PC0102 Combination of glucan and vegetable soup demonstrates synergistic effects on the immune system in murine

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PC0103 Role of CCL28 on the development and immunological function of thymus and spleen in mouse

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PC0104 The role of CCL28 on the development of Peyer's patches in mouse

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PC0105 Effect of *Echinacea purpurea* extracts on allergic reaction in mast cells

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PC0106 Anti-allergic effects of docosahexaenoyl ethanolamide (DHEA), a metabolite of docosahexaenoic acid (DHA)

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PC0107 Inhibition of degranulation by phospholipids derived from green asparagus

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PC0108 Suppression of leukotrienes release from mast cells by lysophosphatidylcholine derived from squid and starfish

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PC0109 Intake of collagen peptide ameliorates immune status –Randomized placebo-controlled double-blind trial–

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PC0111 Antiallergic effect of white rice on experimental allergic rhinitis model in mice

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C) Functions and Mechanisms: Anti-inflammation**PC0201 Screening of microsomal prostaglandin E synthase-1 inhibitor from food ingredients**

Asako Tamenobu, Keisuke Toda, Izumi Tsukayama, Yuka Konoike, Yuki kawakami, Yoshitaka Takahashi, Toshiko Suzuki-Yamamoto

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PC0202 Red rice proanthocyanidin inhibits 5-lipoxygenase and exhibits therapeutic effect on psoriasis

Keisuke Toda¹, Yuki Nagasaki¹, Izumi Tsukayama¹, Asako Tamenobu¹, Yuka Konoike¹, Natsuki Ganeko¹, Hideyuki Ito¹, Yuki Kawakami¹, Yoshitaka Takahashi¹, Yoshimi Miki², Kei Yamamoto³, Makoto Murakami², Toshiko Suzuki-Yamamoto¹

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PC0203 Anti-inflammatory effect of ellagitannins present in immature fruit of boysenberry

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PC0204 Pterostilbene exerts immunosuppressive effects through T cells and dendritic cells

Takuya Yashiro, Shiori Yura, Akari Tobita, Yuki Toyoda, Chiharu Nishiyama

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PC0205 The effects of diallyl trisulfide derived from garlic on NF- κ B signaling in macrophage

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PC0206 Immunomodulating effects of extracts from *Lactobacillus casei* and *gasseri* –Anti-inflammatory effects on macrophage differentiation–

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PC0207 The skin-protective effects of honeybush extracts

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PC0208 Oligosaccharides from agar extends the lifespan of *Caenorhabditis elegans*

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PC0209 (-)-Epicatechin-3-gallate ameliorates sepsis-induced acute organ injuries and mortality via upregulation of Nrf2-regulated antioxidant effects

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PC0210 Downregulating of pro-inflammatory mediators in particulate matter 2.5 µm (PM2.5)-stimulated RAW 264.7 cells by ethanol extract of Moringa seed

Yu-Wen Liu¹, Shwu-Ling Peng², Chia-Jui Weng¹

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C) Functions and Mechanisms: Autophagy

PC0301 Structure-activity relationship in programmed cell death induction mechanism of terpenes

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PC0302 Elucidation of the molecular mechanism underlying lysosomal activation in J774.1 cells by isorhamnetin treatment

Maiko Sakai¹, Kohta Ohnishi², Masashi Masuda², Hirokazu Ohminami², Hisami Yamanaka-Okumura², Taichi Hara³, Yutaka Taketani²

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C) Functions and Mechanisms: Bioavailability and Metabolism

PC0401 Evaluation of the absorption and organ distribution of 1-deoxynojirimycin in rat

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PC0402 Theasinensin A promotes paracellular transport of hesperidin in Caco-2 cell

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- PC0403 Study of the curcumin metabolism by human intestinal bacteria**
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- PC0404 Intestinal absorption of visualized anthocyanins in rats by matrix assisted laser desorption/ionization mass spectrometry imaging technique**
Taehun Ham¹, Huu-Nghi Nguyen¹, Mitsuru Tanaka¹, Ayaka Tsutsumi², Qing Qiang Hu², Koichi Aizawa², Toshiro Matsui¹
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- PC0405 Enhanced absorption of prenylated isoflavones in rat circulating bloodstream**
Ye Zhang¹, Kazuhiro Takao¹, Kuni Sasaki², Kouji Ochiai², Toshiro Matsui¹
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- PC0406 Pharmacokinetics and metabolism of components in Brazilian green propolis after oral administration in humans**
Masayuki Yamaga^{1,2}, Hiroko Tani², Manamu Kitami³, Shin-ichi Ikushiro³, Kaeko Murota⁴
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- PC0407 Yuzu (*Citrus junos* Sieb.ex Tanaka) peel extract can help prevent fatty liver disease induced by high sucrose diet in rats**
Ayako Suzuki¹, Miki Umeki², Kaoru Nobuoka³, Satoshi Mochizuki¹, Yuichi Ishikawa¹
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- PC0408 Enzymatic synthesis of conjugate metabolites of stilbene compounds using xenobiotic metabolizing enzymes expressing yeast**
Mai Nakayama, Miyu Nishikawa, Keisuke Fukaya, Daisuke Urabe, Kaori Yasuda, Toshiyuki Sakaki, Shinichi Ikushiro
Dep. of Biotech., Fac. of Eng., Toyama Pref. Univ., Japan
- PC0409 Biosynthesis of methyl flavonoids using genetically engineered yeast cells with human catechol-O-methyltransferase**
Yuuka Masuyama¹, Miyu Nishikawa¹, Kaori Yasuda², Toshiyuki Sakaki², Shinichi Ikushiro¹
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C) Functions and Mechanisms: Bone Health

PC0501 Analysis of improvement mechanism of abnormalities in bone metabolism by fatty acid metabolites produced by lactic acid bacteria

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PC0502 Collagen-derived dipeptide prolyl hydroxyproline directly binds to Foxg1 to change its conformation and inhibit the interaction with Runx2

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PC0503 Collagen-derived dipeptide prolyl-hydroxyproline promotes differentiation of MC3T3-E1 osteoblastic cells

Yoshifumi Kimira¹, Yoshihiro Osawa¹, Kaho Nomura¹, Aya Matsushita², Naoki Inoue², Sachie Nakatani¹, Jun Shimizu¹, Masahiro Wada¹, Hiroshi Mano¹

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PC0504 Salmon cartilage proteoglycan prevents degradation of the bone quality in ovariectomized rats

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PC0505 The effectivity of difructose anhydride III (DFA III) to increase absorption of calcium in rat femur bone of calcium deficient model

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PC0506 High cholesterol diet-induced bone loss is primarily due to elevated osteoclastogenesis in mice

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C) Functions and Mechanisms: Brain Health

PC0601 Improvement effects of subcritical water extract of Ganoderma on cognitive function

Tomohiro Matsumoto¹, Hiroshi Takagi¹, Kousuke Fukata¹, Tsutomu Sakaida¹, Youichi Yashiro¹, Seiji Hasegawa^{1,2}, Satoru Nakata¹, Hiroyuki Tanaka³

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PC0602 α -Lipoic acid enhances phagocytosis of oligomeric β -amyloid1-42 into BV-2 mouse brain microglia cells via ameliorating CD36 pathway

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PC0603 All tyrosine-containing dipeptides have distinct effects on brain function

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PC0604 Neuroprotective effect of *Spirulina maxima* in HT22 cells

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PC0605 Improvement of cognitive and spatial learning ability of *Corchorus olitorius* L. in Amnesia mice

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PC0606 Holy basil improves cognition and neurodegeneration in animal model of menopause with obesity

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PC0607 Fish oil ameliorates cognitive impairment by suppressing hippocampal inflammation and amyloid- β deposition

Sachiko Okue¹, Mai Takahashi², Riku Orihara², Eimi Ishikawa², Ayako Ueno², Takashi Saito³, Takaomi C. Saido³, Yori Ozaki-Masuzawa², Takashi Hosono^{1,2}, Taiichiro Seki^{1,2}

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PC0608 An adequate amount of high-fat diet improves stress-induced social avoidance behaviorAiri Otsuka¹, Tetsuya Shiuchi²¹Dept. of Life Sci., Kindai Univ., Japan, ²Dept. Integ. Physiol., Inst. Biomed. Sci., Tokushima Univ. Grad. Sch., Japan**PC0609 Peptides from hydrolysate of lantern fish (*Benthoosema pterotum*) against oxidative stress induced neurotoxicity on human neuroblastoma SH-SY5Y cells *in vitro***Huey-Jine Chai¹, Chang-Jer Wu³, Po-Hsuan Chen¹, June-Ru Chen², Bonnie Sun Pan³¹Seafood Technol. Div., Fish. Res. Inst., Council of Agric., Taiwan, ²Fish. Res. Inst., Council of Agric., Taiwan, ³Dept. of Food Sci., Natl. Taiwan Ocean Univ., Taiwan**PC0610 β -Lactolin, a novel whey-derived peptide, improves memory retrieval in a clinical trial and prevents Alzheimer's disease in preclinical studies**Yasuhisa Ano^{1,2}, Rena Ohya¹, Masahiro Kita¹, Satoshi Umeda³, Hiroyuki Nakayama²¹Res. Lab. for Health Sci and Food Tech., Kirin Holdings, Japan, ²Grad. Sch. of Agric. and Life Sci., the Univ. of Tokyo, Japan, ³Dep. Psychol., Keio Univ., Japan**PC0611 Effect of lactonadecapeptide derived from casein hydrolysate on memory in healthy adults**Asako Kusumi¹, Kazuhito Ohsawa¹, Koki Sato^{1,2}, Yasunori Nakamura¹, Satoshi Miyata³, Kotaro Hashimoto³, Kohei Seki³, Ryuzo Hanada⁴, Masato Abe⁵¹Core Technol. Lab., Asahi Quality and Innovations, Ltd., Japan, ²Products Dev. Dept., Asahi Calpis Wellness Co., Ltd., Japan, ³Res. and Dev. Headquarters, Asahi Group Foods, Japan, ⁴Souseikai Sumida Hosp., Japan, ⁵Sakura Life Clinic, Japan**PC0612 Effects of pork protein oxidation on redox status, inflammation and learning and memory gene expression in the hippocampus of mice**Bowen Li^{1,2}, Yueting Ge², Shiman Lin², Yuge Jiang², Le Han², Yonghui Shi^{1,2}, Guowei Le^{1,2}¹The State Key Lab. of Food Sci. and Technol., Jiangnan Univ., China, ²Cent. for Food Nutr. and Functional Food Eng., Sch. of Food Sic. and Tech. Jiangnan Univ., China**PC0613 Protective effects of tangeretin and its derivatives against methylglyoxal-induced cytotoxicity in human neuroblastoma SH-SY5Y cells**Yue-Jhu Chen¹, Yun-Xuan Zhang¹, Yi-Lin Zheng¹, Chi-Tang Ho², Hui-Yun Tsai³, Yu-Kuo Chen^{1,4}¹Dept. of Food Sci., Natl. Pingtung Univ. of Sci. and Technol., Taiwan, ²Dept. of Food Sci., Rutgers Univ., USA, ³Dept. of Nutr. and Health Sci., Fooyin Univ., Taiwan, ⁴Executive Master of Food Biotechnol., Natl. Pingtung Univ. of Sci. and Technol., Taiwan**PC0614 *In vivo* study of the protective activity of α -tocotrienol against methylglyoxal-induced Alzheimer-like cognitive impairment**Fang-Yu Lin¹, Han-Wei Liao¹, Yun-Xuan Zhang¹, Chung S. Yang², Yu-Kuo Chen¹, Hui-Yun Tsai³¹Dept. of Food Sci., Natl. Pingtung Univ. of Sci. and Technol., Taiwan, ²Dept. of Chemi. Biol., Rutgers Univ., USA, ³Dept. of Nutr. and Health Sci., Fooyin Univ., Taiwan

PC0615 Effect of Maillard reaction products derived from dried tomato on *C. elegans* lifespan

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C) Functions and Mechanisms: Cancer Chemoprevention

PC0701 Alkaline hydrolysates of ginseng extract to enhance cancer chemoprevention activity

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PC0702 ADA-07 suppresses solar ultraviolet-induced skin carcinogenesis by directly inhibiting TOPK

Qiushi Wang, Tianshun Zhang, Ge Gao, Zigang Dong

The Hormel Inst., Univ. of Minnesota, USA

PC0703 Effects of carnosine on colon carcinogenesis in mice

Jia-Huei Li¹, Hsin-Ying Kuo¹, Ya-Ting Chen², Chih-Chung Wu³, Shu-Ling Hsieh¹

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PC0704 Anticancer activity in Indian Ayurvedic herb, Ashwagandha: Computational and experimental evidence

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PC0705 Honey bee propolis: Functional characterization and mechanism of action of anticancer and anti-stress activities

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PC0706 Antimutagenicity of *Phyllanthus emblica* fruit extract and its partially purified fractions in *Salmonella* mutation assay

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- PC0707 Synergistic chemopreventive effects of mixed sesame and orange seed extract of on diethylnitrosamine-induced hepatocarcinogenesis in rats**
Napaporn Khuaphram¹, Prachya Kongtawelert¹, Arpamas Charikornkul¹, Rawiwan Wongpoomchai^{1,2}
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- PC0708 Curcumin may suppress cancer cell proliferation through ATP depletion**
Ayako Furukawa, Satoki Suihara, Rina Takuwa, Akari Ishisaka, Akira Murakami
 Dept. of Food Sci. and Nutr, Sch. of Hum. Sci. and Environ., Univ. of Hyogo, Japan
- PC0709 Antioxidant and antiproliferation of young rice leaves (RD6 and BGR)**
Vissessakseth So^{1,3}, Wipawee Thukhammee^{2,3}, Jintanaporn Wattanathorn^{2,3}, Natthida Weerapreeyakul^{3,4}
¹Grad. Sch. (Pharmaceutical Sci.), Fac. of Pharm. Sci., Khon Kaen Univ., Thailand, ²Dept. of Physiol., Fac. of Med., Khon Kaen Univ., Thailand, ³Human High Performance and Health Promotion (HHP&HP) Res. Inst., Khon Kaen Univ., Thailand, ⁴Div. of Pharm. Chem., Fac. of Pharm. Sci., Khon Kaen Univ., Thailand
- PC0710 Effect of red yeast (*Sporidiobolus pararoseus*) on aflatoxin B1 induced mutagenesis *in vitro* and *in vivo* models**
Romteera Kittichaiworakul¹, Sirinya Taya², Chonikarn Singai¹, Thanongsak Chaiyaso³, Rawiwan Wongpoomchai^{1,4}
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- PC0711 Glutelin and its hydrolysate of color rice bran attenuated formation of preneoplastic lesions in liver and colon of carcinogens initiated rats**
Aroonrat Pharapiroon¹, Akkasit Jongjareonrak², Phatthawin Lengkidworraphiphat^{1,3}, Kenji Sato⁴, Rawiwan Wongpoomchai^{1,5}
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- PC0712 *Lactobacillus fermentum* ameliorates colitis-associated tumorigenesis by modulating gut microbiome**
Ya-Chun Chou, Pin-Yu Ho, Min-Hsiung Pan
 Inst. of Food Sci. and Technol., Natl. Taiwan Univ., Taiwan
- PC0713 A possibility of tocotrienol as a cancer chemopreventative agent in malignant mesothelioma**
Kakeru Kono^{1,3}, Akari Yoshida³, Momoka Fusegi¹, Daiki Endo¹, Tsunetaka Arai¹, Masako Ota^{2,3}, Tomohiro Yano^{1,3}
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- PC0714 Camphorataimide B, a synthesized maleimide derivative, induces apoptosis in human hepatocellular carcinoma cells**
Yun-Ching Chang¹, Dai-Jung Chung², Chau-Jong Wang¹
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- PC0715 The physiological activities of microalgae –Focusing on radical scavenging activity and cytotoxicity against cancer cells–**
Akihiro Ohara^{1,2}, Daisuke Betto¹, Mafumi Kawamura², Yuji Yamaguchi³, Ken-ichiro Minato^{1,2}, Hiroyuki Takenaka³
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- PC0716 Anti-metastatic effects and chemical properties of polysaccharides isolated from fermented ginseng leaves**
Sue Jung Lee, Hye-Ryung Park, Kwang-Soon Shin
 Dept. of Food Sci. and Biotechnol., Kyonggi Univ., Korea
- PC0717 Chemopreventive effect of natural dietary compounds on xenobiotic-induced carcinogenesis**
Min-Hsiung Pan¹, Chia-Ching Wu¹, Chi-Tang Ho²
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- PC0718 Chemopreventive efficacy of 3'-hydroxypterostilbene on suppression of high fat diet-induced obesity promotes colitis**
Pei-Sheng Lee¹, Yi-Shiou Chiou^{1,2}, Nagabhushanam Kalyanam³, Chi-Tang Ho⁴, Min-Hsiung Pan¹
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- PC0719 Evaluation of azolato-bridged dinuclear platinum (II) complexes cytotoxicity in human prostate cancer cells**
Tasuku Arai¹, Takeshi Matsunaga¹, Maya Kamao², Seiji Komeda³, Yoshihisa Hirota¹
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- PC0720 Anticancer activity and mediation of apoptosis in hepatoma carcinoma cells by ethanolic extract of Djulis and its bioactive compounds**
Pin-Der Duh¹, Dom-Gene Tu², Chin-Chen Chu³, Shih-Ying Chen⁴, Charng-Cherng Chyau⁵, Heuy-Ling Chu¹, You-Chia Wu⁴
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PC0722 The potential effects/mechanisms and safety study of ent-kaurane diterpenoid extracted from *C. tonkinensis* Gagnep as an anti-lung cancer agent

Yi-Hsuan Huang, Rong-Jane Chen

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C) Functions and Mechanisms: Cardiovascular Health

PC0801 Fish oil is more potent than flaxseed oil in modulating gut microbiota and reducing trimethylamine-N-oxide (TMAO)-exacerbated atherogenesis in mice

Zouyan He, Zhen-Yu Chen

Food and Nutr. Sci. Programme, Sch. of Life Sci., The Chinese Univ. of Hong Kong, China

PC0802 Geniposidic acid promotes atrial natriuretic peptide secretion to exhibit the biological effect

Shohei Yamaguchi¹, Ryuto Takahashi², Shingo Hosoo³, Tetsuya Hirata³, Yasuyo Yamaguchi³, Hiroo Yamasaki³, Naoto Minamino⁴, Koza Nakamura^{2,5}

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PC0803 The effects of sulfuric odors of garlic and thier precursors on HDL-mediated cholesterol efflux from the macrophages

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PC0804 The effects of trigonelline in *Raphanus sativus* cv. Sakurajima Daikon as a functional food for humans

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PC0805 Anthocyanins derived from purple carrot affect on the hemodynamic changes through adrenomimetic action

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- PC0806 Purification of Angiotensin I-converting-enzyme inhibitors from a *Chlorella* hot water extract**
Kyohei Koseki, Tomohiro Bito, Fumio Watanabe
Grad. Sch. of Sustainability. Sci., Tottori Univ., Japan
- PC0807 Sea buckthorn seed oil reduces blood cholesterol and modulates gut microbiota**
Wangjun Hao, Zhenyu Chen
Sch. of Life Sci., The Chinese Univ. of Hong Kong, China
- PC0808 Effect of peony seed oil on lipid metabolism in hypercholesterolemia hamster**
Erika Kwek, Zhen Yu Chen
Sch. of Life Sci., The Chinese Univ. of Hong Kong, China
- PC0809 Anti-hypertensive effects of *Pinus densiflora* bark extract in spontaneously hypertensive rats**
Kwan Joong Kim^{1,2}, Eun-Sang Hwang³, Min-Jeong Kim^{1,2}, Ji-Ho Park⁴, Dae-Ok Kim^{1,2}
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- PC0810 Djulis hull extracts ameliorate lipid metabolism in hamsters fed a high-fat/high-cholesterol diet**
Yu-Yuan Shih¹, Ching-Yi Kuan¹, Pi-Jen Tsai¹, Hui-Yun Tsai², Yu-Kuo Chen^{1,3}
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C) Functions and Mechanisms: Chronobiology

- PC0901 Dietary fish oil differentially changes serum lipids and gene expression in healthy adults depending on time of feeding**
Tatsuya Konishi¹, Yoshinori Takahashi¹, Yasuhiko Shiina¹, Hideaki Oike^{2,3}, Katsutaka Oishi^{3,4,5}
¹Cent. Res. Inst., Maruha Nichiro Co., Japan, ²Food Res. Inst., NARO, Japan, ³Biol. Clock Res. Group, Biomedical Res. Inst., AIST, Japan, ⁴Dept. of Computational Biol. and Med. Sci., Grad. Sch. of Frontier Sci., Univ. of Tokyo, Japan, ⁵Dept. of Appl. Biol. Sci., Grad. Sch. of Sci. and Technol., Tokyo Univ. of Sci., Japan
- PC0902 Inhibitory mechanism of polyphenols for the disruption of circadian clock via AhR**
Takuya Nomura¹, Tomoya Kitakaze², Yoko Yamashita², Hitoshi Ashida²
¹Fac. of Agric., Kobe Univ., Japan, ²Dept. of Agrobiosci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan

PC0903 Effects of consumption-timing and fat species on body weight gain in C57BL/6 mice

Hiroki Matsuyama¹, Wataru Tanaka¹, Daigo Yokoyama¹, Saki Nishimura², Shoji Matsumoto², Takashi Sano², Takatoshi Yamashita², Masanobu Sakono¹, Hiroyuki Sakakibara¹

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PC0904 Cacao polyphenols regulate the clock gene expressions in mice

Ken-yu Hironao, Shujiao Huang, Yuji Mitsuhashi, Hitoshi Ashida, Yoko Yamashita

Dept. of Agrobiosci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan

PC0905 Diurnal variation of polyphenol amounts in sensitive plant (*Mimosa pudica* L.)

Kanami Ino, Hiroki Matsuyama, Wataru Tanaka, Masanobu Sakono, Hiroyuki Sakakibara

Grad. Sch. of Agric., Univ. of Miyazaki, Japan

C) Functions and Mechanisms: Exercise and Skeletal Muscle Health

PC1001 Inhibitory effect of *Illicium verum* water extract on muscle atrophy through the regulation of protein turnover and myogenesis

Jihee Yoo, Changhee Kim, Jae-Kwan Hwang

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PC1002 Oleamide rescues skeletal muscle atrophy of mice housed in small cages

Yasuyuki Kobayashi¹, Natsumi Watanabe¹, Tomoya Kitakaze², Keiichiro Sugimoto^{3,4}, Kenji Kai¹, Naoki Harada¹, Ryoichi Yamaji¹

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PC1003 Preventive effect of dietary lemon peel extract containing eriocitrin on disuse muscle atrophy

Takahito Takase¹, Naoyuki Kobayashi¹, Takashi Inoue¹, Youichi Tsuchiya¹, Rie Mukai²

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PC1004 The effect of wheat-derived glucosylceramide on carbohydrate and protein metabolism in muscles

Yuki Furutachi, Yutaka Miura

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PC1005 Physical characteristics of carnosine synthase gene-deficient mice -Carnosine deficiency impairs exercise performance-

Ai Egusa¹, Nobuhiro Nakao², Takaki Saito¹, Nobuya Yanai³, Shigenobu Shiotani³, Kenichiro Sato³, Mamoru Totsuka¹, Toshihide Nishimura⁴

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- PC1006 Estrogenic activity of 8-renalnaringenin improves skeletal muscle regeneration from disuse muscle atrophy by activating IGF-I/PI3K/Akt pathway**
Rie Mukai¹, Hisao Nemoto², Junji Terao³
¹Dept. of Food Sci., Grad. Sch. of Technol., Ind. and Social Sci., Tokushima Univ., Japan, ²Dept. of Pharm. Chem., Inst. of Biomed. Sci., Tokushima Univ., Japan, ³Fac. of Clin. Nutr. and Dietetics Konan Women's Univ., Japan
- PC1007 Screening of compounds that suppress the transcriptional activity of FOXO1**
Rintaro Matsuda, Takumi Onishi, Yuma Hirose, Yukino Hatazawa, Yasutomi Kamei
Grad. Sch. of Life and Environ. Sci., Kyoto Pref. Univ., Japan
- PC1008 Gangliosides in antler prevent skeletal muscle atrophy by stimulating PI3K/Akt pathway in L6 myotubes**
Jihee Yoo, Changhee Kim, Jae-Kwan Hwang
Dept. of Biotechnol., Yonsei Univ., Korea
- PC1009 *Chrysanthemum morifolium* extract inhibits sarcopenia through the regulation of protein turnover and mitochondrial biogenesis**
Dowan Kwon, Changhee Kim, Jae-Kwan Hwang
Dept. of Biotechnol., Yonsei Univ., Korea
- PC1010 Genistein and daidzein promote PGC-1 β -mediated energy expenditure gene expression in muscle cells**
Shiho Nakai¹, Ran Uchitomi¹, Rintaro Matsuda¹, Takumi Onishi¹, Shinji Miura², Yukino Hatazawa¹, Yasutomi Kamei¹
¹Grad. Sch. of Life and Environ. Sci., Kyoto Pref. Univ., Japan, ²Grad. Sch. of Nutr. and Environ. Sci., Univ. of Shizuoka, Japan
- PC1011 Search for factors that define properties of fast-type myofibers in muscle satellite cells**
Kaho Takigawa, Mariko Fujita, Yasutomi Kamei
Grad. Sch. of Life and Environ. Sci., Kyoto Pref. Univ., Japan
- PC1012 Identification of atrophy-related FOXO1-target genes in skeletal muscle of mice**
Mamoru Oyabu, Kaho Takigawa, Yasutomi Kamei
Grad. Sch. of Life and Environ. Sci., Kyoto Pref. Univ., Japan
- PC1013 Analysis of metabolic changes of C2C12 myoblasts induced by the transcription factor FOXO1**
Mariko Fujita, Rintaro Matsuda, Ran Uchitomi, Mamoru Oyabu, Yukino Hatazawa, Yasutomi Kamei
Grad. Sch. of Life and Environ. Sci., Kyoto Pref. Univ., Japan

PC1014 Extracellular transglutaminase 2 induces myotube hypertrophy through G protein-coupled receptor 56

Miki Yoshikawa¹, Tomoya Kitakaze², Naohiro Kimura¹, Yoshiyuki Ogata¹, Takahiro Ishikawa³, Yoko Yamashita², Hitoshi Ashida², Naoki Harada¹, Ryoichi Yamaji¹

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PC1015 Effects of glucosyl hesperidin intake on aerobic exercise capacity in rats

Suminori Nagayama¹, Shoichi Komine², Norie Arai³, Shin Endo³, Hajime Ohmori²

¹Grad. Sch. of Comprehensive Human Sci., Univ. of Tsukuba, Japan, ²Fac. of Health and Sport Sci., Univ. of Tsukuba, Japan, ³R&D Div., Hayashibara Co., Ltd., Japan

PC1016 Endurance training and administration of β -hydroxy- β -methylbutyrate and black ginger prevent sarcopenia

Hajime Ohmori¹, Kai Aoki², Masaki Konno², Katsunari Honda³, Takuya Abe⁴, Takeshi Nagata⁵, Masaaki Takehara⁵

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C) Functions and Mechanisms: Exosome and microRNA**PC1101 Delphinidin suppresses muscle atrophy and upregulates miR-23a in skeletal muscle and plasma**

Yuki Marugame¹, Motoki Murata^{1,2}, Megumi Goto¹, Yoshinori Fujimura¹, Hirofumi Tachibana¹

¹Div. of Appl. Biol. Chem., Grad. Sch. of Bioresour. and Bioenviron. Sci., Kyushu Univ., Japan, ²ADRES, Ehime Univ., Japan

C) Functions and Mechanisms: Gastrointestinal Health and Diseases**PC1201 Effect of *Lactobacillus plantarum* Q180 on blood triglyceride levels and intestinal environment : a randomized, double-blind, placebo-controlled study**

Ji Yeon Kim¹, Yeeun Park¹, Yeji Hyun¹, Humna Liaqat¹, Kyeong Jin Kim¹, In Suk Choi², Byoung-Kook Kim², You-Il Kim², Ji-Hee Kim², Kyungwon Shim³

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PC1202 Site-specific delivery of nucleic acid in the gastrointestinal tract via oral administration of multicompartmental capsules

Kyungjik Yang¹, Taehyung Kim¹, Jeong Un Kim¹, Il-Hwa Hong², Jiyong Park¹, Young Hoon Roh¹

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- PC1203 The effect of pectin from persimmon on small intestinal villus morphology change and nutrient absorption**
Saki Gotoh¹, Kenichi Ito², Maki Ohno², Kohji Kitaguchi¹, Tomio Yabe^{1,3}
¹United Grad. Sch. of Agric. Sci., Gifu Univ., Japan, ²Ichimaru Pharcos Co., Ltd., Japan, ³G-CHAIN, Japan
- PC1204 An intestinal immune system-modulating activity of polysaccharide from young barley leaves and its structural characterization**
Hye-Ryung Park¹, Sue Jung Lee¹, Ho-Young Park², Kwang-Soon Shin¹
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- PC1205 Oral administration of rice resistant protein inhibits the expression of the regenerating islet-derived protein 3 family in mice**
Ayane Mikami¹, Tasuku Ogita², Kanna Matsumoto³, Takeshi Shimosato²
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- PC1206 Partially hydrolyzed guar gum on fecal characteristics and gut microbiota – A randomised, double-blind, placebo-controlled, parallel-group study**
Zenta Yasukawa^{1,2}, Ryo Inoue³, Makoto Ozeki^{1,2}, Tsutomu Okubo^{1,2}, Tomohisa Takagi⁴, Akira Honda⁵, Yuji Naito⁴
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- PC1207 Dietary fermentable fibers increase intestinal heat shock protein70 through short chain fatty acids production**
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- PC1208 Gut microbiota modulation by vitamin A fortification in Muslim lactating women and infants**
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- PC1209 Effect of aging with changes of chemokine production in intestines on intestinal microbiota**
Ryota Igarashi¹, Shinji Fukuda², Hideyuki Nagafusa³, Haruko Takeshita⁴, Kazutoshi Sayama⁵
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PC1210 Study on the protective effect of water extract of clam on indomethacin-induced gastric injury in rats

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PC1211 Yeast β -glucan encapsulated methotrexate for synergistically treating inflammatory bowel disease

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PC1212 Effects of spontaneous exercise on NASH pathology in the CDAHFD-fed mouse model

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PC1213 Intra-rectal ethanol administration for colitis predisposition in a mouse model

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PC1214 High serum phospholipid dihomo- γ -linoleic acid level is associated with NAFLD in the Japanese population: a cross-sectional study

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C) Functions and Mechanisms: Metabolic Syndrome, Obesity and Diabetes**PC1301 Possible antiobesity effects of protease-A digested egg crude chalaza hydrolysates**

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PC1302 Strawberry decrease oxidative stress in high-fat diet-induced obese and diabetic mice

Manabu Wakagi, Masao Goto, Naoto Hashimoto, Hiroyuki Nakagawa, Yuko Takano-Ishikawa

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- PC1303 Ameliorative effects of Alkylresorcinols for a mouse model of nonalcoholic steatohepatitis**
Youhei Takagi¹, Yumika Hiraga¹, Akie Kurashina², Masayoshi Takayanagi², Shinjiro Imai¹
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- PC1304 Effect of astaxanthin on the inhibition of adipogenesis in 3T3-L1 adipocytes**
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- PC1305 Study on the relationship between fatty acid metabolism and thermogenic function of white adipocytes**
Mari Iwase¹, Soshi Tokiwa¹, Shigeto Seno², Takako Mukai³, Haruya Takahashi¹, Wataru Nomura¹, Huei-Fen Jheng¹, Tatsuya Kusudo³, Naoki Osato², Hideo Matsuda², Kazuo Inoue¹, Teruo Kawada^{1,4}, Tsuyoshi Goto^{1,4}
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- PC1306 Effect of paternal obesity and maternal nutritional restriction during pregnancy on glucose and lipid metabolism in offspring.**
Eri Nakamura, Ayaka Ishii, Ayaka Ozawa, Yukari Egashira, Shizuka Hirai
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- PC1307 Calebin-A improved adipose inflammation and insulin resistance in diet-induced obesity**
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- PC1308 Tetrahydrocurcumin suppression of DEHP promoted high fat diet induced nonalcoholic fatty liver disease and its molecular mechanisms of action**
 Yu-Chi Chu¹, Mei-Ling Tsai¹, Chi-Tang Ho², Ching-Shu Lai¹
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- PC1309 The effect of Tetrahydrocurcumin inhibits TNF- α induced insulin resistant**
Yi-Zhen Tsai¹, Chi-Tang Ho², Min Hsiung Pan³, Ching-Shu Lai¹
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- PC1310 Protective effect of functional cider fermented from buni fruits (*Antidesma bunius*) against metabolic syndrome**
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PC1311 Effects of hot-water extract from unripe mango fruits consumption on blood lipid levels in ApoE deficient mice

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PC1312 Studies on the body fat reducing effect of quercetin glycosides

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PC1313 Search for vegetable-derived components that inhibit sodium/glucose cotransporter 1 (SGLT1)

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PC1314 Analysis of Kelakai (*Stenochlaena palustris*) and the relationship of DPPH antioxidative and lipase inhibitory activity

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PC1315 Bisacurone derived from turmeric suppresses hepatic lipid accumulation

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PC1316 Protective effect of *Labisia pumila* against diabetic neuropathy in an experimental rat model

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PC1317 The effect of a diet containing fish oil during pregnancy and lactation on the insulin secretory capacity of offspring

Kota Torii, Tsuyoshi Tsuduki

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PC1318 Effect of maternal nutritional restriction during pregnancy and pacific krill oil intake during lactation on glucose and lipid metabolism in offspring

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- PC1319 Inhibition of pancreatic lipase by a glycosylated phenolic acid from aqueous isolate of *Solanum tuberosum* L.**
Katimbwa Dorsilla Anono, JinSung Ma, Dong-yup Hahn, Jinkyu Lim
Sch. of Food Sci. and Biotechnol., Coll. of Agric. Biotechnol. and Life Sci., Kyungpook Natl. Univ., Korea
- PC1320 Analysis of deep sea water on lipid accumulation and inflammation in high fat diet-induced obese hamster**
Min-Chun Chang¹, Shu-Ya Wu¹ Chu-Chyn Ou¹ David Pei-Cheng Lin², Han-Hsin Chang¹
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- PC1321 Pyroglutamylleucine improved the increase of blood glucose levels induced by high-fat diet without improving high-fat diet-induced hepatitis**
Satoshi Miyauchi, Kenji Sato
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- PC1322 Possible lipolysis mechanisms of catechins via ATP consumption**
Satoki Suihara, Akari Ishisaka, Akira Murakami
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- PC1323 Artepillin C induces thermogenesis in inguinal white adipose tissues of mice in association with a creatine metabolism-related thermogenic pathway**
Sho Nishikawa¹, Takuma Hyodo¹, Hiroki Aoyama¹, Ryo Miyata², Shigenori Kumazawa², Takanori Tsuda¹
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- PC1324 Effect of arginyl-fructosyl-glucose (AFG) on methylglyoxal-induced insulin resistance in HepG2 cells**
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- PC1325 Lipid-lowering effect of water fraction in ethanolic extract from gac fruit aril on diet-induced hyperlipidemia in hamsters**
Ya-Ting Yang¹, Yu-Yuan Shih¹, Chi-I Chang², Hui-Yun Tsai³, Yu-Kuo Chen^{1,4}
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PC1326 Improvement of postprandial lipidemia by resveratrol through intestinal activation of peroxisome proliferator-activated receptor- α

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PC1327 Tomatidine reduces palmitate-induced lipid accumulation by activating AMPK via vitamin D receptor-mediated signaling in hepatocytes

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PC1328 The effect of miso on non-alcoholic fatty liver and modulated gut microbiota in high fat diet fed rats

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PC1329 The regulation effects of *Ampelopsis grossedentata* derived dihydromyricetin on bile acids secretion and microbiota metabolites in metabolic syndrome

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PC1330 Effects of faltarindiol from Apiaceae vegetables on the gluconeogenesis in hepatoma cells

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PC1331 Protective effect of *Graptopetalum paraguayense* E. Walther against fructose-induced hepatic steatosis

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PC1332 N- γ -(l-Glutamyl)-l-selenomethionine decreases fat storage regulated by FAT-6, FAT-7, and TRXR-1 in *C. elegans*

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PC1333 Salmon cartilage proteoglycan improves cholesterol levels associated with postmenopausal syndrome in ovariectomized rats

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PC1334 The effect of the functional drink containing the combined *M. alba* and *L. esculentum* on lipid profiles and consumption safety in overweight volunteers

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PC1335 Efficacy and safety evaluation of rose hip extract: double blind, randomized placebo-controlled clinical trials

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PC1336 *Salacia chinensis* stem extract and its thiosugar sulfonium constituent, neokotalanol, improves HbA1c levels in ob/ob mice

Toshio Morikawa^{1,2}, Masakazu Kobayashi³, Junji Akaki^{1,3}, Yasuyo Yamaguchi³, Hiroo Yamasaki³, Kiyofumi Ninomiya^{1,2}, Yutana Pongpiriyadacha⁴, Masayuki Yoshikawa¹, Osamu Muraoka^{1,2}

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PC1337 The new combination of probiotics improves body weight regulation in obesity

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PC1338 Effects of sweet solution free-intake on blood glucose level and insulin concentration of mice

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C) Functions and Mechanisms: Molecular Targets of Food Factors

PC1401 Up-regulation of senescence marker protein 30 by epigallocatechin gallate attenuates t-BHP-induced oxidative stress

Kohta Arakawa, Hirofumi Inoue, Miori Tanaka, Nobuyuki Takahashi, Mariko Uehara

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- PC1402 Identification of the molecules involved in the anti-melanoma effect of Delphinidin**
Motoki Murata^{1,2}, Yuka Sato², Yuki Marugame², Hirofumi Tachibana²
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- PC1403 Fisetin, but not robinetin, promotes glucose uptake in skeletal muscle: Involvement of pyruvate kinase PKM and ATP-dependent RNA helicase DDX1**
Hitoshi Ashida, Megumi Aya, Yoko Yamashita
 Dept. of Agrobiosci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan
- PC1404 Identification of two G protein-coupled receptors as targets of curcumin**
Yumi Arahori¹, Mai Okuyama¹, Naoki Harada¹, Yoshiaki Teraoka¹, Hiroko Horiuchi¹, Norio Yamamoto², Naoki Goshima^{3,4}, Takashi Inui¹, Hiroshi Inui⁵, Ryoichi Yamaji¹
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- PC1405 Effect of pinocembrin on human umbilical vein endothelial cell apoptosis**
 Ji-Hye Kim^{1,2}, Mok-Ryeon Ahn^{1,2}
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- PC1406 Citrus peel polymethoxyflavones, sudachitin and nobiletin, induce distinct cellular responses in human keratinocyte HaCaT cells via the MAPK pathways**
Shogo Abe¹, Saki Hirose¹, Mami Nishitani¹, Akihiko Tsujii^{1,2}, Keizo Yuasa^{1,2}
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- PC1407 Wasabi 6-methylthiohexyl isothiocyanate enhances Sirtuin 1 expression by modulating AMPK α and Nrf2 pathways**
Xu-Chi Pan¹, Keyu Chen², Kun Xie², Kozue Sakao^{1,2}, De-Xing Hou^{1,2}
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- PC1408 Procyanidin C1 elicits melanoma cell growth inhibition by activating the protein phosphatase 2A pathway through 67-kDa laminin receptor signaling**
Jaehoon Bae, Motofumi Kumazoe, Yoshinori Fujimura, Hirofumi Tachibana
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PC1409 Genistein increases NAD biosynthesis through the induction of NAMPT expression in adipocytes

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PC1410 RNA-Seq identifies novel mechanistic targets of withaferin A in prostate cancer cells

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PC1411 Cyanidin-3-glucoside attenuates 4-hydroxynonenal-and visible light-induced retinal damage *in vitro* and *in vivo*

Yong Wang, Hui Sun, Wentao Qi

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C) Functions and Mechanisms: Nutritional Regulation of Epigenetics**PC1501 Beta-carotene exerts anti-colon cancer stem cells effects by regulating DNA methylation and histone modification**

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PC1502 Maternal dietary inulin after pregnancy affected the development of T1D in the offspring

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PC1503 Two days of prenatal methionine deficiency during the development of endocrine precursor cells impairs later-life glucose tolerance in mice

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C) Functions and Mechanisms: Protein Modification by Food Factors**PC1601 Pyridoxamine inhibits lipofuscin formation and exerts cytoprotective action against retinal-exposed retinal pigment epithelial cells**

Chika Yamashita¹, Ryoko Ide¹, Kenji Kai¹, Kyoza Suyama², Mitsugu Akagawa¹

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PC1602 Breeding grapefruit for low cytochrome P4503A4 inhibition

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PC1603 Detection of new advanced glycation end product in collagen-glyceraldehyde system and in mice injected with glyceraldehyde

Agustin Martin-Morales, Kenji Sato

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PC1604 A new method for the purification of polyphenol-binding proteins by pull-down assay with polyvinylpyrrolidone

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C) Functions and Mechanisms: Redox Regulation**PC1701 Supplementation of Morin attenuates oxidative stress and muscle wasting in mouse C2C12 skeletal myotubes treated with dexamethasone**

Anayt Ulla, Takayuki Uchida, Yukari Miki, Kosuke Sugiura, Ayako Ohno, Reiko Nakao, Takeshi Nikawa

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PC1702 Mechanisms of oxidative stress induced by vitamin B₁₂ deficiency in the nematode *Caenorhabditis elegans*

Tomohiro Bito¹, Naho Okamoto², Yukinori Yabuta¹, Fumio Watanabe¹

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PC1703 Retinol as well as β -carotene can enhance glutathione level in cultured murine RAW264 macrophages independent of retinoic acid signaling pathway

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PC1704 Hypoglycemic effect and its possible mechanism of oral administered superoxide dismutase

Shutao Liu, Hangqi Liu, Dan Zhao, Chaoyi Pan, Xuepu Jin, Yujia Hu, Xiaolu Gao, Pingfan Rao

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PC1705 Effect of *Spirulina* lipids on oxidative stress in diet-induced obese mice

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C) Functions and Mechanisms: Skin Health

PC1801 Intestinal absorption of ceramide prepared from soy sauce lees and its dietary effect on skin barrier function

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PC1802 Preventive effect of macelignan on particulate matter-induced skin damage by inhibiting aryl hydrocarbon receptor signaling

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PC1803 Squalene oxidation and its effect on human keratinocyte cell line HaCaT

Saoussane Khalifa, Naoki Shimizu, Junya Ito, Takahiro Eitsuka, Kiyotaka Nakagawa

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PC1804 Dietary ceramide 2-aminoethylphosphonate, a marine sphingolipid, is intestinally absorbed and improves dry skin in hairless mice

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PC1805 Intake of collagen peptide improves facial skin properties –Randomized placebo-controlled double-blind trial–

Kumiko Kuwaba¹, Yoh-ichi Koyama^{1,3}, Yukihiko Tsukada², Masashi Kusubata¹, Kazunori Mizuno¹

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PC1806 Effects of enzymatically synthesized glycogen on PM2.5-induced inflammation in NHEK cells

Tomoya Kitakaze¹, Takashi Furuyashiki², Hitoshi Ashida¹

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PC1807 Effect of Chimpi extract on aquaporin in the skin

Nobutomo Ikarashi¹, Chenchen Pei¹, Miho Kaneko¹, Ai Kawasaki¹, Riho Tanaka¹, Naoya Takayama¹, Daigo Wakana², Tomoo Hosoe², Risako Kon¹, Hiroyasu Sakai¹, Junzo Kamei¹

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PC1808 The p75NTR-positive fibroblasts from mouse skin respond to Pro-Hyp, collagen-derived peptide

Tomoko Asai¹, Kazunobu Yoshikawa², Kazuhiro Sawada², Xin Wei², Kenji Sato²

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PC1809 Long-term intake of kale cultivar with high content of glucoraphanin prevents skin aging via activating Nrf2 and TβRII/Smad pathway in SAMP1 mice

Saki Ichikawa¹, Yuki Uchibori¹, Supattra Chawalitpong¹, Patipark Kueanjinda², Takakazu Mitani¹, Soichiro Nakamura¹, Shigeru Katayama^{1,2}

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C) Functions and Mechanisms: Others

PC1901 Inhibition of AGEs formation by Lotus Seedpod Oligomeric Procyanidins through RAGE-MAPK signaling and NF-κB activation in high-fat-diet rats
Qian Wu

Sch. of Food and Biol. Eng., Hubei Univ. of Technol., China

PC1902 Aged garlic extract induces aldehyde dehydrogenase via Nrf2/ARE pathway

Masako Inoue, Sihao Yuan, Tomoya Kitakaze, Hitoshi Ashida

Dept. of Agrobiosci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan

PC1903 Clinical evaluation of the beneficial effects of broccoli sprout extracts on sleep quality in healthy volunteers

Masahiro Kikuchi^{1,2}, Yudai Aoki³, Noriaki Kishimoto^{2,4}, Nana Urata^{4,5}, Shinji Takashimizu^{4,5}, Kazutaka Yoshida³, Koichi Aizawa³, Hiroyuki Suganuma³, Yasuhiro Nishizaki^{2,4}

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PC1904 Analysis of lacrimal gland ageing in Klotho mutant mice

Ya-Jing Liu¹, Yu-Jin Tang¹, Tsung-Han Lu¹, Chia-Yun Hsu¹, Meng-Tian Hsieh¹, Han-Hsin Chang², David Pei-Cheng Lin¹

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PC1905 The inhibitory effects of quercetin on the intestinal cesium absorption in a Caco-2 cell system

Michiko T. Yasuda^{1,2}, Saki Kondo¹, Yuki Hayashi¹, Chika Tokuyama², Shinichi Ikushiro³, Shin-Ichiro Karaki², Kayoko Shimoi²

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- PC1906 Effects of broccoli sprout extract supplement on liver functions in healthy subjects**
Masahiro Kikuchi^{1,2}, Yudai Aoki³, Koichi Aizawa³, Hiroyuki Suganuma³, Yasuhiro Nishizaki^{2,4}
¹Dept. of Gastroenterol., Natl. Hosp. Organization Tokyo Med. Cent., Japan, ²Tokai Univ. Tokyo Hosp., Japan, ³Innovation Div., Kagome Co., Ltd., Japan, ⁴Dept. of Clin. Health Sci., Sch. of Med., Tokai Univ., Japan
- PC1907 Evaluation of Klotho mutant mice as a study model for age-related macular degeneration**
Chia-Wen Huang¹, Yu-Jin Tang¹, Han-Hsin Chang², David Pei-Cheng Lin¹
¹Dept. of Med. Lab. and Biotechnol., Chung Shan Med. Univ., Taiwan, ²Dept. of Nutr., Chung Shan Med. Univ., Taiwan
- PC1908 Diet with an inulin prolongs the honeymoon period of NOD mice**
Yukiko Kagohashi¹, Reiko Ikeda², Hiroki Otani²
¹Dept. of Health and Disease, The Univ. of Shimane, Japan, ²Fac. of Med., Shimane Univ., Japan
- PC1910 Study of protein digestibility of commercial fish skin collagen and its antioxidative function during simulated gastro-intestinal digestion**
Sunantha Ketnawa, Qin Wei, Yukiharu Ogawa
Grad. Sch. of Horti. Sci., Chiba Univ., Japan
- PC1911 A randomized controlled trial of *Cordyceps cicadae* mycelium in dry eye syndrome**
Bo-Yi Jhou¹, Jui-Hsia Hsu¹, Chin-Chu Chen^{1,2,3,4,5}
¹Grape King Bio, Taiwan, ²Dept. of Food Sci., Nutr., and Nutraceutical Biotechnology, Shih Chien Univ., Taiwan, ³Inst. of Food Sci. and Technol., Natl. Taiwan Univ., Taiwan, ⁴Dept. of Bioscience Technol., Chung Yuan Christian Univ., Taiwan, ⁵Inst. of Biotechnology, Natl. Changhua Univ. of Education, Taiwan
- PC1912 Isolation of colloidal particles from porcine bone soup and their protective effects on the epithelial cells of intestine (Caco-2 cell)**
Huiqin Wang, Guanzhen Gao, Jianwu Zhou, Lijing Ke, Yongyang Jin, Pingfan Rao
Food Nutr. Sci. Centre, Sch. of Food Sci. and Biotechnol., Zhejiang Gongshang Univ., China
- PC1913 An alcohol-derived metabolite salsolinol induces hepatic damage in male mice**
Hyunjung Choi¹, Xiancai Zhong², Jeong-Eun Lee¹, Jae Min Lim³, Kwang Pyo Kim³, Young-Joon Surh², Hye-Kyung Na¹
¹Dep. of Food Sci. & Biotech., Coll. of Knowledge-Based Services Eng., Sungshin Women's Univ., Korea, ²Tumor Microenviron. Global Core Res. Ctr., Coll. of Pharm., Seoul Natl. Univ., Korea, ³Dep. of Appl. Chem., Coll. of Appl. Sci., Kyung Hee Univ., Korea

PC1914 An alcohol-derived metabolite salsolinol induces the Nrf2-mediated expression of heme oxygenase-1 in the SK-Hep1 liver cancer cells

Jeong-Eun Lee¹, [Hong-Kyung Yang](#)², Muhammad Usman Jamil^{1,3}, Hyunjung Choi¹, Young-Joon Surh³, Hye-Kyung Na¹

¹Dep. of Food Sci. & Biotech., Coll. of Knowledge-Based Services Eng., Sungshin Women's Univ., Korea, ²Dep. of Future Appl. Sci., Coll. of Nat. Sci., Sungshin Women's Univ., Korea, ³Tumor Microenviron. Global Core Res. Ctr., Coll. of Pharm., Seoul Natl. Univ., Korea

D) Others: Analytical Methods and Omics Technologies**PD0101 Digestive stability of polyphenols in enzyme-modified common buckwheat sprouts extract using simultaneous analysis by HPLC**

[Davin Jang](#)¹, Mi-Seon Kim¹, Chan-Su Rha¹, Jun-Gu Kwak², Jong Hoon Kim³, Chang-Won Ahn³, Nam Soo Han², Dae-Ok Kim¹

¹Dept. of Food Sci. and Biotechnol., Kyung Hee Univ., Korea, ²BK 21 for Bio-Resour. Dev., Div. of Anim., Hortic. and Food Sci., Chungbuk Nat. Univ., Korea, ³Res. & Dev. Cent., Nongshim Co., Ltd., Korea

PD0102 An improved internal standard mixture for comprehensive tracking of orally administered collagen hydrolysate using LC-MS

[Yuki Taga](#)¹, Yu Iwasaki², Yasutaka Shigemura², Kazunori Mizuno¹

¹Nippi Res. Inst. of Biomatrix, Japan, ²Dept. of Nutr., Fac. Domest. Sci., Tokyo Kasei Univ., Japan

PD0103 Widely targeted metabolomics of curry using LC/MS/MS –How compounds change when curry is stored overnight? –

Takanari Hattori¹, Harumi Kubo¹, Yasuko Yamada², [Mami Okamoto](#)¹, Jun Watanabe¹

¹Shimadzu Co., Japan, ²Shimadzu Techno-Research Inc., Japan

PD0104 Validation of a quantification method using gas chromatography-mass spectrometry –Intra-laboratory validation for specifications of food additive–

[Atsuko Tada](#), Fuyuko Hioki, Noriko Furusho, Naoko Masumoto, Chie Tatebe, Hiroki Kubota, Kyoko Sato

Div. of Food Add., Natl. Inst. of Health Sci., Japan

PD0105 Rapid separation and analysis of self-assembled nanoparticles from black tea by capillary zone electrophoresis

Jianqiao Zou, [Lijing Ke](#), Jianwu Zhou, Guanzhen Gao, Huiqin Wang, Zhaoshuo Yu, Zhangwen Peng, Sihao Luo, Pingfan Rao

SIBS-Zhejiang Gongshang Univ. Joint Cent. for Food and Nutr. Sci., Zhejiang Gongshang Univ., China

PD0106 Photodynamic therapy induces differential changes in human breast epithelial cells lipidome

[Alex Inague](#), Ancély Ferreira dos Santos, Marcos Yukio Yoshinaga, Leticia Labriola, Sayuri Miyamoto

Dept. of Biochem., Chem. Inst., Univ. of São Paulo, Brazil

- PD0107 Improved fermentation process monitoring using dual injection UHPLC system**
Keiko Matsumoto, Katsuaki Koterawasa, Hidetoshi Terada, Kyoko Watanabe
Analytical & Measuring Dept., Shimadzu Co., Japan
- PD0108 Determination of catechin and epicatechin in dark chocolate by synchronous front-face fluorescence spectroscopy**
Jin Tan¹, Rong Li¹, Shu-Hua Tang¹, Ying Wang¹, Zi-Tao Jiang^{1,2}
¹*Coll. of Biotechnol. and Food Sci., Tianjin Univ. of Comm., China*, ²*Sch. of Food Eng., Tianjin Tianshi Coll., China*
- PD0109 Quantification of wheat proteins from curry paste by using phase transfer surfactants-aided proteomics approach**
Takeshi Masuda^{1,2}, Ushio Takeda³, Sumio Ohtsuki^{1,2}
¹*Fac. of Life Sci., Kumamoto Univ., Japan*, ²*AMED-CREST, Japan*, ³*SCIEX, Japan*
- PD0110 Method development for the determination of 3-chloropropane-1,2-diol fatty acid esters and glycidyl fatty acid esters in edible oils**
Hsin-Ya Tsai, Jhih-Ning Hsu, Nan-Wei Su
Dept. of Agric. Chem., Natl. Taiwan Univ., Taiwan
- PD0112 Detection of cysteine peptides *in vitro* and *in vivo* digests of bovine lactoferrin**
Koji Kanazawa¹, Akika Ejima², Megumi Nakamura¹, Yasushi A. Suzuki¹, Kenji Sato²
¹*Biochem. Lab., Saraya Co. Ltd., Japan*, ²*Div. of Appl. Biosci., Grad. Sch. of Agric., Kyoto Univ., Japan*
- PD0113 Analytical characterization of silver nanowire-anchored biological interface for sucrose detection**
Dipali Bagal-Kestwal, Been Huang Chiang
Inst. of Food Sci. and Tech., Natl. Taiwan Univ., Taiwan
- PD0114 Physico-chemical characterization of super-wetted multi-layered nanocomposite matrix with entrapped phenoloxidases**
Dipali Bagal-Kestwal, Been Huang Chiang
Inst. of Food Sci. and Tech., Natl. Taiwan Univ., Taiwan

D) Others: Animal Cell Technology**PD0201 Construction of *in vitro* NAFLD model system using coculture and analysis of food components to prevent NAFLD**

Yuka Hazu¹, Yui Motomatsu², Atsuyoshi Nishina³, Hideo Satsu²

¹Dept. of Biotech., Grad. Sch. of Eng., Maebashi Inst. Technol., Japan, ²Dept. of Biotech., Maebashi Inst. Technol., Japan, ³Coll. of Sci. and Technol. Nihon Univ., Japan

PD0202 Development of a NFκB-responsive cell system and anti-inflammatory effect of 1-deoxynojirimycin in mulberry leaves

Hideo Satsu¹, Mizuki Honda², Asuka Kamei³, Mio Aida¹

¹Dept. of Biotech., Maebashi Inst. Technol., Japan, ²Dept. of Biotech., Grad. Sch. of Eng., Maebashi Inst. Technol., Japan, ³KISTEC, Japan

PD0203 Elucidation of recognition mechanism of dorsal root ganglion for food factors

Yota Fukuda^{1,2}, Naomi Osakabe², Takahiro Adachi¹

¹Dept. of Immunol., Med. Res. Inst., Tokyo Med. and Dental Univ., Japan, ²Dept. of Bio-Sci. and Eng., Shibaura Inst. of Technol., Japan

D) Others: Biomarkers**PD0301 Analysis of fecal gaseous metabolites in NASH-hepatocellular carcinoma model mice**

Mai Kato¹, Tsutomu Hashidume¹, Yutaka Shoji¹, Kumiko Shoji², Miki Igarashi³, Sumio Hayakawa⁴, Yuko Yoshikawa^{1,5}, Noriyuki Miyoshi¹

¹Grad. Sch. of Integrated Pharm. and Nutr. Sci., Univ. of Shizuoka, Japan, ²Kagawa Education Inst. of Nutr., Japan, ³Tokyo Univ. of Agric. and Technol., Japan, ⁴Nippon Med. Sch., Japan, ⁵Nippon Vet. and Life Sci. Univ., Japan

PD0302 Plasma lipoprotein profiles and free choline levels in NASH model rats –novel minimally invasive indicators for NASH–

Koji Kuriyama¹, Junichiro Takahashi¹, Takanobu Kiuchi¹, Kazuyuki Hiwatashi², Akira Sasaki², Keishi Hata²

¹Skylight Biotech. Inc., Japan, ²Akita Res. Inst. of Food & Brewing, Japan

PD0303 Identification of new aging biomarkers correlated with telomere and inflammatory marker

Hikari Osawa, Tsuyoshi Tsuduki

Grad. Sch. of Agric., Sci., Tohoku Univ., Japan

PD0304 Either calf or mid-arm circumference could be a simple marker for screening of pre-sarcopenia in the middle-aged elderly

Po-Sheng Chang¹, Chi-Hua Yen^{2,3,4}, Ching-Ju Chiu¹, Yu-Yun Huang¹, Ping-Ting Lin¹

¹Dept. of Nutr., Chung Shan Med. Univ., Taiwan, ²Sch. of Med., Chung Shan Med. Univ., Taiwan, ³Dept. of Family and Community Med., Chung Shan Med. Univ. Hosp., Taiwan, ⁴Cent. for Education and Res. on Geriatrics and Gerontology, Chung Shan Med. Univ., Taiwan

D) Others: Epidemiology

PD0401 Evaluation of daily consumption pattern as functional food sources for anticipating diabetes mellitus for Indonesian millennial generation

Indah Epriliati^{1,2}, Elisabeth Supriharyanti³, Ceacilia E Susilawati³

¹Dept. of Food Technol., Fac. of Agric. Technol., Widya Mandala Surabaya Catholic Univ., Indonesia, ²Food and Nutr. Res. Cent., Widya Mandala Surabaya Catholic Univ., Indonesia, ³Dept. of Management, Fac. of Business, Widya Mandala Surabaya Catholic Univ., Indonesia

PD0402 Association between coffee consumption and liver enzyme levels in the Korea Nurses' Health Study

Sihan Song¹, Yanghee Pang², Heeja Jung³, Hea-Young Lee⁴, Sue Kim⁵, Oksoo Kim², Jung Eun Lee¹

¹Dept. of Food and Nutr., Coll. of Human Ecology, Seoul Natl. Univ., Korea, ²Coll. of Nursing, Ewha Womans Univ., Korea, ³Coll. of Nursing, Konyang Univ., Korea, ⁴Dept. of Nursing, Doowon Tech. Univ., Korea, ⁵Coll. of Nursing, Yonsei Univ., Korea

PD0403 Temporal variability of caffeine and caffeine metabolite concentrations in spot urine samples in 50 North Carolina adults over a six-week period

Michael Rybak¹, Ching-I Pao¹, Maya Sternberg¹, Patrick Simon¹, Jon Sobus², Marsha Morgan²

¹US Cent. for Dis. Control and Prevention, USA, ²US Environ. Protection Agency, Res. Triangle Park, USA

PD0404 Maternal nutritional status during pregnancy and nursing period – A comparison by meal skipping –

Yukiko Kagohashi¹, Yoko Nakatani¹, Reiko Nagashima¹, Aiko Katsube², Hiroki Otani³

¹The Univ. of Shimane, Japan, ²Shimane Pref. Cent. Hosp., Japan, ³Fac. of Med. Shimane Univ., Japan

D) Others: Food Hygienics

PD0501 Preparation of water-soluble antibacterial silver nanoparticle for food applications

Yusuke Horiki¹, Kazumitsu Naoe¹, Jun Sawai², Masanao Imai³

¹Dept. of Matl. Sci. & Chem. Eng., Fac. of Adv. Eng., Natl. Inst. of Technol., Nara Coll., Japan, ²Dept. of Nutr. & Life Sci., Fac. of Appl. Biosci., Kanagawa Inst. of Technol., Japan, ³Grad. Sch. of Bioresour. Sci., Nihon Univ., Japan

PD0502 Consecutive fried oil intake impairs tear quality and quantity and the adverse effects can be ameliorated by *Vitis sinocinerea* extracts

Chia-Yun Hsu¹, Pang-Yuang Huang¹, Tsung-Han Lu¹, Meng-Tian Hsieh¹, Ya-Jing Liu¹, Han-Hsin Chang², David Pei-Cheng Lin¹

¹Dept. of Med. Lab. and Biotechnol., Chung Shan Med. Univ., Taiwan, ²Dept. of Nutr., Chung Shan Med. Univ., Taiwan

D) Others: Food Processing**PD0601 Synthesis of thermoresponsive gelatin-alginate hybrid capsules for food flavor encapsulation and controlled release**

Kyungsene Lee, Young Min Kim, Keonwook Nam, Young Hoon Roh

Dept. of Biotechnol., Coll. of Life Sci. and Biotechnol., Yonsei Univ., Korea

PD0602 Size-controlled multi-layered DNA/PLL/HA nanoparticles for efficient intestinal absorption of functional food ingredient

Taehyung Kim, Keonwook Nam, Eunji Kwak, Young Hoon Roh

Dept. of Biotechnol., Coll. of Life Sci. and Biotechnol., Yonsei Univ., Korea

PD0603 Development of chitosan layered nanostructured lipid carrier for efficient delivery of Curcumin

Young Min Kim, Kyungjik Yang, Kyeong Soo Kim, Jiyong Park, Young Hoon Roh

Dept. of Biotechnol., Coll. of Life Sci. and Biotechnol., Yonsei Univ., Korea

PD0604 Immobilizing laccase on electrospun chitosan fiber for biosensing applications on fresh-cut vegetables and fruits

Jhao-Rong Jhuang¹, Shyi-Neng Lou², Shih-Bin Lin², Shih- Hsin Chen², Li-Chen Chen², Hui-Huang Chen²

¹Micro-Tech Foods Ingredients, Inc., Taiwan, ²Dept. of Food Sci., Coll. of Bioresour., Natl. Ilan Univ., Taiwan

PD0605 Quality and antioxidant properties of cookie prepared with apple pomace powder

Keum-Il Jang, Young-Kyoung Kim, Seung-Hyeon Cha, Ui-Hwan Jung

Dept. of Food Sci. Biotechnol., Coll. of Agric. Life Environ. Sci., Chungbuk Natl. Univ., Korea

PD0607 Penetration efficiency of red ginseng extract into egg by removal of cuticle layer on egg

Seung-Hyeon Cha, Ui-Hwan Jung, Keum-Il Jang

Dept. of Food Sci. Biotechnol., Coll. of Agric. Life Environ. Sci., Chungbuk Natl. Univ., Korea

PD0608 Quality characteristics of soymilk prepared with hulled soybean

Ui-Hwan Jung, Jin-Sol Kim, Seung-Hyeon Cha, Keum-Il Jang

Dept. of Food Sci. Biotechnol., Coll. of Agric. Life Environ. Sci., Chungbuk Natl. Univ., Korea

PD0609 Addition of pigeon pea for improve physicochemical properties, cooking quality and analog rice acceptability based on mocaf and seaweed

Satrijo Saloko¹, Sisca Diani Rosalina², Yudi Pranoto², Supriyadi², Sri Widyastuti¹, Muktasam¹, Rumiyati², Agung Endro Nugroho², Yekti Asih Purwestri², Janet Reid³

¹Mataram Univ., Indonesia, ²Universitas Gadjah Mada, Indonesia, ³Massey Univ., Indonesia

- PD0610 Impact of lemongrass (*Cymbopogon citratus*) extract preservation method to the alpha-glucosidase inhibitory activity and chemical contents**
Maria DPT Gunawan-Puteri¹, [Adrian Susanto](#)¹, Nina Artanti²
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- PD0611 Producing the stabilized whole high amylose maize flour with high functionality**
[Hsi-Mei Lai](#), Chih-Hsuan Chan
Dept. of Agric. Chem., Natl. Taiwan Univ., Taiwan
- PD0612 The thermo stability of caprine milk fat globule membrane proteins**
Ying Ma, Lina Zhang, Xiaoming Liu, [Peng Zhou](#)
State Key Lab. of Food Sci. and Technol., Jiangnan Univ., China
- PD0613 Changes in antigenicity of food allergens through heating and irradiation**
[Ikuko Minami](#)^{1,2}, Mayuri Inoue³, Sakura Iwashita³, Etsuo Okuno³, Koichiro Ohnuki⁴, Kuniyoshi Shimizu⁵
¹Fac. of Nutr., Kobe Gakuin Univ., Japan, ²Intl. Coll. of Arts and Sciences, Fukuoka Women's Univ., Japan, ³Fac. of Food and Nutr., Kyushu Nutr. Welfare Univ., Japan, ⁴Dept. of Biol. and Environ. Chem., Kindai Univ., Japan, ⁵Dept. of Agro-environ. Sci., Fac. of Agric., Kyushu Univ., Japan
- PD0614 Analysis in active milk serum proteins of whole milk by proteomics during milk powder processing**
Yaowei Liu, Lina Zhang, Peng Zhou, [Xiaoming Liu](#)
State Key Lab. of Food Sci. and Technol., Jiangnan Univ., China
- PD0615 Effects of brown rice products on glucose and lipid metabolism in MS rats fed with high-fat-sucrose diet**
[Xiaotong Zhaj](#), Bin Tan, Runping Liang, Yanxiang Liu, Xiaohong Tian, Nana Wu, Liping Wang, Ming Liu
Academy of Natl. Food and Strategic Reserves Administration, China
- PD0618 Effects of polyphenol preservation liquid combined with vacuum packaging on the preservation of mackerel**
[Yuan-de Shi](#), Rui Ou Yang, Zhi-hui Wang, Li-peng Li, Wen-tao Chen, Lei-wen Xiang
Fuqing Branch, Fujian Normal Univ., China
- D) Others: R&D of Functional Foods and Nutraceuticals**
- PD0701 Effect of luteolin-rich “Kiku flower extract” on serum uric acid levels in Japanese male subjects with mild hyperuricemia**
Toru Takarada, [Shogo Takeda](#), Norihito Shimizu, Marina Hirano, Hiroshi Shimoda
Oryza Oil & Fat Chemical Co., Ltd., Japan

PD0702 Comparative analysis of rhodophyta extra and DHA algal oil formula for mitigation of dry eye symptoms induced by UVB irradiation in a mouse model

Tsung-Han Lu¹, Ying-Chih Tung², Chia-Yun Hsu¹, Meng-Tien, Hsieh¹, Ya-Jing Liu¹, Han Hsin-Chang³, David Pei-Cheng Lin¹

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PD0703 Comparison of antioxidant activity and DNA protection effect of *Chrysanthemum morifolium* Ramat with different solvents extraction

Chia-Ying Wang¹, Yi-Hsuan Wu¹, Kun-Lin Li¹, Chun-Ping Lu², Yi-Ping Yu¹

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PD0704 JUNSAIKOMACHI, a dietary supplement with water shield extract and sake cake dry powder

Keishi Hata¹, Sayaka Tomatsu¹, Yui Umekawa¹, Akiko Takashima², Munetaka Sano²

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PD0705 Development of anti-infective oral care supplements using crude drugs containing functional ingredients

Yuriko Hoshino¹, Enrei Taka^{1,2}, Munehiro Hoshino³, Motonobu Goto⁴

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PD0706 Biological preparation of a functional extracted jujube juice containing low-calorie sugar

Yan Men, Peng Chen, Jiao Li, Jiangang Yang, Yuanxia Sun

Tianjin Inst. of Ind. Biotechnol., Chinese Academy of Sci, China

PD0707 Designs of functional peptides for oral intestinal delivery with a porous silica gel

Kento Imai¹, Mijiti Maihemuti², Kazunori Shimizu¹, Satoshi Nagaoka², Hiroyuki Honda^{1,3}

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PD0708 Evaluation of functional and sensory properties of Indonesian fermented rice bran

Ardiansyah¹, Wahyudi David¹, Annisa Oktriani¹, Dody Dwi Handoko², Slamet Budijanto³, Hitoshi Shirakawa⁴

¹Dept. of Food Tech. Univ., Bakrie, Indonesia, ²Indonesian Agency for Agric. Res., and Dev., Ministry Agric., Indonesia, ³Fac. of Agric. Eng. and Tech., Bogor Agric. Univ., Indonesia, ⁴Lab. of Nutr. Grad. Sch. of Agric. Sci., Tohoku Univ., Japan

- PD0709 Studies on nutritional and antioxidative properties of raw and instant blue rices**
Puspita Sari¹, Nita Kuswardhani¹, Maryanto¹, Dewi Astuti¹, Shafira¹, Tomoyuki Yoshino²
¹Dept. of Agric. Product Technol., Fac. of Agric. Technol., Univ. of Jember, Indonesia, ²Dept. of Life Sci., Fac. of Life and Environ. Sci., Pref. Univ. of Hiroshima, Japan
- PD0710 Acylation of anthocyanins isolated from berries and the lipophilic properties and antioxidant capacities of the corresponding derivatives**
Jie Zheng, Shiyi Ou
Dept. of Food Sci. and Eng., Jinan Univ., China
- PD0711 Attenuation of meniscal/ligamentous injury induced osteoarthritis progression in obese rats by shiikuwasha extract**
Zwe-Ling Kong, Yu-Wen Yen, Ying-Jiun Lai
Dept. of Food Sci., Natl. Taiwan Ocean Univ., Taiwan
- PD0712 Caffeine-induced acute P1 purinergic receptor activation in lacrimal glands leads to upregulation of tear secretion in a mouse model**
Meng-Tien Hsieh¹, Yu-Wen Kao¹, Tsung-Han Lu¹, Chia-Yun Hsu¹, Ya-Jing Liu¹, Han-Hsin Chang², David Pei-Cheng Lin¹
¹Dept. of Med. Lab. and Biotechnol., Chung Shan Med. Univ., Taiwan, ²Dept. of Nutr., Chung Shan Med. Univ., Taiwan
- PD0713 The effect of fermented wheat germ extract improves cancer-related fatigue receiving chemotherapy**
Ming-Yi Liu¹, Shu-Hui Hu^{2,3}, Su-Fen Liu⁴, Sue-Joan Chang⁵
¹Dept. of Long-Term Care, Wu-Feng Univ., Taiwan, ²Dept. of Med. Lab. Sci. and Biotechnol., Kaohsiung Med. Univ., Taiwan, ³Dept. of Med. Res., Kaohsiung Med. Univ., Hosp., Taiwan, ⁴Dept. of Nutr., Sin-Lau Hosp., Taiwan, ⁵Dept. of Life Sci., Natl. Cheng Kung Univ., Taiwan
- PD0714 Effects of plum concentrate on blood glucose and antioxidative activity in type 2 diabetes mice**
Yun-Shan Li¹, Kazuaki Kawai¹, Hiroshi Kasai^{1,2}, Yuya Kawasaki¹, Yuko Ootsuyama¹
¹Dept. Environ. Oncol., Univ. Occup. Environ. Health, Japan, ²OHG Inst., Japan
- PD0715 Stability of microencapsulated *Spirulina platensis* treated with basil leaf and different ratio of coating material against heating during storage**
Tri Winarni Agustini, Ulfah Amalia, Retno Ayu Kurniasih
Fac. of Fish. and Marine Sci., Diponegoro Univ., Indonesia
- PD0716 Development of dietary supplement pudding from egg white for elderly**
Preeya Dat-arun, Vatcharee Seechamnaturakit
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PD0717 Patent active water protects endothelial EA. hy 926 cells from particulate matter 2.5 µm (PM2.5)-induced agingShwu-Ling Peng¹, Chia-Jui Weng², Shun-Fa Yang^{1,3}¹*Inst. of Med., Chung Shan Med. Univ., Taiwan.*, ²*Dept. of Living Services Ind., Tainan Univ. of Technol., Taiwan.*, ³*Dept. of Med. Res., Chung Shan Med. Univ. Hosp., Taiwan***PD0718 The challenge and opportunity of using botanical ingredients in plant-based dietary supplements and functional foods**Charles (Chun) Hu*Nutrillite Health Inst., USA***PD0719 The effect of rice protein and rice peptide on the hyaluronidase inhibitor Hui-Ju Chen¹, Siao-Ling Fan², Fan-Jhen Dai^{1,2}, Yu-Chun Huang², Chin-Shuh Chen¹**¹*Dept. of Food Sci. and Biotechnol., Natl. Chung Hsing Univ., Taiwan.*, ²*Healthmate Co., Ltd., Taiwan***PD0720 Search for new food functionalities of euglena-derived carotenoid and extract on high-fat diet fed-mice**Neng Tanty Sofyana¹, Matsumura Akimichi¹, Aoi Nakao¹, Ayaka Nakashima², Kengo Suzuki², Yuki Manabe¹, Tatsuya Sugawara¹¹*Dept. of Appl. Biosci., Grad. Sch. of Agric., Kyoto Univ., Japan.*, ²*euglena Co., Ltd., Japan***PD0726 The prebiotic factors of fresh and chip lesser yam (*Dioscorea esculenta*) by simulation model of human colonic microbiota in batch culture fermentation**Adrian Hilman¹, Eni Harmayani², Muhammad Nur Cahyanto², Santad Wichienchot³¹*Dept. of Food Sci. and Tech., Fac. of Agric, Univ. Sumatera Utara, Indonesia.*, ²*Dept. of Food and Agric. Prod. Tech., Fac. of Agric. Tech., Univ. Gadjah Mada, Indonesia.*, ³*Interdisc. Grad. Sch. of Nutrac. and Funct. Food, Prince of Songkla Univ., Thailand***PD0729 The effect of molecular structure of starch depolymerisation products, obtained by controlled microwave heating, on their in vitro enzyme-resistance**Kamila Kapuśniak¹, Justyna Rosicka-Kaczmarek², Joana Lopes³, Idalina Gonçalves³, Manuel António Coimbra³¹*Dept. of Dietetics and Food Studies, Jan Długosz Univ., Poland.*, ²*Dept. Starch Technol. and Confectionery, Lodz Univ. of Technol., Poland.*, ³*Dept. of Chem., Univ. of Aveiro, Portugal***D) Others: Taste and Olfaction****PD0801 Earthy off-flavor in grey mullets cultivated in Hong Kong fish ponds**Hau Yin Chung, Yan Ping Chen, Kwok Cheong Chung*Food & Nutr. Sci. Prog., Sch. of Life Sci., Chinese Univ. of Hong Kong, China*

PD0802 Identification of key off-flavor compounds in thermal-treated watermelon juice by GC-MS/O, aroma recombination, and omission experiments

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PD0803 Volatile flavor compounds in Chinese fried food of youtiao

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D) Others: Others

PD0901 Robust and human-specific lipid profile in human hepatocytes freshly isolated from chimeric mice with humanized liver

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PD0902 Renal histopathology under the influence of *Klotho* gene deficiency

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PD0903 PXB-cells[®] alter lipid metabolism in response to antihyperlipidemic drugs

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PD0904 Functional foods – Regulatory update for USA and Canada

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PD0905 Chitosan-based film incorporated with essential oils nanoemulsions foreseeing enhanced antimicrobial effect

Samar Elshamy¹, Isao Kobayashi^{1,3}, Kunihiko Uemura^{1,3}, Mitsutoshi Nakajima^{1,2,3}, Marcos A. Neves^{1,2,3}

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PD0906 Analysis of immuno fecal occult blood testing positive ratios in different age groups in Taiwan

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PD0907 Application to *in vitro* by o/w emulsification of oily functional ingredient

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PD0908 Hydrolase inhibitor screening to decrease drug side effects

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PD0909 Development of a cell-based screening assay system for identifying modulator of cytokine function

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