8th Annual Conference and Expo on

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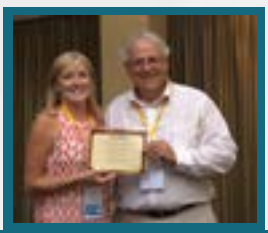
May 10-11, 2023

Zurich, Switzerland






Scientific Tracks & Abstracts

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Prediction of hereditary nonpolyposis colorectal cancer using mRNA MSH2 quantitative and the correlation with non-modifiable factor

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Background: Hereditary Non-Polyposis Colon Cancer (HNPCC) is a dominantly inherited syndrome of high risk of Colo-Rectal Cancer (CRC) at a young age. Previous study has focused on DNA sequence polymorphism and Amsterdam and Bethesda criteria as the disease susceptibility. However, detecting mRNA quantitatively is easier to predict of HNPCC in CRC patient.

The aim of this study was to determine a cut-off point for RNA quantitative MSH2 gene expression for hereditary parameters and the correlation with non-modifiable risk factors of age, gender, tumor location, staging, family history and histopathology.

Methods: We performed a cross-sectional translational sequential study; (1) MSH2 mRNA quantitative RT-PCR gene expressions in tissue and whole blood CRC patients, (2) gene expression in normal matched controls, (3) bivariant and multiple analysis between hereditary CRC and non-modifiable risk factor based on MSH2.

Results: 40 CRC and 31 control subjects were enrolled. The mean blood MSH2 level of control group was 12,219 ± 756-fold changes (fc). The cut-off point for Hereditary MSH2 was 11,059 fc. The mean MSH2 blood level CRC subjects was 11,411 ± 2,912 fc and MSH2 tissue level was 7,485.00 (4,174.00-14,218.00) fc. Thirty two percent (32.5%) of CRC subjects had hereditary CRC based on their MSH2 blood level. Bivariant and multiple analysis showed significant correlation between MSH2 mRNA gene expression with Age, Staging and Family history.

Conclusions: The cut-off Point of hereditary mRNA quantitative expression could be used for screening for hereditary CRC of HNPCC. There was significant correlation of mRNA MSH2 level with Age, Staging and Family history.

Keywords: Colorectal cancer, MSH2 gene, Nonmodifiable factor.

Biography

Tjahjadi Robert Tedjasaputra SpPD, KGEH, FINASIM is graduated from Medical Faculty University of Padjadjaran, Indonesia. He is a GI Consultant: Medical Faculty, University of Indonesia. He is doing PhD program at Medical Faculty, University of Hasanuddin. His Resent Job: Gastroenterologist Consultant, Interna Medicine Tarakan General Hospital and Siloam Hospital Lipovilage Hospital. He is a Lecturer of Medical Faculty of Indonesia, Medical Faculty of Admajaya and Medical Faculty of UKRIDA. His research interests are Colon Cancer, IBD and ERCP.

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Biocompatibility, bioactivity and antibacterial behavior of zirconium-containing bioactive glass for dental implant coatings

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Edentulism, or the loss of teeth, presents a substantial issue that affects many individuals. Removable prostheses, which are commonly used to address this problem, can often result in feelings of discomfort and a lack of confidence. These negative consequences can be further compounded by social stigmas, ultimately leading to a reduced quality of life for patients. As a result, implantology has become a vital component in the field of oral rehabilitation, offering patients the opportunity to restore both their aesthetic appearance and masticatory function. Despite advances in implant technology, certain problems may still arise that hinder osseointegration and result in the rejection of the implant. Using bioglass as a coating material can promote tissue integration. In addition, 45S5 bioglass® has been found to possess antimicrobial properties against various bacteria due to the release of sodium and calcium ions that can disrupt the cell membrane, preventing the growth of microorganisms. The main objective of this work is to address the challenges that affect the dental implant sector by developing a biomaterial for implant coating based on 45S5 Bioglass® modified by zirconium insertion. Various methods were used to analyze the materials including thermal (DTA), structural (XRD, FTIR), morphological (SEM) and biological (cytotoxicity, antibacterial activity and bioactivity). It was observed that the introduction of zirconium in the bioglass network at a concentration higher than 2 mol% promotes the formation of crystalline phases. All the prepared bioglasses exhibited an antibacterial effect against Gram-positive and Gram-negative bacteria and did not show cytotoxicity for the Saos-2 cell line up to 25 mg/mL of extract concentration. Moreover, the result of the bioactivity test in SBF showed that, within 24 hours, a CaP-rich layer started to form on the surface of all the samples.

Biography

Imen Hammami is a Physics Engineering PhD researcher at Aveiro University under the supervision of Prof. M.P.F. Graca. She has a master's degree in Condensed Matter. She has been dedicating to the synthesis and characterization of glass, glass ceramics and polymer composites. She is currently working as a Research Fellow at i3N-Aveiro, within the P2020 project, called ORAiDEA, "Development of Multifunctional Dental Implants", funded by the European Regional Development Fund (ERDF) through the Competitiveness and Internationalization Operational Program (POCI). In this position, she is expanding her knowledge on the development of biomaterials capable of supporting the osteogenic differentiation of Mesenchymal Stromal (Stem) Cells (MSCs) with potential tissue engineering applications and their full characterization at a physical, chemical and biological level to the development of essential coatings for the implants.

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Computational study of tellurium based thallium and lead oxides systems based on the gamma ray shielding

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Exploration on emission protective factual is continuing to overawe the difficulty consequence of radioactivity. The interaction of energetic radiation such as γ-rays with matter is important in particle emission technologies, medical, nuclear engineering, agriculture, space technology, industries, and other caring claims. Therefore, it is compulsory to get devotion for the purpose of shielding, particularly for the people who work in radioactive environment. The effectiveness of the shielding be contingent to strength of the instance gamma-ray fallout and there physical, chemical compositions of absorbent constituents such as high density and high Z-number. Use of glass as a radiation shielding material is of great interest because of its transparency. The glass not only offer sufficient protection from radiations but also allows us to see through it. In the present study the gamma-rays particle emission protective assets of Tellurium, Thallium Oxide and Tellurium Lead oxide glass systems of composition 82 TeO2-18 Tl2O, 90 TeO2-10 Tl2O, 86.4 TeO2-13.6 PbO, and 78.2 TeO2-21.8 PbO studied. For the gamma-rays radiation shielding parameter like, half value layer (HVL), mass attenuation coefficient (MAC), linear attenuation coefficient (LAC), mean free path (MFP) and effective Z-number (Zeff). These parameters determine theoretically using Phy-x and WXCOM software. For simulation, MCNPx code was used. The above technique is the most suitable one to be used for this sort of study.

Biography

My name is Nadheem khan, I'm belongs from Pakistan. Recently I have completed my graduation in physics from Abdulwali Khan University Mardan, Pakistan.

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Effect of temperature on the magnetic properties of few ferrites materials

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Due to the changes occurring in recent technology, researchers and industrialist attention is towards the developing of new ferrite materials. Multilayered substrate and ceramic packaging process technology has a worldwide importance due to increasing demand for miniaturization of electronic circuits and higher performances devices led to, This intense demand for high performance and miniaturization of many electronic devices, which exclusively needs soft magnetic materials with high permeability and high resistivity. To satisfy these demands few ferrites materials are best suited for these applications.

Keywords: Ferrites, Miniaturization, Multilayer applications.

Biography

N Varalaxmi is affiliated to the Department of Physics, University College, Kakatiya University, Warangal, India.

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