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3RD GLOBAL VIROLOGY CONGRESS

September 25-26, 2025 | Berlin, Germany

Theme:

Next-Gen Virology: Cutting-Edge Approaches for Viral Disease Management and the Integration of Therapeutics, Innovation, and Global Health Strategies

Sub-themes:

- Viral Evolution and Adaptation: Implications for Public Health
- Advancements in Viral Therapeutics
- Innovations in Viral Genomics
- The Role of Artificial Intelligence in Virology
- Public Health Communication and Education
- Global Health Security and Pandemic Preparedness
- Host-Virus Interactions: Unraveling Molecular Mechanisms
- Emerging Viral Threats: Surveillance, Identification, and Preparedness
- Innovations in Antiviral Therapeutics: From Bench to Bedside
- Vaccine Development and Immunization Strategies: Progress and Challenges
- One Health Approach to Viral Diseases: Integrating Human, Animal, and Environmental Perspectives
- Technological Innovations in Virology: Tools for Detection, Diagnosis, and Research

FUTURE VIROLOGY 2025

https://future-virology.peersalleyconferences.com

2 DAYS WITH MORE THAN 45 SESSIONS, KEYNOTES & ORAL PRESENTATIONS

12+ INNOVATIVE FEATURED SPEAKERS

20+ HOURS OF NETWORKING EVENTS

60+ INTERNATIONAL SPEAKERS

125+ EDUCATIONAL SESSIONS

WHO SHOULD ATTEND?

- Immunologists
- Virologists
- Microbiologists
- Allied Health Professionals
- Pharma & Biotech Industries
- Epidemiologists
- Medical Schools/Colleges
- Hospitals
- Medical Microbiologists
- Pathologists
- Research Labs
- Health Care Professionals
- Nurses
- Physicians
- Biomedical Companies
- Food & Beverage Industry
- Biotechnology Researchers
- Residents, Fellows & Post Docs
- Manufacturing Medical Devices Companies
- Clinicians in Virology
- Clinicians in Microbiology

WELCOME MESSAGE

Jacques Pouyssegur

University Côte d'Azur, France; Scientific Center, Monaco

Dear Colleagues:

I attended as plenary speaker and session Chair

"Future Virology 2024" held in Barcelona sept 22-23, 2024.

This "Future Virology 2024" h`as scientifically been a great success due to the excellence of selected speakers from Japan, USA, EU, Canada... and time allotted to questions in sessions and coffee breaks. It is also my pleasure to report the excellence of the organization, as well as the quality of scientific booklets (abstracts, bio) promoted by Conference Director Annie Shirel.

I strongly recommend my colleagues to attend the next:

3rd Global Virology Congress
September 25-26, 2025
Berlin, Germany

Dear Colleagues and Friends,

On behalf of the scientific committee, it is our great pleasure to announce and warmly invite you to the 3rd Global Virology Congress, scheduled for September 25-26, 2025, in Berlin, Germany. This event, Future Virology 2025, continues the proud tradition of these meetings, offering a platform to showcase the latest breakthroughs in molecular virology and advances in the prevention, diagnosis, and treatment of a wide range of viral diseases.

The congress will provide a global forum with an interdisciplinary approach. Designed to foster insightful exchanges and meaningful discussions, it offers ample opportunities for networking and establishing fruitful collaborations. The event will feature keynote presentations, mini-plenary sessions, posters, and interactive discussions on novel advancements in managing and treating various established, emerging, and re-emerging viral diseases, with special attention to preparing for future pandemics. Key topics will address current clinical challenges, offering valuable insights to help clinicians select the most effective treatments for viral infections. Attendees will also benefit from research findings that are essential to the evolving landscape of virology and viral treatment strategies.

Moreover, the congress serves as an excellent opportunity for virologists, epidemiologists, pathologists, physicians, and all healthcare professionals to exchange best practices, share experiences, and gain expert updates from leading academic and clinical professionals worldwide. Whether you are a young scientist at the start of your career or an experienced researcher with years of accomplishments, this congress offers the ideal platform to stay at the forefront of virology in 2025.

Your participation and contributions will undoubtedly add to the success of the event.
We look forward to welcoming you in Berlin!

Best Regards,
Michael I Bukrinsky
The George Washington University School of Medicine and Health Sciences, USA

Michael I Bukrinsky

The George Washington University School of Medicine and Health Sciences, USA

PRESENTATION FORUM

KEYNOTE FORUM / MINI-PLENARY SESSIONS

Presentations under Keynote Forum or Mini-Plenary Sessions includes abstracts with remarkable research value selected by the program committee. These significant speeches are delivered by globally recognized honorable speakers and it is open to all registrants.

DISTINGUISHED SPEAKERS FORUM (ORAL ABSTRACT SESSIONS)

In this forum, speakers and experts of the research field gets an opportunity to showcase their noble research work that involves comprehensive research findings. These formal oral presentations include a wide range of talks covering basic research to advanced research findings in accordance to the theme and scientific sessions of the conference.

STUDENT FORUM

POSTER SESSION

This session is particularly introduced to encourage more number of student participation at international conferences, however it is not restricted only to students since it is also available for the participants with language barrier. There are specific guidelines to be followed to prepare the poster. Poster topic should be selected only from relevant scientific sessions with in-depth technical details.

YOUNG INVESTIGATORS FORUM

An exclusive opportunity for students and young investigators to present their research work through a formal oral presentation. Young Investigators Forum provides a global platform for young researchers and scholars to showcase their valuable contribution to the scientific world and to get acknowledged by the global scientific community of experts. It is an excellent opportunity to recognize young scientific assets with promising research ideas. These oral presentations are of shorter time duration with 10-15 minutes of informative and precise presentations in relevant scientific sessions.

EDUCATIONAL WORKSHOPS/RESEARCH WORKSHOPS/ CORPORATE WORKSHOPS/MINI- SYMPOSIA

With an aim of transferring knowledge among the participants, workshops are introduced as a part of international conferences. These interactive and occasionally practical sessions gives an opportunity for participants to engage in detail discussion. Workshops are mostly scheduled for 60 to 90-minutes. It may range from learning about a specific topic relevant to international education, products and research which sometimes involves practical demonstration. It helps in enhancing skills, knowledge and understanding of the research field in depth through interactive discussions.

HIGHLIGHTS OF THE DAY SESSIONS

"Highlights of the Day Sessions" is introduced to discuss and focus a ray upon previous day ORAL ABSTRACT presentations by experts to summarise the key findings. It helps in getting better insights into the various dimensions of the topic.

MEET THE PROFESSOR @ NETWORKING SESSIONS

This session involves open discussion between the experts and session attendees, it gives enough time for getting answers to specific questions and doubts. It is an opportunity for attendees to increase their professional networking, sometimes also leads to an excellent collaboration opportunity.

EDUCATIONAL SESSIONS/ TRAINING PROGRAMS

Educational Sessions or training programs are specifically designed for a better understanding of the latest findings and technologies. These are generally 45-minute sessions that gives an exposure to the multidisciplinary field, that provides in-depth learning experiences and address educational needs.

REGISTER & PARTICIPATE

in

FUTURE VIROLOGY 2025

https://future-virology.peersalleyconferences.com

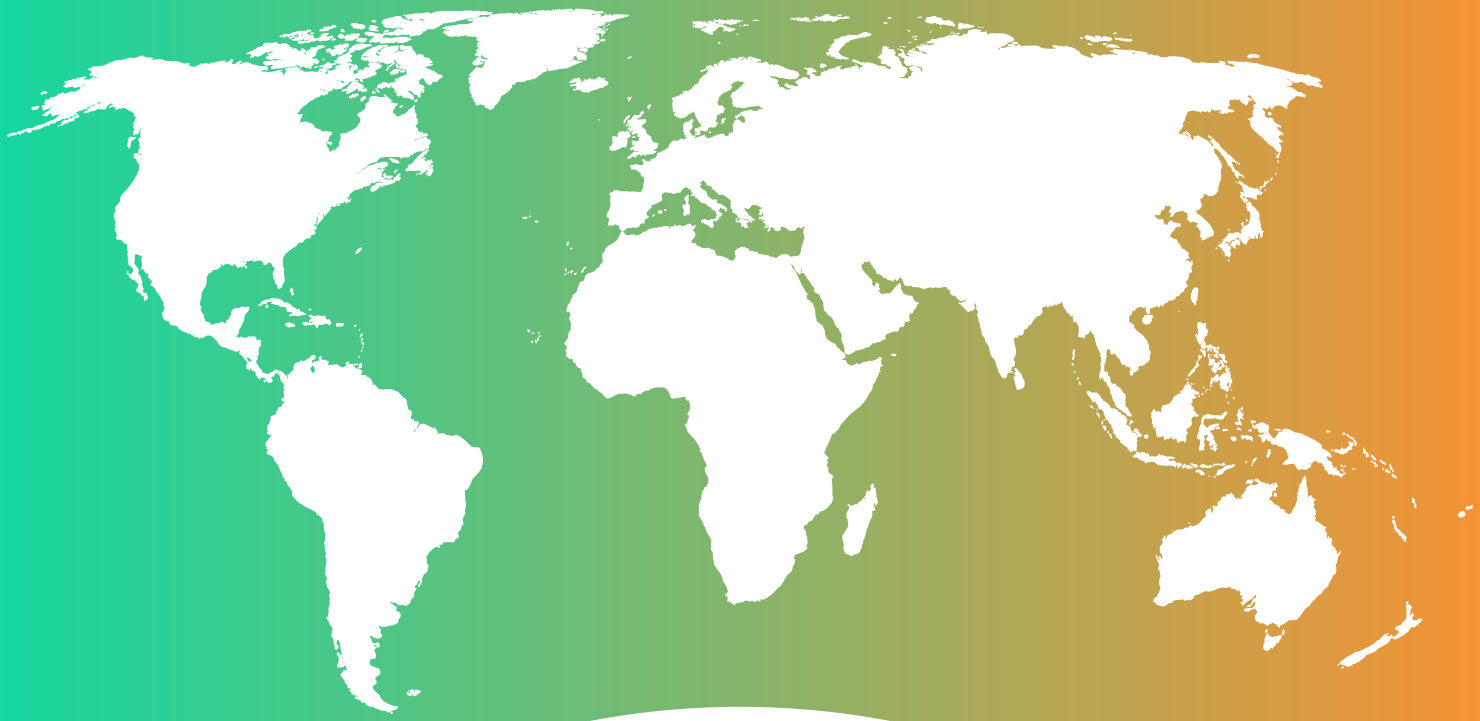
TYPES OF ACADEMIC REGISTRATIONS
Speaker Registration
COMBO A (Registration + 2 Night Accommodation)
COMBO B (Registration + 3 Night Accommodation)
Delegate Registration

TYPES OF BUSINESS REGISTRATIONS
Speaker Registration
COMBO A (Registration + 2 Night Accommodation)
COMBO B (Registration + 3 Night Accommodation)
Delegate Registration

TYPES OF STUDENT REGISTRATIONS
Registration
YIF
COMBO A (Registration + 2 Night Accommodation)
COMBO B (Registration + 3 Night Accommodation)
Posters

TYPES OF ADDITIONAL REGISTRATIONS
Accompanying Person
E-Poster
Virtual Presentation
Workshops
Start-Ups

TIME TO CONNECT



WITH YOUR PEERS

Title: Diverse Head-to-Tail Sequences in the Circular Genome of Human Bocavirus Genotype 1 Among Children with Acute Respiratory Infections Implied the Switch of Template Chain in the Rolling-Circle Replication Model

Speaker Name: Linqing Zhao

Affiliation: Capital Institute of Pediatrics, Beijing, China

Abstract:

Head-to-tail sequences have been reported in human bocavirus (HBoV) 1-4. To reveal their features and functions, HBoV DNA was screened among respiratory specimens from pediatric patients with acute respiratory infection (ARI) between April 2020 to December 2022, followed by HBoV genotyping. Head-to-tail sequences were detected using nested PCR, TA cloning, and Sanger sequencing, which were confirmed by MNGS and amplicon sequencing. The Mfold web server was utilized to predict the secondary structure. The results indicated that head-to-tail sequences were detected in 42 specimens through TA cloning from 351 specimens positive for HBoV1 DNA, yielding 92 sequences into 32 types and 2 categories. Additionally, head-to-tail sequences were detected in 16 specimens by amplicon sequencing, yielding 60 sequences categorized into 23 types. The 374nt type detected in 13 specimens contains variants 374a and 374b, different in the unpaired loop regions of the palindrome or complementary reverse sequences, which implied the switch of template chains in process of replication. The MNGS results in three specimens confirmed the presenting of circular genome in copies below 1%. In conclusion, head-to-tail sequences of HBoV1 were common in children with ARI and high diverse in length and sequences. The variants may be generated by the switch of template chain in the rolling-circle replication model.

Title: The clinical value of P-wave terminal force in lead V1 in evaluating pericardial thickness in tuberculous constrictive pericarditis

Speaker Name: Yanhong Ren

Affiliation: Zhejiang University School of Medicine, Hangzhou, China

Abstract:

Aim To investigate the relationship between p wave terminal force (Ptfv1) and pericardial thickness in patients with tuberculous constrictive pericarditis.

Methods From January 2018 to October 2022, 95 patients with tuberculous constrictive pericarditis who needed pericarditis dissection in a hospital were collected, and 3 patients who did not meet the criteria were excluded, a total of 92 cases. The absolute value of Ptfv1 in conventional electrocardiogram was tested before surgery, and pericardial thickness was measured by echocardiography and chest CT. Pericardial thickness was measured after pericardial dissection. Pearson correlation analysis was used, R software was used to make scatter plot, and non-parametric square test was used. The correlation of postoperative measurements with echocardiography, chest CT and absolute value of Ptfv1 was analyzed. Results Pearson correlation analysis was conducted with postoperative measurements and echocardiography measurements, postoperative measurements and chest CT measurements, and postoperative measurements and absolute value of Ptfv1. Pearson correlation analysis showed that the correlation coefficients between postoperative measurements and echocardiography, chest CT and Ptfv1 values were statistically significant. Scatter plot and nonparametric Chi-square test showed that postoperative measurements were consistent with absolute values of echocardiography, chest CT and Ptfv1 ($p<0.05$). And this study found that the distribution of the value of Ptfv1≥5 was higher than the value of Ptfv1<5 after pericardiectomy (0.95:0.05) in the absolute value of Ptfv1≥0.04 which measured before pericardiectomy. The hypothesis was statistically significant ($p<0.05$).

Conclusion The absolute value of Ptfv1 in electrocardiogram can be used as an auxiliary diagnostic index to evaluate pericardial thickness in tuberculous constrictive pericarditis. Keywords P-wave terminal force in lead V1, Tuberculous constrictive pericarditis, Pericardial thickness.

Title: Transmission Dynamics of Alpha, Delta, and Omicron Variants of COVID-19 in Laos

Speaker Name: Linxiong Wu

Affiliation: Kunming Medical University, China

Abstract:

Objectives: This study aims to investigate the transmission dynamics of the Alpha, Delta, and Omicron variants of SARS-CoV-2 in Laos and assess how non-pharmaceutical interventions (NPIs) and vaccinations affect their spread.

Methods: We developed a transmission model, which included disease reporting, to analyze the spread of COVID-19 in Laos from April 2021 to May 2022. The model accounted for changes in transmission rates due to people's behaviors, control measures, and the emergence of three variants. Bayesian inference was used to calibrate the model to data on confirmed cases, deaths, and recoveries.

Results: The model accurately captured the three waves of COVID-19 in Laos. The Alpha variant had a basic reproduction number (R0) of 1.55 (95% CrI: 1.47–1.64), the Delta variant had an R0 of 1.88 (95% CrI: 1.77–2.01), and the Omicron variant had an R0 of 3.33 (95% CrI: 2.84–3.74). Among the variants, the Delta variant had the highest severity, with a case fatality rate (CFR) of 1.05% (95% CrI: 0.96–1.15%). In comparison, the Alpha variant had a CFR of 0.38% (95% CrI: 0.21–0.60%), and the Omicron variant had a CFR of 0.28% (95% CrI: 0.18–0.39%). Counterfactual simulations indicated that vaccination significantly reduced infections and deaths, even in the presence of immune escape variants.

Conclusions: Even with immunity waning and the escape of new variants, vaccination was still the major contributor to control COVID-19 and combining behaviour changes and vaccination would best suppress future outbreaks of COVID-19.

Title: MIPC, The Universal Antiviral Cells

Speaker Name: M. Fawzy Abdelatty

Affiliation: Heidelberger Center for Cellular Therapy, Germany

Abstract:

MIPC are therapeutic Methylation Induced Pluripotent Cells which are prepared from peripheral blood samples. For patients, these samples can be obtained from autologous, heterologous or xenographic sources. These cells are very potent in infection prevention and control. They have the potential to eliminate infections (viral or bacterial) and antibiotics resistant hospital infections within hours. The preparation and handling of these cells is very simple and has no negative side effects. The cells do not only remove the infection but can also regenerate the organs damaged due to this infection effectively. MIPC will make it possible to start treating a pandemic infection, even before characterizing the microbe. They can even be used as a prophylactic measure in such cases. Examples for treating different pathogens are presented.

Title: HIV-1 budding control by inducible inhibition of ESCRT-III

Speaker Name: Cécile Boscheron

Affiliation: University Grenoble Alpes, CEA, CNRS, France

Abstract:

HIV-1 budding, like many other cellular processes, relies on the Endosomal Sorting Complex Required for Transport (ESCRT) machinery, which is essential for virus release via membrane fission. The core membrane remodeling complex, composed of ESCRT-III and VPS4, is highly conserved. However, understanding the native architecture of ESCRT-III at HIV-1 budding sites is limited due to spatial resolution constraints and its transient recruitment. To overcome this challenge, we developed a drug-inducible tool to transiently inhibit HIV-1 budding by extending the lifetime of ESCRT-III at budding sites. We engineered autoclavable CHMP2A, CHMP3, and CHMP4B fusion proteins with the hepatitis C virus NS3 protease, designed to be converted into VPS4-deficient variants upon NS3 inhibitor treatment. We characterized these CHMP-NS3 fusion proteins through immunoblotting, fluorescence-based localization studies, transmission electron microscopy, and live-cell imaging, both in the presence and absence of the protease inhibitor Glecaprevir. Our results demonstrate that CHMP-NS3 fusion proteins accumulate rapidly and remain stable upon drug administration. CHMP2A-NS3 and CHMP4B-NS3 significantly inhibited virus-like particle (VLP) release, while CHMP3-NS3 alone had no effect but synergized with CHMP2A-NS3. Localization analyses revealed the redistribution of CHMP-NS3 fusion proteins to the plasma membrane, endosomes, and HIV-1 Gag VLP budding sites. Electron and video microscopy further revealed a drug-dependent accumulation of CHMP2A-NS3 and CHMP4B-NS3, leading to delayed HIV-1 Gag-VLP release.

These findings provide novel insights into the functional consequences of ESCRT-III inhibition during HIV-1 budding. Our approach enables precise temporal control over CHMP2A-NS3, CHMP3-NS3, and CHMP4B-NS3 expression, facilitating targeted inhibition of distinct HIV-1 budding stages. Initially developed for HEK293 and HeLa cells, this assay can be adapted to study a wide range of ESCRT-III-driven cellular processes across different cell types.

Title: Alternative Root Canal irrigation solutions which is Non-Cytotoxic And High Antibacterial effectiveness.

Speaker Name: Tahir Ataözden

Affiliation: Biruni University, İstanbul, Turkey

Abstract:

Aim: Root Canal irrigation solutions and medicine in endodontic treatment is available for to use alternative materials (N acetyl cysteine, boric acid, (chitosan) different concentrations mouse fibroblast cell L929 for to Check the Cytotoxicity and Q. aureus Biofilms for to check 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 concentration, N Acetyl cysteine (NAC) 50 mg/ml- 0.39 mg/ml between 8 in different concentration, 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 37ºC 18 hour incubation was released. Study Results group intra- and groups inter- data by comparison analysis was done.

Findings: Positive control group the one which… To NaOCl according to all experiment groups more is cytotoxic. Chitosan 128 microgram/ml also first acute toxic the effect of has shown. Q. Aureus on MIC value whereas 0.031 mg/ml is. Antimicrobial dose on the border toxic has been found. 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 antimicrobial dose on the border 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 all in their concentrations and time in the intervals - best antimicrobial agent found however -most cytotoxic aspect has been observed.

Conclusion: Experiment in groups used NAC and Boric Acid antimicrobial dose borderline cytotoxicity in terms of other from groups moreGood has been found.

Title: Predicting Immune Dysfunction and Clinical Outcomes Through TTV-Virome Analysis in COPD Patients

Speaker Name: Patrizia Russo

Affiliation: Life Promotion San Raffaele University, Italy

Abstract:

Introduction: The non-pathogenic Torquetenovirus (TTV) is the main representative of the Anelloviridae family. Studies have shown that immunocompromised patients exhibit higher TTV viral loads in the blood compared to healthy controls (≥ 4 log10 copies/mL), which is associated with increased clinical frailty and poor prognosis (patients with COPD). The primary aim of this study is to determine whether TTV viral load (≥ 4 log10 copies/mL) in the blood can serve as a reliable marker of immune system functionality and, consequently, as an indicator of a more favorable or unfavorable prognosis in a cohort of COPD patients.

Methods: Serum samples from 102 COPD patients were collected and analyzed using real-time polymerase chain reaction (RT-PCR) to quantify TTV viral load. PBMCs, stored in liquid nitrogen, were used for immunophenotypic analysis of circulating T lymphocytes (CD45, CD3, CD4, CD8, CD45RA, CD197, CD183, CD184, CD186, CD127, CD25) thus allowing the evaluation of cytotoxic T lymphocytes, regulatory T cells, and Th1, Th2, and Th17 subsets.

Statistical analysis was performed using SPSS software, version 23. The heterogeneity of contingency tables was assessed using Fisher's exact test. Differences in data distribution were calculated using the non-parametric Mann-Whitney test. Correlations between non-normally distributed continuous variables were evaluated using Spearman's rho coefficient.

Results: Among the patients, 62.75% had TTV viremia levels > 4 log10 copies/mL. Higher TTV viremia correlated with a reduction in CD8 lymphocytes and a significantly lower 5-year survival probability.

Conclusion: Patients with TTV levels ≥ 4 log10 copies/mL exhibited the lowest survival probability, likely due to reduced immunological activity. This study raises key scientific questions regarding the role of TTV in COPD. Specifically, it explores whether TTV may serve as a potential marker of poor prognosis in COPD and whether rehabilitation strategies for these patients could be tailored based on immunological status and/or viremia levels.

Title: Precision Mapping of Influenza A Virus RNA Dynamics and Antiviral Responses Using an Advanced CRISPR- Cas12 Platform

Speaker Name: Tran Anh Tu

Affiliation: Chang Gung University, Taiwan

Abstract:

Influenza A virus (IAV) remains a significant global health threat, necessitating advanced tools to decode viral behavior and inform therapeutic strategies. Here, we introduce a groundbreaking CRISPR-Cas12-based platform that precisely distinguishes and quantifies viral RNA species—vRNA, cRNA, and mRNA—across the infection cycle. This platform achieves unparalleled sensitivity, detecting as few as 100 RNA copies, and delivers a tenfold improvement in speed and accuracy compared to traditional methods. Focusing on viral segments 5 (NP) and 6 (NA), our study revealed novel early infection dynamics, including an unexpected vRNA decline within 0–40 minutes post-infection, followed by recovery, challenging existing replication models. We validated the platform across MDCK and A549 cells, a mouse model, and clinical nasopharyngeal samples, demonstrating its robustness and translational relevance. Its broad detection range (10^2–10^{10} copies) enables comprehensive monitoring of RNA kinetics from early to late infection stages.In addition to RNA dynamics, we evaluated the effects of antiviral drugs—Baloxavir, Favipiravir, Molnupiravir, and Ribavirin— highlighting their distinct impacts on RNA synthesis at various stages of infection. These findings offer critical insights into drug mechanisms and their influence on viral replication. Looking ahead, we aim to refine and validate this platform through high- resolution time-course analyses of viral RNA dynamics, focusing on the early infection stage where we observed the novel vRNA pattern. These studies will integrate live-cell imaging to visualize real-time RNA changes and RNA stability assays to elucidate the mechanisms behind these dynamics. Furthermore, we will investigate ribonucleoprotein (RNP) complex dynamics and their role in RNA stability and function. Building on these findings, we plan to optimize the platform for zoonotic and avian influenza strains, enabling strain-specific RNA dynamics detection and contributing to understanding virulence and transmission. Expanding to other clinically significant RNA viruses, this adaptable system holds the potential to transform viral diagnostics, deepen our understanding of viral biology, and accelerate antiviral drug development.

Title: Capacity-building performance in the biological confirmation of bacterial meningitis in the Democratic Republic of the Congo in 2021

Speaker Name: Berthe Noelle

Affiliation: Democratic Republic of the Congo

Abstract:

Context: Bacterial meningitis is a major cause of mortality worldwide, particularly in the Democratic Republic of the Congo. The main causative pathogens are *Neisseria meningitidis, Streptococcus pneumoniae*, and *Haemophilus influenzae*. However, its etiological diagnosis remains difficult to establish in low-income countries due to a lack of equipment, reagents, consumables, and insufficient capacity-building efforts. Our objective is to assess the effectiveness of capacity-building in the biological confirmation of bacterial meningitis.

Methods: Cerebrospinal fluid (CSF) samples were collected and inoculated into Trans-Isolate medium (culture), while another portion was placed in a dry tube for Polymerase Chain Reaction (PCR) analysis. Samples were obtained from suspected cases meeting the standard case definition from patients in the Tshopo province of the Democratic Republic of the Congo. Culture was performed on-site in Tshopo, while molecular biology analyses were conducted at the National Institute of Biomedical Research laboratory.

Results: Since the beginning of the epidemic, from June to December 2021, a total of 231 cerebrospinal fluid samples were collected, of which 47 tested positives by molecular biology (20%). Among them, 43 (92%) were *Neisseria meningitidis* W, 2 (4%) were *Streptococcus pneumoniae*, and 2 (4%) were *Haemophilus influenzae* type b. The same samples were cultured, with 14 cultures testing positive (6%), including 13 (93%) for *Neisseria meningitidis* W and 1 (7%) for *Haemophilus influenzae* non-type b. Furthermore, PCR analysis of the 231 CSF samples detected 20% of bacterial meningitis cases, whereas culture only detected 6%.

Title: CRITICAL REFLECTION REGARDING HOW THE CONFEDERATION OF AFRICAN FOOTBALL HAS MANAGED THE OUTBREAKES OF CORONAVIRUS AND EBOLA

Speaker Name: David Bogopa

Affiliation: Nelson Mandela University, South Africa

Abstract:

The outbreaks of both ebola virus and coronavirus caught the Confederation of African Football napping in 2014 and 2019 respectively. On both counts, the CAF planned football fixtures were brought to a halt. Part of the problem is that the 2014 Africa Cup of Nations Tournament was cancelled due to the outbreak of ebola in West Africa countries. Moreover, the 2020 Africa Cup of Nation Tournament could not take place because of coronavirus outbreak. This paper provides a critical reflection on the CAF administrative capabilities in matters pertaining to the management of viruses. The objectives of this research are two-fold, firstly, the investigation of the CAF strategic interventions in dealing with viruses. Secondly, proposing recommendations with the view of resolving problems. This is a mixed method study which include qualitative and quantitate approaches. A sample of 20 participants constitute the interviews conducted for the study. Good governance is used in this research as a conceptual framework to understand the CAF modus operandi. The preliminary results reveal that CAF need to devise some drastic measures to avoid future risk of cancelling football events.

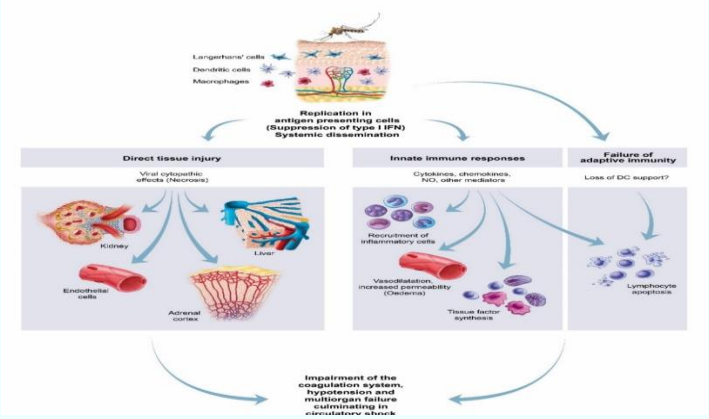
Title: Natural Rift Valley fever virus infection in sheep and alpaca as a model of the pathogenic mechanism of the disease

Speaker Name: Lieza Odendaal

Affiliation: University of Pretoria, South Africa

Abstract:

Rift Valley fever (RVF) phleboviral (RVFV) is mosquito-borne and causes mortality and morbidity in ruminants, camelids and humans. The virus is likely maintained at low levels in tropical environments where sporadic clinical cases and abortions are overlooked. During episodes of above-normal rainfall, devastating epidemics occur. Cases in animals always precede human cases, including miscarriage. However, due to limited surveillance, RVF is often diagnosed in humans before being noted in livestock. Therefore, the principal objective of this study was to describe the host response and viral antigen distribution in the organs of sheep and alpacas in different age groups and propose an updated hypothesis of the pathogenesis of RVF. Samples (n=260) were obtained from animals that died naturally from RVF in an epidemic and studied using post-mortem examination, histology, and immunohistochemistry. The placenta (n=35) was also examined. The most frequently observed lesion is random necrosis, particularly in the liver. Lesions supportive of vascular endothelial injury are effusions in body cavities and oedema. Viral antigen is prominent in endothelial cells and macrophages in many organs. In the kidney, viral antigen is in the peri-macular cells including the juxtaglomerular and granular extraglomerular mesangial cells. Lymphocyte necrosis is pronounced in lymphoid tissues and other anatomical locations where lymphocytes occur. The early targets of the virus are likely Dendritic cells or macrophages in the skin. RVFV spreads systemically, following suppression of type I IFN production which results in infection and necrosis of cells in many organs. Failure of both the innate and adaptive immune responses to control infection is exacerbated by apoptosis of lymphocytes. An excessive pro-inflammatory cytokine and chemokine response leads to microcirculatory dysfunction. Additionally, impairment of the coagulation system results in widespread haemorrhages. Fatal outcomes result from multiorgan failure, oedema in many organs (especially the lungs and brain), hypotension and circulatory shock.



Title: Mitochondria mediated immunomodulation associated with SARS-CoV2 pathogenesis

Speaker Name: Reshu Saxena

Affiliation: Amity School of University Punjab, India

Abstract:

The COVID-19 disease caused by the severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) has emerged as a fatal pandemic. This virus has been shown to invade the mitochondria of immune cells and impair their functions causing cell death. Disrupting the mitochondria-immune cell interactions could be a promising therapeutic strategy for COVID-19. The study aims to provide a mechanistic insight into the interaction between coronavirus and mitochondrial biology in immune cells. Here, we utilized K18-hACE2-Tg mice model to understand the mitochondrial modulation associated with SARS-CoV-2 infection. Using Flow cytometric analysis, microscopy and qPCR studies perturbations in Mitochondrial biogenesis and dynamics was seen in immune cells post SARS-CoV2 infection. Further, an increase in ROS and mitophagy was observed in immune cells indicating a decline in mitochondrial activity and potential involvement of mitochondria in SARS-CoV-2 infection. OXPHOS-Glycolysis study through kit-based assay and SCENITH assay with flow cytometric analysis showed reduced ATP production and metabolic switching within T cells upon infection. Thus, mitochondrial health may become a biomarker for SARS-CoV-2 infection risk and progression. A mechanistic insight into the mitochondria mediated intervention of immune cells in SARS-CoV2 pathogenesis is crucial to understand the disease process and identify potential drug targets.

Title: Neutrophil to lymphocyte ratio: Association with microcirculatory changes detected by nail fold Capillaroscopy in scleroderma patients and its relation to disease severity

Speaker Name: Rahma Ahmed Soliman Ahmed Elziaty

Affiliation: Ain Shams University, Egypt

Abstract:

Microvascular alteration in scleroderma patients is well documented. Microcirculatory changes can be visualized by nailfold capillary microscopy (NFC) examination which is a safe and noninvasive technique. This study aims to identify possible association between neutrophil-to-lymphocyte ratio (NLR) and microvascular changes detected by nailfold capillaroscopic examination in scleroderma patients.

Results

The study was conducted on 25 patients with systemic sclerosis. On studying the correlation of NLR with laboratory parameters, we found significant positive correlations with erythrocyte sedimentation rate “ESR” and C-reactive protein “CRP” values ($p = 0.000$). Regarding the clinical manifestations, higher NLR was significantly related to the presence of digital ulcer ($p = 0.023$) and Raynaud’s phenomenon ($p = 0.015$). There was significantly negative relation between NLR with cyclophosphamide treatment. Regarding NFC examination’s results, there was significant negative correlation of NLR with capillary number/mm ($p = 0.000$) and significant positive correlation of NLR with capillary width ($p = 0.005$), and a significant relation of NLR with the presence of capillary hemorrhage and presence of active scleroderma pattern ($p = 0.010$) was also reported.

Conclusion

High N/L ratio as a marker of inflammation was found to reflect severity of systemic sclerosis and is associated with larger capillary diameter and lower capillary number in nailfold capillaroscopy. Active scleroderma pattern was associated with high N/L ratio. Further longitudinal studies are needed to determine the frequency of nailfold video-capillaroscopy and N/L ratio.

Title: Innovative Use of Green Synthesis Gold Nanoparticles in Dual Function: Drug Delivery and Photothermal Therapy

Speaker Name: Shaimaa M. I. Alexeree

Affiliation: Cairo University, Egypt

Abstract:

Gold nanoparticles (AuNPs) have garnered significant attention in biomedical applications due to their unique physicochemical properties, which enable dual functionality in drug delivery and photothermal therapy (PTT). This abstract investigates the potential for AuNPs to work in concert as therapeutic agent carriers and as efficient agents for localized hyperthermia in the treatment of cancer. The ability of AuNPs to absorb light, particularly in the near-infrared (NIR) spectrum, facilitates their use in PTT. Upon NIR irradiation, AuNPs undergo localized surface plasmon resonance (LSPR), converting absorbed light energy into heat, which induces hyperthermia and selectively destroys tumor cells. This photothermal effect can be finely tuned by modifying the size, shape, and surface chemistry of the nanoparticles, allowing for enhanced targeting and reduced off-target effects. In addition to their photothermal capabilities, AuNPs serve as versatile drug delivery systems. Their high surface area-to-volume ratio allows for the conjugation of various therapeutic agents, including chemotherapeutics and nucleic acids. This targeted delivery is achieved through functionalization with ligands that recognize specific biomarkers on cancer cells, thereby enhancing the accumulation of drugs at tumor sites while minimizing systemic toxicity. Recent advancements in nanoparticle design have led to multifunctional systems that integrate both drug delivery and photothermal therapy. By encapsulating chemotherapeutic agents within AuNPs that also exhibit photothermal properties, it is possible to achieve a synergistic therapeutic effect—enhancing drug efficacy while simultaneously applying localized heat to the tumor.

Title: Efficacy and Safety of CT-P47 versus Reference Tocilizumab: 32-Week Results of a Randomized, Active-Controlled, Double-Blind, Phase III Study in Patients with Rheumatoid Arthritis, including 8 Weeks of Switching Data from Reference Tocilizumab to CT-P47

Speaker Name: Jakub Trefler

Affiliation: National Medical Institute of the Ministry of the Interior and Administration, Poland

Abstract:

Background:

CT-P47 is a biosimilar of tocilizumab developed for the treatment of rheumatoid arthritis (RA), targeting the interleukin-6 receptor. The objective of this phase III study was to compare the efficacy, safety, pharmacokinetics (PK), and immunogenicity of CT-P47 with reference tocilizumab (r-TCZ) in patients with moderate-to-severe RA. Here, we present Week 32 results only.

Methods: This multicentre, double-blind study randomized patients 1:1 to receive either CT-P47 or r-TCZ (8 mg/kg) every 4 weeks. After 20 weeks of treatment, patients receiving r-TCZ were re-randomized to either continue r-TCZ or switch to CT-P47. The study's primary efficacy endpoints were the change from baseline in Disease Activity Score 28 (DAS28) at weeks 12 and 24. Secondary endpoints included ACR response, remission rates, and PK. Safety and immunogenicity profiles were also assessed.

Results: A total of 471 patients were randomized (234 to CT-P47, 237 to r-TCZ). At week 12, the change from baseline in DAS28 was −3.01 for CT-P47 and −3.00 for r-TCZ, with treatment differences within predefined equivalence margins. At week 24, the change from baseline in DAS28 was −3.77 for CT-P47 and −3.67 for r-TCZ. Secondary efficacy outcomes, including ACR responses (ACR20, ACR50, ACR70), remission rates, and EULAR responses, showed comparable improvements between groups up to week 32. Safety profiles were similar, with no significant differences in adverse events, and no significant immunogenicity issues were observed during that time.

Conclusions: The results of this study demonstrate that CT-P47 is equivalent to r-TCZ in terms of efficacy, with comparable safety, PK, and immunogenicity profiles in patients with RA, including after switching from r-TCZ to CT-P47. These findings support the use of CT-P47 as a suitable alternative to r-TCZ for the treatment of RA.

Title: Generative Attention Mechanisms for Chest X-Ray Medical Image Synthesis and Diagnosis of Pediatric Pneumonia

Speaker Name: Kakooza Williams

Affiliation: Uganda and Makerere university, Uganda

Abstract: Pediatric pneumonia poses a significant global health challenge, requiring timely and accurate diagnosis through chest X-rays. While deep learning models offer promising advancements in diagnostic accuracy, their adoption in clinical practice is hindered by two major barriers: the scarcity of high-quality, well-annotated, and balanced datasets and the lack of transparency in model decision-making processes, often referred to as the "black-box" nature of AI. This study aims to overcome these challenges by leveraging generative AI to address dataset limitations and explainable AI (XAI) techniques to enhance model transparency and trustworthiness among clinicians. The research focuses on synthesizing pediatric chest X-ray images, evaluating classification models, and implementing explainable mechanisms to support decision-making in medical imaging. Generative Adversarial Networks (GANs) were employed to generate diverse synthetic pediatric chest X-ray images, with random noise to mitigate mode collapse during training. Using transfer learning, four classification models—Vision Transformers (ViT), Graph Convolutional Networks (GCN), VGG16, and a custom Convolutional Neural Network (CNN)—were developed and evaluated. Accuracies of 85.0%, 99.6%, 79.3%, and 75.0% were achieved, respectively. Graph Attention Networks (GAT) were integrated into GCNs to capture intricate relationships, while interpretability techniques such as Generative Adversarial Saliency Maps, Gradient Attention Rollout, Integrated Gradients, and Grad-CAM were applied to provide visual insights into model decisions. GANs effectively addressed dataset scarcity, enhancing the diversity of training data. GCN achieved the highest classification accuracy of 99.6%, supported by GAT for improved explainability. Saliency maps and gradient-based methods provided clear visualizations of model reasoning. This comprehensive approach demonstrates the potential of generative and explainable AI in advancing pediatric pneumonia diagnosis. By addressing data limitations and fostering model interpretability, this work paves the way for greater trust and adoption of AI-driven diagnostic tools in clinical settings.

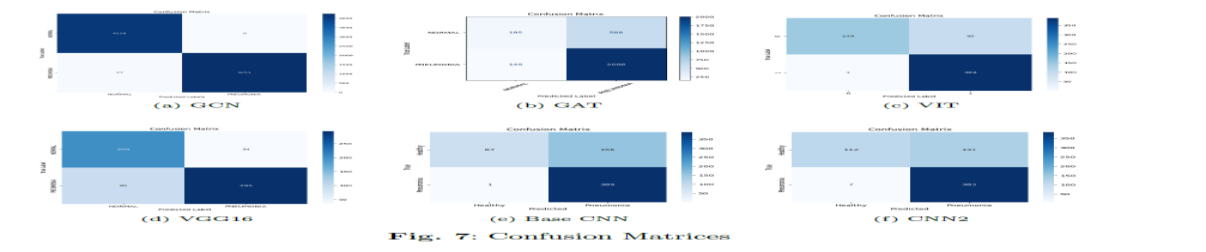


Fig. 7: Confusion Matrices

Model	Accuracy	Class	Precision	Recall	F1_score	Support
GCN	99.68	Normal	0.99	1	1	4118
		Pneumonia	1	0.99	1	4278
GAT	75	Normal	0.57	0.25	0.35	783
		Pneumonia	0.77	0.93	0.84	2155
VIT	85	Normal	0.99	0.61	0.76	243
		Pneumonia	0.8	1	0.89	390
VGG16	79.3	Normal	0.68	0.85	0.76	234
		Pneumonia	0.9	0.76	0.82	390
Base CNN	75	Normal	0.99	0.36	0.53	243
		Pneumonia	0.71	1	0.83	390
CNN2	78	Normal	0.94	0.46	0.62	243
		Pneumonia	0.75	0.98	0.85	390

Title: Use of a fractional dose of inactivated polio vaccine (fIPV) to increase IPV coverage among children under 5 years of age in Somalia

Speaker Name: Hiirad Mohamed Mohamoud

Affiliation: United Nations Children's Fund (UNICEF), Somalia

Abstract:

Background: Global efforts reduced incidence of polio cases from 350,000 in 1988 to 22 cases in 2022 globally. There have been no wild poliovirus (WPV) cases seen in Somalia since August 2014. However, in 2017, there was a surge in the number of cases of circulating vaccine-derived poliovirus type 2 (cVDPV2), even with different intervention responses using monovalent oral polio vaccine type 2 (mOPV2). This study aimed to assess the use of fractional inactivated polio vaccine (fIPV), a smaller dose of the polio vaccine, equal to 1/5 of a standard dose, as an innovative polio vaccination delivery model, and identify the main opportunities for and challenges to the use of fIPV in the future for vaccinations.

Methods: The study used two designs: a quasi-experimental design used to pilot fIPV in five districts and a cross-sectional study using both quantitative and qualitative approaches to collect primary data. A simple random sampling method was used to select 2 out of the 5 pilot districts for household surveys to study 768 participants. Key informant interviews and focus-group discussions were used to collect data from key frontline health workers and health/immunization officials involved in the campaigns. Secondary data from the pilot campaigns were analyzed, such as admins tentative pilot data, lot quality assurance sampling (LQAS) and post-campaign communication assessments.

Results: A total of 131,789 children aged 4–59 months were included for the pilot. Among these, 126,659 (96.1%) and 126,063 (95.6%) children were vaccinated in rounds 1 and 2, respectively. Out of the 768 households assessed, 99.9% had their children vaccinated. Nearly half of the few children who were not vaccinated were reported to be due to the parent of the child not being at home (48%). Ninety-seven percent of the qualitative study interviewees were satisfied with fIPV injection and recommended its use for routine immunization.

Conclusions: The study findings are promising in the use of fIPV in mass campaigns to realize better coverage and global polio eradication. fIPV will potentially be used by policymakers in the design of polio eradication campaigns that integrate the fIPV vaccine into routine or supplementary immunization.

Title: Remedies and Vaccinations Against Infectious Diseases in the Ottoman Balkans (16th–18th Centuries)

Speaker Name: Yana Mihaylova Georgakieva

Affiliation: Sofia University, Bulgaria

Abstract:

This paper explores the remedies and practices related to the prevention and treatment of infectious diseases as recorded in several Ottoman medical manuscripts preserved in the Oriental Department of the National Library of Bulgaria, with particular attention to marginal recipes. While various remedies were recommended, the emergence of rudimentary vaccination practices against smallpox was also observed and documented by Western travelers.

The study draws upon these medical manuscripts, many of which contain marginal notes reflecting the practical and popular medical knowledge of the time. These marginalia, often written by non-expert practitioners or readers, provide valuable insights into the circulation and adaptation of medical knowledge outside formalized medical texts. The recipes frequently include herbal ingredients, protective amulets, and other prophylactic measures against infectious diseases, highlighting the coexistence of scientific and folkloric approaches to disease prevention.

Additionally, this paper addresses the accounts of Western travelers who documented effective vaccination techniques against smallpox practiced in the region, thereby providing further insight into the dissemination of preventive methods.

This research contributes to the broader understanding of Ottoman medical history and regional responses to infectious diseases, emphasizing the importance of manuscripts as living documents that capture both official and vernacular medical traditions.

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Speaker Slots Filling Quickly

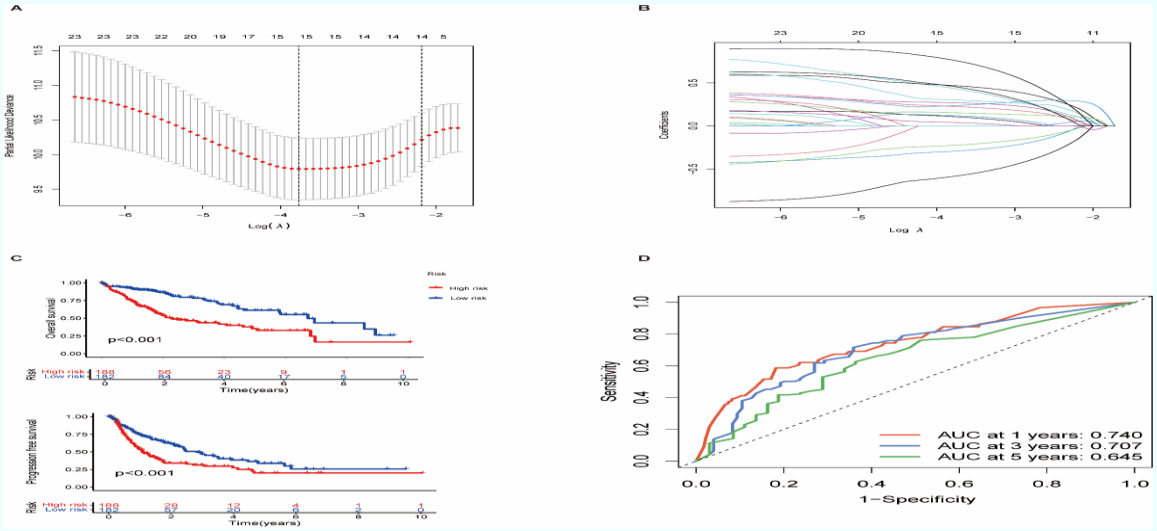
Title: A Novel Ubiquitination-Related Gene Signature for Overall Survival Prediction in Patients with Liver Hepatocellular Carcinoma

Speaker Name: Senlin Li

Affiliation: Southern Medical University, Guangzhou, China

Abstract:

Liver Hepatocellular Carcinoma (LIHC) is a highly heterogeneous disease, necessitating the discovery of novel biomarkers to enhance individualized treatment approaches. Recent research has shown the significant involvement of Ubiquitin-related genes (UbRGs) in the progression of LIHC. However, the prognostic value of UbRGs in LIHC has not been investigated. In this study, the mRNA expression profiles and clinical data were obtained from public databases of LIHC patients. The least absolute shrinkage and selection operator (LASSO) Cox regression model was employed to construct a multigene signature in the TCGA cohort. Our results showed that a twelve UbRGs signature was developed to categorize patients into two risk groups, with significant differences in expression between LIHC and normal tissues. Patients in the high-risk group exhibited significantly reduced overall survival (OS) and progression-free survival (PFS) compared to those in the low-risk group. The risk score was identified as an independent predictor for OS in multivariate Cox regression analyses. Receiver operating characteristic (ROC) curve analysis confirmed the predictive capacity of the signature. Functional analysis revealed enrichment of immune-related pathways and differences in immune status between the two risk groups. The risk score was correlated with 35 Transcription Factors (TFs) and 26 eRNA enhancers, and positively associated with Tumor Mutation Burden (TMB). Patients in the high-risk group demonstrated decreased sensitivity to targeted and chemotherapeutic drugs than those in the low-risk group. In conclusion, our study identified a twelve UbRGs signature that may serve as a prognostic predictor for LIHC patientsand and provide valuable insights for cancer treatment.



Title: Structural Violence of Neoliberalism: Health in Ruins in Times of a Pandemic

Speaker Name: VIJAY KUMAR YADAVENDU

Affiliation: Patliputra University, India

Abstract:

STRUCTURAL VIOLENCE is a generic term for political, economic, and all forms of social structural oppression. The world lives in this era of social and economic chaos and gradients of expropriation, dispossession, and inequality. Over the last half century, across the globe, both corporate capitalism and rights are constantly mutating and evolving. In this paper, my central argument is that the prevalent radicalized social and public health inequalities are embedded in this neoliberal economic model of the market and the "profit-first" philosophy that encompasses both structural politics and economics. History is witness to the fact that hegemonic corporate neoliberalism legitimizes increasing inequalities and inherently perpetuates a systemic injustice of dispossession, exploitations, and violence. The structural violence of neoliberalism has eroded the foundational ethics and logic of the political legitimacy of the state and collectivity.

Even during the dark times of the zoonotic spillover pandemic of COVID-19, the preexisting social health inequality increased exponentially. This long pandemic has exacerbated the fragility and fissures of the existing global social order and its discrimination, prejudices, and inequalities due to systemic social and class-related issues. It has also rationalized structural violence and disaster capitalism that has furthered the consolidation of state-sanctioned surveillance, disciplinary confinement, and unprecedented social and political control. In this scenario, the socio-psychological dispositions intertwined with market mechanisms strengthen the case for an individual-centric profit-making private sector in health care, which effectively forfends the dynamics of the interaction of individuals and their environment with its consequent impact on health.

Title: Development of an innovative antiviral textiles

Speaker Name: Narayanan Gokarneshan

Affiliation: Department of Textile Chemistry, India

Abstract:

Cotton textiles are ubiquitous in daily life and are also one of the primary mediums for transmitting viruses and bacteria. Conventional approaches to fabricating antiviral and antibacterial textiles generally load functional additives onto the surface of the fabric and/or their microfibers. However, such modifications are susceptible to deterioration after long-term use due to leaching of the additives. Here we show a different method to impregnate copper ions into the cellulose matrix to form a copper ion-textile (Cu-IT), in which the copper ions strongly coordinate with the oxygen-containing polar functional groups (for example, hydroxyl) of the cellulose chains. The Cu-IT displays high antiviral and antibacterial performance against tobacco mosaic virus and influenza A virus, and Escherichia coli, Salmonella typhimurium, Pseudomonas aeruginosa and Bacillus subtilis bacteria due to the antimicrobial properties of copper. Furthermore, the strong coordination bonding of copper ions with the hydroxyl functionalities endows the Cu-IT with excellent air/water retainability and superior mechanical stability, which can meet daily use and resist repeated washing. This method to fabricate Cu-IT is cost-effective, eco-friendly and highly scalable, and this textile appears very promising for use in household products, public facilities and medical settings.

Title: Eco-Friendly Cotton Fabric Treatment with Henna and Babool Bark for Antibacterial and UV Protection

Speaker Name: Neetapoonia

Affiliation: Department of Apparel and Textile Science, India

Abstract:

The textile processing industry faces significant environmental challenges due to the high chemical content in its effluents, particularly synthetic dyes. To mitigate these effects, two primary strategies are implemented: developing efficient effluent treatment systems and adopting eco-friendly dyes and mordants. Natural dyes, sourced from tree waste or easily cultivated plants, have gained global attention as a sustainable alternative. This study explores the application of natural dyes on cotton fabrics and evaluates their potential to enhance functional properties. Since natural dyes often require metallic salt mordants to improve dye uptake and fastness, their affinity for fibers like cotton can be limited. To overcome this challenge, the study utilizes bio mordants—specifically henna and harad—to enhance cotton fabric dyeability. Additionally, it examines their impact on the fabric's antibacterial and ultraviolet (UV) protection properties. The results reveal that babool bark-dyed cotton fabric, pretreated with henna and hared; exhibits improved dye absorption, UV protection, and antibacterial activity. Notably, henna-treated fabric demonstrates significant bacterial reduction (93.35% against E. coli and 88.07% against S. aureus) and superior UV protection, achieving a UPF rating of 56.89. The combination of henna treatment and babool bark dyeing enhances dye absorption, producing darker shades with higher UPF values. This study underscores the potential of bio mordants and natural dyes as sustainable alternatives in textile processing, offering an eco-friendly approach to improving cotton fabric properties while reducing the environmental impact of conventional chemical treatments.

Title: Accelerated cognitive aging in chronically infected HIV-1 positive individuals despite effective long-term antiretroviral therapy

Speaker Name: P. L. Natarajan

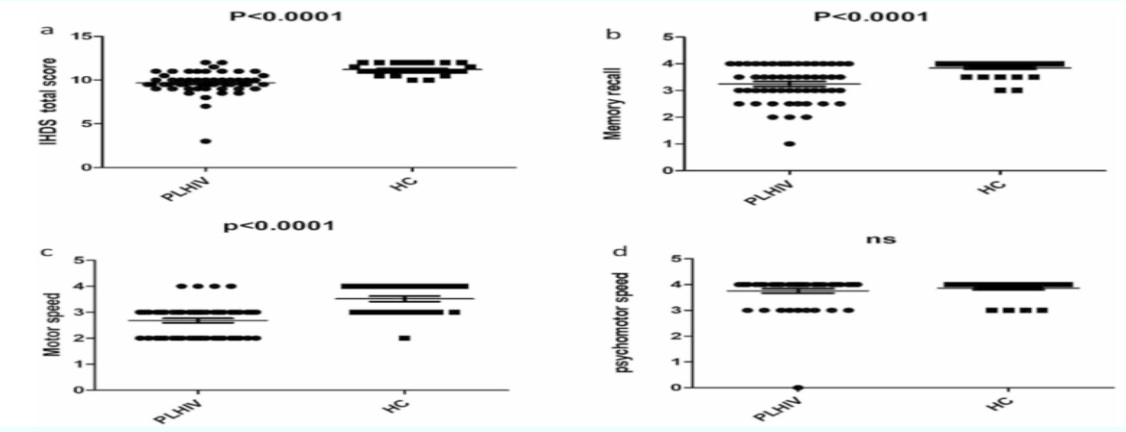
Affiliation: ICMR-National Institute for Research in Tuberculosis, India

Abstract:

Objectives / Scope: People living with HIV (PLHIV) are known to be at a higher risk of developing an array of aging-related diseases despite well-adhered combined antiretroviral therapy (cART). The present study aimed to investigate the impact of chronic HIV infection on neurocognitive function in virally suppressed PLHIV.

Methods: This cross-sectional study enrolled HIV-positive individuals (PLHIV; n = 32; on uninterrupted cART) randomly from a tertiary care ART Centre in Chennai, South India. HIV-uninfected individuals matched for age and gender served as Healthy Controls (HC). All individuals provided a detailed clinical history and underwent neuropsychological assessment using the International HIV Dementia Scale (IHDS). Plasma proteome analysis was per-formed using the Proximity extension assay (PEA) with the Olink® neuroexploratory panel, and untargeted metabolomics was performed using Ultra-High-Performance Liquid Chromatography/Mass Spectrometry/Mass Spectrometry.

Results: Despite a median duration of 9 years on first-line cART and suppressed viremia, a significant proportion of PLHIV registered significant levels of asymptomatic neurocognitive impairment, with 71% of these individuals scoring ≤ 10 in the IHDS test. We also observed significant alterations in a number of proteins and metabolites that are known to be associated with neuroinflammation, neurodegeneration, cognitive impairment, and gastrointestinal cancers, in the PLHIV group.



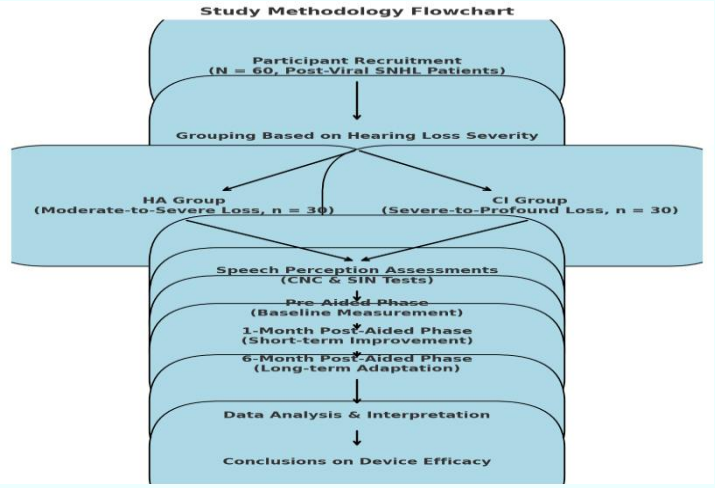
Title: The Role of Hearing Aids and Cochlear Implants in Post-Viral Hearing Loss: A Speech Perception Analysis

Speaker Name: Sunder Bukya

Affiliation: Mahindra University, India

Abstract:

Background: Viral infections, including cytomegalovirus (CMV), measles, mumps, rubella, and COVID-19, have been identified as causes of sensorineural hearing loss (SNHL). Post-viral hearing loss, particularly high-frequency sloping SNHL, significantly affects speech perception. While hearing aids (HAs) and cochlear implants (CIs) serve as primary rehabilitative options, their efficacy in restoring speech perception among post-viral SNHL patients remains underexplored. This study evaluates the impact of amplification devices on speech perception by analyzing pre- and post-aided conditions. Methodology: A cohort of 60 individuals (ages 18–55) with confirmed post-viral SNHL was recruited. Participants were categorized into two groups: (1) moderate-to-severe loss fitted with hearing aids (HA group) and (2) severe-to-profound loss fitted with cochlear implants (CI group). Speech perception was assessed using the Consonant-Vowel Nucleus-Consonant (CNC) word test and the Speech-in-Noise (SIN) test. Evaluations were conducted in three phases: (1) Preaided phase: Baseline speech perception scores were recorded; (2) Short-term post-aided phase: Speech perception was reassessed after one month of device use; (3) Long-term post-aided phase: A final evaluation was conducted after six months. Results: All participants' speech recognition scores were significantly reduced in the pre-aided phase. One-month post-aid fitting, CNC scores improved by 30% and SIN scores by 25% in the HA group, while the CI group showed a 45% and 40% improvement, respectively. At six months, CNC and SIN scores increased by 50% and 40% in the HA group, while the CI group exhibited superior gains of 70% and 65%. Conclusion: Both HAs and CIs significantly enhance speech perception in post-viral SNHL, with CIs offering superior long-term benefits. Early intervention and tailored rehabilitation strategies are crucial for optimizing outcomes. Future research should explore neuroplasticity and speech perception recovery to refine device programming.



Title: Should we test and treat the fever triggers or the fever that creates the immune system against the fever triggers?

Speaker Name: Yacob Mathai Kunnathazhath.

Affiliation: Marma Health Centre, India

Abstract: **Fever is one of the least knowledgeable topics in modern science.**

Looking at medical journals and medical books, modern science does not even know the basic facts about fever. Modern science does not know what the purpose of fever is, what fever is, what to do to get a fever, how to diagnose it, and how to treat it because of a lack of precise definition.

What are the triggers of fever? What are they?

Fever triggers are substances and their actions that trigger the immune system to induce fever. These substances reduce heat, increase inflammation, and reduce blood flow.

Fever triggers include water below body temperature, soft drinks, ice cream, weather, medications including paracetamol[2] that reduce body heat and increase inflammation, etc. Decreased blood flow due to severe inflammation is the sole trigger for fever. Any substance that is cooling or reducing temperature (antipyretic) is a fever stimulant because it increases inflammation and reduces blood flow. Antipyretics are the only substances needed to induce fever in any organism. By using antipyretics in anyone, anyone can reduce the body's heat energy and cause inflammation and fever within a few hours.

The causes of fever triggers, the triggers of fever, and the substances produced by the immune system fight against the triggers of fever, their functions are not the same, and they are opposite to each other.

Fever triggers caused by external factors are always harmful to the body, but a fever that builds immunity against it is always beneficial to the body.
Fever is the body's defense mechanism against the triggers (inflammation) of fever.

The current definition of fever does not mention any fever-triggering substances. Therefore, fever triggers are not included in fever testing or treatment.

Rather than identifying and eliminating the triggers of fever, today's definition, testing, and treatment focus on identifying and eliminating the substances the immune system produces to fight against the triggers of fever. **Today's fever treatment destroys the substances that create immunity against the triggers of fever and increase the triggers of fever.**

In addition, today fever is diagnosed and treated as hyperthermia, the opposite of fever. Eliminating fever, which creates immunity against fever stimuli, and treating fever as hyperthermia will increase morbidity and mortality. It is not a treatment according to any scientific law in the world today, but a murder attempt. **The treatment of fever triggers is to reduce fever triggers.** The only solution against fever triggers is to increase blood flow and reduce inflammation. This is an immutable scientific fact. **The basic elements necessary for a scientific treatment are not provided in fever treatment.**

Fever should be checked and treated, not for the fever, but for its triggers. The only solution against fever triggers is to increase blood flow and reduce inflammation. This is an immutable scientific fact.

Title: Transcriptomic molecular signatures for the evaluation of inflammation in viral infections

Speaker Name: Edward Hitti

Affiliation: King Faisal Specialist Hospital & Research Centre, Saudi Arabia

Abstract:

Human genes are highly regulated at the level of post-transcription including the control of mRNA decay and translation. Conserved sequence elements like AU-rich elements (AREs) are located within mRNAs and promote decay. They can respond to inflammatory signaling and alter protein expression during different phases of inflammation. Morbidity and mortality in viral infection patients have been associated with dysregulated inflammation, a process that include aberrant post-transcription.

RNA-seq data from transcriptomic studies were used to investigate possible differential expression of mRNAs that contain AREs after viral infections. ARE-mRNAs turned out to be significantly more upregulated after viral infections, in vitro, compared to non-ARE mRNAs. The ARE-response was noticeably different between different viruses. ARE-mRNAs were also preferentially upregulated in the blood of COVID-19 patients. The level of the ARE-response could be linked to the severity status of patients. We also show that globally, ARE-mRNAs had a tendency to become downregulated after glucocorticoid (GC) treatment. A drug regularly used in the treatment of COVID-19 patients. Several ARE-mRNAs were, however, exceptionally strongly upregulated by GC treatment. The upregulated ARE-mRNAs tend to code for anti-inflammatory mediators like DUSP1 and ZFP36. mRNA stability experiments indicate that not only the downregulated, but also the upregulated ARE-mRNAs are destabilized by Dex-treatment. We propose that the overall outcome of GC treatment results in the decrease of mRNA abundance of pro-inflammatory ARE-mRNAs by destabilization while enhancing the levels of anti-inflammatory ARE-mRNAs by transcription that overcomes destabilization

Our observations contribute to the understanding of the effect of viral infection and treatment at a transcriptomic scale. The differential post-transcription between viruses and patients may be used to for the assessment of patient severity status and response to treatment

Title: Stromal tumor-infiltrating lymphocyte levels are associated with immune checkpoint proteins in triple negative breast cancer patients receiving neoadjuvant chemotherapy

Speaker Name: Bushra Wasim Khan

Affiliation: Ziauddin University, Pakistan

Abstract:

Stromal tumor-infiltrating lymphocytes (TILs) are currently being considered as a prognostic factor in triple-negative breast cancer (TNBC) and their association with the tumor immune microenvironment is less clear. To address this knowledge gap, we aimed to evaluate the expression and association of Programmed cell death-1 (PD-1), its ligand (PD-L1) and lymphocyte activation gene-3 (LAG-3) checkpoint proteins with TILs in neoadjuvant chemotherapy (NACT) treated TNBC patients. Patients (n=54; aged 24-45 years) were classified into two groups: thirty-nine received anthracycline-containing, taxane- (A+T group) and fifteen received anthracycline/taxane /carboplatin (A+T+C group) in combinations. Immunohistochemistry (IHC) and hematoxylin and eosin (H&E)-staining were used for the evaluation of PD-1, PD-L1, LAG-3 and TIL respectively in TNBC patients' biopsies who received NACT. Among 54 TNBC patient biopsies, twenty patients showed PD-L1 positive expression (66.67%) on tumor cells, significantly associated with a larger tumor size (p=0.036). However, the clinical response rate was greater (92.31%) with carboplatin based NACT, with a significant reduction in tumor size in thirty-nine patients. In the same group, PD-L1-positive tumor cells showed a significant result (p=0.0001) in fifteen patients with high TILs (93.75%). There were intermediate levels of TILs among nineteen patients (100%) with LAG-3-positive immune cells and only ten patients (25.64%) had high TIL levels (p=0.0001).

TILs are the most reliable immune markers and are significantly associated with PD-1, PD-L1 and LAG-3 in carboplatin based NACT treated group of TNBC patients. Anti-PD-1/PD-L1 and anti-LAG-3 therapy alone or in combination with chemotherapy may be promising treatments for a subset of TNBC patients.

Title: MASS MEDIA AND THE PROMOTION OF SUSTAINABLE HEALTH IN NIGERIA: THE COVID-19 EXPERIENCE

Speaker Name: Adenike Omotayo Okeya

Affiliation: Ajayi Crowther University

Abstract:

The media is crucial in nation building as the government can hardly survive without effective use of the mass media and this is where sustainable health in Nigeria comes in. It is no longer news that in December 2019, the world woke up to the report of a novel viral infection, coronavirus (COVID-19), with its first case reported in China's Wuhan territory. The upper respiratory tract virus has since been called a global pandemic after cases were recorded in most continents. It is also an established fact that a lot of people have lost their lives and loved ones to this disease. This study looked at mass media and the promotion of sustainable health in Nigeria using the covid-19 experience as a focus. The theoretical framework used for the study is the agenda setting theory. The paper observed that media played an active role in creating awareness at the early stages of the covid-19 pandemic but after sometime the media did not pay much attention to sustaining the awareness. The paper concludes that the media is very vital to the promotion of sustainable health in Nigeria and recommends that the mass media must ensure that promotion of sustainable health in Nigeria continues by using all the media platforms known to communicate to the people.

Title: The effects of melatonin supplementation on neurobehavioral outcomes and clinical severity in rodent models of multiple sclerosis; a systematic review and meta-analysis

Speaker Name: Amirreza Naseri

Affiliation: Tabriz University of Medical Sciences

Abstract:

Background: Through the antioxidant and anti-inflammation pathways, melatonin is proposed as a safe and effective intervention in neurological diseases. This study aims to evaluate the effects of melatonin supplementation on the neurobehavioral and clinical outcomes in animal models of multiple sclerosis (MS).

Methods: This study was conducted following the PRISMA statement. Animal studies that reported the effects of melatonin in preclinical MS models, including the experimental autoimmune encephalomyelitis (EAE) and cuprizone model for demyelination are included in this study. A systematic search in PubMed, Web of Science, Embase, and Scopus up was conducted in April 2023. The collaborative Approach to Meta-Analysis and Review of Animal Experimental Studies (CAMARADES) critical appraisal tool was used for the quality assessment of the studies and the quantitative synthetizes were conducted using the comprehensive meta-analysis software.

Results: Out of 542 studies, finally 21 studies, including 14 studies in the EAE model and 7 studies of the toxic demyelination method with cuprizone were included. The route of administration was intraperitoneal in 18 studies, oral in 2 studies, and subcutaneous in 1 study. The quantitative synthesis of the EAE clinical severity scale was associated with significant differences (standardized mean difference [SDM]: -2.52; -3.61 to -1.42; p-value<0.01). In subgroup analyses, the difference was statistically significant in the mouse subgroup (SMD: -2.60; -3.74 to -1.46; p-value<0.01).

Discussion: This study encountered that melatonin may be associated with improved behavioral and cognitive outcomes of preclinical models of MS with acceptable safety profiles.

Title: Effect of Sunset Yellow on Testis: Molecular Evaluation, and Protective Role of Coenzyme Q10 in Male Sprague-Dawley Rats

Speaker Name: Zahra khodabandeh

Affiliation: Shiraz University of Medical Sciences

Abstract:

Objectives: In recent years, Sunset Yellow (SY) has been widely used as a food additive, sparking debates about its potential toxicity. This research aims to investigate SY's effects at both the molecular and histopathological levels, along with the protective benefits of Coenzyme Q10 (CoQ10) supplementation in male rat testes.

Methods: Forty-two male Sprague-Dawley rats were randomly divided into six groups (n = 7) and given daily oral gavages for six weeks. The groups included: a low dose of Sunset Yellow (2.5 mg/kg/day), a high dose of Sunset Yellow (70 mg/kg/day), CoQ10 (10 mg/kg/day), CoQ10 with the low dose of Sunset Yellow, CoQ10 with the high dose of Sunset Yellow, and deionized water as a control. After anesthesia, the rats' testes were removed for molecular and histological analysis.

Results: The findings showed a dose-dependent rise in the expression of oxidative stress genes (Sod, Gpx, and Cata) and a notable decrease in the expression of the steroidogenic acute regulatory (Star) gene (P value < 0.05) with increasing SY doses. Histological results supported these outcomes. Additionally, there was no significant distinction between rats treated with CoQ10 along with low doses of Sunset Yellow (CoQ10+LD) and control rats given low doses of Sunset Yellow (SY-LD).

Conclusions: This study illustrates that SY, as an artificial food dye, has harmful effects on the male reproductive system, while the utilization of CoQ10 can alleviate the negative impacts of SY exposure.

Title: Samuel Darling returns from the tomb - Advanced AIDS still challenges medicine: a case report

Speaker Name: Gabriel Moreira Accetta

Affiliation: São Paulo State University, Brazil

Abstract:

Samuel Darling was an American pathologist, born in 1872, who during his work in Panama in 1905, described an invasive cell pathogen causing an unlicensed endemic illness, which was pursuing with whitish granulomatous lesions in lungs, liver, spleen, and bone marrow. At the time, Darling noted that this microorganism, along with the lesions it caused, had histological characteristics similar to those found in cells affected by the AMASTIGOTA form of protozoa of the genus Leishmania spp., And thus presented them as a new pathogenic species than described as a microorganism oval shaped, wrapped in a colorless capsule, like the protozoan Leishmania, and named *Histoplasma capsulatum*.

Male patient, 63 years old, from Piraju -SP, has been referred in emergency room at the Botucatu Hospital das Clínicas complaining of inappetence, weakness and abdominal pain associated with diarrhea, as well as weight loss of about 10 kg in about 3 months.

Patient also reveals that 1 month ago he had started with cough associated with night sweats. Regarding the clinical picture, research and diagnosis is carried out with HIV seropositive testing. In determining its symptomatology with external adjacent exams such as high digestive endoscopy an oroesophageal moniliasis and colonoscopy examination with colon biopsy histopathological diagnosis (HSTP) of intestinal leishmaniosis.

Opted to hospitalize the patient, for treatment: moniliasis oroesophagian and leishmaniasis and investigation of other possible opportunistic infections.

He carried out an active investigation with identification of: Cryptococcus neoformans, tuberculosis and CMV.

In instituting research of the pulmonary for OI with bronchoscopy procedure was identified in pulmonary biopsy, alveoli filled with vacuotalized macrophages, “foamy”, showing in the cytoplasm numerous small gem spores, characteristic of pulmonary histoplasmosis. Given this fact, the possibilities of diagnosis error in the external examination of the colon HTP were served, due to similarities known in the histopathological aspect of intestinal infection by histoplasma and leishmania in their form of amastigote. Being requested from the Pathology Service of the Hospital das Clínicas de Botucatu, the revision of the external laboratory blades. Concluding that the first sample performed was also histoplasmosis in the intestinal site.

This clinical case brings up a reflection on that even after 10 decades since the discovery of the etiological agent *Histoplasma capsulatum* it is also possible to find diagnostic failures that may affect the patient's erroneous treatments. Especially in patients living with AIDS. Therefore, so far, the year 2025, there is also the reflection of risky arbitrics by health professionals about the realization of inaccurate diagnoses.

Title: Knowledge, attitude and acceptance regarding bone marrow transplantation in caregivers of beta-thalassemia major patients

Speaker Name: Purva Reddy Jayaram

Affiliation: Bangalore Medical College and Research Institute, India

Abstract:

Objective: Knowledge, Attitude, and Acceptance regarding Bone marrow transplantation in caregivers of beta-thalassemia major patients.

Methods: A cross-sectional study was conducted among the caregivers of pediatric patients with beta-thalassemia major in blood transfusion centres in Bangalore, India. Their knowledge, attitude, and acceptance regarding bone marrow transplantation were assessed using a validated questionnaire. The study aimed to identify factors that influence caregivers' decision about bone marrow transplantation.

Results: Among 500 participants, 449 completed the questionnaire (response rate 89.9%). The predominant portion of participants were male, the majority of whom had either a high school or undergraduate degree. A little more than half the participants belonged to below the poverty line . The knowledge, attitude, and acceptance of the caregivers towards bone marrow transplantation were shown to depend on gender, education and socio-economic status of the care-giver. The results of this study revealed that male caregivers generally exhibited higher levels of knowledge and had a better attitude towards bone marrow transplantation as compared to their female counterparts. Furthermore, higher education and socio-economic status were associated with better knowledge, more favourable attitudes and a higher acceptance towards the procedure.

The side effects and fatalities seen post transplantation, fear of failure of the procedure, fear of fatality, and the pain associated with the procedure were factors that further influenced their decision. Economic difficulties and the inability to find a suitable match were other note-worthy barriers especially in a developing country such as India.

Title: Exploring STK3 in melanoma: a systematic review of signaling networks and therapeutic opportunities

Speaker Name: Matin Baghani

Affiliation: Shahid Beheshti University of Medical Sciences

Abstract:

Melanoma is an aggressive cancer that disregards both the MAPK and Hippo signaling pathways. This systematic review explores STK3 function in the Hippo pathway to regulate networks and its therapeutic potential in melanoma. From 1991 to 2024, we studied how STK3 interacts with the MAPK/ERK pathway to promote apoptosis and inhibit tumor growth. A comprehensive literature search was conducted using MEDLINE, Google Scholar, Scopus, and Web of Science databases. Our analysis revealed that STK3 controls cell growth, apoptosis, and metastasis via the Hippo and MAPK pathways, functioning as a melanoma tumor suppressor. Key therapeutic strategies identified include direct STK3 activation, inhibition of downstream effectors like YAP/TAZ, and combination approaches with existing BRAF inhibitors. Despite these advancements, challenges in STK3 drug development persist, warranting further investigation. This review provides critical insights into STK3's role in melanoma pathogenesis and identifies potential vulnerabilities for therapeutic intervention.

Title: A Cloud-Centric Approach to Digital Preservation in Institute of Virology Libraries: Advancing Future Research Innovations in Developing Countries

Speaker Name: Hassan Mallam Ibrahim

Affiliation: Nasarawa State University

Abstract:

Long-term access to research data and intellectual resources, especially in specialized libraries including virology research institutes in developing nations, depends on proper digital preservation. However, these initiatives face significant challenges, including technical know-how, inadequate funds, and technology obsolescence, in carrying out sustainable digital preservation services. Traditional on-premise solutions are often costly and difficult to scale, necessitating the adoption of innovative alternatives. To improve the provision of information services in institutes of virology libraries. This paper examines a cloud-centric approach to digital preservation. It offers a comprehensive framework that incorporates five essential elements: organization, human, social, technological, and environmental. It assesses potential barriers to adopting cloud-enabled digital preservation for advancing future research in virology. The framework places a strong emphasis on choosing suitable cloud-based preservation platforms, putting strong data security and storage plans into place, and developing human competencies through regular training. Furthermore, it presents cutting-edge service delivery models that make use of cloud computing to provide effective and dynamic access to virology research resources, especially in collaborative research settings and virtual learning environments. This study fills in gaps in the literature by addressing specific challenges faced by virology institute libraries in developing nations and offers solutions for long-term digital preservation. Subsequently, by demonstrating the revolutionary potential of cloud-enabled strategies in ensuring scalable, cost-effective, and user-focused library services, the proposed framework underscores the urgent need for such services in the virology research community. It supports the critical role that libraries at virology research institutes play in advancing global health advancement and emphasizes the importance and impact of their work.

Title: Epidemiological studies on lower respiratory tract infection in children in the District Bannu

Speaker Name: Muhammad Ashraf Khan

Affiliation: Elementary and Secondary Education Department, Pakistan

Abstract:

Objectives: The study demonstrated the prevalence of lower respiratory tract infections in children admitted to the Women and Children Hospital Bannu from February through November 2019.

Scope: Lower respiratory tract infections are the leading cause of death in children globally

Methods: The cross-sectional study was conducted by obtaining indoor data from the official record maintained in the children's wards of the District Women and Children Hospital, Bannu.

Results: Males accounted for 649 (61.6%) and females 405 (38.4%) cases out of 1054 cases of the disease. Age group of ≤ 6 months showed 36.2% prevalence, followed by >6 m ≤1y (25.6%), >1y≤2 y (17.1%), >2 y≤5 y (14.3%), >5 ≤ 10 y (6.0%), and>10 y≤15 y (0.8%). Pediatric patients of age ≤ 2 y and ≤5 y contributed 78.9% and 93.3% to overall disease, respectively. The disease was at its peak in February (17.9%) while lowest in May (5.5%). The age group (≤6 m) was the dominant group in all months except August when replaced by the age group (>6 m≤1y). The disease revealed higher prevalence during February-April and October-November.

Conclusions: Different age groups showed variation in the prevalence of the disease with an age group of ≤5 y contributing the largest share and seasonal peaks in the disease occurred. The present findings help in adopting strategies for effective control of the disease in different age groups of the children for their peak season.

Title: Continuous Improvement and Innovation During Covid-19 in East Africa: Implications for Future Tourism Policy and Planning

Speaker Name: KIPKOSGEI BITOK

Affiliation: Kenyatta University

Abstract:

Continuous improvement and innovation are important attributes of tourism growth and business success. However, the spread of the COVID-19 pandemic created a new threat to global and Africa's health, wellbeing, and the economy of people. The pandemic highlighted a critical need for public health capacity and a call for improvements and innovations within the tourism industry. The objectives of this paper include an assessment of the impact of COVID-19 on the tourism industry in East Africa; analysis of the innovations and digitization initiatives in hospitality and tourism sectors in the region during the pandemic; and exploration of policies and plans of innovation for rebuilding the post-pandemic tourism industry. The scope of the study covers the East Africa region, where innovations in the hospitality and tourism sectors showcase significant milestones in fighting pandemic spread and encouraging international travel and tourism. Several research methods were employed to review the literature and analyze the data, using a mixture of secondary sources of data. The secondary data sources included a review and analysis of a range of publications on the status of continuous improvements and innovations from the region, and documentation from the Partner States on the status of hospitality and tourism sectors. The findings provide an analysis of policy research on the linkages between continuous improvements during COVID-19 and the performance of tourism at the regional and national or domestic levels. The findings evaluated innovations in the tourism industry during and after the pandemic period across East Africa. The paper propounds a continuous improvements and innovation framework for tourism during and post-COVID-19, and recommends unique opportunities for rethinking policies and plans for rebuilding tourism.

Title: PREVALENCE OF PROTECTIVE LEVELS OF ANTI-HBs ANTIBODIES AMONG 15–17YEAR OLD ADOLESCENTS IN KAWEMPE DIVISION

Speaker Name: Joan Nambafu

Affiliation: Makerere University, Uganda

Abstract:

Liver related cancer and cirrhosis mortality rates have been reduced globally by the Hepatitis B vaccine however decay still happens. We aimed at determining the prevalence of breakthrough HBV infections and the prevalence of protective levels of vaccine specific anti-HBs antibody titers amongst 15–17-yearold adolescents in Kawempe division, Kampala, Uganda. A cross-sectional study. Sample size: 288 participants. The results showed; Males;149, Females;139. First dose recipients; 26Second dose recipients; 45 and Third dose recipients; 217.Combo test results: Participants at exposure: Acute infections; 4, Chronic infections;3 and vaccine protected 60. Titer test results: Responders; 22 and non-responders were 43. In conclusion Hepatitis B vaccine 3 dose coverage was good at 75.4% due to introduction of the HBV birth dose and screening of pregnant mothers however more awareness programmers are required. The study revealed an exposure rate of 76.7% for adolescents who had primarily been vaccinated owing this to genetics, Storage, Usage of overdue medicines and incompletion of HBV doses. The prevalence of acute and chronic infections in our study was moderately high at 1.5% and 1.0% respectively due to indulgence in sexual intercourse at a young age plus having many sex partners, Use of drugs, Body piercings and body tattooing plus not knowing the HBV status especially to young mothers. There was a low prevalence of protective anti-body titers at 33.8% possibly due to genetics. We request for similar studies to see whether nutritional status, Gender and ethnicity do affect vaccine intake.

Title: In silico and in vitro investigation of the role of galactose-specific C-type lectin in transmission of the West Nile virus through Culex pipiens

Speaker Name: Javad Dadgar Pakdel

Affiliation: Pasteur Institute of Iran

Abstract:

Background: The West Nile virus (WNV) poses a significant public health challenge due to its potential to cause West Nile fever (WNF) and neuroinvasive diseases such as encephalitis and meningitis. Mosquitoes from the Culicidae family, particularly Culex (Cx.) pipiens, are key vectors in the transmission of WNV, making effective vector control strategies vital for preventing outbreaks. The mosquito's galactose-specific C-type lectins, notably mosGCTL-1, play an essential role in pathogen binding through its carbohydrate recognition domain (CRD). However, the potential of this molecule as a candidate for a transmission-blocking vaccine (TBV) has not yet been explored.

Methods: The initial phase involved an Insilco study to predict the interaction between the mosGCTL-1 epitopes with MHC-II molecules. The binding affinity of L-fucose and CTLM, as the high-affinity ligands for the C-type lectin, as a receptor, was evaluated through docking studies. Following this, laboratory experiments assessed the infection rates of female Cx. pipiens in the presence of polyclonal antibodies and WNV.

Results: The Insilco analyses indicated that the target molecule is well-presented by the MHC-II and has the potential features to elicit a robust antibody response. Docking results were encouraging and correlating with the about 30% blocking activity of WNV in Cx. pipiens in our in vitro assay.

Conclusions: The findings suggest that mosGCTL-1 could be a minor component of the WNV transmission process. It is evident that a multitude of other lectin-dependent molecules, including DC-SIGN and CLEC5A, warrant further investigation in future research.

Title: The effect of organic and inorganic decavanadates compounds on the viability of both IGR39 and MDA-MB-231 cell lines

Speaker Name: KSIKSI Regaya

Affiliation: University of Tunis El Manar

Abstract:

Decavanadates compounds are known for their biological activities such as: insulin-mimetic, antineoplastic, antiparasitic and antimicrobial properties [1-2]. Interestingly, several research works have shown the significant antitumor activity of decavanadate compounds on several cancer cell lines [3] and some of the studied decavanadate compounds exhibit low toxicity in vivo [4]. In this work, we will study the effect of some organic and inorganic decavanadate compounds on the viability of IGR39 and MDA-MB-231 cell lines. The molecules were prepared by slow evaporation at room temperature. The structural characterisation, performed by X-ray diffraction on a single-crystal. This study was evaluated using the standard MTT (3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide) assay. Different effects were obtained depending on the nature of the cation. In this work we will give a comparative study according to the structure of the molecules tested. These work contributed to better understand the structure-function relationship of the decavanadate compounds, in order to develop the next generation antitumor drugs, targeting specific cancer cells.

Title: The effects of melatonin supplementation on neurobehavioral outcomes and clinical severity in rodent models of multiple sclerosis; a systematic review and meta-analysis

Speaker Name: Amirreza Naseri

Affiliation: Tabriz University of Medical Sciences

Abstract:

Background: Through the antioxidant and anti-inflammation pathways, melatonin is proposed as a safe and effective intervention in neurological diseases. This study aims to evaluate the effects of melatonin supplementation on the neurobehavioral and clinical outcomes in animal models of multiple sclerosis (MS).

Methods: This study was conducted following the PRISMA statement. Animal studies that reported the effects of melatonin in preclinical MS models, including the experimental autoimmune encephalomyelitis (EAE) and cuprizone model for demyelination are included in this study. A systematic search in PubMed, Web of Science, Embase, and Scopus up was conducted in April 2023. The collaborative Approach to Meta-Analysis and Review of Animal Experimental Studies (CAMARADES) critical appraisal tool was used for the quality assessment of the studies and the quantitative synthetizes were conducted using the comprehensive meta-analysis software.

Results: Out of 542 studies, finally 21 studies, including 14 studies in the EAE model and 7 studies of the toxic demyelination method with cuprizone were included. The route of administration was intraperitoneal in 18 studies, oral in 2 studies, and subcutaneous in 1 study. The quantitative synthesis of the EAE clinical severity scale was associated with significant differences (standardized mean difference [SDM]: -2.52; -3.61 to -1.42; p-value<0.01). In subgroup analyses, the difference was statistically significant in the mouse subgroup (SMD: -2.60; -3.74 to -1.46; p-value<0.01).

Discussion: This study encountered that melatonin may be associated with improved behavioral and cognitive outcomes of preclinical models of MS with acceptable safety profiles.

CONCURRENT EDUCATIONAL SESSIONS

THURSDAY - SEPTEMBER 25, 2025

- General Virology
- Antiviral Research

- Antiviral Drug Discovery and Development
- Coronavirus Disease (COVID-19)

GROUP PHOTO | COFFEE BREAK

- Medical Virology
- Emerging and Re-emerging Viral Diseases

- Translational Virology in Pregnancy
- AIDS Research and Therapy
- Tropical Medicine and Hygiene

LUNCH BREAK

- Medical Virology
- Emerging and Re-emerging Viral Diseases

- Clinical and Diagnostic Virology
- Current Opinion in HIV and AIDS

COFFEE BREAK

- Pediatric Viral Infectious Diseases
- Tumour Virus Research
- Vector-Borne and Zoonotic Diseases

- Viral Hepatitis
- Viral Immunology
- Viral Oncology
- Viral Vaccines
- NeuroVirology

CONCURRENT EDUCATIONAL SESSIONS

FRIDAY - SEPTEMBER 26, 2025

- Plant and Agricultural Virology
- Gut Pathogens

- Insect vector and virus epidemiology
- Diagnosis And Treatment Of Infectious Diseases

GROUP PHOTO | COFFEE BREAK

- Viral Vectors
- Vaccines
- Virus-Cell, Virus-Microbe, and Virus-Host Interactions

- Viral Vectors
- Vaccines
- Virus-Cell, Virus-Microbe, and Virus-Host Interactions

LUNCH BREAK

- Gene Delivery
- Immune Responses and Viral Modulation of Immune Responses

- Viral Structure and Assembly
- Arboviruses
- Influenza (Flu)
- Zika Virus

COFFEE BREAK

- Staphylococcal Infection
- Tuberculosis
- West Nile Virus

- Herpes
- Hepatitis
- Ebola
- Dengue

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Holocaust Memorial

Jüdisches Museum

Soviet Memorial

Rixdorf

Great Art at the Van Gogh Museum

Hop-On Hop-Off Bus and Boat

Oude Haven, Rotterdam

Oude Kerk's Tower

SPEAKER'S TESTIMONIALS

BARCELONA

SEPTEMBER 23-24

FUTURE VIROLOGY 2024

https://future-virology.peersalleyconferences.com/

Excellent quality of talks from Japan, USA, EU Canada, at Future Virology 2024. It contributes excellent for my professional development even for a just retired scientist.

Great speakers from US, EU Japan and EXCELLENT coverage of the meeting organization as well as excellence in booklets!!

Congratulations Annie!!!

JACQUES POUYSSEGUR

UNIVERSITY CÔTE D'AZUR, FRANCE; SCIENTIFIC CENTER, MONACO

Given the wide spectra of covered topics, the quality of talks at Future Virology 2024 was good. For the next event, I would suggest focusing on viral immunology issues related to human medical virology. I established useful contacts that may lead to future collaboration.

You did an excellent job organizing the event and selecting speakers.

MICHAEL I BUKRINSKY

THE GEORGE WASHINGTON UNIVERSITY SCHOOL OF MEDICINE AND HEALTH SCIENCES, USA

The quality of the talks at Future Virology 2024 were good. Since my subject material was so different than the other presentations, there was not a lot I was able to gain from the other talks that I could apply to my own work. However, speaker selection was fine. In the future, a little bit more focus on subtopics would be helpful so that talks would complement each other better.

MARK A. FEITELSON

TEMPLE UNIVERSITY, USA

The quality of talks at Future Virology 2024 was excellent, all speakers were edge experts in the presented topic, and the talks themselves were very interesting and enriching, at least to me, and I think for everybody as there were a good number of questions in most of them reaffirming the interest of the audience.

I am veterinarian and epidemiologist working with epizootic outbreaks of animals and zoonotic diseases, so many of the talks were not directly related to my area of work, but they were very interesting for my personal domain. The few talks on animal health topics were very interesting and I made good contacts with all of them that will be explored for further communication between us.

I would like to applause specially the one health approach considered in the talk selection which contribute to the practical implementation of this important concept bringing together human and animal health along with research.

GERMAN CACERES GARRIDO

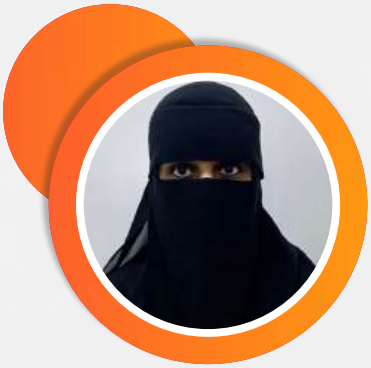
MINISTRY OF AGRICULTURE, FISHERIES AND FOOD (MAPA), SPAIN

The Quality of talks at Future Virology 2024 was very hard!

New ideas for the research and possibilities to create new collaboration groups.

FILOMENA FIORITO

UNIVERSITY OF NAPLES FEDERICO II, ITALY



The quality of talks at Future Virology 2024 was commendable, with speakers delivering insightful and current information.

As my major is biophysics, the conference had a moderate impact on my development.

Peers Alley Media did an excellent job in managing the event and selecting thought-provoking speakers.

NOHA ALI SALEH

IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY, SAUDI ARABIA

Very high-quality of talks at Future Virology 2024.

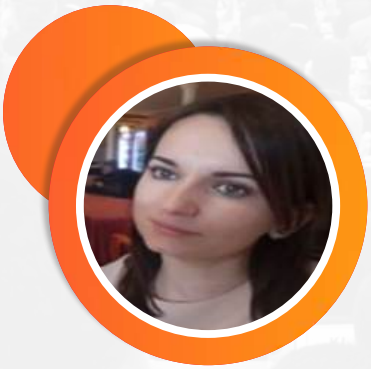
JOHN PAUL BEN SILANG

DIRECTOR OF NURSING RESEARCH, HAMAD MEDICAL CORPORATION, QATAR

The Future Virology 2024 talks are high quality, very good.

VLADIMIR KURĆUBIĆ

UNIVERSITY OF KRAGUJEVAC, SERBIA



Everything was excellent at Future Virology 2024 conference! The level of scientific works by the professors from all over the world, was very good!
The knowledge was really updated!
About Peere Alley Media I am very thankful for such organizations of conferences! Very correct group and with high standards!

NOHA ALI SALEH

IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY, SAUDI ARABIA

I would like to express my appreciation for the exceptional quality of organization at Future Virology 2024. Everything was executed flawlessly, contributing to a seamless experience for all attendees. The talks were not only well-structured but also incredibly engaging, showcasing a range of innovative ideas and research that sparked meaningful discussions. Each presentation offered valuable insights that I found both intriguing and thought-provoking.

Overall, I would definitely regard this event as a significant opportunity for my professional development. The knowledge and perspectives gained from the speakers will undoubtedly aid me in my career. I sincerely thank everyone involved for creating such a remarkable experience.

DENADA KRESHPAJ

UNIVERSITY OF VLORE "ISMAIL QEMALI", ALBANIA

My experience at 2nd Global Virology Congress (Future Virology 2024) was by far the best experience.

I am impressed by the quality of the presentations and the variety of topics.

Studies provided new and important data's that complete our knowledge and influence new ideas for further studies. Also, an interesting part was the discussion between presentations, triggered by the appropriate selection of topics.

DEONA TARAJ

UNIVERSITY OF VLORE "ISMAIL QEMALI", ALBANIA

I am appreciating the wonderful event Future Virology 2024. This is not easy from various academic and professional experts from different countries through virtually.

The selection of speakers is well from different field of application and it was useful and gaining knowledge about different application.

I gained knowledge from some new fields and technology and it will be useful for our research. Really Peers Ally Media made successful of conference and support to the participants.

RAMALINGAM BALASUBRAMANIYAN

ICMR-VECTOR CONTROL RESEARCH CENTRE, INDIA

I really appreciate the selected speakers and the research presentations were helpful. I am thankful for inviting me and I too participated and presented my work at Future Virology 2024.

KRISHNAVENI R

VIJAYANAGARA SRI KRISHNADEVARAYA UNIVERSITY, INDIA

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SPEAKER'S TESTIMONIALS

FUTURE VIROLOGY 2023

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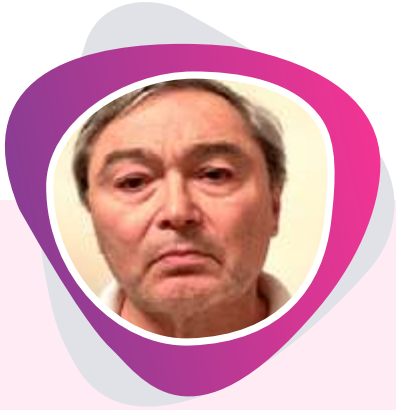
Testimonials



Michael Bukrinsky

The George Washington University, USA

The talks of Future Virology 2023 were very interesting and the topics covered a very wide area of knowledge.

I am at the advanced stage of my career, when further development can be only incremental. But I learned some interesting new facts and approaches. I am not sure I will be able to use them in my studies, but I will mention them in my lectures to students.

The talks were very interesting, and the speakers did a good job.

Muhammad Ashraf Khan

Elementary and Secondary Education Department, Pakistan

The event Future Virology 2023 works well by introducing myself, my research work, and new findings and contributing to the existing knowledge of the world.

Peers Alley Media, Canada did a good job.

Mousa Qatawneh

Queen Rania children's Hospital, Jordan

Greetings.

Thank you for the outstanding conference. The quality of talks was very high. It increased our knowledge regarding the last updates in the medical field.

The event was great.

Jacques Pouyssegur

University Cote d Azur, France

First CONGRATULATIONs to bring this meeting to a great success considering the competition in the VIROLOGY topic.

The format of 20 minutes well respected talks was good and personally I appreciated the variety of topics as well as the quality of the presentations and above all the quality of the Abstract Booklet.

I was not able to assist to all talks and some were absolutely outstanding like the one of Alfredo Berzal-Herranz from Spain. I will certainly invite him for a seminar in our Institute in Nice.

Again, THANK you so much ANNIE for the high quality of this event.

Testimonials

Sabin KC

Gandaki Medical College, Nepal

Greetings!

It was a wonderful time with you all. I would like to thanks global virology congress for giving me this opportunity.

Ikuma Kasuga

Tokyo Medical University, Japan

I enjoyed the meeting.

The content, program plan and speakers selection were all excellent.

Thank you very much for your perfect job, and all the best!

Alberto E Munoz

Universidad de Buenos Aires, Argentina

The quality of the presentations at Adv. Immunology 2023 were very good.

Peers Alley Media, Canada did a good job in the selection of speakers.

Michael Kolman

Advocate Lutheran General Hospital, USA

Thank you for the opportunity!

The quality of talks at the conference was great. I felt like I learned a lot regarding a multitude of immunology topics. I do think that this was a great experience and will look very good on my CV!

Testimonials

Silvia Anett Meja Rodrguez

Proderma, El Salvador

The quality of the talks were very good and impressive. The event did contribute a lot to my professional development and enhanced my curriculum. And yes Peers Alley Media did a good job giving instruction that were helpful for the presentation and information in general.

Mousa Qatawneh

Queen Rania children's Hospital, Jordan

Greetings.

Thank you for the outstanding conference. The quality of talks was very high. It increased our knowledge regarding the last updates in the medical field.

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