



International Conference on
GASTROENTEROLOGY

June 25-26, 2018 | Dublin, Ireland

DAY 1
Keynote Forum



Lynnette R Ferguson

Auckland University, New Zealand

Biography

Lynnette R Ferguson obtained her DPhil. (Oxon.) from Oxford University in the United Kingdom, working on DNA damage and DNA repair. After her return to New Zealand, she began working as part of the Auckland Cancer Society Research Centre (ACSRC), using mutagenicity testing as a predictor of carcinogenesis. In the year 2000, she became a full Professor and was invited to establish a new department of Nutrition at The University of Auckland. Since that time, she has split her appointment 50/50 between the ACSRC and The University of Auckland. She has investigated the interplay between genes and diet in the development of chronic disease, with foci on inflammatory bowel disease and cancer.

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NUTRIGENETICS, NUTRIGENOMICS AND INFLAMMATORY BOWEL DISEASES

Inflammatory bowel diseases (IBD) include both ulcerative colitis and Crohn's disease and are both extremely unpleasant conditions, which are highly cancer susceptible. Their symptoms and potential outcomes are affected by diet. They are excellent examples of nutrigenetics, which describes the interplay between genes and diet in the development and progression of diseases. Nutrigenetics describes how human genetic variation results in distinct nutritional requirements. There have been more than 100 genes described which determine the susceptibility to, development and progress of IBD, in association with different diets and lifestyles. The biological mechanisms by which genes interact with one another and with the environment, especially diet, is not often fully understood. Nutrigenomics is the scientific approach which enables the study of these interactions. This involves a range of techniques including transcriptomics, proteomics and metabolomics, that enable an understanding of what is happening, and what the implications are if some of the conditions are not met.



Kenji Sasaki

Home Medical Care Supporting Clinic, Japan

Biography

Kenji Sasaki received his MD in 1973 and PhD in 1977 from Tohoku University. He is a Board Certified Fellow and Preceptor of the Japan Gastroenterological Endoscopy Society, Board Certified Gastroenterologist of the Japanese Society of Gastroenterology, Board Certified Member of the Japanese Society of Internal Medicine and Editorial Board Member of CRIM. He has given presentations at international medical congresses and published papers on gastroenterology in international journals. Acclaimed by Prof Tarnawski at DDW 2012, he published his article Candida-associated gastric ulcer relapsing in a different position in a different appearance in *World J Gastroenterol*. He served as a reviewer for CRIM, JMM, JPP and J Gastrointestinal Dig Syst.

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CANDIDA-ASSOCIATED GASTRIC ULCER UNTIL YESTERDAY, TODAY, AND FROM TOMORROW- IN QUEST OF THE ETIOLOGY

Candida-associated gastric ulcer, though formerly thought to affect only debilitated persons, has been reported to occur in apparently healthy individuals. Though had been reported to demonstrate nothing but nonspecific endoscopic features, the disease occasionally exhibits an apparently typical finding designated a candidarium. The natural history of the disease had been unknown, and the fungus had been reported to be no longer detected once the ulcers were healed and no recurrence of the disease had been described. However, the ulcer is shown to not only occur but also recur in a different site with a different shape in a non-diabetic, *Helicobacter pylori*-negative patient without antecedent ulcers, who has not been given non-steroidal anti-inflammatory drugs (NSAIDs), antibiotics, or antineoplastic agents, which implies that, contrary to the prevailing opinion, Candida is no innocuous bystander but an etiologic perpetrator. Immune deficiency has recently been reported in relation to candidiasis, which is considered to explain the cause of intractable or recurrent Candida-associated gastric ulcer. In the oropharyngeal field, *Candida albicans* has recently been shown to secrete a hitherto unknown cytolytic peptide pore-forming toxin (PFT), candida lysin, into a pocket in the epithelium which penetrates and to activate mitogen-activated protein kinase (MAPK)/MAPK phosphatase 1 (MKP1)/c-Fos pathway, triggering release of damage as well as immune cytokines. While the PFT, exerting an effect even on the adjacent cells, directly injures the tissue with damage cytokines, immune counterpart activates polymorphonuclear leukocytes (PMN) to eventually terminate inflammation, which results in restoring the fungus to the commensal state or eradicating it. Since it cannot be negated that such a phenomenon occurs in the gastric mucosa, a theoretically strong possibility has come up that the so-called Candida-associated gastric ulcer is Candida-induced ulcer. Therefore, the disease should be reinvestigated in the light of the recent immunological, microbiological, and molecular biological findings.





Elenin Haussam

Queen's University Teaching Hospitals
Northern Ireland

Biography

Elenin Haussam has completed his MD in Minimal Access Surgery with a special interest in Hand Assisted Laparoscopic Surgery. He has been Regional Surgical Adviser and Surgical Tutor for the Royal College of Surgeons for North Ireland and has a wide case mix of Surgical experience of more than 25 years. He has over 15 publications. The author is currently a Consultant Laparoscopic and General Surgeon at The Private Hospital Groups of Dr. Suleiman Al Habib Hospitals in Riyadh/Saudi Arabia.

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HAND ASSISTED LAPAROSCOPIC SURGERY: AN UPDATED-OVERVIEW

Hand assisted laparoscopic surgery is an updated highly advanced version of laparoscopic technique. Such technique bridges the gap between traditional surgery and total laparoscopic surgery. Introduction of the hand intracorporeally enhanced the degree of freedom, hence, a remarkable degree of precision and safety in task performance. Clinical and experimental studies confirmed safe use of the hand with insufflation pressure enhancing dexterity as well as a steep learning curve. Therefore, the author made an overview analysis to the factors related to safety; efficiency; dexterity; instrumentation and cost-effectiveness for the use of hand assisted laparoscopic surgery; with an emphasis on live donor nephrectomy. Prospective studies made by Kolvenbach on the use of hand assisted laparoscopic surgery in aortic aneurysm repair proved high degree of safety and efficiency as well as cost effectiveness. Several studies highlighted a multitude of factors significantly contributing into a high degree of precision and task performance; which reflected on uneventful enhanced recovery programme. The introduction of either hand intracorporeally enhanced the limited degree of freedom for the current laparoscopic tools. There are various hand port devices of which the pros and cons for each port will be discussed in detail. The author's experimental studies confirmed that optimum safe insufflation pressure would be 10 mm Hg with no leak from the hand port and optimum dexterity and task performance. Hand assisted laparoscopic surgery is a safe and efficient technique. It significantly enhances concept of enhanced recovery programme. Raising public awareness can provide a high impact in enhancing live donor nephrectomy; hence reducing the inexorable renal transplant waiting list for patients with end stage renal disease. Such patients are at progressive rise of mortality risk with prolonged waiting list.





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Amr Amin

UAE University, UAE

Biography

Amr Amin is a graduate faculty at UAE University who supervised many graduate theses. He earned his PhD from University of Illinois at Chicago and received a postdoctoral training at University of Pennsylvania School of Medicine. His lab studies roles of natural products in the treatment and prevention against cancer. He serves on the editorial boards and as a reviewer of many international journals and he is also the recipient of many national and international awards.

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GRAPE SEEDS EFFECT AGAINST DEN INDUCED LIVER CANCER

This study was conducted to assess the anti-tumour properties of grapeseed extract (GSE) against chemically-induced liver cancer. Administration of different doses of GSE significantly inhibited foci formation as well as decreasing the number and the area of placental glutathione-S-transferase in livers of tumour-induced rats by approximately 4 and 10-fold deductions, respectively. The extract also induced apoptosis and down regulated histone deacetylase activity and inflammation makers, such as cyclooxygenase 2, and inducible nitric oxide synthase expressions in liver. It also induced differential cell cycle arrests and decreased the viability of HepG2 cells and induced early and late apoptosis through activating caspase-3 and Bax.



Gramatiuk Svetlana

Ukraine Association of Biobank, UK

Biography

Gramatiuk Svetlana serves as President of UAB (Ukraine Association of Biobank) that she co-founded in 2017. She was also the Medical Director Research Biobank ASK-Health (2015-2016) and the Ukraine Editor of the journal Advanced Research Biobank and Pathophysiology from 2017. Previously, she also established and/or managed several biobanks in Ukraine. In addition to her unique expertise in biobanking, she also completed Master of Science Biobanking in Medical University Graz and has an in-depth knowledge of oncology biomarker research in the position holding from Head Department Medical and Research Laboratory in the Hrigoriev Radiology and Oncology Institute and having completed a Post-Doctoral Fellowship at the Kharkiv National Medical University.

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FEATURES OF L-TRYPTOPHAN METABOLITES IN PATIENTS WITH STOMACH CANCER

Stomach cancer is one of the leading places in the structure of the cancer incidence of gastro-intestinal tract. According to numerous publications in recent years throughout recorded steady growth of this disease. The aim of the work was to study the dynamics of exchange of the essential amino acid - L-tryptophan in patients with stomach cancer and the rationale for monitoring criteria significant indicators of early diagnosis of cancer pathology and optimization of pathogenetic therapy.

Methods: 130 patients at the age from 35 till 76 years with the established diagnosis of stomach cancer were examined and treated using clinical tools and clinical-morphological methods. Tryptophan metabolites, and its metabolism - serotonin, 5-OIUK determined by C. Atack, T. Magnusson. Melatonin has been studied by ELISA with monoclonal antibodies.

Results: Studies of exchange of L-tryptophan in patients with stomach cancer at the earliest stage of tumor found no statistically significant changes in the dynamics of serum ammonia, indicant, L -tryptophan and the enzyme activity TAR $P < 0.05$ was observed while the dynamics of steady increase of L-tryptophan, and TAR.

Conclusions: Optimization of the pathogenetic therapy of stomach cancer should include a range of therapeutic interventions aimed at normalization of the neuroendocrine regulation of metabolism of L-tryptophan, detoxification, increased antioxidant protection and inhibition of oxidative stress, improving immunological resistance in combination with surgical and chemotherapeutic effects. Monitor the effectiveness of therapeutic measures can be implemented to change the dynamics of exchange of the amino acid metabolite L-tryptophan, which is of great prognostic significance of the outcome of the disease and recovery.



Note:



Barry P McMahon

Trinity College Dublin, Ireland

Biography

Barry P McMahon is Chief of Medical Physics and Clinical Engineering at Tallaght University Hospital and Associate Professor of Medical Physics and Bioengineering in the School of Medicine, Trinity College Dublin. He holds an MSc degree in Physical Sciences in Medicine from Trinity College Dublin and a PhD degree in Biomedical Sciences from Aalborg University in Denmark. He is a Co-Director of the Trinity Academic Gastroenterology Group (TAGG) a research centre at Trinity College Dublin. In 2010, he received a research award in recognition for his research into digestive valve measurement. In 2016, he was awarded a distinguished visiting scholarship at the School of Medicine, Chinese University of Hong Kong for his work on medical device innovation. He has published more than 50 research papers.

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THE ROLE OF FUNCTIONAL VALVE MEASUREMENT IN DIAGNOSIS AND TREATMENT IN THE GASTROINTESTINAL TRACT - CHANGING THE PARADIGM

Valvular regions in the gastrointestinal tract provide an important role in the flow and reflux of solid, liquid and gas materials ingested and generated in the intestine. For more than five decades, the gold standard for assessing the function of these junctions was thought to be manometry, but in recent years this has shown not to be the case. Professor McMahon and his team have demonstrated that instead of looking at how much squeeze or tightness involved in valve closure it may be better to look at the amount of opening. During this research, working with collaborators, he used the principle of impedance planimetry to invent the functional lumen imaging probe (FLIP) which was subsequently commercialised as the product EndoFLIP®. During this address Professor McMahon will review the developing applications in diagnosis and treatment of gastrointestinal valves for a series of common disease states in the gastrointestinal tract. The ongoing success and usefulness of this technology has been verified by the sale of the technology to Medtronic last year. The talk will set up to provide a basis for understanding the technique and its developing applications in areas such as reflux disease, achalasia, faecal incontinence and swallowing disorders related to upper oesophageal sphincter function.

