

4th European Summer School on Nutrigenomics

June 21-25, 2021 - Virtual event

12:00 open session (check your connection) **Central European Time**

13:00 Welcome

Monday: Exposome and early nutritional programming of the epigenome

Chairs: Rosita Gabbianelli, Stefano Lorenzetti

13:15 Michael Müller, Norwich Medical School, University of East Anglia, Norwich, United Kingdom, **We are what we eat and have eaten – Nutrigenomics of the exposome (an introduction)**

13:45 **Torsten Plosch**, Dept. Obstetrics and Gynaecology, University Medical Center Groningen, The Netherlands, **Fetal and early life programming of health**

14:15 **Louise Harvey**, Nutritional Programming Early Life Nutrition, Danone Nutricia Research, Utrecht, The Netherlands, **Windows of opportunity in the first 1000 days for nutritional programming of metabolic health**

14:45 Coffee break

15:00 **Inga C Teller**, Institute NaturScience, Bremen, Germany. **Lasting effects of early feeding and angles of breastfeeding support.**

15:30 Discussion with the speakers

Selected presentations from participants (10 min + questions):

16:00 **Getachew Arage**, Department of Nutrition and Dietetics, College of Health Sciences, DebreTabor University, Debre Tabor, Ethiopia, **Effects of Early Life Exposure to Famine on Adulthood Metabolic and Cognitive Outcomes: A Historical Cohort Study from 1983 - 1985 Ethiopian Great Famine.**

16:15 **Marion Lecorguillé**, School of Public Health, Physiotherapy, and Sports Science, University College Dublin, Dublin, Republic of Ireland, **Maternal and paternal dietary quality, dietary inflammation status, and offspring DNA methylation**

16:30 **Poster session (poster 11-25, 2 min/person)**

17:15 **Poster discussion with the speakers (6 rooms: poster evaluation)**

18:00 Interactive test – closing

Tuesday: Genetics versus epigenetics

Chairs: Michael Muller, Baukje De Roos

13:00 **John Mathers**, Human Nutrition Research Centre, Population Health Sciences Institute, Newcastle University, U.K. **Scientific basis of human variability and potential for translation in personalised nutrition**

13:30 **Marianne Rots**, Department of Pathology and Medical Biology, University Medical Center Groningen, The Netherlands, **Mitochondrial DNA methylation: is it or is it not? (what is the true question?)**

14:00 **Wim Vanden Berghe**, Laboratory of Protein chemistry, Proteomics and Epigenetic Signaling University, Antwerp (Wilrijk), Belgium, **GWAS and EWAS: the Jekyll and Hyde sides of metabolic health and disease**

14:30 Coffee break

14:45 **Tomasz Jurkowski**, University of Cardiff, United Kingdom, **Diet, environmental factors and epigenetic machinery.**

15:15 **Valerio Napolioni**, University of Camerino, Italy, **Polygenic Risk Scores: an effective tool for genomic-based medicine in human complex traits**

Selected presentations from participants (10 min + questions):

15:45 **Przemyslaw Czajkowski**, Clinical Research Centre, Medical University of Białystok, Poland **Dietary fiber intake may influence the associations between FTO genetic variants and obesity-related parameters.**

16:00 **Lara Coppi**, DiSeFeB – Università degli Studi di Milano, Italy **Role of histone deacetylase 3 (HDAC3) and downstream players in physiopathology of adipose tissue**

16:15 **Celeste Ferraris**, School of Environmental and Life Sciences, The University of Newcastle, Australia, **Sour taste SNP KCNJ2-rs236514 associated with mild cognitive impairment in an elderly cohort**

16:30 Coffee break

16:45 Technical talk **Marianne Rots**, Department of Pathology and Medical Biology, University Medical Center Groningen, The Netherlands **Detecting mitochondrial DNA modification differences in clinical samples**

17:00 Technical talk **Wim Vanden Berghe** Laboratory of Protein chemistry, Proteomics and Epigenetic Signaling University, Antwerp (Wilrijk), Belgium, **Resolving epigenetic flavours by genomic and proteomic approaches.**

17:15 Research talk **John Mathers**, Human Nutrition Research Centre, Population Health Sciences Institute, Newcastle University, U.K. **Using personalised nutrition to improve public health: lessons from the Food4Me Study**

17:30 Coffee break

17:45 Research talk **Louise Harvey**, Nutritional Programming Early Life Nutrition, Danone Nutricia Research, Utrecht, The Netherlands, **Optimising pre-clinical models of nutritional programming for markers of metabolic health**

18:00 Research talk **Tomasz Jurkowski**, University of Cardiff, United Kingdom, **Probing epigenetic stability with synthetic approaches**

18:15 Discussion with the speakers

18:45 Interactive test - closing

Wednesday: Nutrigenomics supports health and wellbeing: how to do prevention?

Chairs: Marianne Rots, Wim Vanden Berghe

13:00 **Susan Duthie**, The Robert Gordon University, Aberdeen, U.K., **Let food be thy medicine & medicine be thy food** Did Hippocrates get it right & is this still relevant for the 21st Century?

13:30 **Clarissa Gerhauser**, Division Cancer Epigenomics, German Cancer Research Center (DKFZ), Heidelberg, Germany, **Multi-layered epigenomic regulation of adipogenesis and its involvement in the pathogenesis of obesity and metabolic syndrome**

14:00 **Raffaèle De Caterina**, University of Pisa, Italy, **The ups, downs, and ups again of omega-3 fatty acids as cardioprotective agents.**

14:30 Coffee break

14:45 **Saverio Cinti**, Marche Polytechnic University, Italy, **White, brown and pink adipocytes: the rainbow of the nutritional system.**

Selected presentations from participants (10 min + questions)

15:15 **Alexandra King**, Faculty of Sport, Allied Health and Performance Science, St Mary's University, Twickenham, TW1 4SX, UK. **A longitudinal study to determine the effect of gene-based personalised diet and physical activity advice on healthy eating motivation in university students.**

15:30 **Kathleen Wijnant**, Department of Public Health and Primary Care, Ghent University, Ghent, Belgium, **Adolescents' stress reactivity and emotional eating during a lab stressor: differences depending on chronic stress and overweight**

15:45 Coffee break

16:00 Research talk **Baukje De Roos**, Deputy Director Rowett Institutet, University of Aberdeen, U.K **Fish, fish oil and health – nutrigenomic approaches to identify effects and responsiveness**

16:15 Research talk **Clarissa Gerhauser**, Division Cancer Epigenomics, German Cancer Research Center (DKFZ), Heidelberg, Germany, **Modulation of the epigenome during human adipocyte differentiation by docosahexaenoic acid and selected flavanone derivatives.**

16:30 Research talk **Stefano Lorenzetti**, Istituto Superiore di Sanità – ISS, Roma, Italy, **A short lifestyle intervention study (4-mo RCT) is already sufficient to improve seminal plasma biomarkers in healthy young males living in highly polluted Italian areas?**

16:45 Technical talk **Susan Duthie**, The Robert Gordon University, Aberdeen, U.K., **Using proteomics to study the impact of folate on human health and disease: a fishing exercise or big game hunting?!**

17:00 Coffee break

17:15 Discussion with the speakers

17:45 Interactive test - closing

Thursday: Food/environment and microbiota: the choices for wellness

Chairs: Susan Duthie, Torsten Plosch

13:00 **Omry Koren**, Bar Ilan University, Safed, Israel. **The microbiome in the first 1000 days**

13:30 **Marco Ventura**, University of Parma, Italy **The First Microbial Colonizers of the Human Gut: Composition, Activities, and Health Implications of the Infant Gut Microbiota**

14:00 Coffee break

Selected presentations from participants (10 min + questions)

14:15 **Giulia Gaudioso**, Department of Food Quality and Nutrition, Research and Innovation Centre, Fondazione Edmund Mach, San Michele all'Adige, Trento, Italy, **In vitro fecal fermentation of Broccolo di Torbole ecotype (Brassica oleracea var. botrytis): analysis of gut microbiota composition**

14:30 **Federico Bernuzzi**, Stedam Institute of Biosciences, Department of Food Health and Innovation, Norwich Research Park NR4 7UA, United Kingdom, **The regulation of central metabolism by the food derived bioactive Sulforaphane**

14:45 **Duygu Dede Sener**, Department of Bioinformatics, Maastricht University, The Netherlands, **Digestive tract diseases and the microbiome: How to functionally integrate host transcriptomics and metabolomics**

15:00 Coffee break

15:15 Technical talk **Christian Milani**, University of Parma, Italy **Novel cutting edge metagenomics approaches for the analysis of the microbiota**

15:30 Technical talk **Omry Koren**, Bar Ilan University, Safed, Israel. **Fecal transplants: past, present, future**

15:45 Research talk **Michael Müller**, Norwich Medical School, University of East Anglia, Norwich, United Kingdom, **"A calorie is not a calorie" - The impact of diets for the gut-liver axis**

16:00 Discussion with speakers

16:30 **Poster session (poster 26-40, 2 min/person)**

17:15 **Poster discussion with the speakers (separated 6 rooms: poster evaluation)**

18:00 **Face to face with the speakers** (participants can meet speakers in individual rooms: 4 rooms one for each topic of the week)

18:30 Interactive test - closing

Friday: Nutri-epigenomics for healthy aging: evidence from longitudinal studies

Chairs: Gerhauser Clarissa, Omry Koren

13:00 **Baukje De Roos**, Deputy Director Rowett Institutet, University of Aberdeen, U.K. **Precision nutrition, personalised dietary strategies and improvement of population and individual health – how can we make this work?**

13:30 **Fabio Virgili**, Council for Agricultural Research and Economics - CREA, Rome, Italy. **Are we ready to personalize our diet by DNA-based dietary advice?**

14:00 Coffee break

14:15 **Augustin Scalbert**, International Agency for Research on Cancer, Nutrition and Metabolism Branch, World Health Organisation, Lyon, France. **Dietary polyphenols and cancer risk in the EPIC cohort**

14:45 Round table: **Michael Muller, Baukje De Roos, John Mathers, Melita Vidakovic** (Science Communicator and science writer ect) **How to promote health through social interventions?**

15:15 Interactive test

15:30 **Photo with all participants (Screenshot)**

15:40 Best poster award

15:45 Farewell

Poster session

1. **Maternal and paternal dietary quality, dietary inflammation status, and offspring DNA methylation** Marion Lecorguillé¹, John Mehegan¹, Cecily C. Kelleher¹, Matthew Suderman², Catherine M Phillips¹ ¹School of Public Health, Physiotherapy, and Sports Science, University College Dublin, Dublin, Republic of Ireland ²MRC Integrative Epidemiology Unit, Population Health Sciences, Bristol Medical School, University of Bristol, Bristol, UK

2. **Effects of Early Life Exposure to Famine on Adulthood Metabolic and Cognitive Outcomes: A Historical Cohort Study from 1983 - 1985 Ethiopian Great Famine**, Getachew Arage¹, Prof. Tefera Rabeahachew¹, Dr. Kalkidan Hassen¹ ¹Department of Nutrition and Dietetics, College of Health Sciences, DebreTabor University, Debre Tabor, Ethiopia, ²Department of Nutrition and Dietetics, Institute of Health, Jimma University, Jimma, Ethiopia.

3. **Dietary fiber intake may influence the associations between FTO genetic variants and obesity-related parameters**, Przemyslaw Czajkowski, Edyta Adamska-Patrino, Witold Bauer, Urszula Krasowska, Joanna Fiedorczuk, Monika Moroz, Maria Gorska, Adam Kretowski, Clinical Research Centre, Medical University of Białystok, Poland.

4. **Role of histone deacetylase 3 (HDAC3) and downstream players in physiopathology of adipose tissue**, Lara Coppi¹, Carolina Peri¹, Raffaella Longo², Nicolas Guez³, Tiziana Caputo⁴, Béatrice Desvergne⁵, Maurizio Crestani¹, DiSeFeB – Università degli Studi di Milano, ²University of Lausanne.

5. **Sour taste SNP KCNJ2-rs236514 associated with mild cognitive impairment in an elderly cohort** Celeste Ferraris¹, Alexandria Turner¹, Christopher Scarlett¹, Martin Veyssey^{2,3}, Mark Lucock¹, Tamara Bucher^{1,4}, and Emma L. Beckett^{1,5} ¹School of Environmental and Life Sciences, The University of Newcastle, Australia, ²School of Medicine & Public Health, The University of Newcastle, Australia, ³Hull York Medical School, University of Hull, Cottingham HU9 7RX, UK, ⁴Priority Research Centre for Physical Activity & Nutrition, The University of Newcastle, Australia, ⁵Hunter Medical Research Institute, NSW, Australia.

6. **A longitudinal study to determine the effect of gene-based personalised diet and physical activity advice on healthy eating motivation in university students**. A. King, L. Pilic, J. Nixon, E. Mauro, Y. Mavrommatis Faculty of Sport, Allied Health and Performance Science, St Mary's University, Twickenham, TW1 4SX, UK.

7. **Adolescents' stress reactivity and emotional eating during a lab stressor: differences depending on chronic stress and overweight**. Kathleen Wijnant¹, Joanna Kłosowska¹, Stefaan De Henauw¹, Lynn Vanhaecke¹, Nathalie Michiels¹ ¹Department of Public Health and Primary Care, Ghent University, Ghent, Belgium, ²Department of Veterinary Public Health and Food Safety, Ghent University, Ghent, Belgium, ³Queen's University, School of Biological Sciences, Institute for Global Food Security, Belfast, Northern Ireland, UK.

8. **In vitro fecal fermentation of Broccolo di Torbole ecotype (Brassica oleracea var. botrytis): analysis of gut microbiota composition** G. Gaudioso, C. D'otallevi, K. M. Tuohy and F. Fava ¹Department of Food Quality and Nutrition, Research and Innovation Centre, Fondazione Edmund Mach, San Michele all'Adige, Trento, Italy.

9. **The regulation of central metabolism by the food derived bioactive Sulforaphane** F. Bernuzzi¹, P. Troncoso-Rey¹, S. Saha¹, T. Korsmaros² and M.H. Traka¹ ¹Quadrant Institute of Biosciences, Department of Food Health and Innovation, Norwich Research Park NR4 7UA, United Kingdom; ²Earlham Institute, Norwich Research Park NR4 7UA, United Kingdom.

10. **Digestive tract diseases and the microbiome: How to functionally integrate host transcriptomics and metabolomics**, Duygu Dede Sener, Chris Evelo, Department of Bioinformatics, Maastricht University.

11. **Ideabrick packaging capability in the preservation of raw and cooked ham. a comparative study**. Acquaticci¹, L. Kamgany Nzekoue, F. Silvi, S. Angeloni, S. Caprioli, G. and Sagratini, G., University of Camerino, via Sant'Agostino 1, Camerino, Italy.

12. **Organic and antibiotic-free chicken meat: a proteomic approach**. L. Alessandroni, M. Ricciutelli, M. Cortese, S. Vincenzetti, R. Galli, G. Sagratini, School of Pharmacy, University of Camerino, Italy.

13. **Role of Saccharomyces cerevisiae supplemented to glial and neural cells**. Armeli F¹, Maggi E¹, Leo M¹, Mancini P¹, Filetici P¹, Archer T¹, Businaro R¹ ¹Department of Medico-Surgical Sciences and Biotechnologies, Sapienza University of Rome, Italy ²Department of Public Health and Biotechnologies ³Charles Darwin³, Sapienza University of Rome ⁴Department of Experimental Medicine, Sapienza University of Rome ⁵IRPIM, CNR, Rome ⁶Milmed Univico AB, Stockholm, Sweden.

14. **The association of dietary calcium intake and serum vitamin D with leptin and apelin gene expression from visceral and subcutaneous adipose tissue among adults**, Emad Yuzbashian¹, Maryam Zarkesh², Golaleh Asghari¹, Mehdi Hedayatfard¹, Parvin Mirzarian¹, Alireza Khalaji¹ ¹Nutrition and Endocrine Research Center, Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran, ²Cellular and Molecular Endocrine Research Center, Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran³ Tehran Obesity Treatment Center, Department of Surgery, Shahed University, Tehran, Iran.

15. **Characterization of Gut Microbiome in Type-1 Diabetic Children in Qatar Population**, Farah El Assadi^{1,2}, Arun Prasath Lakshmanan³, Dhinoth Kumar Bangarusamy⁴, Shaikha Alabduljabbar¹, Sara Zaidan⁵, Goran Petrovski¹, Annalisa Terranegra¹ ¹College of Health and Life Sciences, Hamad Bin Khalifa University, Qatar; ²Research Branch, Sidra Medicine, Qatar; ³Paediatrics Department, Endocrine and Diabetes Division, Sidra Medicine, Qatar.

16. **Organic meat in compostable packaging solutions: a preliminary study**. L. Alessandroni, M. Ricciutelli, G. Caprioli, G. Sagratini, School of Pharmacy, University of Camerino, Italy.

17. **An emerging vegetable, (Crithum maritimum L.), as a source of nutraceuticals: extraction, purification and chemical characterization of polar extracts**. Diletta Piatti¹, Simone Angeloni¹, Giovanni Caprioli¹, Filippo Maggi¹, Massimo Ricciutelli¹, Lolita Arnoldi¹, Gianni Sagratini¹ ¹School of Pharmacy, University of Camerino, Camerino, Italy; ²Research and Development Department, Indiana SpA, Milan, Italy.

18. **miR-29a affects the progression of Alzheimer's Disease through one carbon-metabolism** Tiziana Rala, Department of Experimental Medicine, "La Sapienza" University of Rome, Italy.

19. **Glycoxidation signaling alterations induced by late-onset dietary restriction aggravate metabolic inflammation in the liver of old wistar rats**. Ana Teofilović¹, Miloš Vratarić¹, Nataša Veličković¹, Danijela Vojnović Miliutinović¹, Milica Prvolović¹, Smilja Todorović¹, Aleksandra Mladenović Djordjević¹ and Ana Djordjević¹ ¹Department of Neurobiology, Institute for Biological Research "Sinisa Stanković" - National Institute of Republic of Serbia, University of Belgrade, Despot Stefan Blvd, Belgrade, Serbia.

20. **Impact of cocoa/methylxanthines supplementation on liver glutathione level in aged mice**. Vanja Todorović¹, Nevena Dabčević¹, Bojana Vidović², Tijana Ilić¹, Sladana Šobajčić¹ ¹Department of Bromatology, Faculty of Pharmacy, University of Belgrade, Belgrade, Serbia.

21. **Nucleic acids - undernourished food components**, Zuzanna Koziara, Agnieszka Bartoszek ¹Department of Food Chemistry, Technology and Biotechnology, Gdańsk University of Technology, Gdańsk, Poland.

22. **Genetic risk score to predict the likelihood of dental caries in Finnish adolescents**. Nitin Agrawal¹, Elina Engberg², Jussi Furuholm³, Emma Dahlstrom⁴, Helmi Viljakainen⁵, Folkhälsan Research Center, Helsinki, Finland.

23. **Metabolomics - based machine learning method for the discovery and characterisation of biomarkers implicated in Non-Alcoholic Fatty Liver Disease**, Ambrin Farizah Babu¹, Sara Leal Silveira¹, Howell Leung¹, Emmanouil Nychas¹, Gianni Panagiotou¹, Kati Hanhineva¹, ¹University of Eastern Finland, Department of Clinical Nutrition and Public Health, Kuopio, Finland, ²Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute (HKI), Systems Biology and Bioinformatics, Jena, Germany.

24. **Influence of renal disorder and dietary factors on the incidence of caries in children**. Sima Todoroava Angelova¹, DMD, PhD, Ayshe Seyhan Salim¹, PhD ¹Chief Assistant at the Department of Pediatric Dentistry, Faculty of Dental Medicine¹, Chief Assistant at the Department of Biochemistry, Molecular Medicine and Nutrigenomics, Faculty of Pharmacy², Medicine³ ¹Prof. Dr. Paraskev Stoyanov¹-Varna²-Varna, Bulgaria.

25. **Effect of Extra virgin olive oil polyphenols pattern on anti-inflammatory activities: analytical aspects**. Alessandro Annunziata¹, Stefania De Santis¹, Pasquale Crupi¹ ¹Department of Pharmacy-Drug Science, University of Bari Aldo Moro, Bari, Italy; ²Department of Interdisciplinary Medicine, University of Bari Aldo Moro, Bari, Italy.

26. **Elevated intake of high amylose wheat improves conception rates and increases placental size but not fetal weight in mice**. See Meng Lim^{1,2,3}, Amanda J. Page^{1,4}, John Carragher¹, Iain Searle¹, Sarah A. Robertson¹ and Beverly Muhlhäuser^{1,2,3} ¹School of Agriculture, Food and Wine, The University of Adelaide, Australia, ²Lifelong Health Theme, South Australian Health and Medical Research Institute, Australia, ³Centre for Community Health Studies (ReaCH), Faculty of Health Sciences, Universiti Kebangsaan Malaysia, Malaysia, ⁴Adelaide Medical School, The University of Adelaide, Australia, ⁵School of Biological Sciences, The University of Adelaide, Australia, ⁶Robinson Research Institute, The University of Adelaide, Australia, ⁷Commonwealth Scientific and Industrial Research Organisation, Australia.

27. **Crocus sativus bioactive properties and modulation of glyco-oxidative stress**. Luisa Bellachioni¹, Camilla Morresi¹, Gianna Ferretti¹, Tiziana Bacchetti¹ ¹Department of Life and Environmental Sciences, Polytechnic University of Marche, Ancona, Italy; ²Department of Clinical Sciences, Polytechnic University of Marche, Ancona, Italy.

28. **Long-term differential effects of procyonidins on CKK secretion in young versus 21-month-old female rats under cafeteria diet**. Alba Miguéns-Gómez, Carme Grau-Bové, Marta Sierra-Cruz, Esther Rodríguez-Gallego, Raul Beltrán-Piñent, Mayte Blay, Ximena Terra, Montserrat Piñent and Anna Ardevol. MoBioFood Research Group, Department of Biochemistry and Biotechnology, Universitat Rovira i Virgili, Tarragona, Spain.

29. **Grape-seed proanthocyanidin extract reverts obesity-related metabolic derangements in aged female rats**. Marta Sierra-Cruz, Alba Miguéns-Gómez, Carme Grau-Bové, Esther Rodríguez-Gallego, Mayte Blay, Montserrat Piñent, Anna Ardevol, Ximena Terra, Raul Beltrán-Piñent, MoBioFood Research Group, Department of Biochemistry and Biotechnology, Universitat Rovira i Virgili, Tarragona, Spain.

30. **Live Biotherapeutic Probiotics Human Microbiome: Machine Learning Insilico clinical trials Novel Practical approach to era of personalized probiotics medicine**. Reyyed M Reyyed, Probiotics Microbiology PhD, City for Scientific Research and Applied Technology, Alex, Egypt.

31. **Assessment of the relationship between protein consumption and development of glucose metabolism disturbances in carriers of some common single nucleotide polymorphisms in gene BDNF (rs10835211)**. Urszula Krasowska, Edyta Adamska-Patrino, Witold Bauer, Przemyslaw Czajkowski, Joanna Fiedorczuk, Monika Moroz, Maria Gorska, Adam Kretowski, Clinical Research Center, Medical University of Białystok, Poland.

32. **Caffeine exposure and folate deficiency in vitro can influence chromosomal translocation events associated with childhood leukemia**. Jessica Saville¹, Kay Padgett¹, Lisa Russell¹ and Jill A. McKay¹ ¹Department of Applied Sciences, Northumbria University, UK; ²Translational and Clinical Research Institute, Newcastle University, UK.

33. **Extra virgin olive oil extracts dampen the inflammatory response by imprinting an anti-inflammatory profile to murine dendritic cells**. Stefania De Santis¹, Marina Lisio¹, Giulio Verma¹, Francesca Curci¹, Gualtiero Milani¹, Maria Felicia Faienza², Carlo Franchini¹, Antonio Moschetti¹, Marcello Chioppa¹, Maria Lisa Ciodoveo¹, Pasquale Crupi¹ and Filomena Corbo¹ ¹Department of Pharmacy-Drug Science, University of Bari Aldo Moro, 70126 Bari, Italy; ²National Institute of Gastroenterology "S. de Bellis", Research Hospital, Castellana Grotte (BA), Italy; ³Department of Pharmacy, University of Salerno, Fisciano, Italy; ⁴Pediatric Unit, Department of Biomedical Sciences and Human Oncology, University of Bari Aldo Moro, Bari, Italy; ⁵Department of Interdisciplinary Medicine, University of Bari Aldo Moro, Bari, Italy.

34. **Redox vs. nutrigenomic activity of ascorbic acid and its derivatives**. Patrycja Jakubek¹, Klaudia Sulborska, Monika Baranowska, Muhammad Asaduzzaman, Witold Przychoździ, Barbara Kusznierewicz, Wojciech Chrzanoski, Agnieszka Bartoszek ¹Faculty of Chemistry, Gdańsk University of Technology, Poland.

35. **Exploring the anticancer effects of the food bioactive Erucin: focus on cytoskeleton-related mechanisms** Irís Guerreiro¹, Bojana Vidović¹, João G. Costa¹, Sandra Ferreira¹, Nuno G. Oliveira¹, Nuno Saraiva¹, Ana S. Fernandes¹ ¹CBIO, Universidade Lusófona's Research Center for Biosciences & Health Technologies, Lisboa, Portugal, ²Faculty of Pharmacy, University of Belgrade, Serbia, ³Research Institute for Medicines (iMed.U LISBOA), Universidade de Lisboa, Portugal.

36. **Could nucleic acids oxidatively modified during thermal processing of red meat be components with potentially carcinogenic properties?** Anna Kościelak, Karol Parchem, Agnieszka Bartoszek, Gdańsk University of Technology Faculty of Chemistry, Department of Chemistry, Technology And Biotechnology of Food, Gdańsk, Poland.

37. **MiRNA in raw cow milk: any contribution to the nutritional quality?** Irene Petracchi¹, Donatella Fedeli¹, Rosita Gabbianelli¹, Laura Bordonri¹, ¹School of Advanced Studies and ²Unit of Molecular Biology and Nutrigenomics, University of Camerino, Italy.

38. **Walnut-derived peptides in a model of low-grade inflammation: any nutrigenomic effect?** Fanrui Zhao^{1,2}, Laura Bordonri¹, Weihong Min¹, Rosita Gabbianelli¹ ¹School of Advanced studies, University of Camerino, Italy; ²College of Food Science and Engineering, Jilin Agricultural University, Changchun, P.R. China, ³Unit of Molecular Biology and Nutrigenomics, University of Camerino, Italy.

39. **Difference in genetic susceptibility to cancers among Asians and Caucasians: A Literature Review** Anh Hoang Nguyen, Faculty of Health Sciences and Sport, University of Stirling, United Kingdom

40. **Biological activity of tea-chokeberry and chokeberry fermented beverages**. Patryk Lichocki, Filip Białkowski, Edyta Malinowska-Pańczyk, Gdańsk University of Technology (Faculty of Chemistry, Department of Chemistry, Technology And Biotechnology of Food), Gdańsk, Poland.