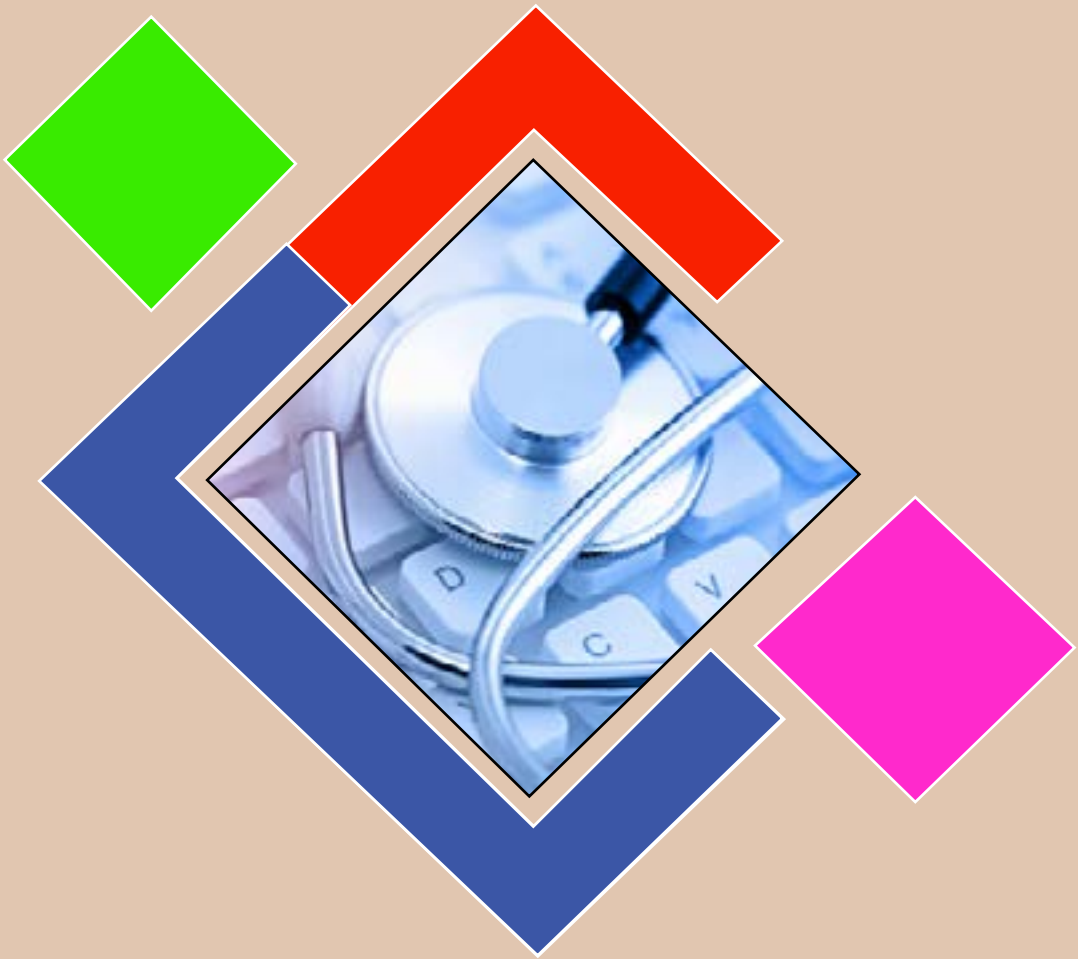
conferenceseries.com

Scientific Sessions



Medical Events 2022

March 28, 2022 | Webinar

conferenceseries.com

Medical Events 2022

March 28, 2022 | Webinar

American Journal of Pharmacology and Pharmacotherapeutics | Volume: 09

Tuberculosis and Leprosy Control in Imo State LGA: Factors Affecting The BCG Vaccination Programme

Omeaku Maris Anulika
Federal Medical Centre Owerri, Imo State, Nigeria

Background:
A single dose of BCG vaccine given to a neonate at birth or as soon as possible thereafter is key element for successful protection against mycobacterial infections including tuberculosis, leprosy and other non-tuberculous mycobacterium infections.

Aim:
This study aimed to contribute to the vision of 'the End TB Strategy 2016-2035' through the determination of the current BCG policy implementation on vaccine uptake by estimating the BCG vaccination rate in IMO State, Southeast Nigeria.

Method:
A cross-sectional and community-based study was conducted in Ideato-North local government area (LGA) of IMO State, south east Nigeria; from 2013-2017. Cluster sampling method was used for household selection. A total of 210 children aged 0-11months and their mothers/caregivers were included in the study. Data was collected using a pre-tested, interviewer administered questionnaire, and from review of vaccination records in the national program on immunization unit, public health department of the LGA of study and analyzed using SPSS version 25.

Result:
Only a minority of the children (21.9%) were vaccinated with BCG by card-plus history whereas none at all (0%) was vaccinated with BCG from the review of the vaccination records. The factors responsible for the poor BCG vaccination were BCG multi-dose vial policy/fear of vaccine wastage, poor turn-out for vaccination, place of child's birth, mothers' and healthcare personnel's knowledge on vaccination and mother's education level.

Conclusion:
There is need for a review of the multi-dose vial policy, ensure implementation of reviewed policy; periodic training and re-training of the health care personnel, human capacity development, data monitoring/evaluation, as well as sensitization campaigns among others, as ways to improve the people's awareness on and uptake of BCG vaccination, a key component of the very first pillar in the End TB Strategy.

KEYWORDS:
BCG, End TB Strategy, BCG Vaccine Policy/Recommendation, Tuberculosis and non-Tuberculosis Mycobacterium Infections.

Biography:
Omeaku Maris Anulika is Professor of Public Health, School of Post Graduate Studies, Imo State University Owerri, Imo State, Nigeria and Department of Family Medicine, Federal Medical Centre Owerri, Imo State, Nigeria. Her research interested areas are BCG, End TB Strategy, BCG Vaccine Policy/Recommendation, Tuberculosis and non-Tuberculosis Mycobacterium Infections.

omeakuanuli@gmail.com

Development of Vi Polysaccharide Purification Technique as Component of Typhoid Vaccine: Effect of Ethanol Washing to Impurity and Vi Polysaccharide

Dea Marsendah
Institute of Bandung Institute of Technology, Indonesia

Typhoid fever is a disease caused by infection from the bacteria Salmonella enterica serovar Typhi (Salmonella typhi). One way to overcome this infectious disease is to immunize using a vaccine-based Vi polysaccharide. Method of purifying Vi polysaccharide to remove nucleic acid and endotoxin impurities to meet the defined acceptance criteria has been developed by Kothari et al. (2013). However based on the method used, high impurities in Vi polysaccharide were still found and there is the dangerous use of absolute ethanol in large quantities. Based on this, Vi polysaccharide purification technique is developed with focus on effect of ethanol washing to impurities and Vi polysaccharide components. Washing results of crude Vi polysaccharide with 20% ethanol solution followed by 30% ethanol gave loss percentage of nucleic acid at 96,33%, nucleic acid value of 60% fraction at 0,243 mg/mL, loss percentage of endotoxin at 17,58% and endotoxin value of 60% fraction at 261,7 EU/mL. Washing results of crude Vi polysaccharide with three times 30% ethanol gave nucleic acid value of 60% fraction at 0,193 mg/mL and endotoxin value of 60% fraction at 102,5 EU/mL. One time additional washing with 30% ethanol and three times repeated washing using 30% ethanol did not reduce gain of Vi polysaccharide. Based on the research data, washing of crude Vi polysaccharide with ethanol removes nucleic acid effectively but not effectively remove endotoxin and also washing with 30% ethanol does not reduce the gain of Vi polysaccharide.

Keywords :
Salmonella typhi, Vi polysaccharide, purification, ethanol precipitation.

Biography:
Dea Marsendah was studied in School of Life Sciences and Technology in the institute of Bandung Institute of Technology in Indonesia. Her research interested areas are Salmonella typhi, Vi polysaccharide, purification, ethanol precipitation.

dea.marsendah@biofarma.co.id

PGTx Innovations in Vaccine Research – A Novel Dysenteric Vaccine

Anna Obolensky
Director Translational Research, PGTx, Oxford, UK

PGTx is an SME with operating units in HK, the USA and the UK. The company develops and commercialises next-generation vaccines and biologicals targetting areas of high unmet need. Our vaccines use a proprietary technology platform enabling broad-spectrum protection across related pathogens. They can be administered orally or by injection in both live attenuated and inactivated formulations. PGTx spun out in 2021 from its parent company Pacific GeneTech (PGT). PGT was established in 2009 and specialises in food safety and veterinary vaccines with technologies sourced mostly from the US university research base. PGTx is now transitioning these vaccines into clinical use. Its lead enteric vaccine is a recombinant trimeric protein that is expressed on the surface of a bacterial or yeast vector. It has the potential to cross-protect against 4 key pathogens that cause severe bacterial dysentery. These include Salmonella, Campylobacter, Shigella and Enterotoxigenic E. coli (ETEC) and emerging variants. Dysentery can be associated with multiple co-infections with multiple different pathogens and the infection can lead to persistent watery or bloody diarrhoea with organ failure and long term illness or death. More than 1.6 million people die from dysentery every year including 0.5 million infants and children under 5 years of age. Countless days are lost through debilitating illness impacting work, education, and productivity. Treatments are very limited relying mostly on rehydration and antibiotics but increasing drug resistance is driving the need for more vaccines of which there are very few. No other vaccine under research has the potential to cross-protect against 4 key pathogens. The vaccine is simple to manufacture, cost effective, orally administered, and readily deployed in low-income countries where bacterial dysentery is endemic. The aim here is to include the vaccine in routine childhood prime and boost immunisation programmes. The PGTx vaccine also has an important role in protecting the military and travellers to affected countries.

Biography:

Dr Obolensky is a microbiologist and immunologist with a career that has spanned the biotech and pharmaceutical industry, research institutions and private equity. She has worked as an independent consultant advising companies and institutions on ways to evaluate, protect and maximise their IP for commercialisation. Dr Obolensky has represented major institutions including the Wellcome Foundation Group Marketing Headquarters, Porton International PLC and most recently the British Heart Foundation. Prior to the British Heart Foundation, she became Head of External Sciences at H2O Venture Partners [Private Equity], concentrating on the development of early-stage technologies, including the origination and diligence of these companies. She is currently the Director of Translational Research for Pacific GeneTech a food safety and veterinary vaccine company and PGTx a clinical vaccines company with operational units in Hong Kong and the United States. Dr Obolensky is Fellow of the Royal Society of Medicine and a member of the British Society of Immunology.

aohoxford@gmail.com

Potentiation of the therapeutic effect of intravesical BCG through Synthetic and Biogenic Selenium Nanoparticles in an nitrosamine-induced bladder cancer mouse model

Mohammad Hossein Yazdi
Tehran University of Medical Sciences, Iran

Introduction:
Intravesical Mycobacterium Bovis bacillus Calmette-Guérin (BCG) therapy for non-muscle invasive bladder cancer has been already applied successfully to prevent metastasis and disease progression. However, some studies have reported a percentage of treatment failure and recurrence along with possible side effects. Therefore, this study has evaluated the effect of administration of synthetic (SSeNPs) and biogenic selenium nanoparticles (BSeNPs) as an adjuvant drugs in combination with intravesical BCG for treatment of mice bearing bladder tumor.

Methods:
Orthotopic bladder cancer model mice were established by 12 weeks N-butyl-N-(4-hydroxybutyl) nitrosamine oral gavage. Mice bearing bladder cancer were treated by sequential intravesical treatments with SSeNPs, BCG, BCG/SSeNPs, and BCG/SSeNPs. After immunotherapy, the status of the immune system was evaluated through quantitatively measuring mRNA expression of cytokines by Real-time qRT-PCR in the spleen samples and measuring cytokines protein level by enzyme-linked immunosorbent assay in the serum samples. As well, in the tumor microenvironment, the mRNA expression level of autophagic molecules (Beclin-1, ATG2B, and ATG5), apoptotic molecule (Caspase-3), iNOS, HMGB1, and PD-L1 were evaluated in all groups.

Results:
Immunotherapy with BCG/SSeNPs and BCG/BSeNPs elicited a considerable immune response by increasing the expression of IFN-γ, IL-12, and IL-6, and inhibiting the expression of IL-10 and TGF-β cytokines. Along with, BCG/SSeNPs and BCG/BSeNPs could increase Caspase-3 expression and decrease autophagic genes as well as PD-L1.

Conclusion:
Our results showed that synthetic and biogenic SeNPs as an effective adjuvant could enhance the efficacy and therapeutic effect of intravesical BCG for bladder cancer treatment with almost the same function.

Keywords:
BCG, Selenium nanoparticles, bladder cancer, Immunotherapy

Biography
Mohammad Hossein Yazdi got his PhD in the field of Pharmaceutical Biotechnology by 2014 from Tehran University of Medical Sciences, School of Pharmacy. His PhD work was about cancer vaccine and immunotherapy. He is now working as Associate Professor at Biotechnology Research Center and Head of Recombinant Vaccine Research Center of Tehran University of Medical Sciences and pursues his interest in both vaccine and immunotherapy of cancer and infectious diseases. He has published more than 45 papers in reputed journals and has been serving as senior lecturer of advanced immunology and immunotherapy at Tehran University of Medical Sciences.

mh-yazdi@tums.ac.ir

Descriptive analyses of Individual Case Safety Reports related to vaccines in the Campania Region (Italy) from 2001 to 2019

Elena-Mirabela Veliscu
Bordeaux University, Romania

Objective:
To perform a descriptive and statistical analysis on Individual Case Safety Reports (ICSRs) related to all vaccines in the Campania Region Pharmacovigilance Center, Italy.

Methods:
Using the Italian pharmacovigilance database (Rete Nazionale di Farmacovigilanza – RNF) all ICSRs relating to a suspected vaccine (ATC J07) in the Campania Pharmacovigilance Regional Center from January 1st, 2001 to December 2019 were extracted and analyzed.

Findings:
From January 1st, 2001, to December 31st 2019, 1185 ICSRs related to vaccines were sent to Campania Pharmacovigilance Regional Center. Nine hundred and four ICSRs reported AEFIs that were not serious, while two hundred and eighty-one reported AEFIs that were considered as serious. The descriptive analysis made on the ICSRs reported date, seriousness, suspected vaccine, gender, age group, outcome and reported source uncovered the predominant types and patterns while the statistical analysis found multiple associations that are statistically significant.

Conclusion:
A comprehensive characterization of the reported AEFIs for suspected vaccines in the Campania region has been performed. The results can be used to improve the continuously pharmacovigilance monitoring, to draw safety concerns or can be further investigated into subsequent trials.

Biography
Mirabela Veliscu has completed her MSc degree in Pharmacovigilance and Pharmacovigilance through EU2P European training programme in Pharmacoepidemiology and Pharmacovigilance at the age of 31 years from University of Bordeaux. She also completed University of Pharmacy from University of Medicine and Pharmacy UMF Carol at 23 years and she is an Associate Manager Patient Safety Solutions in a top multinational company. She has 9 years experience in Pharmacovigilance and pharmacy, including as phamacist manager and she has been the representatives of the students at Bordeaux University.

mirabela_milea@yahoo.co.uk

Spectrophotometric Determination of Doxazosin Mesylate in Bulk and in Tablet Formulations via Schiff's Base Reaction

Zahid Ali Zounr
University of Medical & Health Sciences, Pakistan

A simple, sensitive and accurate spectrophotometric method for the determination of Doxazosin mesylate (DOX) in bulk and tablet formulations was developed. Chromogenic reagent 4-Dimethyl amino benzaldehyde (4DMAB) reacts with primary amine of DOX by Schiff's base reaction forming a light yellow color product (4DMAB-DOX derivative) in methanol at pH-5, which can be measured at λ max 399 nm. Under the optimum conditions beer's law was obeyed in the concentration range of 6.25-100 µgml-1, with the coefficient of determination found to be R^2=0.998 and recovery 100.04%. The accuracy of the method was satisfactory; the RSD values did not exceed more than 2%. Interference of other ingredients and additives were not observed. The proposed method was successfully applied for the routine analysis of DOX in bulk and in tablet formulations.

Keywords.
Doxazosin mesylate; Spectrophotometry; 4-(Dimethylamino) benzaldehyde; derivatization

Biography.
Mr Zahid Ali Zounr has completed has completed his MSc degree in Forensic Medicine at University of Medical & Health Sciences Jamshoro, Pakistan. Department of Forensic Medicine Jamshoro Liaquat and Medical Technologist. He has research interest in Pharmaceutical Analysis.

zahid_zounr100@yahoo.com

Exploring Common Etiology and Eradications of All Diseases from a Cell Perspective

Mei Yin
China

At present some difficult and complex diseases are significantly negatively affecting people's life such as cancers, diabetes, high pressure, genetic diseases, new types of infectious diseases, etc. For example, recent studies tried to starve cancer cells to death by limiting access to nutrients (e.g., glucose, amino acids, fatty acids, cholesterol, etc.), which is viewed as a powerful solution to cancers. Can the solution eliminate cancer cells from the root? What make normal cells turn into cancer cells? Why do diseases happen? How are diseases eradicated? The paper attempts to discover common etiology and eradications of all diseases by exploring cell nutrient element and crucial role of each nutrient element in cell health. By analyzing of a large number of experimental and theoretically based research results, it concluded that common etiology of all diseases is primarily due to the deficiency or overmuch of related nutrient elements in cells. The causes of cell nutrient element deficiency leading to diseases are due to insufficient ingestion, inhale or/and supply of related nutrient elements or more rapid loss or consumption than usual because of ingestion or inhale or formation of a sufficient number of harmful substances (carcinogens, virus, harmful bacterial, radiations, etc.) in the body. Supplementing nutrient elements in deficiency should be able to eradicate all diseases. If diseases do not disappear after sufficient supplementation, there must be a barrier to absorption of certain nutrient element(s) whose deficiency is associated with the disease, e.g., unsuccessful decomposition or/and synthesis or/and transport or/and receptors of related nutrient elements or/and problematic excretions of waste products of cells. Besides, hereditary diseases should also be due to the barrier to absorption of related nutrient elements, leading to deficiencies of related nutrient elements after full supply of related nutrient elements. Based on the barrier to absorption of related nutrient elements leading to innate or postnatal diseases, treatments of related diseases in the future (e.g., herbal remedies or/and drug or/and operation treatments or/and gene therapy) should focus on the removal of the barrier to related nutrient element absorption, e.g., problematic decomposition or/and synthesis or/and transport or/and receptors of related nutrient elements or/and excretions of waste products of cells. In some cases, cell nutrient element deficiency is also due to sufficiently excessive consumption of related nutrient elements or other nutrient elements. The research is significant. It is distinguished from current mainstream medical research direction. However, what is worth attention is that it provides a significant insight and solution for removal of difficult and complex diseases and also presents a more scientifically based medical research direction for future medical research and development.

Keywords
Etiology, nutrient elements, carcinogen, virus, bacterial, cancer, hereditary diseases, absorption, decomposition, synthesis, transport, receptor, excretion

Biography
Mei Yin has completed her MSc degree in Healthcare Management. She is working on Cancer and hereditary diseases.

meiyin126@126.com