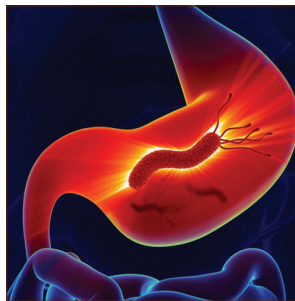
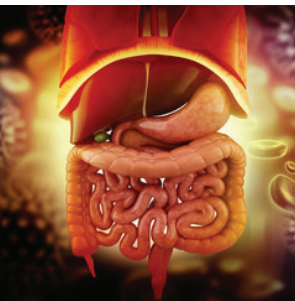


Keynote Forum May 23, 2019

Nutrition Health & Gastroenterologists 2019



Joint Event
17th International Conference on
Nutrition and Fitness
&
2nd International Conference on
Gastroenterology and Digestive Disorders
May 23-24, 2019 | Vienna, Austria



Frances Journak

University of California Irvine, USA

The prevalence and impact of toxic aldehydes upon mental and physical fitness

Aldehydes are toxic chemicals that are freely found in the environment and within metabolic reactions in each individual. Toxic aldehydes are also generated as a response to oxidative stress, which can occur during infections, a traumatic brain injury, stroke, or heavy exercise. Most individuals can neutralize and clear an average load of aldehydes. However, if there are errors in the genes of detoxifying proteins, such as occur in cases of familial alcoholism and various neurological disorders, or there is excessive exposure to aldehydes during periods of oxidative stress, then the aldehydes will cause cellular damage that affect mental and physical well-being. The presentation will focus on the sources and prevalence of toxic aldehydes, the symptoms of aldehyde damage, and micronutrient suggestions to detoxify the aldehydes.

Speaker Biography

Frances Journak completed her Ph.D. in Chemistry at the University of California Berkeley and then changed research area to Biochemistry and Molecular Biology at the Massachusetts Institute of Technology. She taught and did research as a faculty member in the Department of Biochemistry at the University of California, Riverside for 19 years and then transferred as a faculty member to the Department of Physiology and Biophysics in the School of Medicine, University of California, Irvine for 15 years before retiring several years ago. Her major research area involved crystallographic and biochemical analyses of medically relevant proteins, earning over 3000 citations for nearly 100 peer reviewed publications. In recent years, she has focused on the prevalence and impact of aldehydes in mental and physical health, authoring a detailed review of the pivotal role that aldehydes play in autism spectrum disorders.

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 Notes:



Wassil Nowicky

Ukrainian Anti-Cancer Institute, Austria

The effect of NSC631570 (Ukraine) on Pancreatic Cancer

Despite the fact that increasing amount of resources is put into the treatment of pancreatic cancer, one of the most aggressive and lethal forms of cancerous diseases, the therapeutical outcome remains poor. Chemotherapeutic agents such as Gemcitabine were found to have a positive influence on the quality of life in pancreatic cancer patients, however, median survival times in patients treated with gemcitabine were only marginally prolonged. Protocols using combinations of gemcitabine with 5-fluorouracil with or without folinic acid or combinations of gemcitabine and cisplatinium have prolonged median survival, however these results remain unsatisfactory. As such, finding a therapeutic agent, that can further extend the median survival as well as improve the quality of life of patients with pancreatic cancer remains a top priority. In recent years research with NSC631570 has shown promising results in the treatment of unresectable pancreatic cancer with actuarial survival rates of 86.7% after one year, 76.6% after two years, 46.7% after three years and 23.3% after five years and a median survival time according to Kaplan-Meier regression analysis of 33.8 months. These promising clinical results justified further research on the exact mechanism of action as well as further possible beneficial effects of NSC-631570.

Speaker Biography

Wassil Nowicky is the Director of Nowicky Pharma and President of the Ukrainian Anti-Cancer Institute (Vienna, Austria). He finished his study at the Radiotechnical Faculty of the Technical University of Lviv (Ukraine) in 1955 with graduation to "Diplomingenieur" in 1960 which title was nostrificated in Austria in 1975. He became the very first scientist in the development of the anticancer protonic therapy and is the Inventor of the preparation against cancer with a selective effect on basis of celandine alkaloids "NSC-631570". He used the factor that cancer cells are more negative charged than normal cells and invented the celandine alkaloid with a positive charge thanks to which it accumulates in cancer cells very fast. He has been invited as an Honorable Speaker in many scientific international congresses and conferences in USA, Australia, Japan, UAE and Europe. He has over 300 scientific articles dedicated to cancer research. He is a Member of the New York Academy of Sciences, European Union for Applied Immunology and of the American Association for Scientific Progress, Honorary Doctor of the Janka Kupala State University in Grodno, Doctor "Honoris Causa" of the Open International University on Complex Medicine in Colombo, Honorary Member of the Austrian Society of a name od Albert Schweizer. He has received the award of merits from National Guild of Pharmacists of America, the Award of Austrian Society of Sanitary, Hygiene and Public Health Services and others.

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Lucia Aronica^{1,2}

Christopher Gardner², Robert W Haile²,
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Epigenetic markers of diet response for personalized weight loss strategies

Background: Although diet is key to successful weight loss, dietary intervention studies have reported large variability of weight loss response between subjects, ranging from highly successful to highly unsuccessful. The aim of this study was to investigate whether epigenetic factors may affect individual weight loss responses to diet interventions.

Objectives: 1) Determine the effect of a healthy low-fat (HLF) diet vs a healthy low-carbohydrate (HLC) diet on DNA methylation (DNAm); 2) Assess whether baseline DNAm may predict individual weight loss response to a diet intervention.

Methods: DNAm was analyzed in peripheral blood lymphocytes (PBL) samples collected at baseline and 12 months of the DIETFITS randomized clinical trial with 609 obese non-diabetic subjects randomly assigned to a HLF or a HLC diet (Gardner CD *et al.*, 2018, JAMA). Whole genome bisulfite sequencing (WGBS) was carried out in a discovery cohort consisting of the eight “biggest losers” defined as those who lost the most weight at six months, and who also sustained their weight-loss up to the 12-month visit.

Results: Weight loss on a HLF diet or a HLC diet is associated with significant, diet-specific DNAm changes at several genomic loci including obesity- and diabetes-related genes.


Conclusions: A HLF diet and a HLC diet are associated with distinct changes in DNAm across the genome. Follow-up analyses will assess whether baseline methylation of some of these genomic loci may be used as a biomarker to predict weight loss response for personalized weight-loss strategies.

Acknowledgements: This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 701944.

Speaker Biography

Lucia Aronica is a Lecturer in Nutritional Genomics at the Stanford Prevention and Research Center and at Stanford Continuing Studies. She is currently leading the EU project OBEDIA-Mark in collaboration with Stanford University. The focus of her research is investigating how diet affects the epigenome, and whether we can use epigenetic biomarkers to design personalized weight loss plans. She also serves as an advisor for companies active in the personal genomics and precision health field. She received PhD from the University of Vienna, and has research experience from the University of Oxford, University of Southern California, and University Federico II of Naples. She has published research papers in top-ranked peer reviewed journals such as Cell, Genes and Development, and the EMBO Journal.

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Scheithauer W

Medical University Vienna, Austria

Advances in the therapeutic management of Pancreatic Cancer - Current and future perspectives

The overall 5-year survival rate for pancreatic cancer (8%) has changed little over the past few decades, and this tumour is predicted to be the second leading cause of cancer-related mortality in the next decade in Western countries. During the past few years, however, clinically relevant improvements in first-line and second-line palliative therapies and significant progress in increasing survival with adjuvant treatment have been achieved. The potential of neoadjuvant therapies also offers opportunities to improve outcomes. This review will bring together information on achievements to date, and where successes are likely to be achieved in the future. The questions of how we should approach the development

of pancreatic cancer treatments, including those for patients with metastatic, locally advanced and borderline resectable pancreatic cancer, as well as for patients with resected tumours will be addressed.

Speaker Biography

Scheithauer W is a Professor of Internal Medicine at the Medical University in Vienna, Austria. His main research interests include the preclinical and clinical evaluation of new anticancer agents and biologics, especially in gastrointestinal malignancies, on which he has published 273 original papers in peer-reviewed journals, more than 60 book chapters, and over 600 abstracts.

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 Notes:



Petr Hanak

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Polymerase Chain Reaction in the assessment of fish meat taxonomic identity


Fish meat consumption increases worldwide, even in landlocked countries, due to its health benefits. In this context, it is becoming critical to control the fish market of developed countries, also regarding the proper labelling according to the zoological origin of the traded fish. This is important economically, as mislabelling can result from the fraudulent substitution of species of high value with some less expensive fish. Proper labelling is also important in terms of the impact on health as fish parvalbumin can trigger allergic reactions in sensitive consumers. The severity of the reaction varies, according to some reports, for each individual patient based on the species of fish. Methods based on polymerase chain reaction (PCR) can be employed in fish species determination from small piece of meat devoid of morphological traits. Approaches based on mitochondrial markers play dominant role so far. However, intron regions of nuclear genes can serve as a platform for such approaches as well. Second intron in protein coding region of fish parvalbumin gene was used as such marker in a model species Black seabream. In interlaboratory study all participating laboratories detected Black seabream with

no false positivities in panel of other fish species. Also, Real Time PCR modification can be designed. This approach brings ability to quantify the amount of target fish species as an extra readout of the assessment. Such information can be very useful in inspection of fish market as adulteration usually takes place in complex foods and extent of admixed species is important criterion. Cloning of fragment of nuclear gene intron into plasmid vector can lead to recombinant calibrators for such detection methods based on Real Time PCR and bring these assays on more defined, precise and generally more sophisticated in methods.

Speaker Biography

Petr Hanak graduated in biology in 1990 at Charles University, Prague, Czech Republic. He obtained his PhD in biochemistry at Safarik's University in Kosice, Slovakia in 2006. Currently, he is the head of laboratory of molecular biology in Food Research Institute in Prague. His research interest includes employment of PCR in fraud detection of food, in particular fish species determination by various PCR modifications.

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Liana Monica Deac

Babeş-Bolyai University, Romania

Food-borne illnesses in a determined region from Romania

Foodborne illness is a common, costly yet preventable public health problem. Every year in the United States, 17 percent of Americans get sick, as a result of consuming contaminated foods or beverages. During 2017-2018, We have observed Food borne diseases in Transylvania region, Romania, and did a complex epidemiological and clinical study, and made the right interpretations and conclusions of each cases. Most cases appeared in adults with several chronic illnesses, in 56%, men in 68% from Rural side in 57%. The pathology was relevant in family events, when food contamination occurred probably at any point, from: production, processing, distribution, or any meals preparation with eggs, milk and meat products. There were several forms from simple one, in 70%, middle one, in 22% to severe who arrived in totality to 8% and needed almost several days of hospitalization. These food- born infection

have had the etiology of: *Salmonella spp* in 67%, mostly *Salmonella enteritidis* in 29% Other 14% were determined by *Staphylococcus aureus* and in 19% forms, we could not put in evidence in our labs any microbiological determinant.

To protect people from such disease there is needed to survive correct each chain of food production, processing, transportation, handling, and all preparation steps.

Speaker Biography

Liana Monica Deac is an Associate Professor and Biology Faculty in University Babes-Bolyai, Public Health Institute, Cluj- Napoca, Romania. She teaches Health Education and Preventive Medicine courses in UBB. She is the Commission Advisor in Head for MDs, organized by the Romania Ministry of Health and the University of Medicine Cluj-Napoca. She is the official university referent for PhD degree and diploma exams.

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Diego A Bonilla Ocampo

DBSS Research Division, Colombia

Dietary nitrate for health and exercise

Significant amounts of dietary nitrate can be found in some vegetables like beetroot, rocket, spinach, cress, lettuce, celery, radish, among others. The nitrate concentration is generally higher than 250mg per 100g in the mentioned foods. Recently, the body of scientific literature regarding the positive effects of dietary nitrate on health (reduction in blood pressure) and exercise performance (higher force production, recovery improvement, etc.) has increased. After ingestion, dietary nitrate is reduced by oral microbiota to nitrite through their enzymatic machinery. This process continues in stomach by means of the non-enzymatic reduction of nitrate and nitrite ions to nitric oxide, which leads to an increase in vasodilation. The nitrate/nitrite reduction process is stimulated by local hypoxia and high hydrogen ion concentration, which allows the nitric oxide production to be spatially allocated according to the physiological needs (e.g., muscle contraction). Notwithstanding, there are some doubts if the positive effects of dietary nitrate are actually due to the concentration of this ion per se or whether other secondary metabolites of these vegetables mediate the response.


Considering the association of excessive fat accumulation and high blood pressure with endothelial dysfunction,

which could result in future cardiovascular risk, it is essential to strengthen nutritional education in regards to nitrate intake. As we concluded in one of our recent publications, dietary nitrate might be an easy, accessible, safe, and evidence-based strategy to reduce blood pressure. This cost-effective nutritional strategy would benefit not only pre-hypertensive patients but also recreational, exercisers and elite athletes. More research is needed to standardize the nitrate concentration in different foods.

Speaker Biography

Diego A Bonilla Ocampo is the CEO and scientific director of DBSS, an international organization that promotes research and public awareness in exercise and sport sciences. He is a research member at the Biochemistry & Molecular Biology Lab at Universidad Distrital Francisco José de Caldas, Bogotá - Colombia, besides being part of the Research Group in Physical Activity, Sports and Health (GICAFS) at Universidad de Córdoba, Montería - Colombia. He has published more than 20 scientific articles in English and Spanish. Currently, he acts as science product manager for MTX Corporation (Europe) and international sports sciences speaker with frequent participations in Colombia, Mexico, Costa Rica, Spain, Peru and USA.

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