BioLEAGUES
Integrating Medicos...Incubating Research !!!!

Vaccine & Virology 2017

Day 1 : January 23rd 2017

10.30 am -11.00 am - Registration

11.00 am -11.20 am - Inaugural session

11.20 am -11.30 am - Group photo

Keynote Forum

11.30 am -12.00 pm - Dr.Baik Lin Seong

12.00 pm-12.30 pm - Dr.Ramaswamy KalyanSundaram

12.30 pm - 12.45 pm - Coffee Break

Session Introduction

12.45 pm - 01.15 pm --- **Oral Presentation by *Fahad Al Zamil***
Topic :- Bacillus Calmette–Guérin Vaccine Related Lymphadenitis in Children: Classification and Management Guidelines Endorsed by the Saudi Pediatric Infectious

01.15 pm - 02.15 pm --- Lunch Break

02.20 pm - 02.50 pm --- **Oral Presentation by *Irit Davidson***
Topic :- Vaccination against avian herpesviruses

02.50 pm - 03.20 pm --- **Oral Presentation by *Mirza Imran Shazad***
Topic :- Subunit based DNA vaccines against Tuberculosis

03.20 pm - 03.50 pm --- **Poster Presentation by *Hyung Joo Kwon and Young Hee Lee***
Topic :- Vaccination using Synthetic Peptide Formulated with CpG-DNA-Liposome Complex without Carriers

03.50 pm - 04.15 pm --- Coffee Break

Day 1 End

Day 2 : January 24th 2017

11.00 am - 11.30 am	---	**Oral Presentation by *Tapan Kumar*** **Topic :-** Humoral and Cellular Immune Response to Japanese Encephalitis Vaccination.
11.30 am - 12.00 pm	---	**Oral Presentation by *Shankar Nyupane*** **Topic :-** A study to estimate longevity of thermostable Newcastle disease Vaccine (strain I-2) in village chickens of Nepal
12.00 pm - 12.15 pm	---	**Coffee Break**
12.15 pm - 12.45 pm	---	**Poster Presentation by *Jin Hiwi kim*** **Topic :-** Local injection of granulocyte macrophage colony-stimulating factor enhances efficacy of radiation therapy on vulva cancer in mouse
12.45 pm - 01.15 pm	---	**Poster Presentation by *Jung Ah Cho*** **Topic :-** Comparative analysis of 3 experimental mouse model for blood hematology and chemistry
01.15 pm - 02.15 pm	---	**Lunch Break**
02.15 pm - 02.45 pm	---	**Poster Presentation by *Jung-wei Chang*** **Topic :-** A Case of Herpetic Folliculitis
02.45 pm - 03.15 pm	---	**Poster Presentation by *Seul-ki Lim*** **Topic :-** Treatment of psoriasis with viral hepatitis
03.15 pm - 03.30 pm	---	**Vote of Thanks**
03.30 pm - 03.45 pm	---	**Feedback**

DAY 2 END

BioLEAGUES

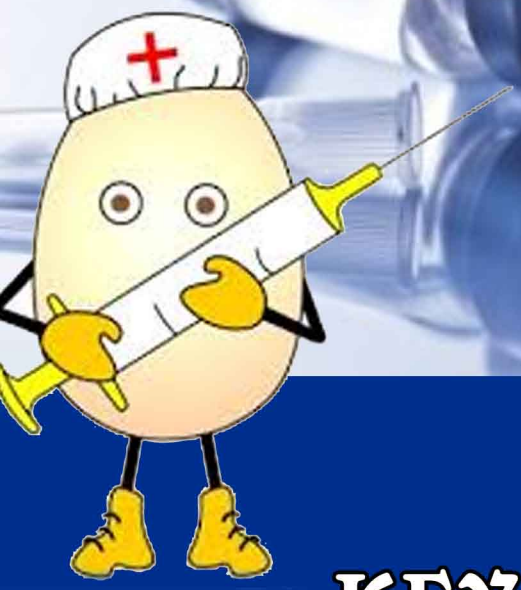
Integrating Medicos...Incubating Research !!!!

GSVV - 2017

Global Vaccines and Virology Summit

at

Singapore on January 23rd-25th, 2017



KEY NOTE FORUM

BioLEAGUES
Integrating Medicos...Incubating Research !!!!
www.bioleagues.com

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Ramaswamy Kalyanasundaram

University/Organization: University of Illinois

Current Status and the Need for Vaccines Against Human Helminth Parasitic Infections

Developing an effective vaccine for human helminth infections have been a challenging and daunting task because of the complicated life cycle of the parasite and the ability of the parasites to modulate human immune responses. Despite these roadblocks, significant progress has been made in the past one decade thanks to the remarkable advances in newer vaccination strategies and adjuvant technologies. Currently, two of the human helminth vaccines (schistosome and hookworm) are already in clinical trials and several other helminth vaccines are in the pipeline ready to start the clinical trials. Efforts to control the helminth infections with anthelmintic treatment alone have proven insufficient since the treatment alone does not confer protection against reinfections. Thus, there is an imminent need for developing effective vaccines against human helminth infections. This presentation will highlight the current advances in the development of a vaccine for lymphatic filariasis that is nearing to move intohuman clinical trial. Helminth vaccines have been successfully used in veterinary medicine to control parasitic infections. Thus there is significant hope that human helminth vaccines will be also be available in the near horizon to control human helminth parasites.

Biography

Dr. Ramaswamy Kalyanasundaram is the Professor of Microbiology and Immunology at the College of Medicine, University of Illinois. He received his degree in Veterinary medicine from India and PhD in parasite immunology from the University of Calgary, Canada. After completing his postdoctoral training at Cornell, NY he joined the faculty at the University of Illinois. His major research interest has been in the area of schistosome immunology and developing a vaccine for lymphatic filariasis.

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Baik Lin Seong

Department of Biotechnology, College of Life Science and Biotechnology, and Vaccine Translational Research Center, Yonsei University, Seoul, South Korea

Universal Influenza Vaccine: Pan-Influenza a Protection Provided by X-31 Cold-Adapted Live Attenuated Influenza Vaccine

Influenza virus infections continually pose a major public health threat with seasonal epidemics and sporadic pandemics worldwide. While currently licensed influenza vaccines provide only a narrow strain-specific protection, antigenic drift and shift occasionally render the virus resistant to the host immune responses, which highlights the need for a vaccine that provides a broad protection against viruses of multiple subtypes. Here, we suggest a vaccination strategy using X-31 cold-adapted, live attenuated influenza vaccines (X-31 CAIVs) to provide a potent and broad cross-protection covering antigenically distinct hemagglutinin (HA) group 1 and 2 influenza viruses. Notably, even in the absence of antibody-mediated neutralizing activities in vitro, such as hemagglutinin inhibition or membrane fusion inhibition, CAIVs provided a potent protection against heterologous and hetero-subtypic lethal infections. In vivo T-cell depletion experiments demonstrated not only the importance of T-cell immunity but also possible involvement of other mechanisms for the observed cross-protection. Vaccination-induced antibodies did not enhance the infectivity of the heterologous viruses, andthe prime vaccination did not interfere with the neutralizing antibody generation by the boost vaccination,addressing to vaccine safety issues. Our data demonstrate that prime-boost vaccination with X-31 CAIVs could providea powerful and safe option for a universal influenza vaccine.

Biography

Baik Lin Seong, PhD, Professor of Biotechnology, and director of Vaccine Translational Research Center(VTRC) at Yonsei University, established scientific experience from basic molecular biology to pre-clinical development of vaccines and therapeutic proteins. He received B.S. from Seoul National University (1977) and PhD from MIT (1988). Dr. Seong served as director of the Institute of Biological Sciences at Hanhyo Institute (1993-1998), and represented the Korean Government for Biological Weapons Convention (BWC) in United Nations (2000-2008). He continues to work on designing universal flu vaccine, virus-like particles (VLPs) vaccines for viral and microbial infections.

ISBN: 978-81-932966-1-5

CONTENTS

CONTENTS

BioLEAGUES

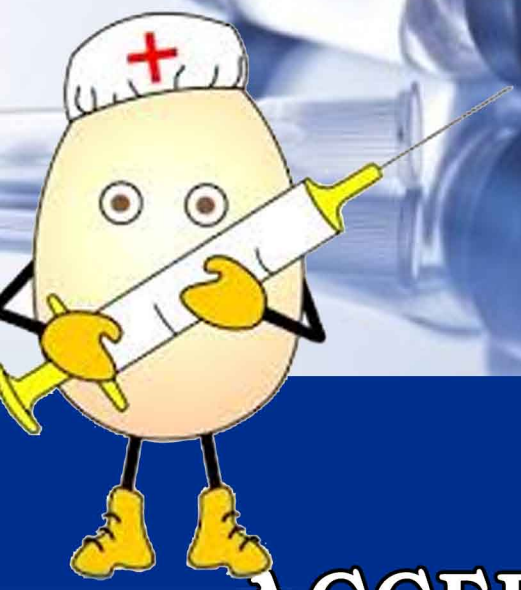
Integrating Medicos...Incubating Research !!!!

GSVV - 2017

Global Vaccines and Virology Summit

at

Singapore on January 23rd-25th, 2017



ACCEPTED ABSTRACTS

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Prof. Fahad Alzamil

University/Organization: College of Medicine, King Saud University

Bacillus Calmette–Guérin Vaccine Related Lymphadenitis in Children: Classification and Management Guidelines Endorsed by the Saudi Pediatric Infectious Diseases Society (SPIDS)

The Bacillus CalmettereGue'rin(BCG) vaccine contains live attenuated Mycobacterium bovis; was first used in humans to prevent tuberculosis(TB) in 1921. The World Health Organization(WHO) established the Expanded Program in Immunization in 1974 to ensure that all children have access to routinely recommended vaccines including BCG. Early year 120 million doses of BCG vaccine are administered worldwide. Intradermal BCG vaccines give rise to a classic primary complex that consists of a cutaneuos nodule at the site of injection and subclinical involvement of the regional lymph nodes which is self-limiting and requires no treatment. However, ipsilateral regional lymph node enlargement may follow BCG vaccine and is considered as the most common complication, some progress to suppuration. Rarely a disseminated BCG infection may develop in immunocompromised individuals resulting in a devastating outcome. Within the last decades, variable strategies have been applied in treating lymphadenitis related to BCG vaccine, raging from observation, anti-mycobacterial theraphy, aspiration,incision and drainage to lymph node surgical excision. We are presenting these guidelines that intended to optimize and standardize management of various types of BCG related lymph adenitis in children. They are based upon the best available evidence in literature beside our experience in this field.

Biography

Prof. Fahad Abdullah Alzamil, Professor and Consultant Pediatric Infectious Diseases, Dean College of Medicine, at King Saud University-Riyadh, Saudi Arabia.

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Ramaswamy Kalyanasundaram University/Organization: University of Illinois

Current Status and the Need for Vaccines Against Human Helminth Parasitic Infections

Developing an effective vaccine for human helminth infections have been a challenging and daunting task because of the complicated life cycle of the parasite and the ability of the parasites to modulate human immune responses. Despite these roadblocks, significant progress has been made in the past one decade thanks to the remarkable advances in newer vaccination strategies and adjuvant technologies. Currently, two of the human helminth vaccines (schistosome and hookworm) are already in clinical trials and several other helminth vaccines are in the pipeline ready to start the clinical trials. Efforts to control the helminth infections with anthelmintic treatment alone have proven insufficient since the treatment alone does not confer protection against reinfections. Thus, there is an imminent need for developing effective vaccines against human helminth infections. This presentation will highlight the current advances in the development of a vaccine for lymphatic filariasis that is nearing to move intohuman clinical trial. Helminth vaccines have been successfully used in veterinary medicine to control parasitic infections. Thus there is significant hope that human helminth vaccines will be also be available in the near horizon to control human helminth parasites.

Biography

Dr. Ramaswamy Kalyanasundaram is the Professor of Microbiology and Immunology at the College of Medicine, University of Illinois. He received his degree in Veterinary medicine from India and PhD in parasite immunology from the University of Calgary, Canada. After completing his postdoctoral training at Cornell, NY he joined the faculty at the University of Illinois. His major research interest has been in the area of schistosome immunology and developing a vaccine for lymphatic filariasis.

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Baik Lin Seong

Department of Biotechnology, College of Life Science and Biotechnology, and Vaccine Translational Research Center, Yonsei University, Seoul, South Korea

Universal Influenza Vaccine: Pan-Influenza a Protection Provided by X-31 Cold-Adapted Live Attenuated Influenza Vaccine

Influenza virus infections continually pose a major public health threat with seasonal epidemics and sporadic pandemics worldwide. While currently licensed influenza vaccines provide only a narrow strain-specific protection, antigenic drift and shift occasionally render the virus resistant to the host immune responses, which highlights the need for a vaccine that provides a broad protection against viruses of multiple subtypes. Here, we suggest a vaccination strategy using X-31 cold-adapted, live attenuated influenza vaccines (X-31 CAIVs) to provide a potent and broad cross-protection covering antigenically distinct hemagglutinin (HA) group 1 and 2 influenza viruses. Notably, even in the absence of antibody-mediated neutralizing activities in vitro, such as hemagglutinin inhibition or membrane fusion inhibition, CAIVs provided a potent protection against heterologous and hetero-subtypic lethal infections. In vivo T-cell depletion experiments demonstrated not only the importance of T-cell immunity but also possible involvement of other mechanisms for the observed cross-protection. Vaccination-induced antibodies did not enhance the infectivity of the heterologous viruses, andthe prime vaccination did not interfere with the neutralizing antibody generation by the boost vaccination,addressing to vaccine safety issues. Our data demonstrate that prime-boost vaccination with X-31 CAIVs could providea powerful and safe option for a universal influenza vaccine.

Biography

Baik Lin Seong, PhD, Professor of Biotechnology, and director of Vaccine Translational Research Center(VTRC) at Yonsei University, established scientific experience from basic molecular biology to pre-clinical development of vaccines and therapeutic proteins. He received B.S. from Seoul National University (1977) and PhD from MIT (1988). Dr. Seong served as director of the Institute of Biological Sciences at Hanhyo Institute (1993-1998), and represented the Korean Government for Biological Weapons Convention (BWC) in United Nations (2000-2008). He continues to work on designing universal flu vaccine, virus-like particles (VLPs) vaccines for viral and microbial infections.

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Davidson. I

Department of Biotechnology, College of Life Science and Biotechnology, and Vaccine Translational Research Center, Yonsei University, Seoul, South Korea

Vaccination Against Avian Herpesviruses: Monitoring of Live Vaccine Virus Intake Against Two Avian Herpesviruses using Feathers of Vaccinated Chi

Protection against diseases caused by avian herpesviruses, Marek's disease (MDV) and Infectious laryngotracheitis (ILTV) is achieved by vaccination with live vaccines. The two viruses are economically important, as they cause tumors, immunosuppression, respiratory diseases and increased mortality and morbidity, respectively. The viruses undergo latency,however they can reactivate in response to various types of stresses. Vaccination against the two viruses elicits mainly the cell-mediated immunity, which is difficult to evaluate on commercial flock basis. Although the vaccine application quality is important to assure proper uptake in commercial flocks, no assays is available by now. We suggest evaluating the vaccination process by monitoring the live vaccine viruses systemic spread in bird feathers. Feathers are easy to collect, non-lethal for the bird, therefore advantageous for monitoring purposes. Surveying vaccine viruses indicated the vaccine application quality, and correlated to the vaccine doses and with various routes of vaccine application.

Although the study employed avian herpesviruses, the principles presented now can be applied also for human and animal viral vaccines.

Biography

Dr. Irit Davidson studies avian viruses, (leukosis, reticuloendotheliosis, Marek's-disease, chicken anemia, fowlpox, laryngotracheitis, turkey-flavivirus and influenza, in separate, or as multiple infections, reflecting the multifactoriality of viral infections. She developed molecular assays and revealed retrovirus molecular integrations into herpesviruses or fowlpox viruses in vivo. Dr. Davidson pioneered the detection of avian and turkey viruses in feathers, showing the presence of additional viruses, like CAV, ILTV and TMEV in addition to previously known MDV. Her studies also focus feathers for virus research and live vaccines detection. The findings were documented in 154 publications and received 8 awards for the achievements.

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Dr. T.N Dhole

University/Organization: Sanjay Gandhi Postgraduate Institute of Medical Sciences, Raebareli Road, Lucknow, India

Humoral and Cellular Immune Response to Japanese Encephalitis Vaccination

Japanese Encephalitis (JE) is the leading cause of viral encephalitis in Asia. Vaccination is the only effective prevention strategy, live attenuated SA-14-14-2 is being used in JE endemic areas of India. The humoral aspect of this vaccine has been explored enough; therefore, this study was done to investigate cellular immune response to vaccination. Children were received single dose of JE vaccine, were enrolled for this study. Blood samples from children were collected on day 0 (pre- vaccination) and day 28 post-vaccination. Neutralizing anti-JEV antibody titer assessed by PRNT assay. T cells frequencies were determined by flow cytometry. Plasma level of IFN- γ, IL-4, IL-17, TGF-β and IL-10 were measured by ELISA. Percentage of children among high antibody titer group were 20.13% , moderate titer group were 55.06%, 9.4% and 15.43% were found to be of low antibody titer group and non responder respectively. Significantly higher percentage frequency of Treg cells and TGF-β were found in non responder when compare to high titer group. This study indicates that Treg cells expansion have role in down regulating the antibody response to Japanese Encephalitis vaccination. Increased expression of TGF-β in non responder seems to stimulate additional Treg production.

Biography

Dr. T. N. Dhole is working as Professor and Head at Department of Microbiology, Sanjay Gandhi Postgraduate Institute of Medical Sciences. He has been awarded with several prestigious international fellowships, to take a name of few are; The JAICA fellowship at Nagoya University, Japan, WHO fellowship at CDC, Atlanta, USA, and Japanese Society for Infectious Disease Fellowship at Institute of Tropical Medicine, Nagasaki, Japan and Biorisk Management course of WHO at Geneva. His main thrust areas of research include virology and bacteriology that focuses on Polio, Measles, Japanese Encephalitis, Dengue, Mycobacteria.

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Mirza Imran Shahzad

University/Organization: University College of Veterinary and Animal Sciences, TheIslamia University of Bahawalpur, Bahawalpur, Pakistan.

Subunit based DNA vaccines against Tuberculosis

Tuberculosis in many parts of the world particularly in developing countries such as Pakistan is a significant cause of morbidity and mortality in human and cattle. No new vaccine is available since last hundred year. Therefore, new and state of the art approach DNA vaccination is tried in this study. FiveM. tbgenes named asag85a, ag85b, ag85c, hspx and cfp10 were amplified, cloned in pcDNA3.1 Topo vector and finally sub-cloned in pNDvector. Endotoxin-free DNApreps were made and all the constructs were tested for InVitroexpression in 293T human embryonic kidney cell lines before taking their trial on Balb/c mice. The animals were divided into fivegroups. Eighteight animals were used for hspx-pNDand cfp10-pND vaccine groups, and four animals were used for cocktail vaccine of ag85a, b and c pNDs Similarly four animals were used as positive control and four as negative control groups. All the animals were injected in quadriceps muscles with 50 µg DNA/leg and 25 µg DNA intradermally at the base of tail.The animals were bled at regular interval of three weeks till nine weeks through tail and finally by cardiac puncture. The antibodies were confirmed by Western blot and multiplex microbead immunoassay (Luminex USA). The best antibody response was produced by hspx-pND vaccinated animals and then equally mixedag85a, b and c-pND vaccine and least or apparently no response was seen fromcfp10-pND vaccinated animals. The study concludes that hspx-pND is a good DNA vaccine, even better than antigen 85 (Ag85) vaccines.

Biography

Dr Mirza Imran Shahzad is working as Assistant Professor of Biochemistry at University College of Veterinary and Animal Sciences, The Islamia University of Bahawlapur. He did PhD in a joint program of PMAS Arid Agriculture University Rawalpindi and University of California, Davis, USA. He is expert in field of DNA vaccines, conventional vaccines and antiviral therapies. Along with educational duties, he is doing excellent job in field of research. He has produce more than 15 post graduate students. He has published more than 40 research articles in reputed journals. He is a reviewer of different national and international journals

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Younghee Lee

Department of Biochemistry, Chungbuk National University, Cheongju 28644, Korea.

Hyung-Joo Kwon

Department of Microbiology, Hallym University College of Medicine, Chuncheon 24252, Korea

Vaccination using Synthetic Peptide Formulated with CpG-DNA-Liposome Complex without Carriers

Antibody production using synthetic peptides has been investigated extensively to develop therapeutic antibodies and prophylactic vaccines, but the efficacy is limited. To improve the efficacy of peptide-based antibody production, we formulated an efficacious peptide vaccine without carriers using the natural phosphodiester bond CpG-DNA and a special liposome complex (Lipoplex(O)). Our strategy was proved to be effective in rapid screening of potent B cell epitopes and the produced antibodies were proved to be effective in anti-cancer therapy and defense against viral infection. A peptide-specific antibody produced against tumor-associated antigen TM4SF5 has functional effects on cancer cells in vitro and in vivo suggesting that our peptide vaccine technology provides a novel prophylaxis measure as well as therapy for HCC patients with TM4SF5-positive tumors. Immunization with a complex of B cell epitope of hemagglutinin protein and Lipoplex(O) protects mice challenged with a lethal dose of recombinant H5N1 virus, H1N1 virus (A/WSN/1933 virus), and swine origin H1N1 virus (A/Korea/01/09). We also successfully obtained several antibodies which cannot be easily obtained using general methods. Therefore, our strategy may be widely used for the development of vaccines to treat cancer or pandemic infectious diseases.

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Jin-Hwi Kim

Department of Obstetrics and Gynecology, Uijeongbu St. Mary's Hospital, The Catholic University of Korea, Uijeongbu, Korea

Jong-Hoon Lee

Department of Obstetrics and Gynecology, Department of radiation oncology, St. Vincent's Hospital, College of Medicine, The Catholic University of Korea, Suwon, Korea

Sung-Jong Lee

Department of Obstetrics and Gynecology, St. Vincent's Hospital, College of Medicine, The Catholic University of Korea, Suwon, Korea

Local injection of granulocyte macrophage colony-stimulating factor enhances efficacy of radiation therapy on vulva cancer in mouse

Immunotherapy has emerged as a potent treatment strategy for the treatment of HPV-associated malignancies. Radiotherapy have demonstrated potent antigen-specific CD8+ T cell mediated antitumor immune responses in preclinical models and are currently being tried in clinical trials. The higher number of immune cells in the site of lesion is closely associated with good prognosis. Granulocyte macrophage colony-stimulating factor (GMCSF) has been reported to provide the ability to induce accumulation of antigen presentation cells and CD8+ T cells. Therefore, in the current study, we utilized a combination of radiotherapy with local GMCSF application in the TC-1 tumor model.

Materials and methods

Six- to eight-week-old female C57BL/6 mice were used and all animal procedures were performed according to approved protocols by the Catholic Medical Centers. TC-1 cells, an E7-expressing murine tumor model, were injected on vulva area to generate vulva cancer bearing mouse. Irradiation treatment has been delivered totumor of 5-8 mm diameter growing on the vulva of mice using radiotherapy (10 Gy) combined with GMCSF. Single dose radiation was followed by three times of GMCSF injection on vulva. Immune response was evaluated with analysis of flow cytometry.

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Jung-Wei Chang, MD

University/Organization: Department of Family Medicine, School of Medicine, Chungnam National University, Daejeon, Korea

Seul-ki Lim, MD

University/Organization: Department of Dermatology, School of Medicine, Chungnam National University, Daejeon, Korea

A Case of Herpetic Folliculitis

Herpes simplex (HSV-1 and -2) and varicella zoster viruses (VZV) may affect not only the epidermal surface but also epithelial structures of the adnexa. Herpes folliculitis is terms used to designate involvement of follicular structures. Clinical diagnosis of herpes folliculitis is difficult because typical signs of herpes virus infection may be entirely lacking. A 57-years old male presented with erythematous scalp swelling and pain on Rt. Occipital area. The patient had detected papules on scalp 2 weeks ago and irritated the papular lesion. Incisional skin biopsy showed necrotic follicular epithelial cells and intranuclear viral inclusions and diffuse lymphocytic infiltration, consistent with Herpes virus infection. In order to confirm the type of virus, we use polymerase chain reaction and identify varicella zoster virus. We diagnosed the skin lesion as herpetic folliculitis and treated with valaciclovir (VCV) 1000mg on 7days. After 1 week, the skin lesion was shown clinically improvement. Case report of herpetic folliculitis is rare, because in the most case clinical diagnosis is difficult and herpetic folliculitis is a self limiting disease. If the antibiotics or antifungal reaction is not good for folliculitis, we recommend thinking of herpetic folliculitis for differential diagnosis.

Biography:

2003-2012 : M.D. degree from College of Medicine, Chungnam National University
2013-2014 : Internship in Chungnam National University Hospital
2014- : Residency of Family Medicine in Chungnam National University Hospital

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Seul-ki Lim, MD

University/Organization Department of Dermatology, School of Medicine, Chungnam National University, Daejeon, Korea

Jung-wei Chang, MD

University/Organization: Department of Family Medicine, School of Medicine, Chungnam National University, Daejeon, Korea

Treatment of Psoriasis with Viral Hepatitis

Viral hepatitis could increase the risk of drug hepatotoxicity which might be fatal to the patients with psoriasis. Especially, in Korea, the prevalence of viral hepatitis is very high, showing 3-4% in chronic hepatitis B virus (HBV) infection and 1% in hepatitis C virus (HCV) infection. The management of the patients with psoriasis should be closely monitored in regards with viral hepatitis, especially for moderate to severe psoriasis patients in whom the usage of potential hepatotoxic drugs such as acitretin and methotrexate could be considered. However, there is currently little consensus regarding management of psoriasis with viral hepatitis. Another important issue in psoriasis patients with HBV infection is viral reactivation when they are treated with biologics. Thus, all patients who have a chance to receive biologics should be screened for HBV markers. In active HBV carriers, lifelong anti-HBV treatment such as entecavir or tenofovir is recommended. It is recommended that serum aminotransferase levels should be monitored monthly to bimonthly during the treatments. The purpose of this lecture is to give information about safe and effective therapeutic options in psoriasis patients with viral hepatitis.

Biography:

2006-2012 : M.D. degree from College of Medicine, Chungnam National University
2012-2013 : Internship in Chungnam National University Hospital
2014-2016 : Master degree from College of Medicine, Chungnam National University
2013- : Residency of Dermatology in Chungnam National University Hospital

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

S. Nyaupane
Food and Agriculture organization of the United Nation FAO, Nepal

B. B. Pokharel
University of Guelph, Guelph, ON, Canada, N1G 4S7

M. P. Acharya
Animal Health Research Division, Nepal Agriculture Research Council, Lalitpur, Nepal
Primary audience: Veterinary Services, Poultry Farmers, Vaccine Producers, Researchers

A Study to Estimate Longevity of Thermostable Newcastle Disease Vaccine (Strain I-2) in Village Chickens of Nepal

Newcastle Disease (ND) is one of the most important poultry diseases because of its widespread distribution and economic impact on poultry. The present study was conducted to estimate the longevity of thermostable ND vaccine (NDV strain I2) in village chickens of Nepal. A total of 56 (27 d old) chicks were allocated randomly into 2 groups (treatment and control) with 28 birds in each group. On d 28, thermostable ND vaccine (strain I2) was administered to the treatment group only. Blood samples were collected from experimental birds at 1 day prior to vaccination and 14, 21, 30, 60, 90, 105 and 120 days after vaccination. The serum obtained was titrated for NDV antibody using hemagglutination inhibition (HI) test. The log2 HI antibody titre level in vaccinated birds at 14, 21, 30, 60 and 90 days after vaccination were higher ($P<0.05$) compared to antibody titre level at 1 d before vaccination and control group. The antibody titre at 14, 21, 30, 60 and 90 days after vaccination was higher than log2 HI titre level of ≥ 3 necessary to be protective against Newcastle disease. There was no difference ($P>0.05$) in the antibodytitre level in vaccinated birds as 1 d before vaccination and 105 d after vaccination suggesting that booster dose is required after 90 days of primary vaccination. Thus, thermostable ND vaccine (strain I-2) produced specific immunity against ND for at least 90 days after vaccination in village chickens of Nepal and may be considered suitable in Nepalese condition where cold chain maintenance is a huge challenge especially in rural area.

Keywords: **--**Cold chain, Newcastle Disease, Longevity, Specific immunity, Thermostable ND vaccine

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Pratima Pahadi

Degree: B.Sc.Ag. Semester and year of admission: First, 2012, Department: Plant Breeding Major Subject: Plant Breeding Major Advisor: Asst. Prof. Gangaram Kohar

Variability, Correlation And Path Coefficient Analysis In *(Zea mays L.)* In Baitadi, Nepal.

Six maize genotypes were evaluated in randomized block design with three replications in the research block of GAASC, Gokuleshowar, Baitadi from July 24, 2015 to October 29, 2015 to assess the association among yield components, correlation and causation. Eleven quantitative traits, days to tasseling (DTT), days to silking (DTS), days to pollen shed anthesis (DTPSA), ear height (EH), silk length (SL), plant height (PH), ear length (EL), ear circumference (EC), number of kernel row per ear (NKRE), number of kernel per row (NKR), grain yield per plant (GYPP) were recorded. The genotypes were significantly differed among each other with regard to all the measured traits except EH/SH and GYPP. Among the genotypes, genotype 2 (Rampur Yellow) exhibited highest grain yield (158.082 g/plant), genotype 4 (CP808) had the highest number of kernel per row (35), number of kernel per ear row (16), ear circumference (19.5 cm),genotype 2 (Rampur Yellow) had lowest days to tasseling (52 days), days to silking (56 days) and days to anthesis (71 days), genotype 5 (Local) had the highest silk length (8.81 cm), genotype 1 (Khumal Rato) had highest plant height (271 cm) and EH/SH(119.81cm). The trait EH (0.222) SL (0.189), PH (0.304), EC (0.419), NKRE (0.310), and NKR (0.399) had positive correlation with grain yield per plant. Similarly DTT (-0.185), DTS (-0.324) and EL (-0.150) had negative correlation with grain yield per plant. Path coefficient analysis showed that NKRE (0.752) had the highest positive and high direct contribution on grain yield per plant followed by DTT (0.385), PH (0.351), NKR (0.298), SL (0.071) and EL (0.044). DTS (-1.384) had highest direct negative effect on grain yield per plant followed by EH (-0.393) and EC (-0.136). The phenotypic coefficient of variation (PCV) was higher than genotypic coefficient of variation (GCV) for all characters. The difference between PCV and GCV was large in SL and EH indicating that these traits are affected by environment as well. Moderate to high heritability (> 0.30) was observed for most traits except EH and GYPP. Moderate to high heritability associated with high genetic gain was observed for all the traits indicating the involvement of additive gene action. According to path coefficient analysis, number of kernel row per ear, days to tasseling, plant height, number of kernel per row, silk length, ear length, days to silking had highest positive and high direct contribution on grain yield, which are the pre-requisites for attaining improvement in yield of maize genotypes.

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Ghimire, A.
B.V.Sc. and A.H., Institute of Agriculture and Animal Science, Rampur, Chitwan
Dahal, U
Senior Veterinary Doctor, Directorate of Animal Health, Tripureshwor, Kathmandu

Serodetection of Avian Encephalomyelitis in Broiler Breeders of Kathmandu Valley

Avian encephalomyelitis (AE) is an enteroviral infection primarily affecting young chickens and is characterized by ataxia and tremors, especially of the head and neck. Avian encephalomyelitis virus (AEV) is an important pathogen of poultry and is classified as a member of picornaviridae.Nearly all chicken flocks eventually become infected with the virus, but the incidence of clinical disease is very low unless a breeder flock is not vaccinated and becomes infected after the commencement of egg production.32 unvaccinated birds and 58 vaccinated birds serum sample was collected from different farms of Kathmandu valley. The AE ELISA KIT was used to detect the antibody against AE. 21 unvaccinated birds shows the presence of antibody against AE and 55 vaccinated birds show the presence of antibody against AE. In the unvaccinated birds, the presence of antibody says that either birds are exposed to infection or they have existing maternal antibody. In the vaccinated birds, the 3 birds do not have antibody (negative) which indicates the bird may be immunecompromised. There is necessity of vaccination as there is the infection.

Keywords : Avian Encephalomyelitis, ELISA, Vaccine

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Udita Agrawal

University/Organization: Drug Delivery Research Laboratory, Department of Pharmaceutical Sciences, Dr. Hari Singh Gour University, Sagar, M.P., India, 470003

Tailored Polymer Lipid Hybrid Nanoparticles For The Delivery Of Drug Conjugate: Dual Strategy For Brain Targeting

The object of the present study was to investigate the glioma targeting propensity of folic acid (F) decorated polymer lipid hybrid nanoparticles (PLNs) encapsulating cyclo-[Arg-Gly-Asp-D-Phe-Lys] (cRGDfK) modified paclitaxel (PtxR-FPLNs). The prepared PLNs were supposed to bypass the blood brain barrier (BBB) efficiently and subsequently target integrin rich glioma cells. The developed formulations were characterized by fourier-transform infrared spectroscopy, nuclear magnetic resonance spectroscopy, particle size, drug entrapment efficiency, in vitro release profile, transmission electron microscopy and atomic force microscopy. PtxR-PLNs-FA demonstrated highest in vitro inhibitory effect, cell apoptosis, cell uptake and significant transport ability across the BBB model in vitro. Pharmacokinetic and biodistribution studies demonstrated that the PtxR-PLNs-FA significantly enhanced the bioavailability of Ptx in circulation as well as in brain tumor. In vivo anti-tumor studies clearly revealed that the median survival time for Balb/C mice treated with PtxR-PLNs-FA (42 days) was extended significantly as compared to other formulations. From the results it can be concluded that the developed dual targeted nanoformulation has ability to cross BBB and significantly deliver higher amount of drug to brain tumor for better therapeutic outcome.

Biography

Udita Agrawal is working as Assistant professor and has received her Doctoral degree in Faculty of Pharmacy from Drug Delivery Research Laboratory, Department of Pharmaceutical Sciences, Dr H.S. Gour Central University, Sagar (MP) India. She has received SRF-CSIR while pursuing Ph. D and UGC-SRF for her masters. She has received more than 15 awards in the field of drug delivery for her outstanding innovative research work including M.P Young Scientist Award 2016, Pharmaceutical Science Alumi Award etc. She has published more than 15 papers in journals of International repute and more than 16 book chapter in International books. She is currently working on targeted drug delivery and nanobiotechnology.

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Hemanta Koley, MSc, PhD

Division of Bacteriology, National Institute of Cholera and Enteric Diseases, P-33, C.I.T. Road, Scheme XM, Beliaghata, Kolkata-700010.CIT Road C.I.T. Road, Scheme XM, Beliaghata, Kolkata-700010

Shigella Outer Membrane Vesicles: A Novel Particles of Next Generation Vaccine

Most of enteric bacterium secretes outer membrane vesicles (OMVs) during growth condition. Among them, Shigellaboydii type 4 BCH 612 strain releases OMVs naturally better. In our first study, we immunized female adult mice by oral route with purified single outer membrane vesicles (SOMVs, 32µg per 100µl), isolated from Shigellaboydii type 4 BCH 612 strain. Immunized mice induced specific, high-titer immune responses against a variety of antigens present in the OMVs. We challenged the offspring of immunized female mice with Shigella sp. of four serogroups via the oral route in two consecutive periods, approximately 70th and 120th day after the 4th and last immunization. The offspring was showed that 100% homologous protection was quite satisfactory, 75% average heterologous protective efficacy bestowed by the OMVs of S. boydii was not at all promising from the purview of disease prevalence and severity. Then, we have advanced our research by formulating multi-serotype outer membrane vesicles (MOMVs), mixing the OMVs of Shigelladysenteriae 1 stx, Shigellaflexneri 2a, 3a and 6, S. boydii type 4 and Shigellasonnei to achieve a broad spectrum protection against shigellosis. Adult mice were immunized orally MOMVs. Immunized dams exhibited a consistent broad spectrum antibody response. 3–4 day-old offspring of immunized dams showed significant long term passive protection against wild type S. flexneri 2a, 3a, and 6, S. boydii type 2 and S. dysenteriae 1. Their stomach extracts, essentially containing mother's milk, have also exhibited significant levels of anti-MOMVs immunoglobulins. In conclusion, MOMVs formulation represents an easy, safe immunization strategy that was found suitable to provide complete passive protection to the neonatal mice against all four serogroups of Shigellae. Outer membrane vesiclesfrom tolA-mutant, could be a potential cost-effective vaccine candidate against shigellosis in the field of next-generation non-living vaccine against human shigellosis in near future.

Biography

Dr Hemanta Koley, Scientist, Division of Bacteriology, National Institute of Cholera and Enteric Diseases, Kolkata, India. His present research interest is to understand signal transduction pathways in immune and inflammatory cells during diarrhoea and also to study the nature of protection against diarrhoeal pathogens like

Vibrio cholerae,Salmonella, Campylobacter, Helicobacter, ETEC andShigella in different animal model. He has published 72 original papers, presented 47 abstracts in different national and international seminars and conferencesand secured four vaccine patent in his credit..

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Giulio Tarro, Md, PhD

University/Organization:Chairman of the Committee on Biotechnologies and VirusSphere, WABT - UNESCO, Paris

Vaccines for Viral and Oncological Diseases

The lethal virus that causes the smallpox was eraticated in 1979 in man, thanks to a global scale vaccination. Recently the Worl Health Organization (WHO) declared that India and Southeast Asia are free for poliovirus, that can cause paralisis, after the use of vaccines since 60 years ago. Last year over 800 million doses of combination vaccines were used to vaccinate Chinese children whereas more than 20 million children worldwide do not receive one or more important vaccinations that would protect them from preventable diseases. The vaccine for hepatitis B virus (HBV) is able to prevent 50% of all liver cancers. Human Papilloma Viruses (HPV) have been correlated with the cervical cancer for genotypes oncogenic in humans: in 2006 the first vaccine against HPV was released. Finally, the ability of the immune system to recognize a tumor-associated antigen, thus enabling development of a vaccine approach for preventive as well as therapeutic application, represents a main target of this field of research.

Biography

Giulio Tarro graduated from Medicine School, Naples University (1962). Research Associate, Division of Virology and Cancer Research, Children's Hospital (1965-1968), Assistant Professor of Research Pediatrics, College Medicine (1968-1969), Cincinnati University, Ohio. Oncological Virology Professor, Naples University (1972-1985). Chief Division Virology (1973-2003), Head Department Diagnostic Laboratories, (2003-2006). D. Cotugno Hospital for Infectious Diseases, Naples; Emeritus, 2006 -. Since 2007 Chairman Committee of Biotechnologies and VirusSphere, World Academy Biomedical Technologies, UNESCO, Adjunct Professor Department Biology, Temple University, College of Science and Technology, Philadelphia, recipient of the Sbarro Health Research Organization lifetime achievement award (2010). President Foundation de Beaumont Bonelli for Cancer Research.

Global Summit on Vaccines and Virology

23rd – 25th January 2017, Singapore

Jung Ah Cho

Wide River Institute of Immunology, Seoul National University College of Medicine,
103Daehak-ro, Jongno-gu, Seoul, Republic of Korea
Medical Research Institute & Adult Stem Cell Research Institute, Department of Obstetrics and Gynecology, Kangbuk Samsung Hospital, Sungkyunkwan University School of Medicine, 29 Saemunan-ro, Jongno-gu, Seoul, Republic of Korea
School of Basic Science, DGIST, 333 Techno Jungang-daero, Hyeonpung-myeon, Dalseong-gun, Daegu, Republic of Korea

Comparative Analysis of 3 Experimental Mouse Model for Blood Hematology and Chemistry

The immune system and neuroendocrine systems are the two key components that maintain bodily homeostasis. Peripheral blood specimens can indicate abnormalities in a body, which often cause various threats to human health, including devastating autoimmune or metabolic diseases. To develop a treatment regimen for such diseases, experimental animal models are indispensable to researchers in academic fields. In this study, we examined the peripheral blood of 3 representative mouse strains (ICR, Balb/c, and C57Bl/6), which are widely used, to investigate whether there is a difference in reference range according to animal model. We performed hematological and chemistry analysis on individuals of both genders. The results of hematology analysis showed that the number of most types of blood cells was lower in ICR than in the other two strains. The results of chemical analysis revealed no specific pattern, but different patterns according to the individual indicator. Although the distinction between ICR and B6 was prominent, differences between Balb/c and B6 were also observed for several indicators. For some indicators, totally different patterns existed between females and males. Conclusively, this study provides the information that 3 experimentally representative mouse models have their own basal levels of blood components, suggesting the importance of a careful choice of a proper mouse model in research into immune or metabolic diseases, to exclude any biases.

Key Words: Mouse model, Blood hematology, Blood chemistry

Biography

Abbreviations used are: RBC, Red Blood Cells; WBC, White Blood Cells; BUN, Blood Urea Nitrogen; TP, Total Protein; TB, Total Bilirubin; ALT, Alanine Aminotransferase; ALKP, Alkaline Phosphatase.