

3rd International Immunonutrition Workshop

October 21st-24th, 2009
Platja d'Aro, Girona, Spain

ORAL PRESENTATIONS SESSION I

THURSDAY, October 22nd, 2009

THURSDAY
October, 22nd

Room: Garbi
15:00-17:30h

TOPIC 1: MICRONUTRIENTS AND THE IMMUNE SYSTEM

ORAL 1

ROLE OF SELENOPROTEINS IN MACROPHAGE FUNCTION

By B.A. Carlson¹, M.-H. Yoo¹, Y. Sano², A. Sengupta¹, J.Y. Kim¹, R. Irons¹, V.N. Gladyshev³, D.L. Hatfield¹ and J.M. Park²,

¹Molecular Biology of Selenium Section, Laboratory of Cancer Prevention, Center for Cancer Research, NCI, National Institutes of Health, Bethesda, Maryland 20892, USA, the ²Cutaneous Biology Research Center, Massachusetts General Hospital and Harvard Medical School, Charlestown, Massachusetts 02129, USA, and the ³Department of Biochemistry, University of Nebraska, Lincoln, Nebraska 68588, USA

ORAL 2

A HIGH THROUGHPUT SYSTEM IN VITRO TO EVALUATE THE EFFECTS OF FRUITS TO MODULATE THE INFLAMMATION BIOMARKER NF- κ B

By L. Tomás-Cobos¹, A. Rodrigo¹, D. Forbes², J Zhang² and M Skinner².

¹. Ainia Technological Centre, Parque Tecnológico de Valencia, c. Benjamín Franklin 5-11 E 46980 Paterna (Valencia) ². New Zealand Institute for Plant and Food Research Ltd, Private Bag 92169, Auckland 1142, New Zealand

ORAL 3

EFFECTS OF GAMMA-TOCOPHEROL ON 5-NITRO-GAMMA-TOCOPHEROL CONCENTRATIONS AND NUCLEAR FACTOR KAPPA B ACTIVATION IN PERIPHERAL BLOOD MONONUCLEAR LEUKOCYTES OF SMOKERS COMPARED TO NONSMOKERS

By B.M. Winklhofer-Roob¹, I. Sundl¹, A. Meinitzer², H.J. Gruber², B. Tiran², G. Khoschorur², O. Knes³, and J.M. Roob⁴

TOPIC 2: LIPIDS AND THE IMMUNE SYSTEM

ORAL 4

EFFECT OF FISH OIL SUPPLEMENTATION ON EARLY MARKERS OF INFLAMMATION IN A PORCINE MODEL.

By C Lauridsen¹, SN Langerhuus¹, BM Damgaard² And KH Jensen¹, Aarhus University, Department of Animal Health, Welfare and Nutrition, ¹Research group for Immunology and Microbiology, ²Research group for Integrative Physiology, P.O. Box 50, 8830 Tjele, Denmark.

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ORAL 5

CONJUGATED LINOLEIC ACID FEEDING DURING GESTATION AND SUCKLING PERIODS INCREASES ANTIBODIES CONCENTRATION IN RAT MILK.

By C Ramírez-Santana^{1,3}, FI Pérez-Cano¹, M Castell¹, MC López-Sabater^{2,3}, M Rodríguez-Palmero⁴, C Castellote^{1,3} and A Franch^{1,3}

¹Department of Physiology, ² Department of Nutrition and Food Science, Faculty of Pharmacy, University of Barcelona, Barcelona, Spain, ³CIBER in Epidemiology and Public Health (CIBERESP), Spain, ⁴Ordesa Group, Research Department, Scientific Park of Barcelona, Barcelona, Spain

ORAL 6

DIETARY N-3 FATTY ACIDS REDUCE LYMPHOCYTE PROLIFERATION IN BROILER CHICKENS.

By HS Al-Khalifa¹, C Rymer¹, I Givens¹ and P Yaqoob².

¹Department of Agriculture and ² Department of Food Biosciences, The University of Reading, UK.

ORAL 7

THE EFFECTS OF INCREASED OILY FISH INTAKE DURING PREGNANCY ON NEONATAL IMMUNE CELLS - RESULTS FROM THE SALMON IN PREGNANCY STUDY (SIPS).

By PS Noakes, M Vlachava, L-S Kremmyda, ND Diaper, EA Miles and PC Calder
Institute of Human Nutrition and DOHaD Division, School of Medicine, University of Southampton, IDS Building, Southampton General Hospital, Southampton SO16 6YD, United Kingdom.

TOPIC 3: BIOACTIVE COMPOUNDS AND THE IMMUNE SYSTEM

ORAL 8

ANTI-INFLAMMATORY EFFECT OF BREADS IN RELATION TO THE BIOAVAILABILITY OF PHENOLIC COMPOUNDS.

By N Mateo Anson^{1,2}, E Selinheimo³, A-M Aura³, R Havenaar¹, A Bast² and Grmm. Haenen².

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ORAL 9

DRY OLIVE LEAF EXTRACT (DOLE) AMELIORATES ISLET-DIRECTED AUTOIMMUNITY IN MICE

By S. Stosic-Grujicic¹, T. Cvjeticanin¹, I. Stojanovic¹, Dragana Dekanski² And DI. Miljkovic¹

¹Institute for Biological Research "Sinisa Stankovic", University of Belgrade, Serbia, ²Biomedical Research R&D Institute, Galenika A.D., Belgrade, Serbia

ORAL 10

DIETARY MODULATION OF IMMUNE RESPONSE USING AN EX-VIVO STIMULATION MODEL COUPLED WITH REAL-TIME PCR; CLINICAL AND PRECLINICAL DATA.

By F Depeint¹, A Abdelnour¹, E K Barbour², G Abdelnour¹, H Younes¹ and P Pouillart¹

¹Department of Nutrition and Health, Institut Polytechnique LaSalle Beauvais, Beauvais, France and ²Department of Animal Science, Faculty of Agriculture and Food Sciences, American University of Beirut, Beirut, Lebanon.

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ORAL 11

SELECTED COMPOUNDS ISOLATED FROM MORINDA CITRIFOLIA MODULATE PROSTATE CANCER CELL GROWTH.

By V Nitteranon¹, J Cai², J Xu², RG Godbee³, KI Parkin¹ and BJ Darien¹.

¹Department of Food Science, College of Agricultural & Life Sciences; ²Department of Medical Sciences, School of Veterinary Medicine, University of Wisconsin, Madison, WI, USA; ³Department of Animal Biotechnology/Veterinary Medicine, University Nevada, Reno, NV, USA.

TOPIC 4: NUTRITION AND IMMUNITY IN PATHOLOGICAL STATES

ORAL 12

BIOMARKERS OF INFLAMMATION IN PREPUBERTAL OBESE SPANISH CHILDREN.

By J Olza¹, CM Aguilera¹, M Gil-Campos², R Leis³, M Valle⁴, R Cañete², R Tojo³ and A Gil¹,

¹Department of Biochemistry and Molecular Biology II, Institute of Nutrition and Food Technology, Centre for Biomedical Research, University of Granada, Granada, Spain; ²Unit of Paediatrics Endocrinology, Reina Sofia University Hospital, Córdoba, Spain; ³Unit of Investigation in Nutrition, Growth and Human Development of Galicia, Department of Paediatrics, Clinic University Hospital of Santiago, University of Santiago de Compostela, Spain; ⁴Unit of clinical analyses, Valle de los Pedroches Hospital, Cordoba, Spain.

ORAL 13

A MASTER FORMULATION OF ORGANIC EXTRA VIRGIN OLIVE OIL INCREASES HDL CHOLESTEROL AND ALBUMIN SERUM LEVELS IN KIDNEY PATIENTS, AND AMELIORATES ATOPIC DERMATITIS IN CHILDREN AND ADULTS

By VG Villarrubia¹, S Vidal², F Borrego-Utiel³, JM Gil-Cunquero³, and V Pérez-Bañasco³.

¹. Dpt R&D Immunology, Bioaveda, Jaén, Spain; ². Servicio Dermatología, Hospital Góme Ulla, Madrid, Spain; ³. Servicio Nefrología, Hospital de Jaén, España.

ORAL 14

DIETARY PLASMA PROTEIN SUPPLEMENTATION AMELIORATES LUNG INFLAMMATION INDUCED BY LPS ADMINISTRATION IN MICE.

By ¹M Maijón, ^{1,2}A Pérez-Bosque, ¹L Miró, ²J Polo, ³L Russell, ³J Campbell, ³E Weaver, ³J Crenshaw and ¹M Moretó,

¹Department of Physiology, Faculty of Pharmacy and Research Institute for Nutrition and Food Safety, University of Barcelona, Spain; ²APC Europe, Granollers, Spain; ³APC Inc., Ankeny, IA, USA.

**ORAL PRESENTATIONS
SESSION II
FRIDAY, October 23rd, 2009**

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TOPIC 5: DIETS AND LOW-GRADE INFLAMMATION

ORAL 1

IN VITRO AND IN VIVO IMMUNOMODULATORY EFFECTS OF RESVERATROL ON IMMUNE FUNCTION IN AGED HORSES.

By A.A. Adams¹, P. Lawless², I. Sun¹, A. Betancourt¹, M. Brummer³, D. Ramos¹, E. Finley¹, M. and D.W. Horohov¹,

¹Maxwell H. Gluck Equine Research Center, Department of Veterinary Science, University of Kentucky, Lexington, Kentucky, USA, ²Biological Prospects, 609 Dardanelles Drive, Lexington, Kentucky, USA, ³Department of Animal and Food Science, University of Kentucky, Lexington, Kentucky, USA

ORAL 2

FACTORS ASSOCIATED WITH INFLAMMATION IN OLDER ADULTS

By S.E. Forster¹, D.J. Flower¹, G. Foulds¹, L. Jones¹, H.J. Powers¹, J.M. Saxton², S. Parker¹, A.G. Pockley¹, E.A. Williams¹

¹Faulty of Medicine, University of Sheffield, Beech Hill Road, Sheffield, S10 2RX ²Centre for Sport and Exercise Science, Sheffield Hallam University, Collegiate Campus, Sheffield, S10 2BP.

TOPIC 6: FUNCTIONAL FOODS AND THE IMMUNE SYSTEM

ORAL 3

TOLL LIKE RECEPTOR 2 ACTIVATION IS ESSENTIAL TO INDUCE A T_H1 SHIFT IN HUMAN PBMCs BY PLANT STEROLS AND PLANT STANOLS.

By F Brüll, R P Mensink, and Jogchum Plat,

Department of Human Biology, Maastricht University, Maastricht, The Netherlands

ORAL 4

INCREASED FRUIT AND VEGETABLE CONSUMPTION IMPROVES ANTIBODY RESPONSE TO VACCINATION IN OLDER PEOPLE: THE ADIT STUDY.

By J.D. Edgar¹, A. Gibson², C.E. Neville², S.E.C.M. Gilchrist², M.C. Mckinley², C.C. Patterson², I.S. Young², J.V. Woodside²,

¹Regional Immunology Service, Belfast Health and Social Care Trust, Belfast, BT12 6BN, ²School of Medicine, Dentistry and Biomedical Sciences, Queen's University Belfast, BT12 6BJ

TOPIC 7: PREBIOTICS AND THE IMMUNE SYSTEM

ORAL 5

A DOUBLE-BLIND, PLACEBO-CONTROLLED, RANDOMIZED CROSSOVER STUDY TO DETERMINE THE EFFECTS OF A PREBIOTIC, A PROBIOTIC AND A SYNBIOTIC UPON THE GUT MICROBIOTA AND IMMUNE RESPONSE OF HEALTHY VOLUNTEERS.

By C.E Childs, P Yaqoob, G.R Gibson and R.A Rastall.

Department of Food Biosciences, University of Reading RG6 6AP.

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ORAL 6

NON ABSORBABLE GLUCIDS (ACTIVE HEXOSE CORRELATED COMPOUND, INULIN AND FRUCTOOLIGOSACCHARIDES) EXERT IMMUNOMODULATORY EFFECTS AND INDUCE DIFFERENTIATION IN SEVERAL INTESTINAL CELL TYPES THAT ARE INDEPENDENT ON THEIR PREBIOTIC ACTIONS

By F. Sánchez De Medina², E Martínez-Plata¹, I Romero², M Ortega¹, R Gonzalez², A Daddaoua¹, P Martínez-Moya¹, A Zarzuelo², MD Suárez¹, and O Martínez-Augustín¹

¹Department of Biochemistry and Molecular Biology II, CIBER-EHD and ² Department of Pharmacology, CIBER-EHD, University of Granada. Spain

ORAL 7

EFFECT OF PREBIOTIC AND SYMBIOTIC SUPPLEMENTATION ON IMMUNITY IN ATHLETES

By NP West^{1,2}, DB Pyne^{1,3}, WG Hopkins⁴, AI Cox⁵, PA Fricker⁶, H Ahmad⁷, MA Conlon⁷, C Christophersen⁷ And AW Cripps⁸

¹Department of Physiology, Australian Institute of Sport, Australia, ²School of Physiotherapy and Exercise Science, Griffith Health, Griffith University, Australia, ³Medical School, Australian National University, Australia, ⁴ Institute of Sport and Recreation Research, AUT University, Auckland, New Zealand, ⁵Faculty of Biomedical Sciences, University of Newcastle Australia, ⁶Executive, Australian Institute of Sport, Canberra, Australia, ⁷Probiotec Pharma LTD, Melbourne, Victoria, Australia, ⁸CSIRO Human Nutrition, Adelaide, Australia, ⁹Griffith Health, Griffith University, Australia.

TOPIC 8: PROBIOTICS, IMMUNITY & INFLAMMATION

ORAL 8

IS ICE CREAM A SUITABLE CARRIER FOR PROBIOTICS?

By D.A.W. Wolvers, I. Mohede, E. Meynen, M.A.M. Vente-Spreuwenberg, N. Johnson, J. Ueckert and R. Albers,

Unilever Research, Unilever Food and Health Research Institute, Olivier van Noortlaan 120, 3133 AT Vlaardingen, The Netherlands

ORAL 9

IN VITRO IMMUNOMODULATORY ACTIVITY OF TWO PROBIOTIC STRAINS ISOLATED FROM HUMAN BREAST MILK: LACTOBACILLUS SALIVARIUS CECT5713 AND LACTOBACILLUS FERMENTUM CECT5716.

By FJ Pérez-Cano¹ and P Yaqoob²,

¹Department of Physiology, Faculty of Pharmacy, University of Barcelona, Barcelona, Spain, ²School of Chemistry, Food Biosciences & Pharmacy, The University of Reading, Reading, UK

ORAL 10

EFFECTS OF LACTOBACILLUS CASEI SHIROTA ON IMMUNE FUNCTION.

By H Dong¹, I Rowland¹, KM Tuohy¹, LV Thomas² and P Yaqoob¹.

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ORAL 11

IMBALANCE IN BACTEROIDES SPECIES COMPOSITION ASSOCIATED WITH COELIAC DISEASE.

By E. Sánchez¹, E. Donat², C. Ribes-Koninckx², M Calabuig³ and Y. Sanz^{1*}

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ORAL 12

GUT COLONIZATION PROCESS OF NEWBORNS AND BREAST-FED BABIES AT RISK OF DEVELOPING COELIAC DISEASE

By G. De Palma¹, I. Nadal¹, A. Capilla², E. Nova³, A. Marcos³, T. Pozo³, V. Varea⁴, I. Polanco⁵, G. Castillejo⁶, C. Ribes-Koninckx⁷, J.A. Garrote⁸, C. Calvo⁸, M.D. García-Novo⁹, A. López⁷, M. L. Cilleruelo¹⁰, F. Palau² and Y. Sanz^{1*}

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ORAL 13

RECURRENCE OF FUNGAL INFECTIONS AS A CONSEQUENCE OF IMMUNODEPRESSION, STRESS AND INAPPROPRIATE NUTRITION

By I. Cesaroni, I. Negro, C. Manfredi, L. Vargas, and G. Knaupe
La Plata, Argentina

ORAL 14

DIFFERENTIAL EFFECT OF BIFIDOBACTERIUM SPECIES ON CYTOKINE PRODUCTION IN A CACO-2/PBMC COCULTURE SYSTEM.

By T. Pozo¹, I. Nadal², A. Marcos¹, Y. Sanz² and E. Nova¹

¹Metabolism and Nutrition Department, Instituto del Frío-ICTAN (CSIC), Madrid, Spain,
²Ecofisiología Microbioana, Instituto de Agroquímica y Tecnología de Alimentos (CSIC), Valencia, Spain