Joint Event

International Symposium on

Public Health and Epidemiology

&

Immunology Research

June 12-13, 2025 | Rome, Italy

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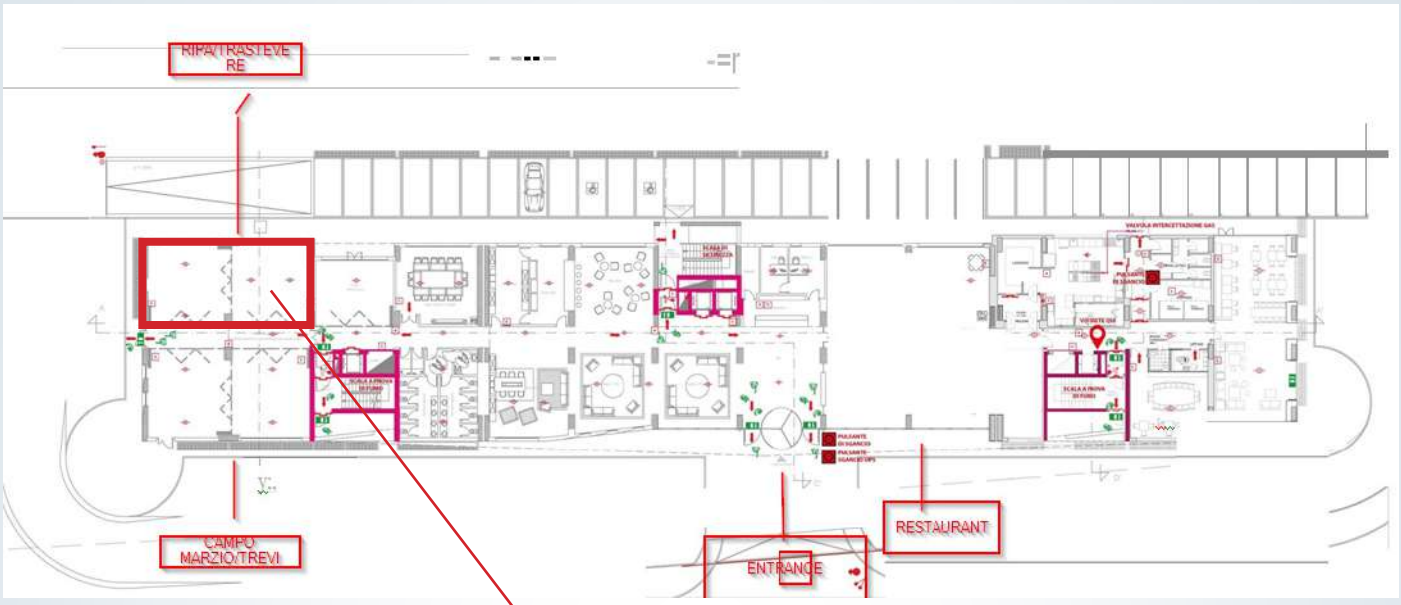

Conference Hall - Ripa/Trastevere

Wifi Details

Username: H10PLUS
Password: HRC_3509

Speaker Representations

Conference Programme

Day 1

12th June

Session Chairs

Salim Albukhaty, University of Manara, Iraq
Walid Al-Qerem, Al-Zaytoonah University of Jordan, Jordan

Conference Programme

Day 1, June 12, 2025

Meeting Hall: Ripa/Trastevere	
08.00 - 08.45	**Registrations**
08.45 - 09.00	**Introduction**
Keynote Presentations	
09.00 - 09.40	**Kathy Giannangelo, Kathy Giannangelo Consulting LLC, USA**
Title: Leveraging an Innovation Model to Facilitate ICD-11 Implementation	
09.40 - 10.20	**Feliciano Protasi, University G. d'Annunzio of Chieti-Pescara, Italy**
Title: Climate Changes and Increased Risk of Environmental Heat Strokes: The Role of Skeletal Muscle	
Networking and Refreshments : 10.20 - 10.40 @ Lobby Bar	
10.40 - 11.20	**Salim Albukhaty, University of Manara, Iraq**
Title: Electrospun Polycaprolactone-loaded Cordia myxa Extract for Wound Dressings	
Oral Presentations	
Session Chair	**Salim Albukhaty,** University of Manara, Iraq
Session Chair	**Walid Al-Qerem,** Al-Zaytoonah University of Jordan, Jordan
Sessions: Novel Allergy Treatments | Immune Response to COVID-19 | Tumor Microenvironment Targeting | Autoimmune Disease Mechanisms | Adaptive Immunity Advances | Clinical Epidemiology | Environmental Health | Women's & Child Health | Clinical Trails & Research | Mental Health | Public Health | Infectious Diseases Epidemiology | Epidemiology	
11.20 - 11.45	**Matteo Serano, University G. d'Annunzio of Chieti-Pescara, Italy**
Title: High-fat Diet Increases the Risk of Environmental Heatstroke in Mice	
11.45 - 12.10	**Alice Mannocci, San Raffaele Unversity of Rome, Italy**
Title: Motivations for Green Exercise Among Active Adolescents: Has the Pandemic Played a Role in these Motivations? Adaptation of Palms and Mnq Questionnaires for the Italian Context	

12.10 - 12.35	**Ayobami Oduntan, Gelukspan District Hospital, South Africa**
Title: The Role of Health Education in Reducing Teenage Pregnancies in Resource-Constrained Settings	
12.35 - 13.00	**Alyaa Al Maadeed, Doha Institute for Graduate Studies, Qatar**
Title: Lessons Learned in Examining Psychological and Coping Strategies Related to Home Isolation and Social Distancing in Children and Adolescents during the COVID-19 Pandemic	
Group Photo: 13.00 - 13.10	
Lunch : 13.10- 14.00 @ Ristorante	
14.00 - 14.25	**Torbjörn Ogéus, Stockholm's led- & Smärtklinik, Sweden**
Title: Hydrogel - Alone or in Combination with Regenerative Interventions for Knee Osteoarthritis	
14.25 - 14.50	**Nino Gachechiladze, Iv. Javakhishvili Tbilisi State University, Georgia**
Title: Evaluation of IgG Antibody Subclasses against SARS-CoV-2 in Individuals Immunized with Different Vaccines and Schemes in Georgia	
14.50 - 15.15	**Alibek Adil, Kazakh-Russian Medical University, Kazakhstan**
Title: Challenges in Diagnosing Borrelia miyamotoi Infection in Kazakhstan	
15.15 - 15.40	**Chiraz Tafticht, University of Quebec in Trois-Rivieres, Canada**
Title: Dignity of Risk: A Concept Analysis	
Poster Presentations (15.40 - 16.00)	
PP001	**Khatia Mikeladze, Iv. Javakhishvili Tbilisi State University, Georgia**
Title: IL-6 and IL-12 Levels in B-cell Chronic Lymphocytic Leukemia: Implications for Immune Dysfunction and Potential Therapeutic Approaches	
PP002	**Tahir Ataözden, Biruni University, Turkey**
Title: Alternative Root Canal İrrigation Solutions and Non-Cytotoxic High Antibacterial Effectiveness	
Networking and Refreshments : 16.00 - 16.30 @ Lobby Bar	
16.30 - 16.55	**Walid Al-Qerem, Al-Zaytoonah University of Jordan, Jordan**
Title: Prevalence of Underweight, Overweight, and Obesity among Jordanian Children and Adolescents using International Growth References	

16.55 - 17.20	**Isaac Amoah, School of Advanced Studies in Public Health, France**
Title: Migration and Maternal-Child Nutrition: Lessons from the Lawra District in Northern Ghana	
E-Poster Presentation	
EP001	**Mahrukh Ehsan, Peterborough City Hospital, UK**
Title: Identifying Critical Gaps in MEOWs Implementation : A Pan-Site Audit About Use of Modified Early Obstetrics Warning System Outside of Maternity	
Video Presentations	
VP001	**Babalwa Kafu-Quvane, University of Fort Hare, South Africa**
Title: The Role of Environmental Ethics in Driving Sustainable Quarrying Practices: A Case Study Review	
VP002	**Sawsan Mohammed Kilany Ibrahim, Ain Shams University, Egypt**
Title: Effect of Lycopene and Anthocyanin on Liver and Kidney Functions in Male and Female Albino Rats Treated With Dexamethasone	
VP003	**Maria Rizzo, University of Messina, Italy**
Title: Influence of Ambient Temperature and Humidity on Stress and Inflammatory Markers Associated with Adaptive Immunity in Exercising Standardbred Horses	
VP004	**Viloshini Krishna Manickum, University of KwaZulu-Natal, South Africa**
Title: Moving Towards Resilient Vaccine Supply Chains: A SWOT Analysis of the Covid-19 Vaccine Supply Chain in Kwazulu-Natal, South Africa	
Day 1 Concludes	

Day 2

13th June

Session Chairs

Tahir Ataözden, Biruni University, Turkey
Walid Al-Qerem, Al-Zaytoonah University of Jordan, Jordan

Day 2, June 13, 2025	
Meeting Hall: Ripa/Trastevere	
Keynote Presentations	
10.00 - 10.40	**Lucia Mundo, Sapienza University, Italy**
Title: The Impact of EBV-Encoded BILF1, A Poorly Known G-Protein Coupled Receptor Gene, on the Pathogenesis of Burkitt Lymphoma	
10.40 - 11.20	**Ugo Rovigatti, University of Florence, Italy**
Title: The Need of Clarity in Epidemiology and Public Health. Ambiguity about the Origin of SARS-Cov-2 May Sparkle New Future Pandemics	
Networking and Refreshments : 11.20 - 11.40 @ Lobby Bar	
Oral Presentations	
Session Chair	**Tahir Ataözden, Biruni University, Turkey**
Session Chair	**Alice Mannocci, San Raffaele Unversity of Rome, Italy**
Sessions: Epigenetics in Immunology | Artificial Intelligence Applications | Clinical Trails & Research | Molecular Epidemiology | Public Health | Nutritional Epidemiology | Women's & Child Health | Epidemiology | Environmental Health	
11.40 - 12.05	**Wenjie Li, Guangzhou Xinhua University, China**
Title: Exploring the Use of Social Media Dating Apps among MSM in New Zealand: Motivations, Concerns, and HIV-Related Information	
12.05 - 12.30	**Giulia Castrogiovanni, University of New South Wales, Australia**
Title: Copper Chelation Promotes Pro-Inflammatory Neutrophil Reprogramming in High-Risk Neuroblastoma	
12.30 - 12.55	**Torbjörn Ogéus, Stockholm's led- & Smärtklinik, Sweden**
Title: Small Pluripotent Stem Cells in Peripheral Blood after Mild Hyperbaric Oxygen Therapy – A Preclinical Study	
Lunch : 12.55- 14.00 @ Ristorante	
14.00 - 14.25	**Willian Augusto de Melo, State University of Parana, Brazil**
Title: Factors Associated with Adolescent Mortality Due to Traffic Accidents in Brazil, 2024	
14.25 - 14.50	**Rana Kurdi, Qatar University, Qatar**
Title: Exploring Women's Mental Health Status after Benign Gynaecological Surgeries Within Middle Eastern Cultures: A Systematic Review	

14.50 - 15.15	Tahir Ataözden, Biruni University, Turkey
Title: Clinical Examination of Various Jaw Ractures and Evaluation of Open and Closed Reductions // Six Case Reports	
15.15 - 15.40	**Orchidea Maria Lecian, Sapienza University of Rome, Italy**
Title: Introductory Material for Markov-chain Description of Abzymes Catalysis	
Networking and Refreshments : 16.05- 16.30	
Day 2 Concludes followed by Panel Discussion - Awards & Closing Ceremony	

Day 1

Public Health & Immunology 2025

Keynote presentations

LEVERAGING AN INNOVATION MODEL TO FACILITATE ICD-11 IMPLEMENTATION

Kathy L Giannangelo, Michael B Pine and Christopher P Tompkins
Kathy Giannangelo Consulting, LLC, USA

Abstract:

Background: In 2007, the World Health Organization (WHO) began a revision and restructuring of the International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10). The 11th Revision of the International Classification of Diseases (ICD-11) is a transformation of an antiquated classification system into a flexible clinical and research friendly structure aligned with advances in information technology. As part of the release, the WHO provided a linearization, that is, ICD-11 for Mortality and Morbidity Statistics (MMS), as a potential system to implement in cases where an ICD-10 modification exists. However, gaps in MMS have been identified during country evaluations of MMS against their modification.

Objective: To propose an innovation model that takes full advantage of ICD-11's informatics-based infrastructure and architecture.

Methods: Analyze the ICD-11 Foundation and MMS and create ICD-11 Comprehensive Clinical Linearization, Evolution and Response, or C-CLEAR, a composite linearization, by exposing all the hierarchical relationships residing in the Foundation and creating unique C-CLEAR codes for an ICD entity available in the ICD-11 Foundation but not MMS. Design C-CLEAR's syntax to enable clinical reporters to indicate the intended ancestry of each stem code used in a cluster.

Results: The model developed introduces C-CLEAR and its syntax. In addition, clinical scenarios were created to demonstrate the capability of C-CLEAR and its syntax to provide clinically credible representations of the detailed evolution of patients' health status.

Conclusion: C-CLEAR fills in the gaps of ICD-11 MMS and includes syntactical rules for combining these codes. These enhancements can be incorporated into electronic coding tools that enable clinical reporters to transmit complex clinical concepts expressed in detailed natural clinical language by means of standardized code clusters. This approach shows promise to accelerate ICD-11 implementation with minimal disruption and maximal net benefits but will require vetting, testing and input from expert stakeholders.

Biography

Kathy Giannangelo has extensive experience in clinical terminologies, classification, and data standards. As President of Kathy Giannangelo Consulting, LLC, her work includes clinical terminology feasibility assessments, adoption methodology appraisals, and implementation support. She has held several previous positions including map lead for SNOMED International and a member of faculty teaching a graduate level course on clinical vocabularies and classification systems. Ms. Giannangelo serves as editor of AHIMA's Healthcare Code Sets, Clinical Terminologies, and Classifications textbook. In addition, she has authored numerous articles, created online continuing education courses on clinical terminologies, and haspresented worldwide. Some of her ICD-11 work includes presentations at Medical Informatics Europe 2025 on "Initial Evaluation of ICD-

11's Adherence to Acceptable Terminology Practices" and AHIMA24 on "ICD-11: Implementation Considerations for the U.S." In addition, she authored AHIMA's on-demand webinar series "The Evolution of ICD-11" and three-module course "Introduction to ICD-11 Coding".
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CLIMATE CHANGES AND INCREASED RISK OF ENVIRONMENTAL HEAT STROKES: THE ROLE OF SKELETAL MUSCLE

Feliciano Protasi
University G. d'Annunzio of Chieti-Pescara, Italy

Abstract:

Background: Climatic changes are increasing the incidence of heat waves, periods in which the temperature raise above the average temperatures for three or more days. Heat waves are very dangerous for human health, as it is now clear that the mortality rate increases dramatically during those days. Even if several factors may contribute to sudden death in high environmental temperatures, the most common cause of death attributable to heat is dehydration, heat cramps and exhaustion, and hyperthermia, i.e. in one word heat stroke (HS).

Objective: Define the cellular and molecular mechanisms underlying HS to: a) develop a cure for acute treatment of HS and b) provide guidelines for proper lifestyle habits before and during heat waves.

Results: In the last years, thanks to the support of Italian Telethon and of NIH-USA, we have moved significant steps forward: A) we have collected compelling evidence that HS shares common symptoms with malignant hyperthermia (MH) susceptibility, a life-threatening syndrome caused by mutations in proteins deputed to Ca^{2+} handling in muscle and triggered by administration of halogenated anaesthetics; B) we have demonstrated in animal models that: A) MH-like episodes could result not only from mutations in RyR1, but also from mutations in proteins that interact with RyR1 (such as Calsequestrin-1); C) the mechanisms underlying hyperthermic episodes triggered by anesthetics and by heat and exertion are virtually identical, suggesting that these syndromes could possibly be treated/prevented using similar drugs.

Conclusion: As climatic changes are causing a significant increase in the frequency and severity of heat waves, develop a cure and guidelines for HS is urgent. Our work points to a central role of skeletal muscle in hyperthermic episodes, and we still working to better define lifestyle habits that could reduce the risk of HS in adverse climatic conditions.

Biography

Feliciano Protasi is Professor of Physiology at the University G. d'Annunzio of Chieti-Pescara (Italy) and directs a multi-disciplinary research program mainly supported by Telethon ONLUS (Italy) and by the National Institute of Health (USA). After graduating in 1991 in Biological Sciences at the University of Perugia (Italy), Dr. Protasi moved to the USA to join first the laboratory of Prof. Clara Franzini-Armstrong (1993-1997) at the Univ. of Pennsylvania (Philadelphia, PA), and then the lab. of Prof. Paul D. Allen at the Harvard Medical School (Boston, MA). Dr. Protasi returned to Italy in 2002 as Associate Professor to join the newly opened institute CeSI (Center for Research of Ageing at Ud'A). He soon established his own lines of research, mainly focused in unraveling the patho- physiological mechanisms underlying ageing and myopathies caused by alterations in Ca2+ handling in striated muscles (including environmental Heat Stroke).

ELECTROSPUN POLYCAPROLACTONE-LOADED CORDIA MYXA EXTRACT FOR WOUND DRESSINGS

Salim Albukhaty
University of Manara, Iraq

Abstract:

Electrospun-based natural material extracts have recently attracted much attention in biomedical applications due to their significant drug-loading efficiency, facile component control, and morphological design. The current study aimed to develop an antimicrobial agent made of polycaprolactone/chitosan fibers containing *Cordia myxa* extract that can be used as a wound dressing. Different characteristics were examined, such as morphological and physico-mechanical properties, in vitro drug release, antibacterial activity, and surface wettability. The electrospun fibers had an average fiber diameter of 194 nm and a consistent topology free of beads, according to the FESEM images. The samples had a high porosity, a lower water contact angle, and a higher swelling rate. Adding Cordia myxa to the fibers resulted in maximal weight loss and enhanced swelling capacity, with excellent antibacterial activity against both gram-positive and gram-negative bacteria confirmed by the inhibitory zone assay. In conclusion, natural materials based on electrospun fibers showed excellent bioavailability and appropriate properties for use as wound dressings.

Biography

Salim Albukhaty has a PhD in Nanobiotechnology with a background in veterinary medicine and public health. He is an accomplished professor of Nanobiotechnology with expertise in various research areas, including the design and fabrication of nanoparticles for anti-cancer drug delivery, electrospun nanofibers for wound dressing, and the green synthesis of metal oxide nanoparticles with antimicrobial properties. For more detailed information, you can refer to his Google Scholar, ResearchGate, and Scopus profiles to explore his publications and research contributions. Salim Albukhaty's work covers a broad spectrum of topics, from nanoparticle synthesis to biomedical applications, making him a valuable contributor to the field of nanobiotechnology.

Day 1

Public Health & Immunology 2025

Oral Presentations

HIGH-FAT DIET INCREASES THE RISK OF ENVIRONMENTAL HEATSTROKE IN MICE

Matteo Serano[1,2], Antonio Michelucci[1], Giorgia Rastelli[1], Cecilia Paolini[1], Flavia Alessandra Guarnier[3] and Feliciano Protasi[1]

[1]*University G. d'Annunzio of Chieti-Pescara, Italy*

[2]*University of Siena, Italy*

[3]*Londrina State University, Brazil*

Abstract:

Background: Heat-stroke (HS) is a life-threatening response to heat characterized by an abnormal increase in body temperature (>40°C) that causes dysfunction of organs, central nervous system and may end in death. Environmental heat-stroke (EHS), often triggered by a hot and humid environment, is caused by excessive heat production in muscle, which in turn is the result of abnormal Ca^{2+} leak from the sarcoplasmic reticulum (SR) and oxidative stress.

Objective: Investigate the effects of high-fat diet in the heat-stroke susceptibility of c57bl/6 wild type (WT) mice of 4 months of age (adult).

Results: Our results show that, in comparison with mice fed with a control diet, mice after 3 months of high-fat: a) increased heat generation and energy expenditure (assessed by indirect calorimetry) during heat stress; b) elevated oxidative stress in both EDL and Soleus muscles; and c) enhanced sensitivity to caffeine and temperature of isolated EDL and Soleus muscles during in vitro contracture test (IVCT, the gold standard procedure to test in-vitro EHS susceptibility).

Conclusion: Our data suggests that high-fat diet predispose mice to EHS, possibly as a result of increased oxidative stress and excessive release of Ca^{2+} from SR. This study may have important implications for guidelines regarding food intake during periods of intense environmental heat.

Biography

Matteo Serano is currently a Researcher at the University of Siena, where he teach Histology and Embryology. His academic career began in the laboratory of Prof. Feliciano Protasi at the University G. d'Annunzio of Chieti-Pescara, where he completed my PhD and continued as a postdoctoral fellow. My research has consistently focused on the excitation–contraction coupling mechanism and calcium (Ca^{+2}) handling of skeletal muscle under both physiological and pathological conditions. I have investigated the molecular basis of malignant hyperthermia and environmental heat strokes, within the context of multidisciplinary research programs mainly funded by Telethon ONLUS (Italy) and the National Institutes of Health (USA).

MOTIVATIONS FOR GREEN EXERCISE AMONG ACTIVE ADOLESCENTS: HAS THE PANDEMIC PLAYED A ROLE IN THESE MOTIVATIONS? ADAPTATION OF PALMS AND MNQ QUESTIONNAIRES FOR THE ITALIAN CONTEXT

Mannocci A[1], Iona T[2], Merolle V[3], La Torre G[4] and Masala D[2]
[1] *Telematic University "San Raffaele", Italy*
[2] *University Magna Graecia, Italy*
[3] *General Secretary of Ciscod (Italian Sport Against Drugs Committee, Italy*
[4]*University of Sapienza of Rome, Italy*

Abstract:

Few tools assess motivation for outdoor physical activity (PA). The PA and Leisure Motivation Scale (PALMS) and the Motivations for Nature-Connectedness Questionnaire (MNQ) address this gap. This study translated and validated these tools into Italian, exploring adolescents' motivations for outdoor exercise amid the pandemic.

Cross-sectional study was conducted with adolescent students from Lazio, Italy, as part of the "IFormaMentis" project. The Italian versions of the PALMS and MNQ were administered to students engaging in vigorous PA twice a week. The validation process included reliability and test-retest analysis. Motivation comparisons were made between students practicing only outdoor activities (ASO) and those participating in both indoor and outdoor sports (ASIO).

Validation phase included 286 students. A strong reliability for PALMS-IT (Crombach's α = 0.980) and MNQ-IT (Crombach's α = 0.815) was found. The observational study included 760 students: 87.8% engaging in vigorous PA twice a week. Among them, 13.8% practiced only indoors (ASI), 28.9% only outdoors (ASO), and 45.0% both (ASIO). Males and middle school students favoured outdoor activities ($p<0.05$).

Motivations for outdoor PA to reduce infection risk and isolation were significantly higher in ASIO+ASO compared to ASI. ASO students reported greater enjoyment and appreciation for nature than ASIO, and also with outdoor activities perceived as more challenging and contributing more to their connection with nature ($p<0.001$).

The PALMS-IT and MNQ-IT tools effectively assess motivations for outdoor PA. This study highlights the mental and physical health benefits of outdoor PA for adolescents during stressful times like the pandemic. Future research should explore how motivations for nature or

green exercise evolve during periods of significant stress and isolation, such as pandemics.

Biography

Alice Mann is an Associate Professor at San Raffaele University in Rome, Italy. Her research in public health focuses on lifestyle factors such as physical activity, nutrition, and tobacco smoking. She holds a PhD in Public Health and has published over 200 articles.

HYDROGEL ALONE OR IN COMBINATION WITH REGENERATIVE INTERVENTIONS FOR KNEE OSTEOARTHRITIS

Torbjörn Ogéus

Stockholms led- & Smärtklinik, Sweden

Abstract:

Introduction: Osteoarthritis (OA) of the knee is one of the most prevalent degenerative joint diseases worldwide, contributing to chronic pain, reduced mobility, and diminished quality of life. As the primary weightbearing joint, the knee is particularly susceptible to OA, especially in older adults and those with a history of joint injury or obesity. Hydrogels have garnered significant attention as a minimally invasive treatment option for knee OA. Hydrogels are water-rich, three-dimensional polymer networks that mimic the natural composition and function of cartilage, making them suitable for use as cushioning agents in the joint. A particular approach is the use of polyacrylamide hydrogel injections, which are non-biodegradable and designed to provide long-lasting pain relief by acting as a viscoelastic buffer within the joint.

Case presentations: Four patients both male and female, all with chronic pain and reduced physical function due to osteoarthritis of the knee. All four showed a remarkable reduction in pain and increase in function after a combination of hydrogel and regenerative interventions such as stem cells, exosomes or platelet injections.

Conclusion: These cases raise the hypothesis that hydrogel has a promising function and pain reduction capacity, especially in combination with regenerative medicine interventions. Some indications show that hydrogel might work as a scaffold for other regenerative interventions. Further research is required to test this theory.

Biography

Torbjörn Ogéus is a senior pain specialist with clinical experience in regenerative medicine with 4 master's degrees. He has a background as a professional athlete, where a routine surgery of a meniscus in the knee caused severe Osteoarthritis (OA) and ended his professional career at the age of 30, but launched his new career within regenerative medicine.

Today he is an expert advisor to numerous companies in the stem cell industry around the world, helping them with clinical aspects such as developing clinical protocols and discussing practical challenges when conducting clinical trials with stem cells and exosomes.

In the last year Ogéus has published 10 peer-reviewed studies in the field and he is currently working on a multicentre, international study comparing different stem cell treatments against OA over the next two years and another 5-7 studies is due to be published before next year.

LESSONS LEARNED IN EXAMINING PSYCHOLOGICAL AND COPING STRATEGIES RELATED TO HOME ISOLATION AND SOCIAL DISTANCING IN CHILDREN AND ADOLESCENTS DURING THE COVID-19 PANDEMIC

Alyaa Al Maadeed
Doha Institute for Graduate Studies, Qatar

Abstract:

Background: In December 2019, a novel coronavirus called SARS-CoV-2 was identified as the cause of a cluster of pneumonia cases in Wuhan, China. It rapidly spread due to human-to-human transmission, resulting in a global pandemic. Nearly every country, including Qatar, has established guidelines and regulations to limit the spread of the virus and to preserve public health. However, these procedures have been associated with negative effects on the psychological and intellectual well-being of individuals, including children and adolescents.

Objective: The objective of this study was to determine the psychological influence of home isolation and social distancing on children and adolescents during the COVID-19 pandemic in Qatar, and the strategies used to cope with these measures.

Methods: This cross-sectional study was undertaken using an online questionnaire administered through SMS text messaging. All home-isolated children and adolescents registered at the Primary Health Care Corporation aged 7-18 years were invited to participate in the study. Children and adolescents with intellectual disadvantages were excluded. A *P* value of .05 (two tailed) was considered statistically significant.

Results: Data were collected from 6608 participants from June 23 to July 18, 2020. Nearly all participants adhered to the official regulations during the period of home isolation and social distancing; however, 69.1% (n=4568) of parents believed their children were vulnerable to the virus compared to 25% (n=1652) who expressed they were not vulnerable at all. Higher levels of anger, depression, and general anxiety were prevalent among 1.3% (n=84), 3.9% (n=260), and 1.6% (n=104) of participants, respectively. The mean score for the emotional constructs anger and depression decreased with increased compliance with regulations (P=.04 and P=.11, respectively). The differences in mean score for all psychological and coping strategies used among participants across the 3 levels of vulnerability to SARS-CoV-2 were statistically significant. The mean score varied little with increasing reported vulnerability to the virus. This mild variation can make a difference when the sample size is large, as is the case in this study.

Conclusion: Screening for psychological and social disruptions is important for the development of strategies by schools and health care providers to assess and monitor behavioral changes and negative psychological impact during post–COVID-19 reintegration. Participants experiencing higher levels of anxiety should be given more attention during reintegration and transitional phases in schools. Although electronic devices and social media platforms may have lowered anxiety levels in some cases, it is important to address how they are used and how content is tailored to children and adolescents. It is also important to maintain an active lifestyle for children and young persons, and encourage them not to neglect their physical health, as this promotes a better psychological state of mind.

Biography

Alyaa Qatari, Arab, Muslim, Social Work Ph.D. Scholar at Howard University, focusing on organizational culture and employee behavior in social services. She obtained her Master and Bachelor of Social Work from Arizona State University. While in the U.S., she founded a refugee-dedicated project "The Global Market" and served as its administrative coordinator at the Office of Vice-Mayor Laura Pastor in Phoenix City in 2017-2018. She also facilitated partnerships between non-profits, for-profits, and educational institutes to establish a community dental clinic in Gilbert, AZ.

Alyaa earned the "Knowledge Mobilization Award" from the Graduate College at ASU in 2018. It is the first award that recognized the contributions of students from the School of Social Work. The Ministry of Culture in Qatar also recognized Al Maadeed in 2019 as a Women Influential Character.

FACTORS ASSOCIATED WITH ADOLESCENT MORTALITY DUE TO TRAFFIC ACCIDENTS IN BRAZIL, 2024

Willian Augusto de Melo
State University of Parana, Brazil

Abstract:

Background: Traffic accidents are a major global public health problem with an impact on adolescent morbidity and mortality.

Objective: To analyze factors associated with adolescent mortality from traffic accidents in Brazil.

Methods: Cross-sectional, analytical study with data collected from the Federal Highway Police and the Brazilian Ministry of Justice and Public Security. Sociodemographic, logistical and environmental information was extracted from traffic accidents involving adolescents (10 to 17 years old) in Brazil in 2024. Pearson's chi-square and Fisher's exact tests were used for analysis. Mortality was considered as the outcome variable, 95% confidence interval and 5% significance level ($p<0.05$).

Results: 196,139 traffic accidents were reported. Adolescents accounted for 4,318 (2.2%) of the notifications, with 604 (13.9%) seriously injured, 2,063 (47.8%) minor injuries, 1,533 (35.5%) unharmed and 118 (2.8%) deaths. Greater chances of dying were found in boys (OR=1.5; $p=0.034$), aged 15–17 years (OR=1.9; $p<0.01$), residents of the Northeast region (OR=2.3; $p<0.01$) and Central-West region (OR=3.4; $p<0.01$). Nightfall also presented a greater chance of death (OR=4.1; $p<0.01$), as well as traveling on a single highway (OR=179; $p<0.01$), motorcyclists (OR=15.2; $p<0.01$), using buses/vans (OR=4.5; $p<0.01$), vehicle driver (OR=3.1; $p<0.01$) or pedestrian (OR=2.4; $p<0.01$). Evidenced as protective factors for death: living in the Southeast (OR=0.7; $p<0.01$) and South (OR=0.5; $p<0.01$), driving in broad daylight (OR=0.6; $p=0.016$), dual highway (OR=0.6; $p=0.02$), moto car vehicle (OR=0.5; $p<0.01$), pickup/utility vehicles (OR=0.4; $p<0.01$) and being a motor vehicle passenger (OR=0.2; $p<0.01$). Variables analyzed that were not associated with death were the day of the week, direction of the road (increasing/descending) and residence in the North and Southeast regions.

Conclusion: There is an urgent need for strategies to reduce traffic accidents among adolescents, especially in the Northeast and Central-West regions of Brazil: effective inspection to prevent disqualified drivers, duplication of highways, defensive traffic education and policies to prevent morbidity and premature mortality among adolescents.

Biography

Willian Augusto de Melo has a PhD in Health Sciences, Master in Nursing, Specialist in Hospital Administration and Professional Education in the Health Area. Adjunct Professor at the State University of Paraná/UNESPAR/Brazil. He worked in hospital management, hospital nursing care and management. Researcher in the area of Epidemiology/Biostatistics/Collective Health (Morbidity and Mortality from Acute and Chronic Diseases, External Causes of Violence and Traffic Accidents and Health Management). Professor of the Postgraduate Program in Health Sciences at the State University of Maringá/UEM/Brazil. Deputy Coordinator of the Postgraduate Program in Primary Care Nursing (PPGEnf). Member of the Human Research Ethics Committee.

International Conference on **Public Health and Epidemiology**
&
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June 12-13, 2025 | Rome, Italy

THE ROLE OF HEALTH EDUCATION IN REDUCING TEENAGE PREGNANCIES IN RESOURCE-CONSTRAINED SETTINGS

Ayobami Oduntan, B Demeke and O Mosupye

Gelukspan District Hospital, South Africa

Abstract:

Background: Teenage pregnancy is a pressing public health issue in resource-constrained settings, such as the Northwest Province of South Africa. At Gelukspan Hospital, a rural facility in the province, data from January to October 2024 show consistently high delivery rates among girls aged 15-19, contributing to over 25% of total facility deliveries in some months. Teenage pregnancies are linked to poor educational and health outcomes, perpetuating cycles of poverty and disadvantages. The Ngaka Modiri Molema District has developed a targeted intervention plan incorporating school, community, and healthcare strategies to address this issue.

Objective: To evaluate the effectiveness of health education interventions in reducing teenage pregnancies in resource-limited settings, focusing on scalable and community-tailored approaches.

Methods: The study integrates hospital data, district-level intervention plans, and evidence from prior research on health education strategies. Approaches analyzed include comprehensive sexual education (CSE) in schools, community-driven campaigns, youth-friendly healthcare services, and digital health initiatives.

Results: District-level interventions, including school-based sexual education programs and community mobilization, have shown promising outcomes, with over 20 schools reached through reproductive health education and 14 community awareness campaigns conducted. Access to youth-friendly healthcare services, such as "happy hour" clinics and peer mentoring, increased contraceptive uptake. Digital platforms, although underutilized locally, offer scalable opportunities.

Conclusion: Health education strategies, particularly school-based CSE and community engagement, are effective in addressing teenage pregnancies in resource-constrained settings. Recommendations include scaling up proven interventions, increasing access to youth-friendly healthcare, and exploring cost-effective digital solutions. These approaches are critical to breaking the cycle of teenage pregnancy and empowering young women in rural South Africa.

Biography

Ayobami Oduntan is a medical officer at Gelukspan District Hospital, North West Department of Health, with over eight years of experience in clinical medicine, primary healthcare, and healthcare management. For the past four years, she has worked as an Obstetrics medical officer in rural healthcare. She also serves as Deputy Clinical Manager, overseeing doctor allocations, patient safety incident reporting, consultant outreaches, and quarterly blood drives, and has acted as Clinical Manager three times since 2022.

In addition to her full-time role, Dr Oduntan is a part-time Medical Adviser and consulting GP at Zoie Health, Africa's first women's digital health clinic. She previously managed the ALforHealth network, launching a Pan-African health initiative and its inaugural conference. She holds a medical degree, a postgraduate certificate in Global Health Policy, and a degree in Biomedical Sciences. Passionate about healthcare systems and health education, she is an award-winning medical volunteer.

International Conference on **Public Health and Epidemiology**
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June 12-13, 2025 | Rome, Italy

EVALUATION OF IGG ANTIBODY SUBCLASSES AGAINST SARS-COV-2 IN INDIVIDUALS IMMUNIZED WITH DIFFERENT VACCINES AND SCHEMES IN GEORGIA

Gachechiladze Nino and Chikadze Nino

Iv. Javakhishvili Tbilisi State University, Georgia

Abstract:

Introduction: In 2020, COVID-19, caused by the SARS-CoV-2 coronavirus, led to a global pandemic with approximately 700 million infections and over 7 million deaths. In response, vaccines, including messenger RNA (mRNA) vaccines, were rapidly developed and authorized for emergency use. Recent studies indicate that second and third booster doses of mRNA vaccines can enhance the production of the IgG4 subclass of virus-specific antibodies, typically following prolonged antigen exposure, which may modulate immune responses or promote tolerance. However, such research has not been conducted in Georgia, where the national immunization program has employed the mRNA vaccine "Comirnaty®" (Pfizer-BioNTech), the adenovirus vector vaccine "Vaxzevria" (AstraZeneca), and inactivated virus vaccines BBIBP-CorV (Sinopharm) and CoronaVac (Sinovac).

Research Objective: This study aimed to evaluate and compare total anti-SARS-CoV-2 antibody levels and the distribution of IgG subclasses in the Georgian population two years post-immunization with different vaccines using enzyme-linked immunosorbent assay (ELISA).

Results: Individuals in Georgia who received two or three doses of the "Comirnaty®" vaccine exhibited elevated levels of SARS-CoV-2-specific IgG4 antibodies. In contrast, those with natural immunity or immunized with inactivated virus vaccines showed significantly lower IgG4 levels compared to IgG1 (p ($p<0.0001$). These findings are consistent with studies showing that multiple doses of mRNA vaccines are linked to increased IgG4 levels; however, the implications for subsequent viral infections remain unclear.

Conclusion: Our study indicates that the mRNA vaccine "Comirnaty®" (Pfizer-BioNTech) induces a high production of IgG4 subclass antibodies in the Georgian population, persisting for at least two years post-vaccination. Further research is necessary to assess the impact of spike-specific IgG4 on subsequent SARS-CoV-2 infections, vital for effective COVID-19 prevention and future mRNA vaccine development.

Biography

Nino Gachechiladze is an Associate professor at Tbilisi State University, Faculty of Exact and Natural Sciences, Department of Biology, Division of Immunology and Microbiology. Her research focuses on host-pathogen interactions, immunological responses to microbial infections, and the development of novel therapeutic approaches to combat infectious diseases. With over a decade of experience in the field, she has contributed to numerous peer-reviewed publications and led several international collaborative projects. At this conference, she will present on immune response to different vaccines developed during the recent pandemic caused by SARS-CoV-2.

CHALLENGES IN DIAGNOSING BORRELIA MIYAMOTOI INFECTION IN KAZAKHSTAN

A Adil[1], A Dmitrovskiy[1,2], N Ospanbekova[1], A Kuligin[2], B Akhilbekov[1], S Beketay[1], A Ospanbekova[3], A Ismagulov[4], A Aissekenov[1] and Ye Ostapchuk[2]

[1]*Kazakh-Russian Medical University, Kazakhstan*

[2]*Almaty Branch of National Center for Biotechnology, Kazakhstan*

[3]*Kazakh National Medical University, Kazakhstan*

[4]*Simon Fraser University, Canada*

Abstract:

Background: *Borrelia miyamotoi* is an emerging tick-borne pathogen causing tick relapsing fever, often misdiagnosed due to its overlapping symptoms with other febrile illnesses. While Kazakhstan is considered endemic for *Borrelia spp*., cases of *B. miyamotoi* infection remain underreported.

Objective: To present a case of recurrent fever caused by Borrelia miyamotoi, discuss diagnostic limitations, and emphasize the importance of expanding molecular and serological testing for *Borrelia spp*. to effective disease detection.

Methods: On May 24, 2023, 53-year-old man from rural region of Kazakhstan was hospitalized with a fever of unknown origin. Fever reached 400C, antipyretic drugs proved ineffective. There were chills, general weakness, headache, body aches. The liver was enlarged.

In the blood, leukocytes - 5.4 10^9/l ; Neutrophils - 58.2 %; Lymphocytes - 31.8% ; Monocytes - 10.0%; ESR - 22 mm/hour; ALT-138.2 Units/L, AST-141.2 Units/l Total billirubin-23.2 Mmol/l; Direct billirubin-6.6 Mmol/L; Indirect billirubin-16.6 Mmol/L. But ELISA for viral hepatitis markers was negative

The patient denies tick bites, however, he lives in rural areas and annually goes hunting for marmots in the mountainous forested area for several days, which is a risk factor for tick bites.

On May 27, 2023, a positive ELISA test was obtained for both IgM and IgG for Borrelia miyamotoi antigens, which indicates that the disease is sufficiently old.

Repeated serological examination on B. miyamotoi by the immunochip method on January 14, 2025, revealed the presence of IgG only to the antigens of this pathogen.

Results: We believe that the patient had a tick-borne recurrent fever caused by B. miyamotoi and complicated by short-term hepatitis events, which was confirmed by serological tests, with IgG dynamics remaining for more than a year.

Patients often do not record tick bites, however, living in rural areas, hunting marmots in the mountain forest area are risk factors, especially since infection could occur without tick bites, if it was accidentally crushed when removing the skin from the animal.

Conclusion: This case highlights major diagnostic gaps in detecting *Borrelia miyamotoi* infection in Kazakhstan, emphasizing the need for enhanced laboratory diagnostics and clinical awareness. The lack of routine serological and PCR testing for Borrelia relapsing fever contributes to underdiagnosis and misclassification of tick-borne infections.

The implementation of a comprehensive molecular and serological screening program is crucial for the early detection, surveillance and effective treatment of infections caused by B. miyamotoi and other tick-borne infections in Kazakhstan.

Biography

Alibek Ädil was born on September 19, 1994, in Almaty, Kazakhstan. He is currently a second-year doctoral student specializing in medicine and is actively working on his dissertation titled "Clinical and Epidemiological Features and Diagnosis of Borreliosis in Kazakhstan." His research focuses on deepening the understanding of borreliosis and developing effective diagnostic approaches.

Alibek teaches at the Department of Infectious Diseases at the Kazakh-Russian Medical University (KRMU), where he trains students and young specialists in modern methods of diagnosing and treating infectious diseases. His teaching activities aim to develop future medical professionals and integrate scientific knowledge with clinical practice.

Fluent in Kazakh, Russian, and English, Alibek also studies Chinese, expanding his professional and international capabilities. He actively participates in scientific conferences, publishes research, and develops projects to improve the diagnosis and treatment of infectious diseases. His professional endeavors reflect a commitment to advancing healthcare and fostering international collaboration.

DIGNITY OF RISK: A CONCEPT ANALYSIS

Chiraz Tafticht
University of Quebec in Trois-Rivieres, Canada

Abstract:

As the world faces an aging population, the growing demand for support and care presents both ethical and practical challenges. The concept of dignity of risk is particularly relevant in this context, as it emphasizes the balance between autonomy, safety, and well-being for older adults. Originally introduced in the field of intellectual disabilities (Perske, 1974), its application to aging remains underdeveloped, leading to inconsistency in policy and practice. Often, aging policies prioritize safety and risk avoidance over self-determination, resulting in paternalistic care models that may undermine the dignity and autonomy of older adults.

This proposal aligns with the theme of the International Symposium on Aging: Current Research on Aging by offering a concept analysis of dignity of risk and its application to the aging population. As societies face demographic shifts, it is crucial to reconsider how we understand and manage risk in later life. The concept of dignity of risk provides an opportunity to explore how aging can be shaped by a relational framework that values autonomy, choice, and empowerment while ensuring safety and well-being.

Using Bronfenbrenner's Ecological Model, this research examines the multi-level influences on aging, from individual decision-making to broader societal norms and institutional policies. By analyzing the ethical dilemmas faced by healthcare professionals, particularly occupational therapists, this study explores the tension between protecting older adults and respecting their right to make decisions about their lives. The prevailing risk-averse approach may disconnect older adults from their communities and hinder their sense of purpose.

Walker and Avent's concept analysis methodology, based on the identification, clarification and analysis of key concepts through a literature review (16 articles analyzed), was employed.

By clarifying conceptual gaps and advocating for policy shifts, this research contributes to the development of more person-centered, dignity-driven approaches to aging. These insights are essential for reshaping aging policies that promote autonomy, empowerment, and well-being throughout later life

Biography.

Chiraz Tafticht is a master's student in Occupational Therapy at the University of Quebec inTrois-Rivières, with a strong commitment to promoting the health, autonomy, and dignity ofolder adults. Her academic and clinical experiences have inspired a deep interest in research related to elder care, focusing on how occupational therapy can support healthy aging and uphold quality of life in later years. Driven by a human-centered ap-

proach, Chiraz explores the complex interplay of environmental, social, and therapeutic factors that influence the well-being and participation of aging populations. Her work emphasizes the empowerment of older individuals, aiming to support their independence and meaningful engagement in everyday activities. Chiraz is dedicated to contributing to research that fosters inclusive, respectful, and evidence-based practices in occupational therapy

MIGRATION AND MATERNAL-CHILD NUTRITION: LESSONS FROM THE LAWRA DISTRICT IN NORTHERN GHANA

Isaac Amoah
School of Advanced Studies in Public Health, France

Abstract:

Background: Migration is an emerging determinant of maternal and child nutrition, particularly in underserved regions of sub-Saharan Africa. In Ghana's Lawra District, seasonal migration remains a key livelihood strategy, especially among young women; yet its public health implications are underexplored. These issues were not simply theoretical; they showed up in clinic attendance, child development charts, and the daily struggles of young migrant moms going home with hungry children. Recurring trends of disrupted healthcare access and undernutrition in migratory families

Objective: This study aims to share field-based insights and data on the intersection of migration and nutrition among mothers and children under five in the Lawra District, Ghana.

Methods: Data from the District Health Information Management System (DHIMS2) for 2020 to 2024 were reviewed alongside routine child welfare records and antenatal clinic reports. Additionally, observational data and informal interviews with community health volunteers were utilised to understand care-seeking patterns.

Results: The data revealed that during migration seasons (October–April), child malnutrition rates rose to 21%, and default rates for child welfare and antenatal services exceeded 30%. Returned children are frequently presented with moderate to severe undernutrition. Migrant mothers reported missed immunisations and reduced contact with frontline healthcare staff. Barriers included a lack of service continuity across districts, low maternal literacy, and economic pressures.

Conclusion: Migration-related nutrition vulnerability among women and children demands policy attention. The use of mobile health tools, interoperable health records, and community-based nutrition programs across districts could close existing service gaps. These field experiences, combined with my current MPH studies, inform policy-focused recommendations for building inclusive health systems for mobile populations.

Biography

Isaac Amoah is a public health professional from Ghana with over 11 years of experience in public health, maternal and child health, community-based nutrition, immunisation, and frontline health service delivery. He previously worked with the Ghana Health Service in the Lawra District

of the Upper West Region, where he focused on improving health outcomes among underserved and mobile populations. He also have years of experience in research, project implementation and evaluation, teaching, and administration in both hospital and educational institutions. Currently pursuing a Master of Public Health in Healthcare Policy & Management at the EHESP School of Public Health in France, He is passionate about using local data and field insights to drive inclusive health policy and strengthen systems, particularly for vulnerablegroups affected by migration

Day 1

Public Health & Immunology 2025

Poster

IL-6 AND IL-12 LEVELS IN B-CELL CHRONIC LYMPHOCYTIC LEUKEMIA: IMPLICATIONS FOR IMMUNE DYSFUNCTION AND POTENTIAL THERAPEUTIC APPROACHES

Mikeladze Khatia, Chikadze N, Tediashvili M and Gachechiladze N

Iv. Javakhishvili Tbilisi State University, Georgia

Abstract:

Chronic lymphocytic leukemia (CLL) is a blood cancer characterized by the excessive accumulation of abnormal B lymphocytes in the blood, bone marrow, lymph nodes, and spleen. This accumulation results from the malignant cell's resistance to apoptosis, leading to their prolonged survival. These abnormal cells disrupt immune system function, impairing both humoral and cellular immune responses. B cells in CLL are not only dysfunctional but also actively suppress the immune system through mechanisms such as producing immunosuppressive cytokines and altering the tumor microenvironment. This allows CLL cells to evade immune detection and destruction. While cytokines do not contribute to the initial transformation of CLL, they play a significant role in promoting the proliferation and survival of malignant B cells. Interleukin 6 (IL-6) and Interleukin 12 (IL-12) are key cytokines involved in immune responses to infection, which is a common complication in CLL patients. However, IL-6 and IL-12 also contribute to the inflammatory and tumor microenvironment, potentially interfering with therapeutic strategies in B-CLL. The objective of this study was to quantify the levels of IL-6 and IL-12 in patients with B-cell chronic lymphocytic leukemia (B-CLL) in order to further elucidate their roles in disease pathogenesis and potential therapeutic strategies. The measurement of IL-6 and IL-12 levels was conducted using an enzyme-linked immunosorbent assay (ELISA) with the Human IL-6 ELISA kit, Human IL-12 ELISA kit (Termo Fisher). The analysis was performed on blood samples from 22 newly diagnosed, untreated B-CLL patients. A control group consisting of 17 age- and gender-matched healthy donors was also included in the study. The study showed dramatically elevated level of IL 6 (18,15 ± 4,8 pg/ml, p $p<0,05$) and IL 12 (11,54 ± 3,5 pg/ml, $p<0,05$) in patients with B CLL to compare to control group (0,32 ± 0,02 pg/ml; 2,53 ± 0,75pg/ml accordingly).

Elevated IL-6 and IL-12 levels in CLL patient's sera indicate chronic immune activation and dysregulation. While IL-12 may reflect an attempt to stimulate anti-tumor immunity, high IL-6 levels could aid immune evasion and tumor survival. This dysfunctional immune environment hampers the system's ability to control leukemia. Targeting both IL-6's pro-inflammatory ef-

fects and enhancing immune responses via IL-12 signaling could offer potential therapeutic benefits.

Biography

Khatia Mikeladze is a microbiologist at pharmaceutical company GMP Pharmaceuticals Ltd. (Tbilisi, Georgia) and a PhD student of the Faculty of Exact and Natural Sciences at Ivane Javakhishvili Tbilisi State University. Her fields of scientific interest are microbiology and immunology. Khatia participated in various research projects, including a doctoral grant project funded by the Rustaveli National Science Foundation of Georgia, also grants awarded by Javakhishvili Tbilisi State University. She is a member of the Georgian Association of General and Applied Microbiology (GAGAM) and Georgian Association of Allergology and Clinical Immunology (GAACI). Khatia regularly presents the results of her work at international and local conferences. She has practical skills and experience in leadership, proper planning, time management, results orientation, project management, negotiation. Khatia Mikeladze takes an active part in scientific conferences and forums almost every year. She has a strong sense of responsibility. Khatia Mikeladze's field of activity is conducting microbiological and immunological research

ALTERNATİVE ROOT CANAL İRRAGATİON SOLUTİONS AND NON-CYTOTOXİC HİGH ANTİBACTERİAL EFFECTİVENESS

Tahir Ataözden

Biruni Hospital, Turkey

Abstract:

Aim: Root Canal İrragation solutions and medicine in endodontic treatment are available for use in alternative materials (N acetylcysteine, boric acid, (chitosan) different concentrations of mouse fibroblast cell L929 to Check the Cytotoxicity And Q. aureus Biofilms to check the antibacterial effectiveness of in vitro aspect evaluation was aimed.

Equipment Method: Cell culture test for experiment groups; Chitosan 2048ug/ml- 4ug/ml 10 in different concentrations, N Acetylcysteine (NAC) 50 mg/ml- 0.39 mg/ml between 8 in different concentrations, Boric Acid (NA) 64 mg/ml- 0.125 mg/ml between 10 Sodium in different concentration Hypochlorite (NaOCl) 10.5%-5.25 %-2.625% rates 3 different prepared in concentration was created. Antimicrobial test for article concentrations Chitosan 1-0.002mg/ml, NAC 25- 0.195 mg/ml, Boric acid 32- 0.0625mg/ml aspect was carried out. Prepared microplate At 37°C, 18-hour incubation was released. Study Results Group intra- and inter-data groups were studied by comparison analysis.

Findings: The positive control group is the one which... To NaOCl, according to all experiment groups, more is cytotoxic. Chitosan 128 microgram/ml is also the first acute toxic effect that has been shown. Q. Aureus on MIC value whereas 0.031 mg/ml is. An antimicrobial dose on the border was found to be toxic. N Acetyl Cysteine (NAC) MIC value 1,563 mg/ml while first 24 per hour 25-50 mg/ml in doses toxic It has been found. That is, the antimicrobial dose on the border is toxic. It is not has been observed. Boric Acid MIC value 4 While mg/ml This at the rate first 24 per hour cytotoxic not while toxic effect dose And to time connected aspect is increasing. NaOCl is all in their concentrations, and time in the intervals is the best antimicrobial agent found; however, most cytotoxic elements have been observed.

Conclusion: Experiment in groups used antibacterial effectiveness // İn the case Of In Vitro Study which is held in laboratory // NAC And Boric Acid antimicrobial dose borderline cytotoxicity In terms of other groups, more Good has been found.

ENTRANCE Endodontics treatment succeeds in Defining root microorganisms from the channel system so infection is prevented and improved. Coke in the channel bacteria free-floating

planktonic only cells aspect either in each other and/or to surfaces adherent microorganism communities the one which... Biofilms aspect It is found (1). Endodontics treatment with bacteria would be most likely eliminated. Also, the coke channel from the system would be completely eliminated. Moreover, coke on channel surfaces consists of many bacterial biofilms, which is difficult (2). To this, According to biofilms to ruin And like this coke channels inside Now bacterial infections eliminate channel Irrigants And of drugs the use of coke channel increases the success of treatment has been defended (3) Biocompatibility, any dental material carries the required -most based on the features as someone's acceptance is being done. Endodontics in treatment used irrigation solutions with periapical tissue contact in a state of. This substance has possible cytotoxic effects with periapical to the tissue damage. In terms of evaluation, importance carries. Endodontics to be used in the field in the material wanted -most important from the features someone also periapical in the region pathology

Biography

Tahir Ataözden was born in 1957 in Edirne. He graduated from the Department of Dentistry in English, Marmara University in 1980. In the same year, he started his doctorate program in the Department of Oral, Dental and Maxillofacial Surgery at Atatürk University. He completed his doctoral program in 1983 with a successful thesis defense. He worked as an Assistant Professor at the same university until 1985. He resigned in 1985 and opened his own clinic in Edirne. In 1987, he succeeded in the exam he took at Marmara University and started to work in Riyadh, Saudi Arabia. He worked at Riyadh Special Dental Center until 1995. He returned to Istanbul in 1995 and opened his own clinic. Apart from his own practice, he worked as an administrator in many health centers in Istanbul until 2019. In 2019, he returned to his academic life as a Doctor lecturer at Kafkas University and gave lectures and clinical studies for three and a half years. He speaks advanced English and intermediate level Arabic

Day 1

Public Health & Immunology 2025

E-Poster

IDENTIFYING CRITICAL GAPS IN MEOWS IMPLEMENTATION : A PAN-SITE AUDIT ABOUT USE OF MODIFIED EARLY OBSTETRICS WARNING SYSTEM OUTSIDE OF MATERNITY

Mahrukh Ehsan
Peterborough City Hospital, UK

Abstract:

This pan-site audit evaluated compliance with the Modified Early Obstetric Warning System (MEOWS) across two Emergency Departments (October-December 2024). Reviewing 60 obstetrics admissions (≥ 16 weeks gestation or ≤ 6 weeks postpartum), we found 50 % MEOWS compliance (53.3% Peterborough City Hospital (PCH), 46.7% Hinchingbrooke Hospital (HH), falling short of the 100 % target. Staff reported paper MEOWS charts were easily misplaced during busy shifts, exacerbated by lack of Electronic Health Record (EHR) integration in Symphony. Delays were critical :6/16 MEOWS at PCH completed >4 hours post-admission, while 3/14 at HH took>3.5 hours. Despite 100 % sepsis screening compliance when MEOWS was used, 0 % of the non-MEOWS cases received screening. Escalation failures were stark: 0 % of red/yellow triggers at PCH prompted obstetric reviews (vs 100 % at HH) and 40-50 % of high-risk cases (suspected PE/SOB) lacked obstetric input despite meeting ED guideline 4.22 criteria. Recommendations included EHR-integrated MEOWS with real-time alerts, mandatory staff training on PE/DVT pathways and inclusion of <16 weeks pregnancies in MEOWS policies. These changes address systemic gaps highlighted by MBRRACE-identified risks, aiming to reduce maternal morbidity.

Biography

Mahrukh Ehsan is a speciality registrar in Obstetrics and Gynaecology at Peterborough City Hospital, with over three years of experience working in the NHS. She has a keen interest in improving patient safety and clinical outcomes, particularly in acute maternity care. This audit stemmed from her observations on the ground and a desire to strengthen early recognition of unwell women in Emergency Departments. She hopes the findings will contribute to more consistent use of MEOWS and better multidisciplinary collaboration across sites.

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Video

THE ROLE OF ENVIRONMENTAL ETHICS IN DRIVING SUSTAINABLE QUARRYING PRACTICES: A CASE STUDY REVIEW

Babalwa Kafu-Quvane
University of Fort Hare, South Africa

Abstract:

Background: The quarrying industry, a vital source of raw materials for construction and infrastructure development, presents significant environmental challenges. The inherent nature of extraction activities disrupts ecosystems, alters landscapes, and generates substantial waste, necessitating robust mitigation and sustainable practices. This research delves into the critical role of environmental ethics in shaping and driving these practices, focusing specifically on rehabilitation and waste management within the quarrying sector.

Objective: This study aims to provide a comprehensive understanding of the interplay between ethical principles and practical implementation by examining the current mitigation strategies, exploring sustainable quarrying practices, and critically evaluating their feasibility and effectiveness in addressing ethical concerns.

Methods: This research undertakes a thorough review of the mitigation strategies that are mandated by regulatory frameworks, assessing their efficacy in mitigating environmental damage and their alignment with evolving ethical standards.

Results: A critical analysis of case studies from different geographical regions and quarry types reveals the diversity of approaches to rehabilitation and waste management. The research identifies the best practices and lessons learned, highlighting the importance of site-specific assessments, adaptive management, and continuous improvement. The case studies also illustrate the challenges associated with implementing sustainable practices in developing countries, where regulatory frameworks may be weak, and economic resources are limited.

Conclusion: The research concludes that a strong ethical foundation is crucial for driving sustainable quarrying practices. By integrating ethical considerations into decision-making processes, the industry can minimize its environmental footprint and contribute to long-term ecological sustainability.

Biography

Babalwa Kafu-Quvane holds a PhD and a Master's degree in Education, Management, and Leadership from the University of KwaZulu-Natal. As a published researcher and academic, she specializes in the integration of climate change into education, as well as educational management and leadership policy. Babalwa Kafu-Quvane has contributed to the academic community through research published in peer-reviewed international journals and has presented at several prestigious conferences, including EDULEARN (2019, 2021, 2023), the Global Education Network (UK), and the World Conference on Research in Teaching and Education in Germany

EFFECT OF LYCOPENE AND ANTHOCYANIN ON LIVER AND KIDNEY FUNCTIONS IN MALE AND FEMALE ALBINO RATS TREATED WITH DEXAMETHASONE

Sawsan Mohammed Kilany Ibrahim, Safwat Hassan Ali, Mahmoud Abdel Razek Doheim and Sara Mohamed Mahmoud Abdelfattah
Ain Shams University, Egypt

Abstract:

Influence of lycopene and anthocyanin as protective and curative agents on male and female albino rats treated with dexamethasone for seven weeks were studied on liver function (AST & ALT), kidney function (s. creatinine) and body weights. Results reveal that dexamethasone induce bodyweight loss. However, higher levels of AST & ALT and s. creatinine were measured after dexamethasone treatment. On the other hand, the application of lycopene and anthocyanin as natural antioxidant extracted from peel wastes of Tomato and Pomegranate resulted in revised effect of higher levels of AST, ALT, s. creatinine compared to positive and normal control groups. Meanwhile body weights loss that happen after dexamethasone treatment show slight improve compared to dexamethasone control positive group. These results reveal that both lycopene and anthocyanin could be applied either protective or curative valuable powerful available cheap substances to face undesirable side effects of oxidative stress induced as consequences dexamethasone treatment.

Results showed that lycopene content extracted from industrial tomatoes processing wastes was 27.78 mg/100g tomatoes waste peel (on dry weight basis), and anthocyanin content was (64.56 mg/100g dw) of pomegranate waste peel on dry weight basis.

In conclusion, the results of the present study reveal that tomato contained potential antioxidant bioactive compounds particularly lycopene, which if properly utilized could provide source of biologically active nutraceutical ingredient/medicine application. It also shows its titanic importance as therapeutic agent in preventing or curing the diseases caused due to oxidative stress as induced due to side effect of some medicinal drugs like dexamethasone Also, suggests use anthocyanin which extracted from pomegranate peel as protective and curative agent against oxidative stress of long term of using dexamethasone. Also, results showing that sometimes anthocyanins reveal more potent than lycopene and vice versa lycopene in other parameters was more potent than anthocyanin. These current results showed that the potential of these substances should be used as medicine against the diseases caused by free radicals.

Biography

Sawsan Mohammed Kilany Ibrahim is a passionate researcher in the field of Biochemistry, with a particular focus on Therapeutic Nutrition. Her work explores the critical intersection between human health and sustainability, aligning with global initiatives such as the 2025-2030 Agenda, Sustainable Development Goals, the Circular Economy, and Green Chemistry. she really like modern discoveries and everything new in science.

INFLUENCE OF AMBIENT TEMPERATURE AND HUMIDITY ON STRESS AND INFLAMMATORY MARKERS ASSOCIATED WITH ADAPTIVE IMMUNITY IN EXERCISING STANDARDBRED HORSES

Maria Rizzo, Francesca Arfuso, Laura Perillo, Federica Arrigo, Elisabetta Giudice, Giuseppe Piccione and Vincenzo Monteverde
University of Messina, Italy

Abstract:

Environmental heat stress can significantly impact the physiological and immune responses of athletic horses. This study aimed to evaluate the effects of ambient temperature, relative humidity, and temperature–humidity index (THI) on stress-related and inflammatory markers in Standardbred horses during exercise. Twelve clinically healthy, trained adult Standardbred horses were monitored over three months (May–July) in Sicily, Italy. Each horse underwent a race simulation, during which physiological parameters heart rate (HR), respiratory rate (RR), and rectal temperature (RT) were recorded before exercise (Pre) and within 5 minutes after exercise (Post). Simultaneously, blood samples were collected to assess hematological indices and serum concentrations of cortisol and protein fractions. Environmental monitoring showed progressively increasing THI values, indicating mild stress in June and severe heat stress in July. Exercise significantly elevated erythrocyte indices (RBC, Hb, Hct), as well as measurements of HR, RR, and RT ($p < 0.05$). Post exercise analysis revealed increased serum cortisol and α1-, α2-, and β-globulin levels, along with reduced albumin and albumin/globulin ratio—indicative of an acute-phase inflammatory response. Monthly comparisons showed the most pronounced changes in July, corresponding to the highest environmental stress levels. Despite these physiological and biochemical alterations, the magnitude of the responses remained within a non-pathological range, suggesting effective adaptation in these well-trained horses. The findings underscore the capacity of trained Standardbred horses to mount a coordinated physiological and immune response to exercise, even under elevated thermal stress. However, the intensified inflammatory and stress markers in hotter months suggest that environmental conditions should be closely considered when managing equine athletes to safeguard welfare and performance.

Biography

Maria Rizzo is a Veterinary Doctor with a PhD in Experimental Sciences Applied to Animal Organisms from the University of Messina, Department of Veterinary Sciences. She has 10 years of experience in Veterinary Physiology, with research interests spanning animal welfare, management, behavior, health, nutrition, thermal biology and exercise physiology. Currently, she is a Veterinary Researcher and Research Fellow in Veterinary Physiology at the University of Messina, working on the project "Variations in the Inflammatory Profile and Possible Correlation with Methane

Emissions in Healthy Dairy Cows and Dairy Cows with Metabolic Disorders". Dr. Rizzo has published over 75 papers in reputable journals and serves as a member of editorial boards in esteemed scientific publications

MOVING TOWARDS RESILIENT VACCINE SUPPLY CHAINS: A SWOT ANALYSIS OF THE COVID-19 VACCINE SUPPLY CHAIN IN KWAZU-LU-NATAL, SOUTH AFRICA

Viloshini Krishna Manickum and Lehlohonolo John Mathibe
University of KwaZulu-Natal, South Africa

Abstract:

Background: In response to the high incidence of COVID-19 infections and mortality rates; KwaZulu-Natal's public and private sector collaboratively rolled out COVID-19 vaccines from May 2021. However, there are insufficient scientific reports analyzing the COVID-19 vaccine supply chain (C19VSC) globally and in South Africa (SA).

Objective: To assess the strengths, weaknesses, opportunities, and threats (SWOT) of the C19VSC in the public and private sectors in KwaZulu-Natal (KZN).

Methods: This qualitative and interview-based study was performed in KZN, from January to March 2024. Respondents were requested to discuss SWOT of the C19VSC. Content and comparative frequency analysis was conducted with responses. The study proposal received ethics approval from the University of KwaZulu-Natal Ethics Committee (Ref. No.: BREC 4505/2022), the KwaZulu-Natal Department of Health (Ref. No.:KZ_202208_035), and the private sector healthcare authorities.

Results: Nineteen (n = 19) respondents - twelve from public (PUBSR) and seven from private sector (PRIVSR) respondents, were interviewed. Main strengths included procurement of cold chain equipment (92%, n=11 PUBSR) staff employment (92%, n=11 PUBSR; 86%, n=6 PRIVSR), intensified C19V training (100%, n=12 PUBSR; and 100%, n=7 PRIVSR) and rapid deployment of SVS and EVDS (29%, n=2 PRIVSR).

Weaknesses were shortage of human resources (42%, n=5 PUBSR), stock reporting (42%, n=5 PUBSR; 71%, n=5 PRIVSR); vaccine supply challenges (17%, n=2 PUBSR; 29%, n=2 PRIVSR), limited private sector doctors (14%, n=1 PRIVSR)

Opportunities comprised of creating employment (100%, n=12 PUBSR; 14%, n=1 PRIVSR), public and private sector partnership (33%, n=4 PUBSR; 71%, n=5 PRIVSR), and enhanced cold chain storage capacity (83%, n=10 PUBSR; 14%, n=1 PRIVSR).

Threats consisted of network connectivity (58%, n=7 PUBSR); inaccessible roads to vaccination sites (25%, n=3 PUBSR) and vaccine hesitancy (50%, n=6 PUBSR; 29%, n=2 PRIVSR).

Conclusion: The findings of this study reveal strengths and resilience within the C19VSC and demonstrate evidence-based decision-making in KwaZulu-Natal during the SARS-CoV-2 pandemic.

Biography

Viloshini Krishna Manickum has passion and expertise with medicine supply chains, pharmacovigilance, pharmaceutical system strengthening, monitoring and evaluation research and training. She is currently completing a PhD at the University of KwaZulu-Natal. Her research areas are in Public Health, Vaccines

Day 2

Public Health & Immunology 2025

Keynote Presentation

THE IMPACT OF EBV-ENCODED BILF1, A POORLY KNOWN G-PROTEIN COUPLED RECEPTOR GENE, ON THE PATHOGENESIS OF BURKITT LYMPHOMA

Lucia Mundo
University of Siena, Italy

Abstract:

Burkitt lymphoma (BL), which arise from germinal centre B cells (GCB), is an aggressive non Hodgkin B-cell lymphoma. The hallmark of nearly all BL tumours is the chromosomal translocation between the MYC gene and one of the immunoglobulins (Ig) heavy or light chain loci. In accord to the World Health Organization (WHO), BL can be classified into three forms which differ in geographic distribution, clinical presentation, and Epstein–Barr virus (EBV) association: endemic (eBL), sporadic (sBL) and HIV associated BL. The association with EBV is highly variable, with more than 90% of the endemic cases and near 30% of HIV associated tumours linked to EBV. The sporadic form is rarely associated to EBV, with only 10-15% cases diagnosed as EBV-positive. The majority of BL tumours express a latency type I, characterized by the expression of only EBNA1, EBV-encoded BART miRNAs and the non-coding RNA-pol III non-translated RNAs termed EBV-encoded small RNAs (EBER)-1 and EBER-2EBER RNAs. However, other latent and lytic transcripts such BILF1 have been reported in a subset of BL cases. While it is well known that EBV has a significant impact on the BL pathogenesis, the function of these virus transcripts remains largely undefined. Here we have identified a novel role for the EBV-encoded BILF1, a constitutively active viral G-protein coupled receptor that is transforming in NIH3T3 cells and which can induce tumours in nude mice. High throughput Q-PCR assay and RNA in situ hybridisation revealed that BILF1 is expressed by most tumour cells of a subset of eBL. Furthermore, BILF1-expressing cells did not express the immediate-early EBV gene, BZLF1, indicating they are latently infected. Moreover, when expressed in primary human GC B cells, the progenitors of eBL, we found that BILF1 induced a transcriptional programme that recapitulated the aberrant transcriptional programme characteristic of primary eBL, including the up-regulation of known MYC and P13-K target genes. Our data indicate that BILF1 induces an oncogenic transcriptional programme that could be important for the pathogenesis of a subset of eBL.

Biography

Lucia Mundo is a researcher from the Department of Clinical and Molecular Medicine, at Sapienza University Rome, Italy. Her research is focussed on novel insights into the pathogenesis of EBV-associated malignancies for the development of new therapies against the virus. Her work received grant support totalling ~€1m. Mu do has contributed several important discoveries in the field: the first description of a non-canonical EBV-latency program in non-Hodgkin lymphoma (Abate et al. PLoS Pathogens, 2015); the first documented evidence of EBV in-situ in primary tumours classified as virus-negative (Mundo et al., Frontiers in Microbiology, 2017; Mundo et al, Modern Pathology, 2020).

THE NEED OF CLARITY IN EPIDEMIOLOGY AND PUBLIC HEALTH. AMBIGUITY ABOUT THE ORIGIN OF SARS-COV-2 MAY SPARKLE NEW FUTURE PANDEMICS

Ugo Rovigatti
University of Florence, Italy

Abstract:

It is under everybodies eyes that explanations provided for the origin of SARS-CoV-2 –the causative agent of COVID-19- were not just scientifically but also politically motivated. Otherwise, why we had to hear also the opinion of the Intelligence Community (IC: FBI, CIA etc.)

My presentation wants to dispel doubts about explanations, which have not followed the basic rules of logics and falsification (see K. Popper,). Although two hypotheses are typically debated (referred here as the Z –zoonosis- and the LL –Lab Leak- hypotheses), the Chinese Government has recently proposed in a white paper that COVID-19 originated already in 2019 in USA and was subsequently transferred/transmitted to China through frozen food (hypothesis FF). However, such FF hypothesis will not be considered again here, because it appears to be not- substantiated in the scientific literature and too farfetched.

The debate between the Z and LL theories has grown since the beginning of the pandemics in 2020 and has been characterized not just by scientific but also by political, sociological and sometimes by deceiving attitudes, which therefore need to be recognized and weighted for a general assessment. Two papers at the beginning of COVID-19 (February-March 2020) casted doubts on LL theories, by labeling them unscientific and conspiracies. However, it was later revealed that both papers published in high IF journals (Nature Medicine and Lancet) were previously construed by the very proponents of the Z hypothesis –and with a humongous "conflict of interests"- in order to mislead the public opinion. General sentiments became strongly in favor of Z, so much so that when a private group –Eco-Health Alliance- lost a grant, because the research appeared to be far too dangerous, 77 Nobel Prizes and 31 Organizations signed a letter for reinstating this research.

Such polarization still remains today, with a larger portion of the scientific community favoring the Z hypothesis, although more data have been obtained in favor of LL. These are:

- Discovery that the closest ancestor of SARS-CoV-2 had been isolated in 2013 by researchers in mines of Southern China.
- Evidence indicating that genetic manipulation of wild-type Coronaviruses had been indeed planned to be performed with so-called GOF experiments.
- Evidence that the virus had been grown and therefore was adapted to human cell cultures.
- Presence of personal/sociological reasons rather than real scientific data for explaining the stronger favor of Z vs LL hypothesis by the scientific community.
- It will be finally underlined that very recently two of the best experts for SARS-CoV-2 in the US, Ralph

Baric and Ian Lipkin –initially in favor of the Z hypothesis-, have strongly criticized the lax safety conditions, with which such experiments have been and are still conducted today, thus mounting weight for the LL hypothesis.

Biography

Ugo Rovigatti obtained his Ph.D. degree in Molecular Biology with Summa cum Laude in 1973 and in 1999 the Tenured Professorship. From 1979 to 1999 he worked with renown Scientists such as C. Basilico, R. Weiss, H. Varmus, S. Astrin, T. Papas, D. Watson, P. Duesberg, JJ Yunis, J. Bader, J. Trentin, B. Hirt at: ICRF in London, UK; the Rockefeller University in New York; the Fox Chase Institute in Philadelphia; St. Jude Children's Hospital in Memphis, TN; the NCI in Frederick, MD; the Ochsner Foundation-Clinic in New Orleans, LA; the Baylor College of Medicine in Houston, TX. Between 1997 and 1999 he was a sabbatical professor in Switzerland (KISPI in Zurich and ISREC in Lausanne). His research work as PI has been funded by grants from UICC, ICRETT, SCL, MIUR, MURST etc.

Day 2

Public Health & Immunology 2025

Oral Presentations

EXPLORING THE USE OF SOCIAL MEDIA DATING APPS AMONG MSM IN NEW ZEALAND: MOTIVATIONS, CONCERNS, AND HIV-RELATED INFORMATION

Wenjie Li and Jiani Yang
Guangzhou Xinhua University, China

Abstract:

Background: Men who have sex with men (MSM) in New Zealand increasingly turn to social media dating apps to navigate their social and sexual lives. Despite the rising popularity of these platforms, limited research has been conducted to understand the experiences of MSM users, particularly in relation to the use of HIV-related features.

Objective: To describe the MSM social media dating app use experience in New Zealand, with a focus on user motivations, concerns and HIV-related information.

Methods: This study employed semi-structured interviews with MSM individuals who use social media dating apps in New Zealand. A total of 15 participants were recruited, and thematic analysis was used to identify key themes emerging from the data.

Results: Grindr was the most commonly used platform among participants. MSM users primarily turn to dating apps for sexual encounters. However, concerns about privacy breaches, safety issues (e.g., fraud and catfishing), and the reliability of HIV-related information were widespread. Users expressed mixed feelings about the effectiveness of these apps in providing trustworthy health information, with a notable gap in the availability of accurate and relevant HIV resources.

Conclusion: While MSM in New Zealand predominantly use apps like Grindr for social and sexual connections, significant concerns about privacy, safety, and the reliability of HIV-related information persist. These findings highlight the need for enhanced safety features and more accurate, relevant health resources on these platforms. Addressing these issues could improve the overall user experience and support better health outcomes for MSM.

Biography

Wenjie Li is a researcher with expertise in health communication and digital media. She holds a PhD from Auckland University of Technology (AUT), where her research examined the HIV-related features MSM social media dating apps in New Zealand. Wenjie's commitment to equity and innovation in health has led her to contribute valuable insights into improving digital health resources for underserved communities. She has honed her research skills through academic training and practical engagement with both research and community outreach initiatives.

Day 2

Public Health & Immunology 2025

Oral Presentations

COPPER CHELATION PROMOTES PRO-INFLAMMATORY NEUTROPHIL REPROGRAMMING IN HIGH-RISK NEUROBLASTOMA

Castrogiovanni Giulia, Jourdin Rouaen, Riccardo Cazzoli, Antonietta Salerno,Tyler Shai-Hee and Orazio Vittorio
University of New South Wales, Australia

Abstract:

Neuroblastoma, a paediatric cancer of neural crest origin, remains a therapeutic challenge due to its heterogeneity and the immune-suppressive tumour microenvironment (TME). We have recently identified copper as a critical regulator of both tumour growth and immune evasion, positioning copper chelation as a potential strategy to reshape the TME and enhance immunotherapy. In this context, we investigated how disrupting copper homeostasis using the clinically approved chelator TEPA influences both neuroblastoma cells and infiltrating immune populations. Building on previous evidence that copper depletion improves the efficacy of anti-GD2 antibody therapy by enhancing Fc-receptor dependent immune responses, we further demonstrate that copper plays a dual role in modulating both tumour and immune cells. Our most recent data show that TEPA treatment not only impairs neuroblastoma cell viability but also downregulates epigenetic regulators such as EZH2, UHRF1, and DNMT1, indicating copper's involvement in transcriptional control of tumour-promoting pathways. Additionally, using HL60 neutrophil-like cells and primary human neutrophils, we observed that copper chelation upregulates CD11b and might have a role in the metabolism. These findings suggest that copper could act as a signaling node between tumour metabolism, epigenetic plasticity, and innate immune activation. Together, our results support the rationale for combining copper chelation with immunotherapies to overcome immune resistance and improve clinical outcomes in high-risk neuroblastoma.

Biography

Giulia Castrogiovanni is a second-year PhD candidate at the Faculty of Medicine and Health, University of New South Wales (UNSW), Australia, specializing in cancer research and immunology. She is a member of the Metal Targeted Therapy and Immunology (MTTI) Lab, led by Associate Professor Orazio Vittorio, where their research focuses on paediatric cancers, including glioblastoma, neuroblastoma, and diffuse intrinsic pontine glioma (DIPG). Her current research investigates the role of copper homeostasis in modulating immune responses within the tumour microenvironment, with a particular focus on high-risk neuroblastoma. By examining how copper influences neutrophil function and epigenetic regulation, her work aims to develop novel therapeutic strategies to boost anti-cancer immunity. Her passion for immunology has been a consistent thread throughout her academic journey. She holds a Master of Biomedical Science from the University of Sydney, where she specialized in Infection and Immunity. Her master's thesis focused on immune signatures in atherosclerotic carotid plaques using Imaging Mass Cytometry. She also earned a Bachelor of Biological Sciences from the University of Studies of L'Aquila, Italy, where her thesis explored the role of Interleukin-6 in cytokine storms during COVID-19.

SMALL PLURIPOTENT STEM CELLS IN PERIPHERAL BLOOD AFTER MILD HYPERBARIC OXYGEN THERAPY – A PRECLINICAL STUDY

Torbjörn Ogéus
Stockholms led- & smärtklinik, Sweden

Abstract:

Background: Small Blood Stem Cells (SBSCs) and Very Small Embyronic-Like Cells (VSELs) represent two promising autologous stem cell populations derived from peripheral blood through a simple blood draw and minimal manipulation through centrifugation and mechanical filtration, with demonstrated pluripotency markers (e.g., Oct4, Sox2, Nanog, Rex-1, Dppa3, Rif1 (telomerase) SSEA-1, Sca-1. Lin, CD45 and Sox2), low immunogenicity, and minimal tumorigenic risk combined these Small Plutipoten Stem Cells (SPSCs) are uniquely suited for minimally invasive regenerative therapies with low risk and at a low cost, compared to today's conventional stem cell therapies such as Stromal Vascular Fraction (SVF) utilized in the EU or Bone marrow derived stem cells commonly utilized in the US.

Methods: Data were collected from 105 volunteers donating blood samples for the purpose of the study, to determine stem cell count, activity and size analyzation within 30ml whole blood after specific centrifugation and filtration. Half of the volunteers went through a mild hyperbaric oxygen therapy treatment (mHBOT) protocol with five sessions of 60mins in 1.4 ATA and 99% Oxygen over 5 days in a row. Data were analyzed using a Luna-Stem device where the cell concentrates were first stained with Acridine Orange/Propidium before counting it with Fluorescence.

Results: SPSCs were found in high levels in both groups analyzed. The mHBOT group showed a significantly high concentration of smaller cells between 3-5 µm (VSELs), where the non-treated group showed a high count of cells in the 5 µm size (SBSCs).

Conclusion: Small Pluripotent Stem Cells with the potential to compete with today's conventional Stem cell therapies in regenerative medicine can be isolated and concentrated in a simple and cost-effective way. Further studies are needed to investigate their real-life potency in clinical settings.

Biography

Torbjörn is a pain specialist with extensive clinical experience in the field of regenerative medicine. His team was the first in Sweden to inject autologous growth factors to treat tendon and cartilage injuries in 2013. Since then, over 10.000 extra- and intra-articular treatments have been performed in his clinic.

In August 2019, his team performed Sweden's first autologous mesenchymal stem cell injection in a joint with Osteoarthritis. He has since then carried out over 200 successful stem cell injections. His clinic has patients from all over the world flying in to receive treatments.

PREVALENCE OF UNDERWEIGHT, OVERWEIGHT, AND OBESITY AMONG JORDANIAN CHILDREN AND ADOLESCENTS USING INTERNATIONAL GROWTH REFERENCES

Walid Al-Qerem
Al-Zaytoonah University of Jordan, Jordan

Abstract:

Background: The rising prevalence of weight-related conditions among children and adolescents is a pressing global public health issue, with Middle Eastern countries increasingly affected. Jordan, in particular, faces a dual burden of undernutrition and obesity, yet nationally representative studies assessing these trends using international growth standards are scarce.

Objective: This study aimed to estimate the prevalence and trends of underweight, overweight, and obesity among Jordanian children and adolescents aged 2–19 years from 2017 to 2023, using growth standards defined by the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC).

Methods: A retrospective longitudinal and cross-sectional analysis was conducted using 58,474 anthropometric records obtained from the Ministry of Health's national electronic database. The sample consisted of 31,508 healthy Jordanian children and adolescents. Body mass index (BMI) percentiles were calculated and classified according to WHO and CDC standards. Logistic regression models examined associations between overweight/obesity and variables including age, sex, and year of measurement.

Results: The prevalence of being underweight, overweight, and obese varied depending on the reference used. Based on WHO criteria, 10.8% of participants were overweight and 7.0% obese. In contrast, the CDC criteria indicated that 11.9% were overweight and 10.8% obese. Male children exhibited higher rates of underweight, while overweight and obesity were more prevalent in female adolescents. Regression analyses revealed that increasing age and more recent years were significantly associated with elevated odds of overweight and obesity. A consistent upward trend in the prevalence of overweight and obesity was observed from 2017 to 2023 across all age groups.

Conclusion: This study underscores the growing challenge of overweight and obesity among Jordanian youth and highlights how prevalence estimates are influenced by the choice of reference standard. These findings call for public health strategies to inform effective interventions

Biography

Walid Al-Qerem obtained PhD of Clinical pharmacy from the University of Sunderland, UK. He is an associate professor at Al-Zaytoonah University of Jordan. Prof. Al-Qerem's research area covers improving the diagnosis and management of different diseases. This includes validation and formulation of spirometic equations to improve the diagnosis and management of many respiratory diseases including asthma and COPD, developing population specific growth charts to improve the tracking of children's growth, and to identify undiagnosed conditions and validate different instruments used to evaluate health-related quality of life and adherence to medication.

EXPLORING WOMEN'S MENTAL HEALTH STATUS AFTER BENIGN GYNAECOLOGICAL SURGERIES WITHIN MIDDLE EASTERN CULTURES: A SYSTEMATIC REVIEW

Rana Kurdi
Qatar University, Qatar

Abstract:

Benign gynaecological surgeries performed on women with certain gynaecological conditions have been observed to cause anxiety and depression in these patients, while affecting their body image and sexual health. Middle Eastern communities make it harder for women to recover emotionally because of their traditional beliefs about women's reproductive health. This systematic review analyzes the mental health of women undergoing gynaecological surgeries in Middle Eastern settings to understand and suggest strategies for managing patients. The following databases were utilized to gather studies from the past 20 years: Web of Science, PUBMED, Google Scholar, Scopus, Medline, PsycINFO, Cochrane Library, NCBI, and Elsevier. The keywords included were: "Women's Mental Health", "Benign Gynecological Surgeries", "Hysterectomy", "Endometrial Ablation", "Endometriosis Surgeries", and "Urinary Incontinence Surgeries". A Critical Appraisal Skills Programme (CASP) tool was utilized to assess the quality of studies. The review synthesizes the findings of 26 studies reporting significant psychological effects: increased anxiety and depression, body image disturbances, improvement in quality of life, and sexual function. Physical symptoms have been shown to improve after receiving gynaecological surgeries. However, psychological stress was the main side effect. The affected women also encountered cultural judgment and social norms, leading to depression and low self-confidence. Surgical options show promising outcomes in improving quality of life and sexual function. However, challenges related to body image, self-esteem, and psychological well-being remain vital post-surgery. Healthcare delivery must include services that help patients physically as well as mentally. More studies must evaluate culture-based approaches and monitor patients' emotional progress.

Biography

Rana Kurdi is a lecturer at the department of Public Health at Qatar University and a PhD student at the University of Aberdeen, UK. Ms Rana holds a Bsc degree in Medical Laboratory Technology and a master's degree in public health (Concentration in Epidemiology and Biostatistics) From the American University of Beirut. She worked in laboratory, clinical, and public health research as well as in teaching Epidemiology and Biostatistics courses to undergraduate students in Lebanon, UAE and Qatar. She also worked as students' advisor and program coordinator. Her publications are mainly focused on chronic diseases.

CLİNİCAL EXAMİNATİON OF VARİOUS JAW RACTURES AND EVALUATİON OF OPEN AND CLOSED REDUCTİONS // SİX CASE REPORTS

Tahir Ataözden, Mustafa Mert Başaran and Sema Nur Özüdoğru
Biruni University, Turkey

Abstract:

We planned as a aim of this study To find the best treatmant up to the place of fracture and typ and also chosing the treatment typ (open ore closed reduction ore the mıxture of both two style) We have got six presenting cases İn two fracture is on over angulus ,one was on para-symphysis ,three are on subcondylar region and one was on medial condyl region We managed two of that fractures whith open and closed reduction (Mixed) and the other four we did use closed reduction only Dislocation was observed in only two patient. İn open reduction we did use mini plates ore mini screws healing periods it gets around three weeks up to three months.

The result we dedected the incidence of dislocation belong the condyl fractures is low degree

According to the information obtained from xry search patient was hospitalized for one week and treated whith closed reduction by the way of bimaxillary fixtation in that Case report joint showed a condyle fracture of the left side of condly he was fell on the plastic slide there is no scar injury.Computerized was magnified..prescribed medicals necessary female who fell from the 5th floor was admitted to our institution. Soft tissue injuries were observed in the neck, under the chin, and on the lips and nose of the patient. Neck, mandibula, and nose fractures were diagnosed upon examination. ACT of atlanto-occipital joint showed a symphysis fracture The patient was kept under observation in the intensive care unit for two days due to head trauma, after which she underwent open and closed reduction. Treatment was then continued with the bimaxillary fixation method.mechano terapic effect also has used 32-year-old male involved in a traffic accident was admitted to our institution. A subcondylar fracture was observed.

Biography

Tahir Ataözden was born in 1957 in Edirne. He graduated from the Department of Dentistry in English, Marmara University in 1980. In the same year, he started his doctorate program in the Department of Oral, Dental and Maxillofacial Surgery at Atatürk University. He completed his doctoral program in 1983 with a successful thesis defense. He worked as an Assistant Professor at the same university until 1985. He resigned in 1985 and opened his own clinic in Edirne. In 1987, he succeeded in the exam he took at Marmara University and started to work in Riyadh, Saudi Arabia. He worked at Riyadh Special Dental Center until 1995. He returned to Istanbul in 1995 and opened his own clinic. Apart from his own practice, he worked as an administrator in many health centers in Istanbul until 2019. In 2019, he returned to his academic life as a Doctor lecturer at Kafkas University and gave lectures and clinical studies for three and a half years. He speaks advanced English and intermediate level Arabic.

INTRODUCTORY MATERIAL FOR MARKOV-CHAIN DESCRIPTION OF ABZYMES CATALYSIS

Orchidea Maria Lecian and Sergey Suchkov
Sapienza University of Rome, Italy

Abstract:

The foundational matter for the theoretical analytical Markov-chain representation of abymes catalysis is newly presented. The fundamental matrix is written. The representations of the probability matrices are discussed, which obey the Kolmogorov backward equation and the Kolmogorov forward equations, according to the diverse reaction rates, of which the examples are found in [1) No´e F, Schuette C, Vanden-Eijnden E, Reich L, Weikl TR., Proc Natl Acad Sci USA. 2009 Nov 10,106(45):19011-6; 2) J.A. Smiley, S.J. Benkovic, Proc Natl Acad Sci USA, 91 (1994); 3)P. Wentworth, Y.Q. Liu, A.D. Wentworth, P. Fan, M.J. Foley, K.D. Janda A bait and switch hapten strategy generates catalytic antibodies for phosphodiester hydrolysis Proc Natl Acad Sci USA,95(1998),pp.5971-5975;4)C.F.BarbasIII, A. Heine, G. Zhong, T.Hoffman, S.Gramatikova,R.Bjoernestedt,et al., Broader Scope Science, 278 (1997), 2085-2092.; 5) Daily MD, Yu H, Phillips GN Jr, Cui Q. Top Curr Chem. 2013;337:139-64..].; all this material is given a comprehensive mathematical basis. The Markov states models are newly assessed in the Galerkin representation, where the committors become orthogonal. The time evolution of the eigenvlaues is newly written. The propagation errors, the relative errors and the coarse-grained errors are newly analytically written. The abzymes catalysis is therefore newly framed within a complete analytical mathematical setting of topological shifts; the random errors and the with noise can be incorporated. The non-Markovianities phenomena can be discussed. The difficulties arising from peculiar lag times of the reactions can be overcome. Applications to the new problems, such as those recalled in [Buneva, V.N., Nevinsky, G.A. Exceptional Diversity of Catalytic Antibodies with Varying Activity in the Blood of Autoimmune and Viral Disease Patients. Mol Biol 51, 840–854], are provided with.

Biography

Prof. Orchidea Maria Lecian graduated in Theoretical Physics at Sapienza University of Rome and ICRA in 2005, where she completed her PhD. She was post-doctoral Fellow at IHES (Bures-sur-Yvette, France), AEI-MPI (Potsdam-Golm, Germany) and Sapienza University of Rome. She took part in intensive research prorammes at AEI-MPI (Potsdam-Golm, Germany) and The Fields Institute for Research in Mathematical Sciences (Toronto, Canada) and IHES (Bures-sur-Yvette, France). She has been researcher for SAIA- NS'P (The National Scholarship Programme of the Slovak Republic- National Stipendium Program) as Research grantee and Erasmus Lecturer
at Comenius University in Bratislava (Bratislava, Slovakia), Faculty of Mathematics, Physics and Informatics, Department of Theoretical Physics and Physics Education- KTFDF in 2017-2018. She was Visiting Professor at Kursk State University, Faculty of Algebra, Geometry and Didactics of Mathematics Theory (Kursk, Russia) within the Programme Education in Russia for Foreign Nationals of the Ministry of Science and Higher Education of the Russian Federation in 2022-2023.

She was Assistant Professor at Sapienza University of Rome and has been Associated Professor at Sapienza University of Rome. She has participated in diverse National Conferences and International ones. She is member of several Research Consortia. She is author of research papers, conference papers, review papers, invited papers, five books and one book-chapter. She is editor in-chief and editorial-board member of several reputed international Journals.

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