

## Poster Room

\*: Poster Award Applicants

### Bioavailability and Metabolism

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- \*PA-01 Binding profile of quercetin and its derivatives to human serum albumin measured by multiplex drug-site mapping**  
Hitomi Okuyama<sup>1</sup>, Mayumi Ikeda<sup>2</sup>, Yu Ishima<sup>2</sup>, Miyu Nishikawa<sup>3</sup>, Shinichi Ikushiro<sup>3</sup>, Rie Mukai<sup>1</sup>  
<sup>1</sup>*Dept. of Food Sci., Grad. Sch. of Technol., Industrial and Social Sciences, Tokushima Univ., Japan*, <sup>2</sup>*Dept. of Pharmacokinetics and Biopharmaceutics, Inst. of Biomedical Sciences, Tokushima Univ., Japan*, <sup>3</sup>*Dept. of Biotechnology, Fac. of Eng., Toyama Pref. Univ., Japan*
- \*PA-02 Comprehensive analyses of quercetin conjugates including glucuronide sulfate in plasma of quercetin glucosides fed rats**  
Seiya Tanaka<sup>1</sup>, Miyu Nishikawa<sup>2</sup>, Shinichi Ikushiro<sup>2</sup>, Hiroshi Hara<sup>3</sup>  
<sup>1</sup>*Agilent Technologies, Inc., Japan*, <sup>2</sup>*Dept., of Biotech., Fac. of Eng., Toyama Pref. Univ., Japan*, <sup>3</sup>*Fac. of Human Life Sci., Fuji Women's Univ., Japan*
- PA-03 Quercetin-embedded extracellular vesicles may be released from HT29 cells**  
Ryosuke Sugimoto, Akari Ishisaka, Akira Murakami  
*Dept. of Food Sci. and Nutr., Sch. of Human Sci. and Environ., Univ. of Hyogo., Japan*
- PA-04 Effect of inulin on phenolic acid production from flavonol-rich foods in faecal incubations and a randomised acute study in humans**  
Wenjuan Cong<sup>1</sup>, Jaroslav Havlik<sup>1</sup>, Vittoria Marinello<sup>1</sup>, Min Hou<sup>1</sup>, Mircea Martiniuc<sup>1</sup>, Barbara Nemeckova<sup>1</sup>, William Mullen<sup>2</sup>, Tom Preston<sup>3</sup>, Douglas Morrison<sup>3</sup>, Emilie Combat<sup>1</sup>, Christine Edwards<sup>1</sup>  
<sup>1</sup>*Human Nutr., Sch. of Med., Univ. of Glasgow, UK*, <sup>2</sup>*ICAMS, Univ. of Glasgow, UK*, <sup>3</sup>*SUERC, Univ. of Glasgow, UK*
- PA-05 A practical water-soluble composition of Isoquercitrin (from *Sophora Japonica*) with improved oral absorption**  
Naoto Yamaguchi, Hiroaki Kida, Yui Sudaka, Mitsunori Ono  
*ALPS Pharmaceutical Ind. Co. Ltd., Japan*
- \*PA-06 New insights on the bioavailability of anthocyanins: from structural role to molecular mechanisms**  
Hélder Oliveira<sup>1</sup>, Fuliang Han<sup>2</sup>, Iva Fernandes<sup>1</sup>, Victor de Freitas<sup>1</sup>, Nuno Mateus<sup>1</sup>  
<sup>1</sup>*REQUIMTE/LAQV, Chem. and Biochem. Dept., Fac. of Sciences, Univ. of Porto, Portugal*, <sup>2</sup>*Coll. of Enology, Northwest A&F Univ., China*

- PA-07** ***In vivo* digested wild strawberries (poly)phenols exert gut-protective bioactivity**  
Chris I. R. Gill<sup>1</sup>, Cheryl Latimer<sup>1</sup>, Nigel G Ternan<sup>1</sup>, L Kirsty Pourshahidi<sup>1</sup>, Massimiliano Fontana<sup>1</sup>, Roger Lawther<sup>2</sup>, Gloria O'Connor<sup>2</sup>, Lorenzo Conterno<sup>3,4</sup>, Francesca Fava<sup>3</sup>, Kieran Touhy<sup>3</sup>  
<sup>1</sup>Nutr. Innovation Centre for Food and Health, Ulster Univ., UK, <sup>2</sup>Altnagelvin Area Hosp., Western Health and Social Care Trust, UK, <sup>3</sup>Dept of Food Quality & Nutr., Fondazione Edmund Mach, Italy, <sup>4</sup>Fermentation and Distillation Group, Laimburg Res. Centre, Italy
- PA-08** **The CHARM study: assessing the cardiovascular health benefits of red raspberry ellagitannins by stratifying according to urolithin metabolotypes**  
Paul Young Tie Yang<sup>1</sup>, Wafa Alotaibi<sup>1</sup>, Rocío García-Villalba<sup>2</sup>, Francisco A. Tomás-Barberán<sup>2</sup>, Ana Rodriguez Mateos<sup>1</sup>  
<sup>1</sup>Dept. of Nutritional Sciences, SoLCS, Fac. of Life Sci. and Med., King's Coll. London, UK, <sup>2</sup>Spanish Natl. Res. Council CEBAS-CSIC, Spain
- PA-09** **Administration time significantly affects bioavailability of grape seed proanthocyanidin extract in Fischer 344 rats**  
Iván Escobar-Martínez, Melina Rojas-Criollo, Álvaro Cruz-Carrión, Francisca I. Bravo, Anna Arola-Arnal, Manuel Suárez  
Universitat Rovira i Virgili, Dept. of Biochem. and Biotechnology, Nutrigenomics Res. Group, Spain
- PA-11** **Comprehensive metabolic study of epigallocatechin gallate in humans: Characterization of metabolic pathway and identification of the metabolic enzyme**  
Akane Hayashi, Shimpei Terasaka, Ayame Maihara, Akiyo Kameyama, Yuko Nukada, Osamu Morita  
Safety Sci. Res., Kao Co., Japan
- PA-12** **Bioaccessibility and colonic metabolism of phenolic compounds in breads added with green coffee infusion and enzymatically bioprocessed**  
Suellen Silva de Almeida<sup>1</sup>, Nathália Moura-Nunes<sup>2</sup>, Mariana Monteiro<sup>3</sup>, Daniel Perrone<sup>1</sup>  
<sup>1</sup>Chem. Inst., Federal Univ. of Rio de Janeiro, Brazil, <sup>2</sup>Nutr. Inst., State Univ. of Rio de Janeiro, Brazil, <sup>3</sup>Nutr. Inst., Federal Univ. of Rio de Janeiro, Brazil
- PA-13** **Fermentation of soybean meal improves isoflavones metabolism after acute intake of soy biscuits by adults**  
Fabricio de Oliveira Silva<sup>1,2</sup>, Thayane C.C. Lemos<sup>1,3</sup>, Diego Sandôra<sup>1</sup>, Nathália M.B.Barreto<sup>1</sup>, Mariana Monteiro<sup>3</sup>, Daniel Perrone<sup>1</sup>  
<sup>1</sup>Chem. Inst., Federal Univ. of Rio de Janeiro, Brazil, <sup>2</sup>Pharm. Fac., Federal Univ. of Rio de Janeiro, Brazil, <sup>3</sup>Nutr. Inst., Federal Univ. of Rio de Janeiro, Brazil

- PA-14 How apple food matrix impacts flavan-3-ols absorption and nutrigenomic response after a high-fat challenge in minipigs**  
 Laurent-Em. I Monfoulet<sup>1</sup>, Caroline Buffiere<sup>1</sup>, Geoffrey Istas<sup>2</sup>, Claire Dufour<sup>3</sup>, Carine le Bourvelec<sup>3</sup>, Sylvie Mercier<sup>1</sup>, Dominique Bayle<sup>1</sup>, Celine Boby<sup>4</sup>, Didier Remond<sup>1</sup>, Patrick Borel<sup>5</sup>, Ana Rodriguez-Mateos<sup>2</sup>, Dragan Milenkovic<sup>1</sup>, Christine Morand<sup>1</sup>  
<sup>1</sup>Université Clermont Auvergne, INRA, UNH, Unité de Nutr. Humaine, France, <sup>2</sup>Dept. of Nutritional Sciences, King's Coll., UK, <sup>3</sup>INRA Sécurité & Qualité des Produits d'Origine Végétale - UMR408 Université d'Avignon, France, <sup>4</sup>Université Clermont Auvergne, INRA, VetAgro Sup, UMR Herbivores, France, <sup>5</sup>C2VN, INRA, INSERM, Université Aix Marseille, France
- PA-15 Gallotannins and *Lactobacillus plantarum* mitigate biomarkers of non-alcoholic fatty liver disease in gnotobiotic mice**  
Susanne U. Mertens-Talcott<sup>1</sup>, Chuo Fang<sup>1</sup>, Zehuan Ding<sup>1</sup>, Linglin Xie<sup>1</sup>, Huijuan Zhou<sup>2</sup>, Stephen Talcott<sup>1</sup>, Ke K. Zhang<sup>3</sup>  
<sup>1</sup>Dept. of Nutr. and Food Sci., Coll. of Agric. & Life Sciences., Texas A&M Univ., USA, <sup>2</sup>Dept. of Statistics., Coll. of Sci., Texas A&M Univ., USA, <sup>3</sup>Cent. for Epigenetics & Dis. Prevention, Inst. of Biosciences & Tech., Coll. of Med., Texas A&M Univ., USA
- PA-16 Whole cell-dependent preparation of 8-prenylnaringenin glucuronides using UDP-glucuronosyltransferase expressing yeast**  
 Manamu Kitami<sup>1</sup>, Rie Mukai<sup>2</sup>, Miyu Nishikawa<sup>1</sup>, Keisuke Fukaya<sup>1</sup>, Daisuke Urabe<sup>1</sup>, Toshiyuki Sakaki<sup>3</sup>, Shinichi Ikushiro<sup>1</sup>  
<sup>1</sup>Dept. of Biotech., Fac. of Engineer., Toyama Pref. Univ., Japan, <sup>2</sup>Dept. of Food Sci., Grad. Sch. of Technol., Industrial and Social Sci., Tokushima Univ., Japan, <sup>3</sup>Dept. of Pharm., Fac. of Engineer., Toyama Pref. Univ., Japan
- PA-17 Metabolism of silymarin in human hepatocytes**  
Jitka Ulrichová<sup>1</sup>, Vladimír Křen<sup>2</sup>, Jiří Vrba<sup>1</sup>  
<sup>1</sup>Dept. of Med. Chem. and Biochem., Palacky Univ., Czech Republic, <sup>2</sup>Inst. of Microbiol., Czech Acad. of Sci., Czech Republic
- PA-18 Incomplete hydrolysis of curcumin conjugates by  $\beta$ -glucuronidase**  
 Paula B. Luis<sup>1</sup>, Andrew G. Kunihiro<sup>2</sup>, Janet L. Funk<sup>3</sup>, Claus Schneider<sup>1</sup>  
<sup>1</sup>Dept. of Pharmacology, Vanderbilt Univ. Medical Sch., USA, <sup>2</sup>Dept. of Nutritional Sciences, Univ. of Arizona, USA, <sup>3</sup>Dept. of Med., Univ. of Arizona, USA
- PA-19 Human urinary excretion of amla (*Emblis myrobalan*) polyphenols**  
Ayaka Mori<sup>1</sup>, Taishi Koyama<sup>2</sup>, Hideyuki Ito<sup>1</sup>  
<sup>1</sup>Dept. of Nutr. Sci., Grad. Sch. of Health and Welfare Sci., Okayama Pref. Univ., Japan, <sup>2</sup>R&D. Inst., Miki Co., Japan
- \*PA-20 Protective effect of Mori Cortex Radicis extract against oxidative stress on PC12 cells and mice brain tissue under hyperglycemia**  
SoHyeon You<sup>1</sup>, YunMin Hong<sup>1</sup>, SukJin Kim<sup>1</sup>, GaYeong Won<sup>1</sup>, Su-im Choi<sup>1</sup>, Gun-Hee Kim<sup>2</sup>  
<sup>1</sup>Dept. of Health Functional Materials, Grad. Sch. of Duksung Women's Univ., Korea, <sup>2</sup>Dept. of Food and Nutr. of Duksung Women's Univ., Korea

- PA-21 Pineapple by-products functional flours –Stability upon to simulated GIT and human intestinal microbiota–**  
Débora A. Campos, Ricardo Gómez-García, Ana A. Vilas-Boas, Manuela Pintado  
*CBQF - Portuguese Catholic Univ., Sch. of Biotechnology, Portugal*
- PA-22 PhytoHub, a comprehensive database for metabolites of food phytochemicals**  
 Frank Giacomoni<sup>1</sup>, Pierre Micheau<sup>1</sup>, Jarlei Fiamoncini<sup>1,2</sup>, Andreia Bento da Silva<sup>3</sup>, Yannick Djoumbou Feunang<sup>4</sup>, David Wishart<sup>4</sup>, C. Knox<sup>5</sup>, Claudine Manach<sup>1</sup> and all data curators<sup>6</sup>  
<sup>1</sup>*Human Nutr. Unit, INRA, Univ. Clermont-Auvergne, France*, <sup>2</sup>*Dept. of Food and Experimental Nutr., Univ of Sao Paulo, Brazil*, <sup>3</sup>*Inst. of Chemical and Biological Technol., Univ. NOVA of Lisboa, Portugal*, <sup>4</sup>*Dept. of Biological Sciences, Univ. of Alberta, Canada*, <sup>5</sup>*OMx Personal Health Analytics, Canada*, <sup>6</sup>*List available on www.phytohub.eu*
- PA-23 A new natural turmeric extract formula increased curcumin (oids) (SY04-5) bioavailability in healthy humans**  
Pascale Fanca-Berthon<sup>1</sup>, Mathieu Tenon<sup>1</sup>, Alexis Manfré<sup>1</sup>, Corinne Maudet<sup>2</sup>, Angelina Dion<sup>2</sup>, Hélène Chevallier<sup>2</sup>, Sabrina Lebouter-Banon<sup>2</sup>  
<sup>1</sup>*Naturex SA, France*, <sup>2</sup>*Biofortis SAS, France*
- \*PA-24 Lactobacillus boost bioavailability of polyphenols in onion (SY03-5)** Miriam Dormeyer<sup>1</sup>, Lisa Garbe<sup>1</sup>, Denis Gyonnet<sup>2</sup>, Rüdiger Wittlake<sup>3</sup>, Christin Koch<sup>1</sup>  
<sup>1</sup>*Symrise AG, Global Innovation Cosmetic Ingredients, Microbiology, Germany*, <sup>2</sup>*Diana Nova, France*, <sup>3</sup>*Symrise AG, Global Innovation Res. & Technol., Analytical Res. Cent., Germany*
- PA-27 Comparative study of flavanol bioavailability after consumption of two soluble cocoa products with different polyphenolic content.**  
Laura Bravo, Miren Gómez-Juaristi, Sara Martínez-López, Beatriz Sarriá, Raquel Mateos-Briz  
*Inst. of Food Sci., Technol. and Nutri. (ICTAN-CSIC), Natl. Res. Council, Spain*

## **Biomarkers: Analytical Methods, Usability and Omics**

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- PB-01 Temporal variability of isoflavone and lignan concentrations in spot urine samples in 50 North Carolina adults over a six-week period**  
Michael Rybak<sup>1</sup>, Maya Sternberg<sup>1</sup>, Patrick Simon<sup>1</sup>, Jon Sobus<sup>2</sup>, Marsha Morgan<sup>2</sup>  
<sup>1</sup>*US Centers for Dis. Control and Prevention, USA*, <sup>2</sup>*US Environmental Protection Agency, USA*
- PB-02 New simple HPLC-UV/LC-MS analysis of silymarin flavonolignans: (SY04-4) quantification of previously undetectable and/or non-separable components**  
 Lucie Petrásková, Kristýna Káňová, Kateřina Valentová  
*Lab. of Biotransformation, Inst. of Microbiology of the CAS, Czechia*

- PB-03 Orange juice intake lowers plasma triglycerides in obese patients: a comparative study between traditional lipid measures and lipidomics**  
 Karina Gama dos Santos<sup>1,3</sup>, Marcos Yukio Yoshinaga<sup>2</sup>, Adriano de Britto Chaves Filho<sup>2</sup>, Aline Alves de Santana<sup>1</sup>, Franco Maria Lajolo<sup>1</sup>, Cristiane Kovacs<sup>3</sup>, Carlos Daniel Magnoni<sup>3</sup>, Sayuri Miyamoto<sup>2</sup>, Neuza Mariko Aymoto Hassimotto<sup>1</sup>  
<sup>1</sup>Food Res. Cent. (FoRC), Sch. of Pharm. Sci., Univ. of Sao Paulo, Brazil, <sup>2</sup>Biochem. Dept., Inst. of Chem., Univ. of Sao Paulo, Brazil, <sup>3</sup>Amb. Nutr., Dante Pazzanese Inst. of Cardiol., Brazil
- PB-04 Metabolomic unveiling of a diverse range of Malaysia *Hibiscus sabdariffa* L. metabolites dependent on location**  
Maizatul Hasyima Omar, Adlin Afzan, Mohamad Isa Wasiman  
 Phytochemistry Unit, Herbal Med. Res. Centre, Natl. Inst. of Health (NIH), Malaysia
- PB-05 A novel multi-targeted quantitative approach for nutrimentalomics research**  
 Raúl González-Domínguez<sup>1,2</sup>, Cristina Andrés-Lacueva<sup>1,2</sup>  
<sup>1</sup>Biomarkers and Nutrimentalomics Lab., Dept. of Nutr., Food Sciences and Gastronomy, Food Technol. Reference Net (XaRTA), Nutr. and Food Safety Res. Inst. (INSA), Fac. of Pharm. and Food Sciences, Univ. of Barcelona, Spain, <sup>2</sup>CIBER Fragilidad y Envejecimiento Saludable (CIBERfes), Instituto de Salud Carlos III, Spain

## Molecular Targets

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- PC-01 Exploring target genes involved in the effects of quercetin on response to stress in *Caenorhabditis elegans***  
Begoña Ayuda-Durán, Susana González-Manzano, Sofía Martínez Gutiérrez-Zetina, Eva Sánchez-Hernández, Ana M. González-Paramás, Celestino Santos-Buelga  
 Grupo de Investigación en Polifenoles (GIP-USAL), Campus Miguel de Unamuno, Universidad de Salamanca, Spain
- \*PC-02 Molecular targets of epicatechin: gene expression assessment in (SY06-4) *Caenorhabditis elegans***  
Begoña Ayuda-Durán, Susana González-Manzano, Sofía Martínez Gutiérrez-Zetina, Eva Sánchez-Hernández, Celestino Santos-Buelga, Ana M. González-Paramás  
 Grupo de Investigación en Polifenoles (GIP-USAL), Campus Miguel de Unamuno, Universidad de Salamanca, Spain
- PC-03 Chrysin reduces protein level and activity of mature forms of sterol regulatory element-binding proteins**  
Kyoko Watanabe<sup>1</sup>, Masamori Iwase<sup>2</sup>, Makoto Shimizu<sup>2</sup>, Tsukasa Suzuki<sup>1</sup>, Yuji Yamamoto<sup>1</sup>, Ryuichiro Sato<sup>2</sup>, Jun Inoue<sup>1</sup>  
<sup>1</sup>Dept. of Agric. Chem., Fac. of Appl. Biosci., Tokyo Univ. of Agric., Japan, <sup>2</sup>Dept. of Appl. Biol. Chem., Grad. Sch. of Agric. Life Sci., Univ. Tokyo, Japan

- \*PC-04 Microbial metabolites of gallotannins attenuate inflammation in RAW 264.7 macrophages through the regulation of the AMPK pathway**  
Maria J. Castellon Chicas, Chuo Fang, Stephen T. Talcott, Susanne U. Mertens-Talcott  
*Dept. of Nutr. and Food Sci., Coll. of Agric. & Life Sci., Texas A&M Univ., USA*
- PC-05 Effects and molecular targets of phenolic acids on the stress resistance and lifespan in *Caenorhabditis elegans***  
 Sofía Martínez Gutiérrez-Zetina, Susana González-Manzano, Begoña Ayuda-Durán, Eva Sánchez-Hernández, Celestino Santos-Buelga, Ana M. González-Paramás  
*Grupo de investigación en Polifenoles., Campus Miguel de Unamuno., Salamanca Univ., Spain*
- PC-06 The direct activation of PPAR $\alpha$  by 4'-hydroxyl group of resveratrol and a feedforward regulation via cAMP**  
Rieko Nakata, Yuki Tamori, Mizuki Ito, Shouko Hongo, Hiroyasu Inoue  
*Dept. of Food Sci. & Nutr., Nara Women's Univ., Japan*
- \*PC-07 From chemistry to biological implications of polyphenols in Celiac Disease**  
Ricardo Dias, Catarina Pereira, Rosa Pérez-Gregorio, Nuno Mateus, Victor de Freitas  
*LAQV/REQUIMTE, Departamento de Química e Bioquímica, Faculdade de Ciências da Universidade do Porto, Portugal*
- PC-08 Sulfotransferase SULT1A expression in the human brain and comparative *in silico* binding energies of dietary polyphenols to hSULT1A alloenzymes**  
Arnaud B. Nicot<sup>1,2</sup>, Elodie Goldwaser<sup>3</sup>, Céline Labbé<sup>3</sup>, Jean Harb<sup>1,2</sup>, Camille Mathe<sup>1,2</sup>, Alexandra Garcia<sup>1,2</sup>, Laureline Berthelot<sup>1,2</sup>, David A. Laplaud<sup>1,2,4</sup>, Maria A. Miteva<sup>3</sup>  
<sup>1</sup>CRTI UMR 1064, Inserm, Nantes Univ., France, <sup>2</sup>ITUN, CHU Nantes, France, <sup>3</sup>ERL UMR\_S1268 INSERM - UMR8038, Université Paris Descartes, France, <sup>4</sup>Dept. of Neurology, CHU Nantes, France
- PC-09 miR-222-3p as mediator in the beneficial effects of grape pomace polyphenols on glycemic control**  
 Asier Léniz<sup>1,2,3</sup>, María P. Portillo<sup>2,3,4</sup>, Daniel Martínez-Maqueda<sup>5</sup>, Jara Pérez-Jiménez<sup>5</sup>, Alfredo Fernández-Quintela<sup>2,3,4</sup>  
<sup>1</sup>Araba Integrated Health Care Organization. Basque Health Service (Osakidetza), Spain, <sup>2</sup>Nutr. and Obesity Group, Univ. of the Basque Country (UPV/EHU), Spain, <sup>3</sup>Lucio Lascaray Res. Centre, Spain, <sup>4</sup>CIBER Physiopathology of Obesity & Nutr., Inst. Health Carlos III, Spain, <sup>5</sup>Dept. Metab. & Nutr., Inst. Food Sci., Technol., Nutr. (ICTAN-CSIC), Spain

- PC-10 Pterostilbene improves triglyceride and phospholipid fatty acid profiles in livers showing steatosis**  
Alfredo Fernández-Quintela<sup>1,2,3</sup>, Leixuri Aguirre<sup>1,2,3</sup>, Elisabeth Hijona<sup>4,5</sup>, Luis Bujanda<sup>4,5</sup>, María P. Portillo<sup>1,2,3</sup>  
<sup>1</sup>*Nutr. and Obesity Group, Univ. of the Basque Country (UPV/EHU), Spain, <sup>2</sup>Lucio Lascaray Res. Centre, Spain, <sup>3</sup>CIBER Physiopathology of Obesity and Nutr., Inst. Health Carlos III, Spain, <sup>4</sup>Dept. Gastroenterology (UPV/EHU), Donostia Hosp., Biodonostia Inst., Spain, <sup>5</sup>CIBER Hepatic and Digestive Pathologies (CIBERehd), Inst. of Health Carlos III, Spain*
- PC-11 Effect of chronic cocoa flavanol supplementation on extracellular vesicles in healthy older adults**  
Nouf Alroqaiba, Dionne Tannetta, Georgina Dodd, Gessica Serra, Jeremy Spencer, Parveen Yaqoob  
*Hugh Sinclair Unit of Human Nutr., Univ. of Reading, UK*
- \*PC-12 A systematic and comprehensive analytical strategy to identify quercetin-modified proteins**  
Yuki Nakagawa<sup>1</sup>, Yosuke Iizumi<sup>2</sup>, Takeshi Ishii<sup>3</sup>, Hitoshi Ashida<sup>4</sup>, Mitsugu Akagawa<sup>1</sup>  
<sup>1</sup>*Div. of Appl. Life Sci., Grad. Sch. of Life & Environmental Sci., Osaka Pref. Univ., Japan, <sup>2</sup>Dept. of Mol.-Targeting Cancer Prevention, Grad. Sch. of Med. Sci., Kyoto Pref. Univ. of Med., Japan, <sup>3</sup>Fac. of Nutr., Kobe Gakuin Univ., Japan, <sup>4</sup>Dept. of Agrobiosci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan*
- \*PC-13 Establishment of a novel *in vitro* TRPV1 ligand evaluation method to assess the effect on sympathetic nerve system**  
Yuma Unno<sup>1</sup>, Naomi Osakabe<sup>1</sup>, Maya Kamao<sup>2</sup>, Yoshihisa Hirota<sup>1</sup>  
<sup>1</sup>*Syst. Eng. & Sci., Grad. Sch. of Eng. & Sci., Shibaura Inst. of Technol., Japan, <sup>2</sup>Ext. Ctr., Kobe Pharm. Univ., Japan*
- PC-14 Towards polyphenolic modulators of inflammation and endoplasmic reticulum stress**  
Daniela Correia da Silva, Patrícia Valentão, Paula B. Andrade, David M. Pereira  
*REQUIMTE/LAQV, Laboratório de Farmacognosia, Departamento de Química, Faculdade de Farmácia, Universidade do Porto, Portugal*
- PC-15 Effect of *in vivo* (-)-epicatechin metabolites on eNOS activity in vascular endothelial cells**  
Tony Y. Momma<sup>1</sup>, Hagen Schroeter<sup>2</sup>, Javier I. Ottaviani<sup>2</sup>  
<sup>1</sup>*Dept. of Nutr., Univ. of California, USA, <sup>2</sup>Mars Inc., USA*
- PC-16 Identification of the target proteins of quercetin glycoside catabolites as cytoprotective agent**  
Kouki Morita, Sayaka Nakashima, Toshiyuki Nakamura, Shintaro Munemasa, Yoshiyuki Murata, Yoshimasa Nakamura  
*Grad. Sch. of Environmental and Life Sci., Okayama Univ., Japan*

**\*PC-17 The effect of kaempferol on glucose uptake in L6 myotubes**

**(SY06-6)** Hao Jiang<sup>1</sup>, Yasukiyo Yoshioka<sup>2</sup>, Yoko Yamashita<sup>1</sup>, Hitoshi Ashida<sup>1</sup>

<sup>1</sup>*Dept. of Agrobiosci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan*, <sup>2</sup>*Grad. Sch. of Sci., Tech. and Innov., Kobe Univ., Japan*

**PC-18 Epicatechin metabolites exert epigenetic regulation in endothelial cells by modulating DNA methylation profile**

Dragan Milenkovic<sup>1,2</sup>, Ken Declerck<sup>3</sup>, Yelena Guttman<sup>4</sup>, Zohar Kerem<sup>4</sup>, Sylvain Claude<sup>1</sup>, Christine Morand<sup>1</sup>, Wim Vanden Berghe<sup>3</sup>

<sup>1</sup>*INRA, UNH, Université Clermont Auvergne, France*, <sup>2</sup>*Dept. of Internal Med., Div. of Cardiovascular Med., Sch. of Med., Univ. of California Davis, USA*, <sup>3</sup>*PPES, Dept. of Biomedical Sciences, Univ. of Antwerp, Belgium*, <sup>4</sup>*Inst. of Biochem., Food Sci. and Nutr., The Robert H. Smith Fac. of Agric., Food and Environment, The Hebrew Univ. of Jerusalem, Israel*

**Target Tissues, Brain-gut-axis and Microflora**

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**PD-01 Modulation of oxidative stress by dual probiotics/polyphenols systems in *C. elegans***

Eva Sánchez-Hernández, Begoña Ayuda-Durán, Sofía Martínez Gutiérrez-Zetina, Susana González-Manzano, Ana M. González-Paramás, Celestino Santos-Buelga

*Grupo de Investigación en Polifenoles (GIP-USAL), Campus Miguel de Unamuno, Universidad de Salamanca, Spain*

**\*PD-02 Prebiotic mechanistic study of phlorizin, phloretin and chlorogenic acid polyphenols on *Akkermansia muciniphila***

Ayano Hojo, Giséle LaPointe

*CRIFS, Dept. of Food Sci., Univ. of Guelph, Canada*

**PD-03 Differences between apple polyphenols and pectin on the gut microbiota in diet-induced obesity mice**

Takayuki Goto, Shiori Aoki, Mina Obara, Toshihiko Shoji

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

**Disease Prevention: Aging, Metabolic Syndrome, Obesity, Diabetes, Cardiovascular Disease, Cancer, Muscle Atrophy, Locomotive Syndrome, Cognitive Disorder, etc**

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**PE-01 Anti-cancer proprieties of natural and synthetic flavonoids which show inhibitory effects on aurora kinases**

Dongsoo Koh<sup>1</sup>, Miri Yoo<sup>1</sup>, Yoongho Lim<sup>2</sup>, Seunghyun Ahn<sup>1</sup>

<sup>1</sup>*Dept. of Appl. Chem., Dongduk Women's Univ., Korea*, <sup>2</sup>*Div. of Bioscience and Biotechnology, BMIC, Konkuk Univ., Korea*



- PE-02 Induction of melanogenesis by 4'-O-methylated flavonoids in B16F10 melanoma cells**  
Ippei Horibe<sup>1,3</sup>, Ayako Kumagai<sup>1</sup>, Hiroshi Takemori<sup>2</sup>, Yasuo Nagaoka<sup>1</sup>  
<sup>1</sup>Dept. of Life Sci. and Biotechnol., Fac. of Chem., Materials and Bioeng., Kansai Univ., Japan, <sup>2</sup>United Grad. Sch. of Drug Discovery and Medical Information Sciences, Gifu Univ., Japan, <sup>3</sup>Nakano Seiyaku Co. Ltd., Japan
- PE-03 Hydroxytyrosol, a phenolic of virgin olive oil, inhibits cell proliferation and targets cancer stemness in a 3D cell model of colorectal cancer**  
Rafaela Pereira<sup>1</sup>, Sheila Alves<sup>1</sup>, Sandra Silva<sup>1</sup>, Inês A. Isidro<sup>1,2</sup>, , Patrícia Gomes-Alves<sup>1,2</sup>, Cristina Albuquerque<sup>3</sup>, Maria R. Bronze<sup>1,2,4</sup>, Ana T. Serra<sup>1,2</sup>  
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- PE-04 The effect of olive oil derived compounds in melanoma and melanocyte cells viability**  
Cheila Brito<sup>1</sup>, Ana T. Serra<sup>2,3</sup>, Sandra Silva<sup>2</sup>, Maria R. Bronze<sup>2,3,4</sup>, Marta Pojo<sup>1</sup>  
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- PE-05 Evaluation of melanogenesis inhibitor effect of purple plant extracts**  
Pakinee Bua-on, Kazuhisa Maeda  
Dept. of Biosci., Grad. Sch. of Biotech. Sci., Tokyo Univ. of Technol., Japan
- PE-06 Effects of *p*-coumaric acid on cell growth and transcriptome profiles in SNU-16 gastric cancer cells**  
Mi Gyeong Jang<sup>1</sup>, Hee Chul Ko<sup>2</sup>, Jung Min Oh<sup>1</sup>, Jeong Yong Park<sup>1</sup>, Se Jae Kim<sup>1,2</sup>  
<sup>1</sup>Dept. of Biol., Jeju Natl. Univ., Korea, <sup>2</sup>Biotechnology Regional Innovation Cent., Jeju Natl. Univ., Korea
- PE-07 *Clerodendrum trichotomun* leaf extract improves potassium oxonate-induced hyperuricemia in mice**  
Mi Gyeong Jang<sup>1</sup>, Jung Min Oh<sup>1</sup>, Jung Young Park<sup>1</sup>, Songye Baek<sup>2</sup>, Hee Chul Ko<sup>2</sup>, Sung-Pyo Hur<sup>3</sup>, Se Jae Kim<sup>1, 2</sup>  
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- PE-09 ECG and EGCG dimeric procyanidins reduced CRC proliferation and promoted apoptotic cell death by targeting the lipid rafts-associated receptor EGFR**  
Wei Zhu<sup>1,2,3</sup>, Rui Feng Wang<sup>1</sup>, Chunmei Li<sup>1</sup>, Gerardo G. Mackenzie<sup>2</sup>, Patricia I. Oteiza<sup>2,3</sup>  
<sup>1</sup>Coll. of Food Sci. and Technol., Huazhong Agricultural Univ., China, <sup>2</sup>Dept. of Nutr., Univ. of California, USA, <sup>3</sup>Dept. of Environmental Toxicology, Univ. of California, USA

- PE-10 Effect of catechins on activation of JAK/STAT signaling pathway by staphylococcal enterotoxin A**  
Yuko Shimamura<sup>1</sup>, Ami Kurokawa<sup>1</sup>, Mio Utsumi<sup>1</sup>, Sohei Ito<sup>1</sup>, Toshiyuki Kan<sup>2</sup>, Shuichi Masuda<sup>1</sup>  
<sup>1</sup>Sch. Food Nutr. Sci., Univ. of Shizuoka, Japan, <sup>2</sup>Sch. Pharm. Sci., Univ. of Shizuoka, Japan
- \*PE-11 (-)-Epicatechin mitigates high fat diet-induced hippocampal inflammation and impaired memory in mice**  
Jiye Kang<sup>1,2</sup>, Ziwei Wang<sup>1,2</sup>, Promise Lee<sup>1,2</sup>, Patricia I. Oteiza<sup>1,2</sup>  
<sup>1</sup>Dept. of Nutr., Univ. of California, USA, <sup>2</sup>Dept. of Environmental Toxicology, Univ. of California, USA
- PE-12 Polyphenols improve redox, vasoactive and permeability markers in cerebral endothelial cells during diabetes-related hyperglycemia**  
Janice Taillé<sup>1</sup>, Angélique Arcambal<sup>1</sup>, Anne Gauvin-Bialecki<sup>2</sup>, Marie-Paule Gonthier<sup>1</sup>  
<sup>1</sup>Université de La Réunion, INSERM, France, <sup>2</sup>Université de La Réunion, France
- PE-13 Intake of apple procyanidin improves cognitive function and gut microbiota in senescence accelerated mice.**  
 Nozomi Tokuzato<sup>1</sup>, Hiroshi Sakaue<sup>1</sup>, Masashi Kuroda<sup>1</sup>, Rie Tsutsumi<sup>1</sup>, Toshihiko Shoji<sup>3</sup>, Saeko Masumoto<sup>1,2</sup>  
<sup>1</sup>Dept. of Nutr. and Metab., Grad. Sch. of Nutr. and Bioscience., Tokushima Univ., Japan, <sup>2</sup>The Fac. of Food and Agric. Sci., Fukushima Univ., Japan, <sup>3</sup>Div. of Food Function Res., Food Res. Inst., NARO, Japan
- PE-14 Cerebroprotective effect against cerebral ischemia of the combined extract of black rice and dill in metabolic syndrome rats**  
Jintanaporn Wattanathorn<sup>1,2</sup>, Warin Ohnon<sup>1</sup>  
<sup>1</sup>Res. Inst. For HHP&HP, Khon Kaen Univ., Thailand, <sup>2</sup>Physiol. Dept, Fac. Med, Khon Kaen Univ., Thailand
- PE-15 Tomato decrease oxidative stress in high-fat diet-induced obese and diabetic mice**  
Manabu Wakagi, Masao Goto, Naoto Hashimoto, Yuko Takano-Ishikawa  
 Food Res. Inst., NARO, Japan
- \*PE-16 'Viking' aronia berry powder inhibits T cell transfer-induced colitis by reducing oxidative stress**  
Ruisong Pei<sup>1</sup>, Jiyuan Liu<sup>1,2</sup>, Derek A. Martin<sup>1</sup>, Jonathan C. Valdez<sup>1</sup>, Justin Jeffery<sup>3</sup>, Gregory A. Barrett-Wilt<sup>4</sup>, Zhenhua Liu<sup>5</sup>, Bradley W. Bolling<sup>1</sup>  
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- PE-17 Seasonal variation in the phenolic compounds and antioxidant activity of *Sasa quelpaertensis***  
Hee Chul Ko<sup>1</sup>, Mi Gyeong Jang<sup>2</sup>, Jung Min Oh<sup>2</sup>, Jeong Yong Park<sup>2</sup>, Mi-Ran Yi<sup>1</sup>, Jae-Won Kim<sup>1</sup>, Songye Baek<sup>1</sup>, Se-Jae Kim<sup>1,2</sup>  
<sup>1</sup>Biotechnology Regional Innovation Cent., Jeju Natl. Univ., Korea, <sup>2</sup>Dept. of Biol., Jeju Natl. Univ., Korea
- \*PE-18 Modulating lipid and glucose metabolism by glycosylated kaempferol rich roasted leaves of *Lycium Chinense* via upregulating adiponectin and AMPK activation in obese mice-induced type 2 diabetes**  
 Eunhye Choi, Soon-Mi Shim  
 Dept. of Food Sci. and Biotechnology, Sejong Univ., Korea
- \*PE-19 Promotion of lipolysis and browning by Ashitaba chalcones in differentiated 3T3-L1 cells via AMPK pathway**  
Risa Hasegawa, Yiyun Liu, Tomoya Kitakaze, Yoko Yamashita, Hitoshi Ashida  
 Dept. of Agrobiosci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan
- \*PE-20 Enzymatically modified isoquercitrin promotes lipid and glucose metabolism through activating AMPK $\alpha$  in C57BL/6 mice**  
Hao Jiang<sup>1</sup>, Yasukiyo Yoshioka<sup>2</sup>, Sihao Yuan<sup>1</sup>, Yoko Yamashita<sup>1</sup>, Hitoshi Ashida<sup>1</sup>  
<sup>1</sup>Dept. of Agrobiosci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan, <sup>2</sup>Grad. Sch. of Sci., Tech. and Innov., Kobe Univ., Japan
- \*PE-21 Chlorogenic and caffeic acids counteract lipid accumulation in THP-1 derived macrophages and reduce monocytes adhesion to endothelial cells**  
Mirko Marino<sup>1</sup>, Massimiliano Tucci<sup>1</sup>, Samuele Venturi<sup>1</sup>, Marisa Porrini<sup>2</sup>, Dorothy Klimis-Zacas<sup>2</sup>, Patrizia Riso<sup>1</sup>, Cristian Del Bo<sup>1</sup>  
<sup>1</sup>Dept. of Food, Environmental and Nutritional Sci. Univ. of Milan, Italy, <sup>2</sup>Sch. of Food and Agric. Univ. of Maine, Orono, ME, USA
- PE-22 Time-of-day dependent effect of grape-seed procyanidins on white adipose tissue in diet-induced obese rats**  
 Marina Colom-Pellicer, Álvaro Cruz-Carrión, Anna Arola-Arnal, Manuel Suárez, Gerard Aragones  
 Universitat Rovira i Virgili, Dept. of Biochem. and Biotechnology, Nutrigenomics Res. Group, Spain
- PE-23 Effect of *Bifidobacterium* fermented milk on anti-obesity**  
Hitomi Maruta<sup>1</sup>, Chengduo Wang<sup>2</sup>, Haruna Tenma<sup>1</sup>, Yun Ma<sup>2</sup>, Syoji Nakamura<sup>3</sup>, Yusuke Fujii<sup>3</sup>, Naoki Toyokawa<sup>3</sup>, Hiromi Yamashita<sup>1</sup>  
<sup>1</sup>Dept. of Nutri. Sci., Okayama Pref. Univ., Japan, <sup>2</sup>Dept. of Nutri. Sci., Grad. Sch. of Health and Welfare Sci., Okayama Pref. Univ., Japan, <sup>3</sup>Ohayo Dairy Products Co. Ltd., Japan
- \*PE-24 Black soybean seed coat extract prevents obesity and its signaling mechanism**  
Mariko Shiraiwa<sup>1</sup>, Hitoshi Ashida<sup>2</sup>, Yoko Yamashita<sup>2</sup>  
<sup>1</sup>Fac. of Agric., Kobe Univ., Japan, <sup>2</sup>Dept. of Agrobiosci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan

- PE-25 (-)-Epicatechin reverses energy metabolism changes associated with the consumption of a high-fat diet in mice**  
 Ezequiel J. Hid<sup>1,2</sup>, Ivana Rukavina-Mikusic<sup>1,2</sup>, Barbara Piotrkowski<sup>1,2</sup>, Laura Fischerman<sup>1,2</sup>, Paula D. Prince<sup>1,2</sup>, Cesar G. Fraga<sup>1,2,3</sup>, Laura B. Valdez<sup>1,2</sup>, Monica Galleano<sup>1,2</sup>  
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- PE-26 Proinflammatory and antioxidant signaling pathways in kidney of high-fat fed mice: effect of (-)-epicatechin dietary administration**  
 María C. Litterio<sup>1,2</sup>, Laura Fischerman<sup>1,2</sup>, Eleonora Cremonini<sup>3</sup>, Patricia I. Oteiza<sup>3</sup>, Monica Galleano<sup>1,2</sup>, Cesar G. Fraga<sup>1,2,3</sup>  
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- \*PE-27 Apple procyanidins facilitate PGC-1 $\alpha$ -associated mitochondrial biogenesis and proteoglycan biosynthesis in chondrocytes**  
Isao Masuda<sup>1</sup>, Masato Koike<sup>1,2</sup>, Kenji Watanabe<sup>1,3</sup>, Hidetoshi Nojiri<sup>2</sup>, Koutaro Yokote<sup>1</sup>, Takahiko Shimizu<sup>1,3</sup>  
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- \*PE-28 Anthocyanidins promotes beiging of white adipose tissue in mice fed a high fat diet via regulation of mitochondrial dynamics**  
Eleonora Cremonini<sup>1</sup>, Cecilia M. Rodriguez-Lanzi<sup>1,2</sup>, Mirko Marino<sup>1</sup>, Dario E. Iglesias<sup>1</sup>, Cesar G. Fraga<sup>1,3,4</sup>, Patricia I. Oteiza<sup>1</sup>  
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- \*PE-29 Flavan 3-ols represent browning ability in white adipose tissue.**  
Yuiko Ishii, Masaki Kamino, Tomohiro Teshima, Minami Sakou, Yasuyuki Fujii, Naomi Osakabe  
*Dept. of Bio-science and Eng., Shibaura Inst. of Technol., Japan*
- PE-30 Ameliorative effects of acylated flavonol glycosides on lipid and glucose metabolisms in HepG2: structural requirements and mode of action**  
Akifumi Nagatomo<sup>1,3</sup>, Kiyofumi Ninomiya<sup>1,2</sup>, Hirosato Kawakami<sup>3</sup>, Toshio Morikawa<sup>1,2</sup>  
*<sup>1</sup>Pharm. Res. Technol. Inst., Kindai Univ., Japan, <sup>2</sup>Antiaging Cent., Kindai Univ., Japan, <sup>3</sup>Morishita Jintan Co. Ltd., Japan*

- PE-31 Effects of raw and sun-dried radish roots (*Raphanus sativus* cv. *YR-Hyuga-Risou*) consumption on blood lipid levels in ApoE deficient mice**  
Hiroki Matsuyama<sup>1</sup>, Wataru Tanaka<sup>1</sup>, Yu Suzuki<sup>2</sup>, Noriyuki Miyoshi<sup>2</sup>, Yasushi Matsuura<sup>3</sup>, Chizuko Yukizaki<sup>3</sup>, Tatsuo Miyazaki<sup>4</sup>, Hideyuki Michimoto<sup>4</sup>, Masanobu Sakono<sup>1</sup>, Hiroyuki Sakakibara<sup>1</sup>  
<sup>1</sup>Grad. Sch. of Agric., Univ. of Miyazaki, Japan, <sup>2</sup>Grad. Div. of Nutritional and Environmental Sciences, Univ. of Shizuoka, Japan, <sup>3</sup>Miyazaki Pref. Food Res. and Dev. Cent., Japan, <sup>4</sup>Michimoto Foods Products Co. Ltd, Japan
- \*PE-32 Effects of daily consumption of monoglucosyl-rutin on diet-induced obese mice**  
Wataru Tanaka<sup>1</sup>, Hiroki Matsuyama<sup>1</sup>, Daigo Yokoyama<sup>1</sup>, Yushi Hashizume<sup>2</sup>, Mahamadou Tandia<sup>2</sup>, Masanobu Sakono<sup>1</sup>, Hiroyuki Sakakibara<sup>1</sup>  
<sup>1</sup>Grad. Sch. of Agric., Univ. of Miyazaki, Japan, <sup>2</sup>Toyo Sugar Refining Co. Ltd., Japan
- PE-33 Boysenberry polyphenol inhibits capillary rarefaction in brown adipose tissue and maintains systemic metabolic health in obesity**  
Ryo Furuuchi<sup>1,2</sup>, Ippei Shimizu<sup>2</sup>, Tohru Minamino<sup>2</sup>  
<sup>1</sup>Bourbon Institutes of Health, Bourbon Co., Japan, <sup>2</sup>Dept. of Cardiovascular Biol. and Med., Niigata Univ. Grad. Sch. of Medical and Dental Sciences, Japan
- PE-34 Lipase-catalyzed synthesis of epigallocatechin gallate-based polymer for long-term release of epigallocatechin gallate with antioxidant property**  
Sachiko Nitta<sup>1</sup>, Hiroyuki Iwamoto<sup>1,2</sup>  
<sup>1</sup>Res. Cent. for Green Sci., Fukuyama Univ., Japan, <sup>2</sup>Dept. of Biotech., Fukuyama Univ., Japan
- PE-35 Gut microbiota-Tea polyphenols interplay and Celiac Disease**  
 Lucinda J. Bessa, Peter Eaton, Ricardo Dias, Nuno Mateus, Victor de Freitas, Rosa Pérez-Gregorio  
 LAQV-REQUIMTE, Dept. of Chem. and Biochem. Univ. of Porto, Portugal
- \*PE-36 Glucose uptake activity of EGCG analogs in skeletal muscle cells**  
Ryan Noboru Rutherford<sup>1</sup>, Shinji Ura<sup>2</sup>, Noriyuki Natsume<sup>3</sup>, Aki Yamano<sup>4</sup>, Tak-Hang Chan<sup>5</sup>, Kozo Fukumoto<sup>2</sup>, Andrea Renzetti<sup>6</sup>, Toshiaki Teruya<sup>2</sup>  
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- PE-37 A polyphenol-rich strawberry extract have no effect on postprandial glycemia in a murine model of diet-induced obesity**  
 Paola Galindo-Vidales<sup>1</sup>, Jesus Espinoza-Alderete<sup>1</sup>, Lorena Serrano-Corral<sup>1</sup>, Alma Felix-Heras<sup>1</sup>, Veronica Lopez-Teros<sup>2</sup>, Monica Castro-Acosta<sup>1</sup>, Marcela de Jesus Vergara-Jimenez<sup>1</sup>, Francisco Cabrera-Chavez<sup>1</sup>  
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- PE-39 Novel phytopharmaceutical derived from leaves of *Clerodendrum colebrookianum* Walp. exhibits hepatoprotective and antidiabetic potential**  
Prashanta Kumar Deb, Biswatrish Sarkar  
*Dept. of Pharmaceutical Sciences & Technol., Birla Inst. of Technol., India*
- PE-40 Antifibrotic effect of methylated quercetin derivatives on TGF $\beta$ -induced hepatic stellate cells**  
Munkhzul Ganbold<sup>1</sup>, Yasuhiro Shimamoto<sup>2</sup>, Farhana Ferdousi<sup>3</sup>, Kenichi Tominaga<sup>2</sup>, Hiroko Isoda<sup>1,2,3</sup>  
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- PE-41 Pterostilbene reduces liver steatosis and the progression to steatohepatitis in a model of fatty acid induced by a high-fat high-sucrose feeding**  
 Saioa Gómez-Zorita<sup>1,2,3</sup>, Nerea M. Segues<sup>4</sup>, Ana Goitia<sup>4</sup>, Luis Bujanda<sup>4,5</sup>, María P. Portillo<sup>1,2,3</sup>  
<sup>1</sup>*Nutr. and Obesity Group, Univ. of the Basque Country (UPV/EHU), Spain*, <sup>2</sup>*Lucio Lascaray Res. Centre, Spain*, <sup>3</sup>*CIBER Physiopathology of Obesity and Nutr. (CIBERObn), Inst. of Health Carlos III, Spain*, <sup>4</sup>*Dept. Gastroenterology (UPV/EHU), Donostia Hosp., Biodonostia Inst., Spain*, <sup>5</sup>*CIBER Hepatic and Digestive Pathologies (CIBERehd), Inst. of Health Carlos III, Spain*
- PE-42 The potential of cyanidin 3-O-glucoside in preventing cardiovascular disease**  
Thomas Netticadan  
*Canadian Centre for Agri-Food Res. in Health and Med., Canada*
- \*PE-43 Higher habitual flavonoid intake is associated with lower peripheral artery disease hospitalizations**  
Nicola P. Bondonno<sup>1,2,3</sup>, Kevin Murray<sup>4</sup>, Catherine P. Bondonno<sup>1,2</sup>, Joshua R. Lewis<sup>1,2</sup>, Kevin D. Croft<sup>2</sup>, Cecilie Kyrø<sup>5</sup>, Gunnar Gislason<sup>3</sup>, Anne Tjønneland<sup>5</sup>, Augustin Scalbert<sup>6</sup>, Aedin Cassidy<sup>7</sup>, Kim Overvad<sup>8</sup>, Jonathan M. Hodgson<sup>1,2</sup>, Frederik Dalgaard<sup>3</sup>  
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- \*PE-44 Flavonoid intake and atrial fibrillation in the Danish Diet Cancer and Health cohort**  
Nicola P. Bondonno<sup>1,2,3</sup>, Kevin Murray<sup>4</sup>, Catherine P. Bondonno<sup>1,2</sup>, Joshua R. Lewis<sup>1,2</sup>, Kevin D. Croft<sup>2</sup>, Cecilie Kyrø<sup>5</sup>, Gunnar Gislason<sup>3</sup>, Anne Tjønneland<sup>5</sup>, Augustin Scalbert<sup>6</sup>, Aedin Cassidy<sup>7</sup>, Jonathan P. Piccini<sup>8</sup>, Kim Overvad<sup>9,10</sup>, Jonathan M. Hodgson<sup>1,2</sup>, Frederik Dalgaard<sup>3</sup>  
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- PE-45 Polyphenols protect from the cerebrovascular damage of diabetes-related hyperglycemia in a stroke mouse model and cerebral endothelial cells**  
 Angélique Arcambal, Janice Taïlé, Marie-Paule Gonthier  
 Université de de La Réunion, INSERM, France
- PE-46 Blueberry anthocyanin improves postprandial cardiometabolic health following energy-dense food intake: a RCT in metabolic syndrome participants**  
Peter J. Curtis<sup>1</sup>, Lindsey Berends<sup>1</sup>, Vera van der Velpen<sup>1</sup>, Amy Jennings<sup>1</sup>, Laura Haag<sup>1</sup>, Colin D. Kay<sup>2</sup>, Eric B. Rimm<sup>3</sup>, Aedin Cassidy<sup>4</sup>  
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- PE-47 Effect of Polyphenols obtained from the Flowers of *Syringa vulgaris* on the Stagnant Blood Syndrome**  
Hisae Oku, Maki Maeda, Fumika Kitagawa, Kyoko Ishiguro  
 Sch. Pharm. Pharmaceutical Sci, Mukogawa Women's Univ., Japan
- \*PE-48 Black soybean seed coat polyphenols improve vascular function by promoting NO production via GLP-1 secretion**  
Chiaki Domae<sup>1</sup>, Fumio Nanba<sup>2</sup>, Toshinari Maruo<sup>2</sup>, Toshio Suzuki<sup>1,2</sup>, Hitoshi Ashida<sup>1</sup>, Yoko Yamashita<sup>1</sup>  
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- \*PE-49 Shikimic acid attenuates skeletal muscle atrophy by activating protein turnover**  
Jiheee Yoo, Changhee Kim, Jae-Kwan Hwang  
 Dept. of Biotechnology, Yonsei Univ., Korea

- PE-50 Cinnamtannin A2 induces skeletal muscle hypertrophy in mice**  
Masaki Kamino, Kenta Suzuki, Yuiko Ishii, Nayuta Hirashima, Minami Sakou, Shiori Oyama, Naomi Osakabe  
*Dept. of Bio-sci. and Eng., Shibaura Inst. of Technol., Japan*
- PE-51 Inhibitory effect of 5,7-dimethoxyflavone on muscle atrophy by improving protein turnover and mitochondrial biogenesis *in vitro* and *in vivo***  
Changhee Kim, Jae-Kwan Hwang  
*Dept. of Biotechnology, Yonsei Univ., Korea*
- PE-52 Anti-periodontitis effect of macelignan by regulating gingival inflammation and bone homeostasis**  
 Nahyun Choi<sup>1</sup>, Changhee Kim<sup>2</sup>, Jae-Kwan Hwang<sup>1,2</sup>  
<sup>1</sup>*Dept. of Biomaterials Sci. and Eng., Yonsei Univ., Korea,* <sup>2</sup>*Dept. of Biotechnology, Yonsei Univ., Korea*
- \*PE-53 Theaflavins delay the progression of disuse atrophy induced by hindlimb suspension in mice**  
Kenta Suzuki<sup>1</sup>, Nayuta Hirashima<sup>1</sup>, Ryo Sukegawa<sup>1</sup>, Yasuyuki Fujii<sup>1</sup>, Ayaka Yamamoto<sup>2</sup>, Tomoya Ueno<sup>2</sup>, Naomi Osakabe<sup>1</sup>  
<sup>1</sup>*Dept. of Bio-sci. and Eng., Shibaura Inst. of Technol., Japan,* <sup>2</sup>*R&D Div., Yaizu Suisankagaku Ind. Co., Ltd., Japan*
- PE-54 4-Hydroxyderricin and xanthoangelol from Ashitaba (*Angelica keiskei*) prevent dexamethasone-induced muscle atrophy**  
Hitoshi Ashida<sup>1</sup>, Yumi Samukawa<sup>1</sup>, Yasukiyo Yoshioka<sup>2</sup>, Yusuke Kubota<sup>1</sup>, Yoko Yamashita<sup>1</sup>  
<sup>1</sup>*Dept. of Agrobiosci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan,* <sup>2</sup>*Grad. Sch. Sci. Technol. innovation., Kobe Univ., Japan*
- \*PE-55 Ellagic acid in the control of intestinal inflammation/oxidative stress-induced barrier permeabilization**  
Dario E. Iglesias<sup>1,2,3</sup>, Cesar G. Fraga<sup>1,2,3</sup>, Patricia I. Oteiza<sup>1,4</sup>  
<sup>1</sup>*Dept. of Nutr., Univ. of California, Davis, USA,* <sup>2</sup>*Physical Chem., Sch. of Pharm. and Biochem., Univ. of Buenos Aires, Argentina,* <sup>3</sup>*IBIMOL, UBA-CONICET, Sch. of Pharm. and Biochem., Univ. of Buenos Aires, Argentina,* <sup>4</sup>*Dept. of Environmental Toxicology, Univ. of California, USA*
- PE-56 Synthetic ester conjugates of ferulic acid demonstrate anti-inflammatory and antioxidant activity in human monocytic cells**  
Nursabah Atli<sup>1</sup>, Andrew Beekman<sup>1</sup>, Saurabh Prabhu<sup>1</sup>, Richard Draijer<sup>2</sup>, Mark Searcey<sup>1</sup>, Colin Kay<sup>3</sup>, Maria A. O'Connell<sup>1</sup>  
<sup>1</sup>*Sch. of Pharm., Univ. of East Anglia, UK,* <sup>2</sup>*Unilever R&D Vlaardingen B.V., Netherlands,* <sup>3</sup>*Plants for Human Health Inst., USA*



- PE-57 Quercetin regulates expression of ACMSD, a key enzyme in tryptophan-NAD pathway, and inflammatory mediators in LPS-stimulated microglial cells**  
Yukari Egashira, Manami Koshiguchi, Nana Matsumoto, Shizuka Hirai, Takeshi Takauchi  
*Lab. of Food Nutr., Grad. Sch. of Horticulture., Chiba Univ., Japan*
- PE-58 Protective effects of hydroxytyrosol-supplemented refined olive oil in induced arthritis**  
 João Rocha<sup>1</sup>, Maria E. Figueira<sup>1</sup>, Ana T. Serra<sup>2,3</sup>, Elsa Mecha<sup>2</sup>, Sandra Silva<sup>2</sup>, Ana A. Matias<sup>2</sup>, Beatriz Martins<sup>3</sup>, Rita Ventura<sup>3</sup>, Bruno Vidal<sup>4</sup>, Rui Pinto<sup>1</sup>, João E. C. Fonseca<sup>4</sup>, Fernando M. Pimentel-Santos<sup>5</sup>, Maria R. Bronze<sup>1,2,3</sup>  
<sup>1</sup>*iMED- FFUL, Portugal*, <sup>2</sup>*iBET, Instituto de Biologia Experimental e Tecnológica, Portugal*, <sup>3</sup>*ITQB NOVA, Portugal*, <sup>4</sup>*IMM – FML, Portugal*, <sup>5</sup>*CEDOC-NOVA Medical Sch., Portugal*
- \*PE-59 Aronia berry extract improves IL-6-induced vascular endothelial dysfunction**  
Tomomi Iwashima<sup>1</sup>, Yoshimi Kishimoto<sup>2</sup>, Miori Tanaka<sup>1</sup>, Chie Taguchi<sup>2</sup>, Kazuo Kondo<sup>2,3</sup>, Kaoruko Iida<sup>1,4</sup>  
<sup>1</sup>*Dept. of Food and Nutr. Sci., Grad. Sch. of Humanities and Sci., Ochanomizu Univ., Japan*, <sup>2</sup>*Endowed Res. Dept. “Food for Health”, Ochanomizu Univ., Japan*, <sup>3</sup>*Inst. of Life Innovation Studies, Toyo Univ., Japan*, <sup>4</sup>*Inst. for Human Life Innovation, Ochanomizu Univ., Japan*
- \*PE-60 (–)Epigallocatechin-3-O-gallate stimulates leptin secretion from gastric mucosal cells via 67-kDa laminin receptor/Ca<sup>2+</sup> signaling**  
Chisato Sasaki<sup>1</sup>, Hiroki Ota<sup>1</sup>, Takeshi Ishii<sup>2</sup>, Katsuyuki Mukai<sup>3</sup>, Akinobu Matsuyama<sup>3</sup>, Mitsugu Akagawa<sup>1</sup>  
<sup>1</sup>*Div. of Appl. Life Sci., Grad. Sch. of Life and Environ. Sci., Osaka Pref. Univ., Japan*, <sup>2</sup>*Dept. of Nutr., Kobe Gakuin Univ., Japan*, <sup>3</sup>*Daicel Corp., Japan*
- PE-61 Neolignans from mace on glucose consumption-promoting activity in L6 cells**  
Toshio Morikawa<sup>1,2</sup>, Kenchi Miyasaka<sup>1</sup>, Ikuko Hachiman<sup>1</sup>, Eriko Nishida<sup>1</sup>, Osamu Muraoka<sup>1,2</sup>, Kiyofumi Ninomiya<sup>1,2</sup>  
<sup>1</sup>*Pharm. Res. Technol. Inst., Kindai Univ., Japan*, <sup>2</sup>*Antiaging Cent., Kindai Univ., Japan*
- \*PE-62 The ERK signaling cascade in bile-induced Caco-2 monolayer permeabilization: Prevention by (–)-epicatechin and NADPH oxidase inhibitors**  
Ziwei Wang<sup>1,2</sup>, M. Corina Litterio<sup>1,2</sup>, David Vauzour<sup>3</sup>, Patricia I. Oteiza<sup>1,2</sup>  
<sup>1</sup>*Dept. of Nutr., Univ. of California-Davis, USA*, <sup>2</sup>*Dept. of Environmental Toxicology, Univ. of California-Davis, USA*, <sup>3</sup>*Norwich Medical Sch., Univ. of East Anglia, UK*

- \*PE-63 Co-treatment with kaempferol and luteolin modulates TCDD- and t-BHQ-induced drug-metabolizing enzymes**  
Tomoya Kitakaze, Atsushi Makiyama, Rika Nakai, Yuki Kimura, Hitoshi Ashida  
*Dept. of Agrobioscience., Grad. Sch. of Agric. Sci., Kobe Univ., Japan*
- \*PE-64 Involvement of circadian rhythm on luteolin-induced Nrf2 activation in the liver**  
Tomoya Kitakaze, Atsushi Makiyama, Yoko Yamashita, Hitoshi Ashida  
*Dept. of Agrobioscience., Grad. Sch. of Agric. Sci., Kobe Univ., Japan*
- \*PE-65 Exploring the colour and bioactivity of anthocyanin derivatives towards skin healthcare – bridging food and therapeutics**  
Iva Fernandes, Joana Oliveira, Hélder Oliveira, Patrícia Correia, Paula Araújo, Ana R. Pereira, Lucinda Bessa, Paula Gameiro, Victor de Freitas, Nuno Mateus  
*REQUIMTE/LAQV, Dept. of Chem. and Biochem., Fac. of Sci., Portugal*
- PE-66 Effectiveness of green tea catechins in the cutaneous ultraviolet radiation (UVR) erythema dose-response: A systematic review and meta-analysis**  
Mahendra P. Kapoor<sup>1</sup>, Masaaki Sugita<sup>2</sup>, Yoshitaka Fukuzawa<sup>3</sup>, Makoto Ozeki<sup>1</sup>, Tsutomu Okubo<sup>1</sup>  
<sup>1</sup>Taiyo Kagaku Co. Ltd., Nutr. Div., Japan, <sup>2</sup>Fac. of Sport Sci., Nippon Sport Sci. Univ., Japan, <sup>3</sup>Dept. of Internal Med., Aichi Medical Univ., Japan
- PE-67 Polyphenols from persimmon fruits as a functional foods material**  
Takashi Kometani<sup>1,2,3</sup>, Keisuke Akaho<sup>4</sup>, Mari Ohkubo<sup>4</sup>, Minami Okano<sup>4</sup>, Kumiko Takemori<sup>1,2</sup>  
<sup>1</sup>Dept. of Food Sci. and Nutr., Fac. of Agric., Kindai Univ., Japan, <sup>2</sup>Anti-aging Cent., Kindai Univ., Japan, <sup>3</sup>Agricultural Technol. and Innovation Res. Inst., Kindai Univ., Japan, <sup>4</sup>Div. of Appl. Life Sciences, Grad. Sch. of Agric., Kindai Univ., Japan
- PE-68 Preventive effect of piceatannol on visceral fat accumulation in ovariectomized mice**  
Yoko Fujiwara<sup>1,2</sup>, Rie Kawawa<sup>1</sup>, Miharuru Shiokoshi<sup>1</sup>, Tomoko Ishikawa<sup>2</sup>, Ikuyo Ichi<sup>1,2</sup>, Sadao Mori<sup>3</sup>, Minoru Morita<sup>3</sup>  
<sup>1</sup>Dept. of Nutr. & Food Sci., Grad. Sch. of Hum. & Sci., Ochanomizu Univ., Japan, <sup>2</sup>Inst. for Hum. Life Innov., Ochanomizu Univ., Japan, <sup>3</sup>Health Sci. Res. Cent., R&D Inst., Morinaga and Co., Ltd., Japan
- PE-69 Effects of quercetin consumption during pregnancy on lipid metabolism of the offspring in mice**  
Masakatsu Takashima<sup>1</sup>, Chihiro Kai<sup>1</sup>, Wataru Tanaka<sup>2</sup>, Hiroki Matsuyama<sup>2</sup>, Masanobu Sakono<sup>1,2</sup>, Hiroyuki Sakakibara<sup>1,2</sup>  
<sup>1</sup>Fac. of Agric., Univ. of Miyazaki, Japan, <sup>2</sup>Grad. Sch. of Agric., Univ. of Miyazaki, Japan

**PE-70 Polyphenol intake and metabolic syndrome risk in European adolescents: (SY02-5) the HELENA study**

Ratih Wirapusita Wisnuwardani<sup>1,2</sup>, Stefaan De Henauw<sup>1</sup>, Luis A. Moreno<sup>3</sup>, Nathalie Michels<sup>1</sup> and the HELENA partners

<sup>1</sup>Fac. of Med. and Health Sci., Ghent Univ., Belgium, <sup>2</sup>Fac. of Public Health, Mulawarman Univ., Indonesia, <sup>3</sup>Fac. of Health Sci., Univ. of Zaragoza, Spain

**\*PE-71 The role of 3,4-dihydroxyphenyl- $\gamma$ -valerolactone, the gut microbiota (SY06-5) metabolite of epicatechin, in reducing insulin resistance**

Jenna Helleur<sup>1</sup>, Paul W. Needs<sup>1</sup>, David Vauzour<sup>2</sup>, Paul A. Kroon<sup>1</sup>

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**\*PE-72 Effect of citrus flavanone metabolites on oxidative stress and proteomic (SY05-5) profile in pancreatic  $\beta$ -cells**

Sara L. Anacleto<sup>1,2</sup>, Dragan Milenkovic<sup>2,3</sup>, John C. Rutledge<sup>2</sup>, Michelle Salemi<sup>4</sup>, Paul Kroon<sup>4</sup>, Paul Needs<sup>4</sup>, Franco M. Lajolo<sup>1</sup>, Neuza M. A. Hassimotto<sup>1</sup>

<sup>1</sup>Univ. of Sao Paulo, Brazil, <sup>2</sup>Univ. of California, Davis, USA, <sup>3</sup>INRA, France, <sup>4</sup>Quadram Inst., UK

**PE-73 Protective effects of green tea catechin, epigallocatechin gallate and its (SY01-5) metabolites on age-related cognitive dysfunction: mechanism of action**

Monira Pervin<sup>1</sup>, Keiko Unno<sup>1</sup>, Aimi Nakagawa<sup>1</sup>, Akira Minami<sup>1</sup>, Aya Hara<sup>2</sup>, Akiko Takagaki<sup>2</sup>, Fumio Nanjo<sup>2</sup>, Yoriyuki Nakamura<sup>1</sup>

<sup>1</sup>Univ. of Shizuoka, Japan, <sup>2</sup>Mitsui Norin Co. Ltd., Japan

**\*PE-74 Combined feeding of  $\alpha$ -glycosyl-isoquercitrin and soluble soybean fiber (SY12-6) prevents glucose intolerance in rats.**

Aphichat Trakooncharoenvit<sup>1,2</sup>, Hiroshi Hara<sup>3</sup>, Tohru Hira<sup>1,2</sup>

<sup>1</sup>Grad. Sch. of Agric., Hokkaido Univ., Japan, <sup>2</sup>Res. Fac. of Agric., Hokkaido Univ., Japan, <sup>3</sup>Dept. of Food Sci. and Human Nutr., Fuji Women's Univ., Japan

**PE-76 Yellow rice wine with high content of flavonoid resists aging in mice**

Si Qin, Rong Liu, Yiling Wen, Xi Sun

*Coll. of Food Sci. and Technol., Hunan Agricultural Univ., China*

**\*PE-79 Acute effect of a polyphenol-rich strawberry extract on postprandial glycemia in a murine model of diet-induced obesity**

Jesus G. Espinoza-Alderete<sup>1</sup>, Paola Galindo-Vidales<sup>1</sup>, Yubel K. Alarcon-Rodriguez<sup>1</sup>, Maryant E. Angulo-Leyva<sup>1</sup>, Marcela de J. Vergara-Jimenez<sup>1</sup>,

Francisco Cabrera-Chavez<sup>1</sup>, Veronica Lopez-Teros<sup>1</sup>, Monica L. Castro-Acosta<sup>2</sup>  
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- PE-81** ***Allophylus africanus* phenolics in the discovery of new anticancer drugs**  
Vera Ribeiro<sup>1</sup>, Andreia P. Oliveira<sup>1</sup>, Nelson G.M. Gomes<sup>1</sup>, David M. Pereira<sup>1</sup>,  
Luísa Araújo<sup>2</sup>, Paula B. Andrade<sup>1</sup>, Rui F. Gonçalves<sup>1</sup>, Patrícia Valentão<sup>1</sup>  
<sup>1</sup>REQUIMTE/LAQV, Laboratório de Farmacognosia, Departamento de Química, Faculdade  
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Saúde, Avenida dos Combatentes da Liberdade da Pátria, Guineia-Bissau

## Health Promotion, Intervention and Human Studies

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- \*PF-01** **Impact of flavanols on the cerebral vasculature: Insights from animal and human studies**  
Catarina Rendeiro<sup>1,2,3</sup>, Rosie M. Pritchard<sup>1</sup>, Christian Konopka<sup>2</sup>, Amanda Snyder<sup>2</sup>, Wawrzyniec Dobrucki<sup>2</sup>, Justin S. Rhodes<sup>2,3</sup>, Samuel J. E. Lucas<sup>1</sup>  
<sup>1</sup>Sch. of Sport, Exercise and Rehabilitation Sciences, Univ. of Birmingham, UK, <sup>2</sup>Beckman Inst. for Advanced Sci. and Technol., Univ. of Illinois at Urbana-Champaign, USA, <sup>3</sup>Cent. for Nutr., Learning and Memory, Univ. of Illinois at Urbana-Champaign, USA
- PF-02** **Variability in gut microbial metabolism and vascular response to lignans and isoflavones**  
Wafa Alotaibi, Paul Young Tie Yang, Wendy Hall, Ana Rodriguez-Mateos  
<sup>1</sup>Dept. of Nutritional Sciences, King's Coll. London, UK, <sup>2</sup>Fac. of Life Sciences & Med. Sch. of Life Courses Sciences, UK
- PF-03** **Association between bedtime and urinary metabolites of estradiol, melatonin, and isoflavone in young women**  
Kayoko Shimoi<sup>1,2</sup>, Akane Yamada<sup>1</sup>, Hikari Shibata<sup>1</sup>, Reina Matsuda<sup>1</sup>, Yuko Saito<sup>2</sup>, Michiko Yasuda<sup>3</sup>  
<sup>1</sup>Sch. of Food and Nutritional Sciences, Univ. of Shizuoka, Japan, <sup>2</sup>Grad. Sch. of Integrated Pharmaceutical and Nutritional Sciences, Univ. of Shizuoka, Japan, <sup>3</sup>Dept. of Life Studies, Sugiyama Jogakuen Univ., Japan
- PF-04** **An intake of black soybean improved vascular function in human**  
Yoko Yamashita<sup>1</sup>, Chiaki Doumae<sup>1</sup>, Fumio Nanba<sup>2</sup>, Toshinari Maruo<sup>2</sup>, Toshio Suzuki<sup>2</sup>, Hitoshi Ashida<sup>1</sup>  
<sup>1</sup>Dept. of Agrobiosci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan, <sup>2</sup>Fujicco Co. Ltd., Japan
- \*PF-05** **Inducing effects on phase ii detoxification enzymes in mice by butterfly pea extract**  
Thao Thi Phuong Truong, Parunya Thiyajai, Chaojie Shang, Daichi Kawai, Tomoyuki Koyama  
Dept. of Food Chem Function Nutr., Grad. Sch. of Mar. Sci. Technol., TUMST Univ., Japan

- PF-06 Gender differences in the effects of cacao polyphenols on blood pressure, and glucose and lipid metabolism in pre-diabetic subjects**  
Chisato Oba<sup>1</sup>, Kazuki Shiina<sup>2</sup>, Hirofumi Tomiyama<sup>2</sup>, Chisa Matsumoto<sup>2</sup>, Syunsuke Komatsu<sup>2</sup>, Midori Natsume<sup>1</sup>, Yukio Ohshiba<sup>1</sup>, Taketo Yamaji<sup>1</sup>, Taishiro Chikamori<sup>2</sup>, Akira Yamashina<sup>2</sup>  
<sup>1</sup>R&D Div., Meiji Co. Ltd., Japan, <sup>2</sup>Dept. of Cardiology, Tokyo Medical Univ., Japan
- PF-07 Cognitive effects of chronic cocoa flavanol supplementation in healthy older adults**  
Georgina F. Dodd<sup>1</sup>, Amy Rees<sup>1</sup>, Gessica Serra<sup>1</sup>, Claire M. Williams<sup>2</sup>, Laurie T. Butler<sup>3</sup>, Judi A. Ellis<sup>2</sup>, Daniel J. Lamport<sup>2</sup>, Anja Hayen<sup>4</sup>, Jeremy P. E. Spencer<sup>1</sup>  
<sup>1</sup>Dept. of Food & Nutritional Sciences, Univ. of Reading, UK, <sup>2</sup>Sch. of Psychology & Clinical Language Sciences, Univ. of Reading, UK, <sup>3</sup>Anglia Ruskin Univ., Cambridgeshire, UK, <sup>4</sup>P1vital Ltd., UK
- PF-08 Acute effects of flavanol-rich cocoa on cognitive function in healthy older adults**  
 Caroline J. Saunders<sup>1</sup>, Georgina F. Dodd<sup>2</sup>, Rebecca J. Kean<sup>3</sup>, Rebecca D. Hadid<sup>4</sup>, Claire M. Williams<sup>3</sup>, Judi A. Ellis<sup>3</sup>, Daniel J. Lamport<sup>3</sup>, Laurie T. Butler<sup>5</sup>, Jeremy P. E. Spencer<sup>2</sup>  
<sup>1</sup>Suntory Beverage and Food Europe, Lucozade Ribena Suntory Ltd., UK, <sup>2</sup>Food & Nutritional Sciences, Univ. of Reading, UK, <sup>3</sup>Sch. of Psychology & Clinical Language Sciences, Univ. of Reading, UK, <sup>4</sup>Intl. Brain Res. Organisation, France, <sup>5</sup>Anglia Ruskin Univ., UK
- PF-09 Effects of blackcurrant extract on central arterial stiffness and blood pressure in older adults**  
Takanobu Okamoto<sup>1</sup>, Yuto Hashimoto<sup>1</sup>, Ryota Kobayashi<sup>2</sup>, Koichi Nakazato<sup>1</sup>, Mark Elisabeth Theodorus Willems<sup>3</sup>  
<sup>1</sup>Dept. of Exercise Physiology, Nippon Sport Sci. Univ., Japan, <sup>2</sup>Ctr. for Fundam. Edu., Teikyo Univ. of Sci., Japan, <sup>3</sup>Inst. of Sport, Univ. of Chichester, UK
- \*PF-10 Moderate to severe ulcerative colitis results in differential metabolism of cranberry polyphenols by the colon microbiome ex vivo**  
Maritza Sirven, Susanne U. Mertens-Talcott, Stephen T. Talcott  
 Dept. of Nutr. and Food Sci., Texas A&M Univ., USA
- PF-11 Inter-individual variability in vascular response to aronia berry (poly)phenols**  
Melanie Le Sayec<sup>1</sup>, Geoffrey Istas<sup>1</sup>, Simone Rampelli<sup>2</sup>, Emilie Fromentin<sup>3</sup>, Ana Rodriguez-Mateos<sup>1</sup>  
<sup>1</sup>Dept. of Nutr.al Sciences, King's Coll. London, UK, <sup>2</sup>Dept. of Pharm. and Biotechnology, Univ. of Bologna, Italy, <sup>3</sup>R&D Dept., Naturex Inc., USA

- \*PF-12 The antimicrobial activity of industrial sweet orange waste on cariogenic pathogens**  
Suvro Saha<sup>1,2</sup>, Simon Wood<sup>2</sup>, Christine Bosch<sup>1</sup>, Thuy Do<sup>2</sup>, Joanne Maycock<sup>1</sup>  
<sup>1</sup>Sch. of Food Sci. and Nutr., Univ. of Leeds, UK, <sup>2</sup>Div. of Oral Biol., Sch. of Dentistry, Univ. of Leeds, UK
- PF-13 Acute effects of a polyphenol-rich beverage on cognitive function, mood, glucose metabolism and cortisol levels in healthy older adults**  
Marina Gougoulidou<sup>1</sup>, Georgina F. Dodd<sup>1</sup>, Anja Hayen<sup>2</sup>, Daniel J. Lampert<sup>3</sup>, Jeremy P.E. Spencer<sup>1</sup>  
<sup>1</sup>Dept. of Food and Nutr. Sci., Univ. of Reading, UK, <sup>2</sup>P1vital Ltd, UK, <sup>3</sup>Sch. of Psych. & Clin. Lang. Sci., Univ. of Reading, UK
- PF-15 Phenolics and biological profiling of *Xylopi* *aethiopic* leaves: HPLC-DAD characterization and interference with anti-inflammatory targets**  
 Tiago Macedo<sup>1</sup>, Vera Ribeiro<sup>1</sup>, Andreia P. Oliveira<sup>1</sup>, David M. Pereira<sup>1</sup>, Fátima Fernandes Fernandes<sup>1</sup>, Nelson G. M. Gomes<sup>1</sup>, Luísa Araújo<sup>2</sup>, Patrícia Valentão<sup>1</sup>, Paula B. Andrade<sup>1</sup>  
<sup>1</sup>REQUIMTE/LAQV, Faculdade de Farmácia, Universidade do Porto, Portugal, <sup>2</sup>MDS – Medicamentos e Diagnósticos em Saúde, Avenida dos Combatentes da Liberdade da Pátria, Guiné-Bissau
- \*PF-16 Can plant-flavanols protect human vascular function from mental stress?**  
Rosalind Baynham, Jet Veldhuijzen van Zanten, Catarina Rendeiro  
 Sch. of Sport and Exercise and Rehabilitation Sciences, Univ. of Birmingham, UK
- PF-17 Dietary intake of total polyphenol and the risk of all-cause and cardiovascular disease mortality in Japanese adults**  
Chie Taguchi<sup>1</sup>, Yoshimi Kishimoto<sup>1</sup>, Yoichi Fukushima<sup>2</sup>, Kazuo Kondo<sup>1,3</sup>, Michiyo Yamakawa<sup>4</sup>, Keiko Wada<sup>4</sup>, Chisato Nagata<sup>4</sup>  
<sup>1</sup>Endowed Res. Depart. 'Food for Health', Ochanomizu Univ., Japan, <sup>2</sup>Nestlé Japan Ltd., Japan, <sup>3</sup>Inst. Life Innovations Studies, Toyo Univ., Japan, <sup>4</sup>Depart. Epidemiology and Preventive Med., Gifu Univ. Grad. Sch. Med., Japan
- PF-18 MaPLE study: reliability and significance of a polyphenol-rich dietary pattern for the improvement of intestinal permeability in the older subjects**  
Patrizia Riso<sup>1</sup>, Stefano Bernardi<sup>1</sup>, Cristian Del Bo<sup>1</sup>, Paul Kroon<sup>2</sup>, Benjamin Kirkup<sup>2</sup>, Antonio Cherubini<sup>3</sup>, Nicole Hidalgo Liberona<sup>4</sup>, Gregorio Peron<sup>4</sup>, Raul Gonzalez-Dominguez<sup>4</sup>, Cristina Andres-Lacueva<sup>4</sup>, Simone Guglielmetti<sup>1</sup>  
<sup>1</sup>Dept. of Food, Environmental and Nutritional Sci. Univ. of Milan, Italy, <sup>2</sup>Quadram Inst. Bioscience, Norwich Res. Park, UK, <sup>3</sup>IRCCS INRCA, Italy, <sup>4</sup>CIBERFES, Univ. of Barcelona, Spain
- PF-19 Renewed call for industrialization in Africa and its effect on health promotions –A case study of Ghana–**  
Joseph Yeboah, Richmond Lamptey  
 Univ. Coll. of Agric. and Environmental, Ghana

- PF-20 Inhibition of model Maillard reaction products on toxicity of acrylamide in vivo**  
 Benyang Wu<sup>1</sup>, Xiaoyan Chai<sup>1</sup>, Aiming He<sup>2</sup>, Yuande Shi<sup>2</sup>, Chengyan Wu<sup>2</sup>, Zhenye Cai<sup>2</sup>, Jianli Xiao<sup>2</sup>, Sheng Chen<sup>2</sup>, Leiwen Xiang<sup>2</sup>  
<sup>1</sup>Coll. of Life Sci., Fujian Normal Univ., China, <sup>2</sup>Fuqing Branch, Fujian Normal Univ., China
- PF-21 A meta-analysis of blueberry flavonoid effects on cognitive function**  
 Nancy Cheng, Lynne Bell, Daniel Lamport, Claire Williams  
 Sch. of Psychology and Clinical Language Sciences, Univ. of Reading, UK
- \*PF-22 The effects of chronic cocoa flavanol supplementation on vascular (SY11-5) function in healthy older adults**  
Amy Rees<sup>1</sup>, Georgina F. Dodd<sup>1</sup>, Gessica Serra<sup>1</sup>, Claire M. Williams<sup>2</sup>, Laurie T. Butler<sup>3</sup>, Judi A. Ellis<sup>2</sup>, Daniel J. Lamport<sup>2</sup>, Anja Hayen<sup>4</sup>, Jeremy P. E. Spencer<sup>1</sup>  
<sup>1</sup>Hugh Sinclair Unit of Human Nutr., Univ. of Reading, UK, <sup>2</sup>Dept. of Psychology, Univ. of Reading, UK, <sup>3</sup>Anglia Ruskin Univ., UK, <sup>4</sup>P1vital Ltd., UK
- PF-23 Daily consumption of orange juice modulated intestinal microbiota and improved glucose and lipids metabolism in women: a controlled clinical trial**  
 Melaine Priscila Fidélix<sup>1</sup>, Dragan Milenkovic<sup>2,3</sup>, Katia Sivieri<sup>1</sup>, Thais Borges Cesar<sup>1</sup>  
<sup>1</sup>Dept. of Food and Nutr., Sch. of Pharmaceutical Sci., São Paulo State Univ.-UNESP, Brazil, <sup>2</sup>Dept. of Internal Med., UC Davis Sch. of Med., Univ. of California Davis, USA, <sup>3</sup>Université Clermont Auvergne, INRA, France
- PF-24 Passiflora setacea juice consumption improves risk factors of cardiometabolic diseases and modulates gene expression profile of immune cells in humans**  
 Isabella de Araújo Esteves Duarte<sup>1</sup>, Dragan Milenkovic<sup>2</sup>, Tatiana Karla dos Santos Borges<sup>3</sup>, Christine Morand<sup>2</sup>, Artur Jordão de Magalhães Rosa<sup>4</sup>, Calliandra Maria de Souza Silva<sup>5</sup>, Livia de Lacerda de Oliveira<sup>1</sup>, Ana Maria Costa<sup>4</sup>  
<sup>1</sup>Postgraduate Program in Human Nutr., Fac. of Health Sciences, Univ. of Brasília, Brazil, <sup>2</sup>Université Clermont Auvergne, INRA, France, <sup>3</sup>Lab. of Cellular Immunology, Fac. of Med., Univ. of Brasília, Brazil, <sup>4</sup>Lab. of Food Sci., Embrapa Cerrados, Brazil, <sup>5</sup>Postgraduate Program in Molecular Biol., Biol. Inst., Univ. of Brasília, Brazil
- PF-28 Effects of yerba mate on cardiovascular health and glucose homeostasis: randomized controlled clinical trial in healthy and hypercholesterolemic humans**  
Laura Bravo, Sara Martínez-López, Miren Gómez-Juaristi, Raquel Mateos-Briz, Beatriz Sarriá  
 ICTAN-CSIC Natl. Res. Council, Spain

- PF-29 Evidence on the wound healing properties of *Homalium bhamoense*: Effects upon inflammatory enzymes and interference with NO levels in RAW 264.7 cells**  
 Rungcham Suksungworn<sup>1,2</sup>, Nelson G. M. Gomes<sup>3</sup>, Andreia P. Oliveira<sup>3</sup>, Srunya Vajrodaya<sup>1,2</sup>, Rui F. Gonçalves<sup>3</sup>, Patricia Valentão<sup>3</sup>, Paula B. Andrade<sup>3</sup>, Sutsawat Duangrisai<sup>1,2</sup>  
<sup>1</sup>Dept. of Botany, Fac. of Sci., Kasetsart Univ., Thailand, <sup>2</sup>Cent. for Advanced Studies in Tropical Natural Resources, Kasetsart Univ., Thailand, <sup>3</sup>REQUIMTE/LAQV, Laboratório de Farmacognosia, Faculdade de Farmácia, Universidade do Porto, Portugal
- \*PF-31 Preparation and antioxidant activity of polymeric pigments from model wine solutions**  
Lingxi Li<sup>1</sup>, Baoshan Sun<sup>1,2</sup>  
<sup>1</sup>Sch. of Funct. Food and Wine, Shenyang Pharm. Univ., China, <sup>2</sup>Instituto Natl. de Investigação Agrária e Veterinária, Portugal
- \*PF-32 Nutrigenomic effects of polyphenol-rich extracts from black bean and blue corn in a rat model of diabetes mellitus type 2**  
Karla Damián<sup>1</sup>, Eugenia Lugo<sup>1</sup>, Erika Marino<sup>1</sup>, Inocencio Higuera<sup>1</sup>, Dragan Milenkovic<sup>2,3</sup>  
<sup>1</sup>Cent. for Res. and Assistance in Technol. and Design of the State of Jalisco, A.C. (CIATEJ), Mexico, <sup>2</sup>Dept. of Internal Med., UC Davis Sch. of Med., Univ. of CA, USA, <sup>3</sup>INRA, Cent. Clermont-Ferrand - Theix, Unité Nutr. Humaine., France
- PF-33 Increased iron uptake capacity of ultrasonic treated milled rice**  
 Aldrin P. Bonto<sup>1</sup>, Nichada Jearanaikoon<sup>2</sup>, Nese Sreenivasulu<sup>3</sup>, Drexel Camacho<sup>1</sup>  
<sup>1</sup>Chem. Dept., De La Salle Univ., Philippines, <sup>2</sup>Synchrotron Light Res. Inst., Thailand, <sup>3</sup>Grain Quality and Nutri. Cent., Intl. Rice Res. Inst., Philippines
- \*PF-35 Phenolic profiling of *Ficus curtipes* Corner leaves and stem bark and assessment of their anti-inflammatory potential**  
 Catarina Andrade<sup>1</sup>, Federico Ferreres<sup>2</sup>, Nelson G.M. Gomes<sup>1</sup>, Sutsawat Duangrisai<sup>3,4</sup>, Nattawut Srisombat<sup>3,4</sup>, Srunya Vajrodaya<sup>3,4</sup>, David M. Pereira<sup>1</sup>, Angel Gil-Izquierdo<sup>2</sup>, Paula B. Andrade<sup>1</sup>, Patricia Valentão<sup>1</sup>  
<sup>1</sup>REQUIMTE/LAQV, Faculdade de Farmácia, Universidade do Porto, Portugal, <sup>2</sup>Res. Group on Quality, Safety and Bioactivity of Plant Foods, CEBAS (CSIC), Spain, <sup>3</sup>Dept. of Botany, Fac. of Sci., Kasetsart Univ., Thailand, <sup>4</sup>Cent. for Advanced Studies in Tropical Natural Resources, Thailand



## Polyphenols in Foods and Drinks

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- \*PG-01 Valorization of onion and fennel wastes as sources of polyphenolic antioxidants toward functional ingredients**  
Ricardo Gómez García<sup>1</sup>, Filomena De Biasio<sup>2</sup>, Domenico Gorgoglione<sup>2</sup>, Debora A. Campos<sup>1</sup>, Cristobal N. Aguilar<sup>3</sup>, Ana R. Madureira<sup>1</sup>, Manuela Pintado<sup>1</sup>  
<sup>1</sup>Universidade Católica Portuguesa, CBQF - Centro de Biotecnologia e Química Fina, Portugal, <sup>2</sup>EVRA, Italy, <sup>3</sup>Bioprocesses and Bioproducts Group. Food Res. Dept., Sch. of Chem., Autonomous Univ. of Coahuila, Mexico
- PG-02 Impact of stir-frying and baking on phenolic profile and antioxidant activities of blueberry pastry filling**  
Jie Zheng, Shiyi Ou  
Dept. of Food Sci. and Eng., Jinan Univ., China
- PG-03 Antihypertensive properties of low doses of a phenol-enriched grape-derived product in hypertensive rats**  
Raúl López-Fernández, Francisca Isabel Bravo, Maria Begoña Muguerra  
Univ. Rovira i Virgili, Biochem. and Biotechnology Dept., Nutrigenomics Res. Group, Spain
- PG-04 Screening of environmental stimuli that produce polyphenol-rich strawberry**  
Yuichi Uno<sup>1</sup>, Misaki Ishibashi<sup>1</sup>, Itsuko Fukuda<sup>2</sup>, Akitoshi Okino<sup>3</sup>, Ro Osawa<sup>1</sup>  
<sup>1</sup>Dept. of Bioresource Sci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan, <sup>2</sup>Dept. of Agrobiosci., Grad. Sch. of Agric. Sci., Kobe Univ., Japan, <sup>3</sup>FIRST, Inst. of Innovative Res., Tokyo Tech, Japan
- \*PG-05 Black soybean seed coat polyphenols prevent AAPH-induced oxidative DNA damage in hepatic cells**  
Yasukiyo Yoshioka<sup>1</sup>, Xiu Li<sup>2</sup>, Yoko Yamashita<sup>2</sup>, Hitoshi Ashida<sup>2</sup>  
<sup>1</sup>Fac. of Clin. Nutr. Diet., Konan Women's Univ., Japan, <sup>2</sup>Grad. Sch. of Agric. Sci., Kobe Univ., Japan
- \*PG-06 Glabridin inhibits dexamethasone-induced muscle atrophy**  
Yasukiyo Yoshioka<sup>1</sup>, Yusuke Kubota<sup>2</sup>, Yumi Samukawa<sup>2</sup>, Yoko Yamashita<sup>2</sup>, Hitoshi Ashida<sup>2</sup>  
<sup>1</sup>Fac. of Clin. Nutr. Diet., Konan Women's Univ., Japan, <sup>2</sup>Grad. Sch. of Agric. Sci., Kobe Univ., Japan
- PG-07 Investigation of a component involved in color reaction by heating Tutankhamen's pea**  
Miki Hiemori-Kondo<sup>1,2</sup>, Honoka Uehara<sup>1</sup>, Yuuki Maekawa<sup>2</sup>  
<sup>1</sup>Dept. of Food Nutr. Sci., Tokushima Bunri Univ., Japan, <sup>2</sup>Dept. of Food Sci., Grad. Sch. of Human Life Sci., Tokushima Bunri Univ., Japan

- PG-08 Change in elution and absorptivity of catechins from green tea leaves powdered by fine grinding**  
Shuichi Masuda, Satoko Hinatsu, Shoko Suzuki, Yuko Shimamura  
*Sch. Food Nutr. Sci., Univ. of Shizuoka, Japan*
- PG-09 The impact of Uva tea extract consumption on psychological stress**  
Naoko Takamizawa<sup>1</sup>, Shin-ichiro Yamashita<sup>2</sup>, Naoko Suzuki<sup>2</sup>, Kazuo Yamamoto<sup>2</sup>, Haruko Takeyama<sup>1</sup>, Kazunaga Yazawa<sup>1</sup>, Tsuyoshi Takara<sup>3</sup>  
<sup>1</sup>Res. Org. for Nano & Life Innov., Waseda Univ., Japan, <sup>2</sup>ORTHOMEDICO Inc., Japan, <sup>3</sup>Med. Corp. Seishinkai, Takara Clinic., Japan
- PG-10 Reduced solubility of medicines in tea-based beverages containing polyphenols**  
Kazunori Iwanaga, Tomomi Nishida, Daichi Sakaguchi, Mai Otokubo, Tsutomu Nakamura  
*Education and Res. Cent. for Clinical Pharm., Osaka Univ. of Pharmaceutical Sciences, Japan*
- PG-11 Development of comprehensive analysis method for catechins and theaflavins using Triple quadrupole LC-MS/MS**  
Mami Okamoto<sup>1</sup>, Naoto Furue<sup>2</sup>, Jun Watanabe<sup>1</sup>, Naoki Mochizuki<sup>2</sup>  
<sup>1</sup>Shimadzu Co., Japan, <sup>2</sup>Yokohama Univ. of Pharm., Japan
- PG-12 Tannins with antiglycation activities from water caltrop**  
Shoichi Suzuki<sup>1</sup>, Nana Kato<sup>1</sup>, Satoko Kawabe<sup>1</sup>, Natsuki Ganeko<sup>1</sup>, Tomohiro Uemura<sup>2</sup>, Hideyuki Ito<sup>1</sup>  
<sup>1</sup>Dept. of Nutr. Sci., Grad. Sch. of Health and Welfare Sci., Okayama Pref. Univ., Japan, <sup>2</sup>Hayashikane Sango Co., Ltd., Japan
- PG-13 The inhibitory activity of ellagitannins on recombinant human histidine decarboxylase**  
Yoko Nitta<sup>1</sup>, Hideyuki Ito<sup>1</sup>, Hirohumi Komori<sup>2</sup>, Hiroshi Ueno<sup>3</sup>, Hiroe Kikuzaki<sup>4</sup>  
<sup>1</sup>Dept. of Nutr. Sci., Okayama Pref. Univ., Japan, <sup>2</sup>Fac. of Educ., Kagawa Univ., Japan, <sup>3</sup>Lab. of Appl. Microbiol. & Biochem., Ryukoku Univ., Japan, <sup>4</sup>Dept. of Food Sci. & Nutr., Nara Women's Univ., Japan
- \*PG-14 Proanthocyanidins from peanut skins and their antiglycation properties**  
Kanano Hosokawa, Hideyuki Ito  
*Dept. of Nutr. Sci., Grad. Sch. of Health and Welfare Sci., Okayama Pref. Univ., Japan*
- \*PG-15 Comparison of B-type procyanidin oligomers on the sympathetic nerve activation ability by the determination of hemodynamic alterations**  
Ryo Koizumi, Yuki Sato, Taiki Fushimi, Naomi Osakabe  
*Dept. of Bio-Sci. and Eng., Shibaura Inst. of Technol., Japan*
- PG-16 The impact of adding milk to coffee on free chlorogenic acid content**  
 Suzanne Pritchard, Nicola Gray, Gunter Kuhnle, Michael Lewis, Jeremy Spencer,  
Charlotte Mills  
*Hugh Sinclair Unit of Human Nutr., Dept. of Food and Nutritional Sci., School Chem., Food and Pharmacy, Univ. of Reading, UK*

- PG-17 Phenolic acids profile and bioactivity of coffee brew prepared from coffee beans roasted at different levels**  
Dian Herawati<sup>1,2</sup>, Puspo Edi Giriwono<sup>1,2</sup>, Fitriya Nur Annisa Dewi<sup>3</sup>, Takehiro Kashiwagi<sup>4</sup>, Nuri Andarwulan<sup>1,2</sup>  
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- PG-18 Modulating effects of polyphenols on the acetaldehyde-induced cytotoxicity in human keratinocyte HaCaT cells**  
Takumi Myojin, Wensi Xu, Shintaro Munemasa, Toshiyuki Nakamura, Yoshiyuki Murata, Yoshimasa Nakamura  
*Grad. Sch. Environ. Life Sci., Okayama Univ., Japan*
- PG-20 Utilization of process water of food production for recovery of polyphenols**  
Veronika Hellwig<sup>1</sup>, Johanna Gasser<sup>1,2</sup>, Ralf Moll<sup>1</sup>  
<sup>1</sup>*TH Lübeck /Univ. of Appl. Sciences, Analytical Chem. and Instrumental Analysis, Germany*, <sup>2</sup>*Universität Bremen/Univ. of Bremen, Inst. of Organic and Analytical Chem., Germany*
- PG-21 Total polyphenols in the US diet**  
Joe Vinson  
*Dept. of Chem., Loyola Sci. Center, Univ. of Scranton, USA*
- PG-22 Effects of different cooking methods and storage time after cooking functional ingredients in foodstuffs**  
Ryo Mannen<sup>1</sup>, Momoka Kawasaki<sup>2</sup>, Naoko Otsuki<sup>1,2</sup>, Kayoko Shimo<sup>1,2</sup>, Yoko Ichikawa<sup>1,2</sup>  
<sup>1</sup>*Grad Sch. of Integrated Pharma Nutr. Sci., Univ. of Shizuoka, Japan*, <sup>2</sup>*Sch. of food and Nutr. Sci., Univ. of Shizuoka, Japan*
- PG-23 Effect of environmental stress on the betacyanin and antioxidant activity of Djulis (*Chenopodium formosanum* Koidz.) sprouts**  
Ssu-Ping Wang<sup>1</sup>, Kandi Sridhar<sup>2</sup>, Pi-Jen Tsai<sup>1</sup>  
<sup>1</sup>*Dept. of Food Sci, Agricultural Coll., NPUST, Taiwan*, <sup>2</sup>*DTAIC, NPUST, Taiwan*
- \*PG-24 Quince (*Cydonia oblonga* Miller) fruit culls: an integral valorization to develop novel functional ingredients**  
Ana A. Vilas-Boas<sup>1</sup>, Catarina Nunes<sup>2</sup>, Tânia B. Rribeiro<sup>1,2</sup>, Ana Oliveira<sup>1</sup>, João Nunes Nunes<sup>2</sup>, Manuela Pintado<sup>1</sup>  
<sup>1</sup>*Universidade Católica Portuguesa, Centro de Biotecnologia e Química Fina, Portugal*, <sup>2</sup>*Associação BLC3 - Campus de Tecnologia e Inovação, Oliveira do Hosp., Portugal*
- PG-25 Increase of non-extractable proanthocyanidins during processing of persimmon and quince fruits and the effect on the bile acid-binding activity**  
Yasunori Hamauzu<sup>1</sup>, Jutalak Suwannachot<sup>1</sup>, Runa Gemma<sup>2</sup>, Nami Nakane<sup>2</sup>, Erika Ikeda<sup>2</sup>  
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- PG-26 Phenolic composition of *Eragrostis tef***  
Ana López-Pérez, Susana González-Manzano, Begoña Ayuda-Durán, Sofía Martínez Gutiérrez-Zetina, Ana M. González-Paramás, Celestino Santos-Buelga  
*Grupo de investigación en Polifenoles, Campus Miguel de Unamuno, Universidad de Salamanca, Spain*
- PG-27 Effects of piceatannol on skin moisture and elasticity**  
Saori Shimotsuma<sup>1</sup>, Takayuki Yamamoto<sup>1</sup>, Yuko Setoguchi<sup>1</sup>, Sadao Mori<sup>1</sup>, Minoru Morita<sup>1</sup>, Kazuhisa Maeda<sup>2</sup>  
<sup>1</sup>*R & D Inst., Morinaga & Co. Ltd., Japan*, <sup>2</sup>*Sch. of Bioscience and Biotechnology, Tokyo Univ. of Technol., Japan*
- PG-28 Inhibition of alpha-glucosidase and pancreatic lipase by a flavonoid-rich aqueous extract of *Drymis andina*: *in vitro* and *in vivo* studies**  
Bruno Gastaldi<sup>1,3</sup>, Juana I. Mosele<sup>2,3</sup>, Silvia B. Gonzalez<sup>1</sup>, Fresia M. Sofras<sup>4,5</sup>, Daiana Retta<sup>4,5</sup>, Cesar G. Fraga<sup>2,3</sup>, Monica Galleano<sup>2,3</sup>  
<sup>1</sup>*Química Orgánica-LIPAM, Univ. Nacional de la Patagonia San Juan Bosco, Argentina*, <sup>2</sup>*Fisicoquímica, Facultad de Farmacia y Bioquímica, Univ. de Buenos Aires, Argentina*, <sup>3</sup>*CONICET-Univ. de Buenos Aires (IBIMOL), Argentina*, <sup>4</sup>*Farmacognosia, Facultad de Farmacia y Bioquímica, Univ. de Buenos Aires, Argentina*, <sup>5</sup>*CONICET-Universidad de Buenos Aires (IQUIMEFA), Argentina*
- PG-29 Factors influencing the bio-functional parameters of Black Carrot (*Daucus carota* ssp. *Sativus* var. *atrorubens* Alef.)**  
José Manuel Moreno-Rojas, Cristina Velasco-Tejero, José M. Muñoz-Redondo, Gema Pereira-Caro, José L. Ordóñez-Díaz  
*Dept. of Food Sci. and Health. IFAPA-Alameda del Obispo, Spain*
- PG-30 Antioxidant activity and phenolic profiles of pigmented chickpea seeds**  
José Manuel Moreno-Rojas<sup>1</sup>, José L. Ordóñez-Díaz<sup>1</sup>, Josefa Rubio<sup>2</sup>, Víctor Ortíz-Somovilla<sup>1</sup>, Gema Pereira-Caro<sup>1</sup>  
<sup>1</sup>*Dept. of Food Sci. and Health. IFAPA-Alameda del Obispo, Spain*, <sup>2</sup>*Dept. of Genomic and Biotechnology. IFAPA-Alameda del Obispo, Spain*
- PG-31 High performance, transferable and reliable assay of flavanol and procyanidin in cocoa derived products**  
Ugo Bussy<sup>1</sup>, Nicholas Anderson<sup>1</sup>, Alan Crozier<sup>2</sup>, Javier Ottaviani<sup>1,2</sup>, Catherine Kwik-Urbe<sup>1</sup>  
<sup>1</sup>*Mars Incorporated, USA*, <sup>2</sup>*Dept. of Nutr., Univ. of California Davis, USA*
- PG-32 Antioxidant activity and cell protective effect of *Allium Hookeri* 95% ethanol extract**  
SoHyeon You<sup>1</sup>, YunMin Hong<sup>1</sup>, SukJin Kim<sup>1</sup>, GaYeong Won<sup>1</sup>, Su-im Choi<sup>1</sup>, Gun-Hee Kim<sup>2</sup>  
<sup>1</sup>*Dept. of Health Functional Materials, Grad. Sch. of Duksung Women's Univ., Korea*, <sup>2</sup>*Dept. of Food and Nutr. of Duksung Women's Univ., Korea*

**PG-34 Beneficial effects of polyphenols from aronia berries on life-style related diseases**

Takuya Yamane<sup>1,2</sup>, Miyuki Kozuka<sup>3</sup>, Momoko Imai<sup>1,4</sup>, Satoshi Handa<sup>1</sup>, Naoki Harada<sup>1</sup>, Shigeo Takenaka<sup>1</sup>, Ryoichi Yamaji<sup>1</sup>, Tatsuji Sakamoto<sup>1</sup>, Tetsuo Ishida<sup>5</sup>, Hiroshi Inui<sup>1</sup>, Takenori Nakagaki<sup>2</sup>, Yoshihisa Nakano<sup>1</sup>

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**PG-35 Effect of storage time of Fresh Garlic (*Allium sativum* L.) on the nutritional quality of Black Garlic**

Gema Pereira-Caro, José Luis Ordóñez, Josefa Cañero, José Manuel Muñoz-Redondo, José Manuel Moreno-Rojas

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**Others**

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**PH-01 Simple synthesis of chalcones derivatives by Wittig reaction**

Ndze Denis Jumbam, Wayiza Masamba, Bonani Vinindwa

*Dept. of Chem. and Physical Sci., Fac. of Natural Sci., Walter Sisulu Univ., South Africa*

**\*PH-02 Anti-photoaging effects of *Agastache rugosa* extract and its active compound tilianin in UVB-treated hairless mice**

Mann-Seok Yun<sup>1</sup>, Haneul Kang<sup>2</sup>, Jae-Kwan Hwang<sup>1,2</sup>

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**PH-03 Chemical synthesis of hydroxytyrosol, oleacein and oleocanthal**

Beatriz T. Martins<sup>1,2</sup>, Sandra Silva<sup>1</sup>, Elsa Mecha<sup>1</sup>, Ana Teresa Serra<sup>1,2</sup>, Maria Rosário Bronze<sup>1,2,3</sup>, M. Rita Ventura<sup>2</sup>

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**PH-04 *Nelumbo nucifera* leaves extract decreases inflammatory substance in animal model of myofascial pain syndrome**

Suparnorn Muchimapura<sup>1,2</sup>, Jintanaporn Wattanathorn<sup>1,2</sup>, Terdthai Tong-un<sup>1,2</sup>, Panaporn Wannanon<sup>1,2</sup>, Wipawee Thukham-mee<sup>1,2</sup>

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- PH-05 The effects of polyphenol content and antioxidant activity in maca (*Lepidium meyenii*) phenotypes**  
Harumi Uto-Kondo<sup>1</sup>, Tomokazu Yokomaku<sup>1</sup>, Takuya Hara<sup>1</sup>, Shouhei Hatakeyama<sup>1</sup>, Akifumi Hagiwara<sup>2</sup>, Koji Kotani<sup>1</sup>  
<sup>1</sup>Dep. of Biosci. in Daily Life, Nihon Univ., Japan, <sup>2</sup>Japan VegeMaca Association, Japan
- PH-06 Development of edible film from yellow skin tuna (*T. albacares*) gelatin enriched with cinnamon (*Cinnamomum zeylanicum*) and roselle (*Hibiscus sabdariffa*)**  
Andriati Ningrum<sup>1</sup>, Martina Widhi Hapsari<sup>1</sup>, Azka Ainun Nisa<sup>1</sup>, Heli Siti Halimatul Munawaroh<sup>2</sup>  
<sup>1</sup>Dept. of Food Sci. and Agricultural Product Technol., Fac. of Agricultural Technol., Universitas Gadjah Mada, Indonesia, <sup>2</sup>Dept. of Chem., Fac. of Mathematics and Sci., Indonesia Univ. of Education, Indonesia
- PH-07 Optimization of carotenoid extraction from yellow passion fruit pomace using ultrasound-coconut oil**  
 Paramita Dyah Pratiwi, Andriati Ningrum, Supriyadi  
 Dept. of Food Sci. and Agricultural Product Technol., Fac. of Agricultural Technol., GadjahMada Univ., Indonesia
- PH-09 Effects of *Anchomanes difformis* extract on sperm parameters in streptozotocin-induced diabetic male Wistar rats**  
 Toyin D. Alabi, Nicole Lisa NL Brooks, Oluwafemi O. Oguntibeju  
 Phytomedicine and Oxidative Stress Res., Fac. of Health and Wellness Sciences, Cape Peninsula Univ. of Technol., South Africa
- PH-10 Dietary supplementation of selenoneine-containing tuna dark muscle extract effectively reduces pathology of experimental colorectal cancer in mice**  
Junko Masuda<sup>1</sup>, Chiho Umemura<sup>1</sup>, Miki Yokozawa<sup>2</sup>, Ken Yamauchi<sup>2</sup>, Takuya Seko<sup>3</sup>, Michiaki Yamashita<sup>4</sup> Yumiko Yamashita<sup>3</sup>  
<sup>1</sup>Dept. of Med. Bioeng., Grad. Sch. of Nat. Sci & Technol., Okayama Univ., Japan, <sup>2</sup>Nutrition Act Co. Ltd., Japan, <sup>3</sup>Nat., Res. Inst. of Fish., Sci., Japan, <sup>4</sup>Dept. of Food Sci., & Technol., Nat., Fish., Univ., Japan
- \*PH-12 Evaluation of antimicrobial release from biodegradable films, foreseeing (SY13-5) application as food packaging material**  
Samar Elshamy<sup>1</sup>, Isao Kobayashi<sup>1,3</sup>, Kunihiro Uemura<sup>1,3</sup>, Mitsutoshi Nakajima<sup>1,2,3</sup>, Marcos A. Neves<sup>1,2,3</sup>  
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**\*PH-13 Cinnamtannin A2 reduces anxiety behavior induced by social defeat stress (SY10-5) and improves spatial memory**

Yasuyuki Fujii<sup>1</sup>, Taiki Fushimi<sup>1</sup>, Jun Sakata<sup>1</sup>, Shoma Matsunaga<sup>1</sup>, Shu Taira<sup>2</sup>, Naomi Osakabe<sup>1</sup>

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**\*PH-14 Preparative separation of polyphenols from red wine extracts using high speed counter current chromatography**

Lingxi Li<sup>1</sup>, Baoshan Sun<sup>1,2</sup>

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