WEBINAR ON NUTRITION & OBESITY

8 November 2021
### Keynote Session - 1

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<td>09:10 - 09:40</td>
<td>11:10 - 11:40</td>
<td>The endless makeover of food systems: A profile of narratives, governance and transformations</td>
<td>Sima Hamadeh, Haigazian University, Lebanon</td>
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<td>09:40 - 10:10</td>
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<td>Winnie Lin, The Chinese University of Hong Kong, China</td>
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<td>Homarine as an angiotensin-converting enzyme inhibitor from fermented abalone viscera with Lacticaseibacillus casei 001</td>
<td>Mayu Yamanushi, Tokyo University of Marine Science and Technology, Japan</td>
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<tr>
<td>10:50 - 11:10</td>
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<td>Novel Prosopis juliflora leaf ethanolic extract as natural antimicrobial agent against food spoiling microorganisms</td>
<td>Iman Saleh, Qatar University, Qatar</td>
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<td>11:10 - 11:30</td>
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<td>Discovery of an anti-obesogenic agent from the microbiome of a genetically modified mouse and other important genome to metabolic phenotype correlations</td>
<td>Jeremy Everett, University of Greenwich, UK</td>
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<td>11:30 - 11:50</td>
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<td>11:50 - 12:10</td>
<td>12:50 - 13:10 Microextraction techniques in herbal potions and other nutraceuticals analysis</td>
<td>Svetlana Hrouzkov, Slovak University of Technology in Bratislava, Slovakia</td>
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<td>12:10 - 12:30</td>
<td>12:10 - 12:30 New trends on palm wine production in Cote d'Ivoire: overview on metabolites and microbial communities profiles</td>
<td>Theodore N Djeni, Université Nangui Abrogoua, Côte d'Ivoire</td>
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<td>12:30 - 13:00</td>
<td>9:30 - 10:00 Is it really true that impotence in diabetic patients is actually caused by diabetes?</td>
<td>Huang Wei Ling, Medical Acupuncture and Pain Management Clinic, Brazil</td>
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<td>13:00 - 13:20</td>
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<td>Mariela Maldonado, CONICET, Consejo Nacional de investigaciones Científicas y Técnicas, Argentina</td>
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<td>13:20 - 13:40</td>
<td>10:20 - 10:40 Are the changes that generate diabetic retinopathy really inside the eye?</td>
<td>Huang Wei Ling, Medical Acupuncture and Pain Management Clinic, Brazil</td>
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<td>14:00 - 14:30</td>
<td>07:00 - 07:30 Fat consumption on low-density lipoprotein particle size and cardiovascular disease risk</td>
<td>Erik Froyen, California State Polytechnic University, USA</td>
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<td>Closing Ceremony</td>
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Day
1
8 November 2021
DAY 1

KEYNOTE SESSION 1

WEBINAR ON NUTRITION & OBESITY
The endless makeover of food systems: A profile of narratives, governance and transformations

Sima Hamadeh
Haigazian University, Lebanon

Abstract

Background
The concept of food systems (FS) is not new, but it has regained prominence in recent years amongst scholars, policy makers and other key stakeholders. The renewed interest in FS is the result of various concerns from power, trade, economy, equity, environmental sustainability, to dietary and health issues. The holistic concept of FS is not a linear chain of activities from “farm to fork” but is a circular multifaceted and transformative phenomenon. To advance towards such synthesis, it is crucial to answer the following question “what drives the rapid and endless changes seen in the FS worldwide?”. Therefore, it is necessary to strengthen the link between the narratives and the realistic world to consider economic, social, and cultural contexts at ‘sociologisable’ scales. In this context, it is important to carry out a critical review of narratives, stories, and grey literature to better understand the FS dynamics, their drivers, and the way in which they are evolving.

Objectives
This study aimed to: 1) explore the determinants of FS and the conceptual tools used to study their dynamics in different food networks; 2) describe the major trends and relationships that are involved in the FS structural transformations; and 3) identify contemporary dynamics and sources of innovation within agri-food networks and systems.

Methodology
This study critically reviewed different narratives and storylines proposed in the literature about FS revealing different ways in which these systems endless reconstruction is understood and interpreted. The review included scholar’s articles, governmental and international institutions documents, books, reports, magazines, websites, and other gray literature sources published in English language.

An interpretive analytic approach was adopted to analyze the collected narratives and storylines around FS. We looked specifically at these themes “what are the determinants of FS?”, “who is governing the FS and networks?”, “why and how FS are transformed?”, “what the failure of FS is about?”, “what is threatened and needs to be fixed, and by whom?”, and finally “where do the priorities for actions stand?”

Results
The FS is a dynamic behavioral system driven by a set of diverse key stakeholders who are engaged and responding differently to opportunities, risks, challenges, constraints imposed by the socioeconomical, cultural, biophysical, and political components of these systems. However, the active drivers of FS diverge; 1) in their understanding of the actual nature of the FS problem and subsequently about what the potential solutions are and which one(s) should be given priority; and 2) in their purpose of achieving private, individual, or societal goals including nutrition, human health, environmental health, business profits, market needs, etc.

Food systems are parts of the private sector that depends on market demand, but they require the leadership role of public sector in designing and implementing policies that bridge the gap between sociocultural goals and market signals and trends.

There is a need to acknowledge more explicitly the local-specific nature of FS and its implications for the more appropriate level of FS governance, and for identifying adequate indicators for the FS sustainability.

Finally, new emergent concepts such as “Alternative Food Networks (AFN)”, “food sovereignty”, “Civic Food Network (CVN)”, “food citizenship”, and “short food supply chains” endorse the development of new practices and governance along the food supply chain providing counter established power relations in FS and thus, leading to their major transformations. Implications: pressures and challenges posed by/to global FS should be of considerable importance in the ongoing development of solutions and policies, and demand adaptable transformative strategies. A potential solution with respect to better understanding a FS makeover is the appropriate use of science journalism which has been already suggested as shaping the future of perceptions about food, health, economy, and policies.

Biography

A holistic transdisciplinary approach is important to understand the transformation and well-functioning of FS. Besides, the accurate application and communication of science and policies to FS tactics offers important opportunities for improving nutrition, health, and economies.
Metabolic basis of development of diabetes and obesity

Emíl Mukhamejánov

National Scientific and Practical Center for Physical Culture, Kazakhstan

Abstract

We have developed a metabolic model of the relationship between the metabolism of proteins, fats and carbohydrates using exogenous (EXFF) and endogenous (ENFF) food flows to regulate glucose homeostasis. Upon receipt of EXFF, the relationship between the process of glucose oxidation and protein synthesis at the expense of the synthesis and utilization of ATP energy is revealed. With a deficiency of protein in the diet, protein synthesis decreases due to a deficiency of the substrate, which leads to a decrease in the energy requirement of glucose, which leads to inhibition of the process of its oxidation and a decrease in the amount of utilization. Since the bulk of protein is made up of skeletal muscles, they play a key role in the utilization of blood glucose and the development of insulin resistance (the most important marker of diabetes and obesity). Proteins in the body play a key role, therefore, a decrease in the amount of their synthesis will negatively affect all functions, therefore, to maintain an adequate rate of protein synthesis when it is deficient in the diet, you just need to eat more of such food, which leads to an excess intake of carbohydrates and fats. Of course, the development of obesity carries a lot of negative influences, but insufficient protein synthesis causes even greater harm, therefore, of two evils, the body chooses the lesser or obesity. In this regard, the so-called “obesity paradox” effect is noted, or obese people have fewer functional disorders, and, on the other hand, obesity is a big problem for underdeveloped countries due to a decrease in the consumption of protein foods. This indicates that in order to develop effective technologies for the prevention of obesity, it is necessary to enrich the diet with protein and essential amino acids and use food substances with an anabolic effect.

During the period of ENFF use, glucose homeostasis is maintained by liver glycogen and gluconeogenesis. For a modern person, the predominance of intellectual and operator activities is characteristic, the energy supply of which is carried out at the expense of glucose energy. This leads to increased utilization of liver glycogen, which increases the risk of filling the vacated space with fats and the development of NASH. At the same time, the possibility of glycogen resynthesis decreases (the place is occupied) and gluconeogenesis plays the main role in maintaining glucose homeostasis. But in this case, amino acids are used as a substrate, the utilization of which contributes to the development of functional disorders. For the prevention of protein utilization and the development of functional disorders, we have developed a specialized product for maintaining glucose homeostasis during the use of ENFF (English patent GB2496119), which provides the process of gluconeogenesis with a substrate (inulin) and energy (palm oil). The product intake (pilot project) showed an improvement in glucose homeostasis, and a decrease in body weight of 3 kg/month was noted.

Thus, in the prevention and treatment of diabetes and obesity, it is necessary to correct both EXFF and ENFF, which will improve the course of metabolic processes during the rehabilitation period and during physical and mental activity.

Biography

Dietary habits and physical activities during the COVID-19 pandemic: A cross-sectional telephone survey of a Chinese population

Winnie YY Lin*, Matthew KK Fung, Martin CS Wong, Junjie Huang, Yijun Pai, Siew C Ng, Francis KL Chan

The Chinese University of Hong Kong, China

Abstract

Background
The coronavirus disease 2019 (COVID-19) pandemic has imposed challenges on the residents to maintain healthy lifestyle habits. Our objectives are to measure the prevalence of unhealthy lifestyle habits; examine the dietary patterns using Hong Kong Diet Score (HKDS); and identify the factors associated with the adoption of these lifestyle habits in a Chinese population.

Methods
A cross-sectional telephone survey was conducted in the general population of Hong Kong based on simple random sampling. The survey consists of sociodemographic details, clinical information, smoking habits, alcohol consumption, a 9-item dietary screener, and the International Physical Activity Questionnaire (IPAQ-C, Short form; Chinese version). Multi-variable regression analysis was performed to identify factors associated with unhealthy lifestyle habits among the participants.

Results
We performed 1,500 complete telephone surveys with a response rate of 58.8%. The proportion of unhealthy lifestyle habits, besides smoking and alcohol drinking, is significantly higher in this study than that reported in previous government surveys (2009-2019). The HKDS was significantly lower than that reported 20 years ago by 8% to 27%. Factors independently associated with unhealthy lifestyle habits included male gender (beta coefficient (B) .25, 95% CI at 0.16-0.34), marital status being single/divorced/widowed (.19, 0.08-0.29); housewife or retired (-.15, -0.25 to -0.04); manual workers (.17, 0.07-0.27); high household income at ≥ HK$30,000 (-.20, -0.33 to -0.08); self-perception of poor or very poor health status (.26, 0.07-0.45); self-reported diabetes (.31, 0.20-0.41); and those with renal diseases (.92, 0.53-1.31).

Conclusion
We observed a higher prevalence of unhealthy lifestyle habits during the third wave of COVID-19 in Hong Kong. The formulation and implementation of public health policies to promote healthy lifestyle habits during the COVID-19 pandemic are urgently needed.

Biography

Ms Lin is a research dietitian on the team that specializes in gastrointestinal disease and microbiota in the Department of Internal Medicine and Therapeutics (MEDT) of the Chinese University of HK (CUHK). Her research interest is in the effect of dietary pattern, nutrients, food additives, and lifestyle on microbiota modulation for disease management.
DAY 1

POSTER SESSION 1

WEBINAR ON NUTRITION & OBESITY
An efficient scale-up synthesis of kukoamine B, a natural alkaloid with anti-hypertensive and anti-diabetic activities

Xinchuan Zheng* and Sulan Zhou
Chinese Academy of Sciences, P.R. China

Abstract

Kukoamines were natural spermine alkaloids and first isolated and identified from the root bark of Lycium chinense Mill. (Lycii Cortex) in 1980s. Recent studies showed that they were widely present in other solanaceous species, such as potatoes (Solanum tuberosum), tomatoes (Lycopersicon esculentum) and Nicotiana sylvestris. Particularly, kukoamine B was found to possess various bioactivities such as anti-hypertensive, anti-diabetic, anti-inflammatory, and neuroprotective effects. The extraction of kukoamines from plants is an arduous work and irreversible damage to the natural resources. A number of efforts have been devoted to the total synthesis to provide alternative method for the preparation of these alkaloids in the past decades. However, the synthetic route was not ideal due to the high material consumption (β-alanine and γ-aminobutyric acid) and low overall yield (less than 8%). To develop an efficient route for the preparation of kukoamine B for further biological and pharmaceutical investigation, an improved and scale-up synthesis of kukoamine B is described in this study. The synthesis was achieved in 11 steps and a yield of nearly 20% which is 2.5 times higher than ever reported. The present study produces a high yield, multigram-scale and facile synthesis of kukoamine B when compared to conventional method.

Biography

Xinchuan Zheng received his PhD in pharmaceutical sciences from the government-sponsored joint PhD program of Army Medical University, China and University of Dundee, UK in 2016. His research interesting is R&D of natural products with pharmacological activities, particularly the edible medicinal plant and food that have potential in treating inflammation, tumor and diabetes. He has 5 years experiences in the natural product chemistry with 10 patents and 20 publications. He currently is associate professor at Institute for Biomedical and Health Research, Chongqing Institute of Green and Intelligent Technology, Chinese Academy of Sciences, Chongqing, P.R. China. He has also served as co-founder and partner of two start-up companies in the biomedical business.
Homarine as an angiotensin-converting enzyme inhibitor from fermented abalone viscera with Lacticaseibacillus casei 001

Mayu Yamanushi*, Yushi Fujimura, Hiroshi Nagaui, Mariko Shimura2, Naoko Hamada-Sato1

1 Tokyo University of Marine Science and Technology, Japan
2 BULL-DOG SAUCE CO., LTD., Japan

Abstract

Objectives
Abalone aquaculture has been growing annually to supplement the distribution volume and abalone viscera are typically discarded in the food industry. Thus, effective methods for using viscera are being assessed. In recent years, fermentation of foods has been attracting attention, and various functionalities of fermentation such as antihypertensive effect have been confirmed. Hypertension is a prevalent lifestyle-related disease worldwide, and complications of hypertension are a major concern. In this study, we evaluated the potential use of abalone viscera fermented with lactic acid bacteria as antihypertensive food material.

Methods
Viscera from the Australian Blacklip abalone (Haliotis rubra) were freeze-dried and then powdered using a household mixer. Powdered abalone viscera and glucose were mixed with 33 mM phosphate buffer (pH 5.0) for using culture medium. Using this culture medium, 14 strains of lactic acid bacteria owned by our laboratory were screened for angiotensin-converting enzyme (ACE) inhibitory activity. Abalone viscera fermented with Lacticaseibacillus casei 001 was selected after screening and submitted to in vivo study using spontaneously hypertensive rat (SHR). Dried unfermented or fermented products were separated by ultrafiltration and reverse-phase high-performance liquid chromatography. The peak from eluted fermented abalone viscera with the highest ACE-inhibitory activity was analyzed through mass spectrometry and nuclear magnetic resonance.

Results
The results of in vitro screening showed that L. casei 001-fermented abalone viscera had the highest ACE inhibitory activity. In addition, fermented abalone viscera suppressed blood pressure increases in vivo. Purification and characterization of extracts derived from fermented abalone viscera showed that the active component was homarine. This study revealed that homarine is a newly discovered ACE inhibitor.

Biography

Xinchuan Zheng received his PhD in pharmaceutical sciences from the government-sponsored joint PhD program of Army Medical University, China and University of Dundee, UK in 2016. His research interesting is R&D of natural products with pharmacological activities, particularly the edible medicinal plant and food that have potential in treating inflammation, tumor and diabetes. He has 5 years experiences in the natural product chemistry with 10 patents and 20 publications. He currently is associate professor at Institute for Biomedical and Health Research, Chongqing Institute of Green and Intelligent Technology, Chinese Academy of Sciences, Chongqing, P.R. China. He has also served as co-founder and partner of two start-up companies in the biomedical business.
OBESITY AND DIABETES: CURRENT RESEARCH | OBESITY AND CARDIAC HEALTH | OBESITY PREVENTION AND CONTROL | DIABETES & STROKE | DIABETES OPHTHALMOLOGY | FUNCTIONAL FOODS FOR WEIGHT LOSS | FOOD BIOTECHNOLOGY | NUTRITION AND FOOD SCIENCE RESEARCH | NUTRITION, HEALTH AND AGING | FOOD CHEMISTRY | FOOD QUALITY, SAFETY | REGULATIONS & PUBLIC HEALTH | MALNUTRITION | NUTRITIONALEPIDEMIOLOGY
Fresh produces spoilage is a worldwide concern that accompany the global increase in food demand. Adverse human health and environmental effects of commercial spoilage control agents are major public concern. In this study, *Prosopis juliflora* leaves and fruit extracts had their antimicrobial activities evaluated against the growth of selected bacteria and yeast, and against mycelial growth and conidial germination of selected mycotoxins – producing fungi. *P. juliflora* water-soluble leaf ethanolic (PJ-WS-LE) extract with its novel extraction method showed the strongest antibacterial activity. Antimicrobial tests showed total inhibition of *Botrytis cinerea*, *Alternaria alternata*, *Bacillus subtilis*, *Staphylococcus aureus* and *Candida albicans* with MICs ranging between 0.125 and 1 mg/ml. Percent inhibition of mycelial growth (PIMG) of the extract was also determined against seven other fungal strains with highest value against *Geotrichum candidum* (66.2%). Even the least affected fungal strain showed alterations in their hyphae and spores exposed to PJ-WS-LE extract when observed using scanning electron microscope (SEM), alterations include exfoliated flakes, pores, vacuolation and applanation. Small-scale fruit bioassays controlled experiment showed high efficacy of the extract in protecting inoculated cherry tomato samples from *B. cinerea* and *A. alternata* infections. In conclusion, PJ-WS-LE extract is a feasible, natural antifungal agent that can replace common antispooling chemicals.

**Biography**

Dr Iman Saleh is currently working in Qatar University, Qatar.
Discovery of an Anti-obesogenic Agent from the Microbiome of a Genetically Modified Mouse and Other Important Genome to Metabolic Phenotype Correlations

Jeremy R. Everett
University of Greenwich, UK

Abstract

Metabonomics is an excellent systems biology methodology for phenotyping genetically modified mice. It is a powerful methodology as it integrates information from genomic and environmental sources, especially, the microbiome. We have recently used this technology in collaboration with the group of Professor Elizabeth Shephard at UCL, to investigate the metabolic phenotype of some mice with interesting phenotypes after knockout (KO) of various flavin-containing monooxygenase (Fmo) genes.

Fmo5 KO mice display reduced weight gain after 20 weeks and their gut microbiome is different from that of wildtype (WT) mice. Metabonomics detected a microbial compound in the urine of Fmo5 KO but not of WT mice, which we demonstrated was causative of part of the phenotype of the KO mice. Subsequent treatment of WT mice with this compound mimicked some aspects of the Fmo5 KO mouse phenotype including reduced epididymal fat and improved plasma biochemistry.

This talk will overview this work and cover related examples of genotype to phenotype relationships in mice, including the recent discovery of the biosynthetic origin of taurine, one of the most abundant and important, amino acids, in mice and humans.

Biography

Jeremy Everett is the professor of Pharmaceutical Technologies at the University of Greenwich UK and visiting professor in the Faculty of Medicine at Imperial College. He conducts research in metabolic profiling. He is a co-discoverer of pharmacometabonomics, which is the prediction of drug effects prior to dosing via analysis of pre-dose metabolic profiles. His current work is focused on genotype – metabotype correlations in the areas of obesity and ageing and he is a co-inventor on a recently filed patent on an antiobesogenic agent. He received his BSc and PhD in chemistry from Nottingham University, UK. He did post-doctoral studies at McMaster University and at McGill University in Canada. He is a Fellow of the Royal Society of Chemistry and a Chartered Chemist, a Member of the American Chemical Society and is an author or co-author on over 100 peer-reviewed publications and patents, with over 5,300 citations to date and an h-index of 31.
Microextraction techniques in herbal potions and other nutraceuticals analysis

Svetlana Hrouzková*, Agneša Szarka
Slovak University of Technology in Bratislava, Slovak republic

Abstract

Herbal potions and nutraceuticals derived from plants and bee-hive products are at present of growing interest of many consumers interested in complementary and alternative therapies. During the production process of most of these products, evaporation of the solvents used during the extraction from the raw material is employed and therefore, pesticides or other xenobiotics may also be concentrated and occurred in the final product. Therefore, pesticide residues should be monitored in nutraceutical products to ensure their safety for consumers. Contaminants are harmful at ultratrace levels, therefore, the analysis of samples with complicated matrix is a challenge for analytical chemists. Before identification and quantification, sample preparation techniques within a green chemistry context, including minimal solvent and reagent consumption; elimination or reduction of the use of toxic substances are applied. Dispersive liquid–liquid microextraction (DLLME) is an effective and nowadays tool for preconcentration purposes. The application of DLLME itself and in combination with QuEChERS (quick easy cheap effective rugged and safe) will be presented for the extraction of pesticides in different herbal and nutraceutical potions, including bee-hive products. In the multiresidue pesticide analysis using gas chromatography hyphenated with mass spectrometry, the matrix effect is a substantial problem that reduces the accuracy and precision of analytical results. Matrix effects cause the alteration or interference in response, both enhancement and suppression of the analyte response, due to the presence of unintended matrix components. This phenomenon is observed when a real sample extract is analyzed, matrix compounds block the active sites and fewer analyte molecules are adsorbed or released. The routes for matrix effects elimination such as matrix-matched standards application will be discussed.

Biography

Svetlana Hrouzková is an associate professor at the Faculty of Chemical and Food Technology at Slovak University of Technology in Bratislava at the position as vice–head of the Institute of Analytical Chemistry. Her research is focused on ultratrace multiresidue analysis, GC–MS techniques, LC–MS/MS and preconcentration techniques with emphasis on the development of extraction/ microextraction methods for the analysis of environmental and food samples. She is a principal investigator of the project “Innovations in analytical systems for sustainable and safety environment”. She published 46 scientific papers in journals, 9 chapters in monographs and about 200 conference contributions.
New trends on palm wine production in Côte d’Ivoire: Overview on metabolites and microbial communities profiles

Theodore N Djenú,²*, Karen H Kouame, Francine DM Ake, Laurent ST Amoikon, Kumaraswamy Jeyaram²*

¹Université Nangui Abrogoua, Côte d’Ivoire
²Institute of Bioresources and Sustainable Development (IBSD), India

Abstract

Palm wine, the most commonly consumed traditional alcoholic beverage in Western Africa, harbours a complex microbiota and metabolites, which plays a crucial role in the overall quality and value of the product. In the present study, a combined metagenomic and metabolomic approach was applied to describe the microbial community structure and metabolites profile of fermented saps from three palm species (Elaeis guineensis, Raphia hookeri, Borassus aethiopum) in Côte d'Ivoire. Lactobacillaceae (47 %), Leuconostocaceae (16 %) and Acetobacteriaceae (28 %) were the most abundant bacteria and Saccharomyces cerevisiae (87 %) the predominant yeasts in these beverages. The microbial community structure of raphia wine was distinctly different from the others. Multivariate analysis based on the metabolites profile clearly separated the three palm wine types. The main differentiating metabolites were putatively identified as gevotroline hydrochloride, sesartemin and methylisocitrate in Elaeis wine; derivative of homoserine, mitoxantrone in Raphia wine; pyrimidine nucleotide sugars (UDP-D-galacturonate) and myo-Inositol derivatives in Borassus wine. The enriched presence of gevotroline (an antipsychotic agent) and mitoxantrone (an anticancer drug) in palm wine supports its therapeutic potential. In addition, the decline in the relative abundance of gevotroline and essential amino acids during the later stages of palm wine tapping (15-25 days) supports the difference in the health benefits of the palm wine obtained from different days of tapping, indicating that early stages of tapping is more nutritional and healthy than the later stages. The microbial dynamics may be a potential indicator of metabolite changes during palm sap fermentation, thus contributing to establish particular features of palm wines in different stages of tapping. This understanding of microbial ecology and chemical composition changes during palm wine tapping can be used as biomarkers to assess palm wine’s quality and help to design an optimum starter culture consortium.

Biography

Theodore N DJENI, PhD is professor of Microbiology and Permanent Secretary of the Food Security Research Center at the University Nangui Abrogoua of Abidjan in Côte d’Ivoire. His current research interest is in the area of selection of performing indigenous microorganisms that can be used in processes for foods value adding and biobased products production from low cost materials. In addition, he investigates the application of specific enzymes producing microorganisms in the biotratment of industrial wastewaters.
DAY 1

KEYNOTE SESSION 2

WEBINAR ON NUTRITION & OBESITY
Is it really true that impotence in diabetic patients is actually caused by diabetes?

Huang Wei Ling
Medical Acupuncture And Pain Management Clinic, Brazil

Abstract

Introduction
Several scientific publications say that the cause of sexual impotence in patients who have diabetes is caused by microangiopathy caused by diabetes. Purpose; the purpose of this study is to demonstrate that the energy alterations that is leading to diabetes formation is the same energy imbalances that is leading to sexual impotence according to traditional Chinese medicine.

Methods
Through review of article both in western and in traditional Chinese medicine, analyzing the energy imbalances that are causing diabetes and sexual dysfunction in diabetes patients.

Results
If we analyze that the energy imbalances that lead to diabetes formation in traditional Chinese medicine is the Kidney's deficiency with internal Heat formation, and Yin energy is formed in the Kidney meridian, this same meridian is also responsible for sexuality and reproduction. Kidney deficiency is responsible also for diabetes formation and also, for sexual dysfunction in both men and women. The same energy imbalance that is generating diabetes is the same energy imbalance that is generating sexual impotence in both men and women. All the measures and drugs currently used to treat diabetes by Western medicine, are drugs in high concentrations and these drugs according to Arndt Schulz's law, will cause the further reduction of this vital energy that is already low in these patients leading to various complications including sexual impotence.

Conclusion
The conclusion of this study is that understanding that sexual impotence is not directly caused by diabetes but due to the energy imbalance itself that causes diabetes, measures will be needed to balance energy and treat any deficiencies that the patient, to improve either diabetes and the sexual dysfunction, that came from the same root.

Biography
Huang Wei Ling, born in Taiwan, raised and graduated in medicine in Brazil, specialist in infectious and parasitic diseases, a General Practitioner and Parenteral and Enteral Medical Nutrition Therapist. Once in charge of the Hospital Infection Control Service of the City of Franca's General Hospital, she was responsible for the control of all prescribed antimicrobial medication and received an award for the best paper presented at the Brazilian Hospital Infection Control Congress in 1998. Since 1997, she works with the approach and treatment of all chronic diseases in a holistic way, with treatment guided through the teachings of Traditional Chinese Medicine and Hippocrates. Researcher in the University of São Paulo, in the Ophthalmology department from 2012 to 2013. Author of the theory Constitutional Homeopathy of the Five Elements Based on Traditional Chinese Medicine. Author of more than 60 publications about treatment of variety of diseases rebalancing the internal energy using Hippocrates thoughts.
DAY 1

SPEAKER SESSION 3

WEBINAR ON NUTRITION & OBESITY
New evidence of the need to review food additives against intestinal microbiota

Maldonado Maríaela

Consejo Nacional de investigaciones Científicas y Técnicas, Argentina
Ciudad de Mendoza, Argentina

Abstract

Food additives are one of the exponentially growing food-use substances in the food processing market due to the excessive consumption of ultra-processed foods and the need for food by the growing population. Its use and regulation are controlled on the basis of traditional toxicological assumptions. Some additives have been found that modify the composition of the microbiota and could compromise health. For this reason, the new paradigm of the influence of the microbiota on it leads us to wonder what happens to additives, their safety and therefore their legislation and control. In light of the role played by the microbiota in the conformation of the immune system, nutrition and the changes that go from the state of health to the appearance of disease that is known today, it is that food additives should be reviewed by new studies that involve the different ohmic sciences, in order to be able to reassess their innocuousness, suggest doses of frequent use and establish new recommendations to possibly generate more up-to-date legislation.

Biography

Dr Maldonado studied Biological Sciences. She received her doctoral thesis with honors in 2004 at the Universidad Nacional de Cuyo. Mendoza. Argentina. She is Specialist in Quality Engineering. She received a lot of awards: GOLD PLATE AND HONOR DIPLOMA for National University of Cuyo, Honorary mention, Federation of University Women Argentina Merit for the Best graduate and Honorary member the Centro de Bromatólogos Mendoza. And she won 3rd MENTION in VI Food Congress XXI Conference Food, Nutrition and Health XXXIX for this work: “Use of low digestibility carbohydrates as sucrose substitutes in the production of preserved cherries” She has written a lot of papers in international magazines and Congress.
Are the changes that generate diabetic retinopathy really inside the eye?

Huang Wei Ling
Medical Acupuncture And Pain Management Clinic. Franca, Brazil

Abstract

Introduction
Diabetic retinopathy is considered a microvascular complication and is the leading cause of loss of vision in diabetes mellitus patients. It corresponds to 43% of all retinopathy and affects 8.3% of all diabetic patients. Purpose; to demonstrated that the alterations that is leading to diabetic retinopathy is not inside the eyes but it is considered a systemic disease with local manifestation.

Methods
Through one case report of a 70-year-old women, who had high blood pressure, obesity, diabetes and diabetic retinopathy, who discovered a malignant thyroid cancer in one of her routine gynecological exams, in 2018. Between the period of diagnosis and surgery (for about 2 months), the patient went through an intensive treatment process using daily acupuncture sessions, and changed all her diet, avoiding a series of foods such dairy products, raw foods, iced or cold water, sweets, coconut, fried foods, chocolate, egg, honey, alcoholic beverages and avoiding soft drinks, coffee and mate tea. It was done the replenishment of the chakras’ energy centers with highly diluted medications such homeopathies according to the Constitutional Homeopathy of the Five Elements Based on Traditional Chinese Medicine and crystal-based medications. After this process, surgery to remove the malignant tumor was referred (two months after) and during the intraoperative period, a freezing biopsy was taken.

Results
And it was discovered that the malignant tumor became benign. In addition, there was a reduction in blood pressure, a reduction in blood glucose patterns a reduction in the glycosylated hemoglobin, a weight reduction and improved diabetic retinopathy, not needing to be performing those intraocular injections of medications (Eylia) , at that time. The author notice that diabetic retinopathy is very linked to errors in the eating habit (eating many fried foods, melted cheese, chocolate, eating dairy products, etc.)

Conclusion
The conclusion of this study is that the alterations in patients with diabetic retinopathy is not inside the eyes but is related to energy imbalances (mainly Heat retention) that was leading to the local manifestation of retinopathy. The treatment balancing again these energies using Chinese dietary counseling, auricular acupuncture with apex ear bloodletting and replenishing the chakras’ energy centers using homeopathies according to Constitutional homeopathy of the Five Elements Based on Traditional Chinese Medicine and crystal-based medications are important tolls used nowadays to improve this condition without needing to use intra-ocular injection of medications to improve the microvascular lesion ( according to Western medicine's point of view )

Biography
Huang Wei Ling, born in Taiwan, raised and graduated in medicine in Brazil, specialist in infectious and parasitic diseases, a General Practitioner and Parenteral and Enteral Medical Nutrition Therapist. Once in charge of the Hospital Infection Control Service of the City of Franca’s General Hospital, she was responsible for the control of all prescribed antimicrobial medication and received an award for the best paper presented at the Brazilian Hospital Infection Control Congress in 1998. Since 1997, she works with the approach and treatment of all chronic diseases in a holistic way, with treatment guided through the teachings of Traditional Chinese Medicine and Hippocrates. Researcher in the University of São Paulo, in the Ophthalmology department from 2012 to 2013. Author of the theory Constitutional Homeopathy of the Five Elements Based on Traditional Chinese Medicine. Author of more than 60 publications about treatment of variety of diseases rebalancing the internal energy using Hippocrates thoughts.
Fat consumption on low-density lipoprotein particle size and cardiovascular disease risk

Erik Froyen
California State Polytechnic University, USA

Abstract

Cardiovascular disease (CVD) is the number one cause of death worldwide. A risk factor for CVD is high serum low-density lipoprotein cholesterol (LDL-C) concentrations, which may be increased by saturated fat consumption; however, certain studies have not observed an increased risk for CVD, cardiovascular events, and/or mortality after intakes of saturated fat. Furthermore, there are a variety of LDL particle sizes that may have differing effects on CVD risk. For example, small LDL particles, compared to large LDL particles, have been suggested to significantly increase the risk for CVD. The atherogenic properties of small LDL particles include the following: 1) increased transport into arterial walls; 2) increased binding to proteoglycans; 3) increased oxidation; and 4) decreased binding to the LDL receptor. Interestingly, intake of saturated fat has been illustrated to increase large LDL particles, which may account for the conflicting results of fat consumption on CVD risk. In addition, whole foods and overall dietary patterns may partially offset the individual effects of fatty acids on CVD. The objective was to summarize the effects of fat consumption on LDL particle size. PubMed was used to search for human intervention trials, which resulted in 28 journal articles. The outcomes demonstrated that fat intake impacts the size of LDL particles, thereby influencing the risk for CVD.

Biography

Dr Erik Froyen is an assistant professor in the Nutrition and Food Science Department at California State Polytechnic University, Pomona, USA. He has a PhD in Nutritional Biology from the University of California, Davis, USA. His PhD dissertation research involved investigating the effects of soy isoflavones on liver detoxification enzyme activities in rodent and cell culture models. His research interests include the mechanisms by which flavonoids decrease the risk for cancer and how fatty acids impact the risk for cardiovascular disease. He also teaches courses in Basic Nutrition, Introduction to Nutrition Research, Nutrient Metabolism, Nutritional Genomics, and Advanced Nutrient Metabolism.
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