

2nd INTERNATIONAL WEBINAR ON

VACCINES AND IMMUNOLOGY

May 10 - 11, 2021 | 12:00 GMT



Coalesce Research Group

33 Market Point Dr, Greenville, SC 29607, USA

Contact Us:

Phone: +1-718-543-9362 Whatsapp: +1-315-902-2237 vaccines@scientistsmeet.com

Scientific Program

2nd International Webinar on

Vaccines and Immunology

Monday May 10, 2021

	Day 1 - May 10, 2021 12:00 GMT
12:00 - 12:10	Introduction
12:10 - 12:35	COVID-19 Vaccine Safety in Cancer Patients: A Single Centre Experience Deborah Enting, Guy's and St Thomas' NHS Foundation Trust, UK
12:35 - 13:00	The Nobel prized nitric oxide molecule as a noble treatment for nCOVID Jan Mohammad Mir, Islamic University of Science and Technology, India
13:00 - 13:25	A Case Study for Verification of "E = mc²": Calculation of Food Shortage Cemil Koyunoğlu, Yalova University, Turkey
13:25 - 13:50	Molecular docking revealed the inhibitory property of bacteriocin against SARS-CoV-2 target proteins Shyamapada Mandal, University of Gour Banga, India
13:50 - 14:15	The Purpose of Temperature of Fever in Covid -19 K. M. Yacob, Marma Health Centre, India
	Lunch (14:15 - 14:45)
14:45 - 15:10	Prevalence of human bocavirus in children suspected with respiratory tract diseases Sunil Mishra, Tribhuvan University, Nepal
15:10 - 15:35	Prediction of Multi-Epitopic Domains of Putative Oral Vaccine against Hepatitis C Virus Adeoti Olatunde Micheal, The Oke- Ogun Polytechnic, Saki Oyo State Nigeria, Nigeria
15:35 - 16:00	A non-clinical spectroscopic approach for covid-19 detection: a simplified perspective Mohd Washid Khan, Rani Durgavati University, India
16:00 - 16:25	Plant-based solutions for COVID-19 Kathleen Hefferon, University of Toronto, Canada
16:25 - 16:50	Strategies for Vaccine Prioritization and Mass Dispensing Eva Lee, Center for Operations Research in Medicine and Healthcare, USA
16:50 - 17:15	Porvac® Subunit Vaccine E2-CD154 Induces Remarkable Rapid Protection Against Classical Swine Fever Virus María Pilar Rodríguez Moltó, Center for Genetic Engineering and Biotechnology, Cuba
	Video Presentation
17:15 - 17:30	Oral manifestations of SARS-CoV-2 infection, scientific evidence in the literature and common small epidemiological study Cinzia Casu, Private Dental Practice, Italy
	End of Day 1 Sessions

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Tuesday May 11, 2021

Day 2 - May 11, 2021 | 12:00 GMT

Oral Presentation			
12:00 - 12:25	Immunity boost system and Pre & Post COVID-19 Vaccine, Treatment and other disease also Pramod Stephen, The Gideon's International, India		
12:25 - 12:50	Molecular dynamics simulation of natural compounds belladonna, eupatorium and lycopodium effective against 3CLpro of SARS-CoV-2 Manisha Mandal, MGM Medical College, India		
12:50 - 13:15	Whole genome sequence: A computational approach to identification of potential target for antivirals and Vaccine candidate Mohammad Naushad Khan, Jamia Hamdard, India		
13:15 - 13:40	Covid-19 Pandemic Post-vaccination Protection; what's went wrong towards eradication Mohammed Ibrahim Saeed, The National Ribat University, Sudan		
13:40 - 14:05	About 20 Millions Corona virus infections with many Spike protein mutations and deletions causing >4000 deaths per day in India: An account of vaccine shortage vs vaccine failure Asit Kumar Chakraborty, Vidyasagar University, India		
14:05 - 14:30	Pivotal role of vaccines while stepping into the post- antibiotic era Asma Haque, Govt College University Faisalabad, Pakistan		
14:30 - 14:55	Human Papillomavirus Infection in genital Women in four regions of Senegal El Hadji Seydou Mbaye, International Agency for Research on Cancer (IARC/WHO), Senegal		
End of Day 2 Sessions			

Day-1 Oral Presentations

Vaccines and Immunology

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COVID-19 VACCINE SAFETY IN CANCER PATIENTS: A SINGLE CENTRE EXPERIENCE

Alfred Chung Pui So, Harriet McGrath, Jonathan Ting, Krishnie Srikandarajah, Styliani Germanou, Charlotte Moss, Beth Russell, Maria J Monroy Iglesias, Saoirse Dolly, Mieke Van Hemelrijck and Deborah Enting

Guy's and St Thomas' NHS Foundation Trust, UK

Abstract

Background: Emergency approval of vaccines against COVID-19 provides an opportunity for us to return to pre-pandemic oncology care. However, safety data in cancer patients is lacking due to their exclusion from most phase III trials.

Methods: We included all patients aged less than 65 years who received a COVID-19 vaccine from the 8th December 2020 to 28th February 2021 at our London tertiary oncology centre. Solicited and unsolicited vaccine-related adverse events (AEs) were collected using telephone consultation. Oncological data was extracted from our local chemotherapy prescribing database. Severity of AEs were graded according to CTCAE v5.0.

Results: Within the study period, 373 patients received their first dose of vaccine: Pfizer/BioNTech (75.1%), Oxford/AstraZeneca (23.6%), Moderna (0.3%), and unknown (1.1%). Median follow-up was 25 days (range 5-85). Median age was 56 years (range 19-65). 94.9% patients had a solid malignancy of which 76.7% were stage 3-4. The most common tumour groups were breast (34.0%), lung (13.4%), colorectal (10.2%), and gynaecological (10.2%). 88.5% patients were receiving anti-cancer treatment (36.2% parenteral chemotherapy, 15.3% immunotherapy). 76.1% developed any grade AE of which 2.4% were grade 3. No grade 4/5 or anaphylaxis were observed. The most common any grade AE within 7 days post-vaccination were sore arm (61.7%), fatigue (18.2%), headaches (12.1%), myalgia (8.3%), and fever (5.6%). Median duration of AEs were 2 days (range 1-28). Most common grade 3 AE was fatigue (1.1%).

Conclusion: Our preliminary results demonstrate that COVID-19 vaccine-related AEs in oncology patients are similar, if not less frequent, than the general population. Although this is reassuring, it may be a result of lower immunogenicity to the vaccine as recently reported in the SOAP-02 study.

Biography

Deborah Enting is a Consultant Medical Oncologist at Guy's and St Thomas' NHS Foundation Trust, and an Honorary Senior Lecturer at King's College London. She specialises in the treatment of Urological Cancers and the systemic treatment (chemotherapy, immunotherapy and targeted therapies) for Bladder, Prostate, Kidney and Testicular cancers. Dr Enting undertook her medical training at the University of Groningen in The Netherlands and trained in Medical Oncology at Guy's and St George's Hospitals. She was a research fellow at the Department of Immunobiology at King's College London and in collaboration with colleagues of the Translational Oncology Urology Research (TOUR) group at King's College London she works on tumour immune surveillance and bladder cancer research. She is the Clinical Lead for Systemic Anti-Cancer Therapies at Guy's Hospital. Together with colleagues within and outside her institution she has led on guidelines for COVID-19 vaccination in cancer patients which have been adopted nationally by the UK Chemotherapy Board.

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THE NOBEL PRIZED NITRIC OXIDE MOLECULE AS A NOBLE TREATMENT FOR nCOVID

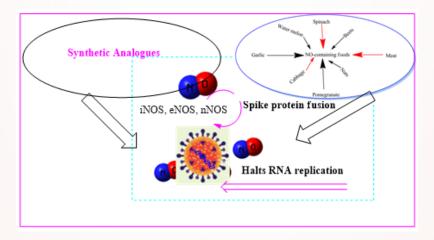
Jan Mohammad Mir^{1,2}

¹Coordination, Metallopharmaceutical and Computational Laboratory, Department of PG Studies and Research in Chemistry and Pharmacy, R.D. University, India

²Department of Chemistry, Islamic University of Science and Technology, India

Abstract

In the prevailing coronavirus disease-2019 (COVID) times, scientists are eager to develop vaccine against COVID-19, and careful measures are being taken to develop an effective drug. Meanwhile, several antiviral compounds have been repurposed for the COVID-19 treatment, and drug repurposing has yielded satisfactory results. In the meantime, NO is also under clinical trials to find its potentiality as anti-coronavirus. This work aims to describe the therapeutic potential of nitric oxide (NO) for the treatment of deadly (COVID-19). The significance of NO in mitigating the COVID-19 associated symptomatic complications has also been addressed in this work. So, the profound antiviral effects of NO against coronavirus, and also the role it plays in relieving symptomatic severity of COVID-19 are supportive of the fact to declare NO as a therapeutic option for this disease.



Biography

Jan Mohammad Mir is currently working as an Asst. Professor at the Islamic University of Science and technology, Awantipora-J&K. He bagged his Ph.D. from R.D. University, Jabalpur in 2015 and is about to complete his D.Sc. degree from the same university. His postdoctoral research mainly involves the molecular modeling and medicinal implications of metal based gasotransmitters. Currently, he is seeking the role of NO, CO and H2S in minimizing the COVID-19 associated severity. He has been a good academician and a researcher. He guided so many research projects entailed with M.Phil. and M.Sc. students. As a young researcher his scientific contributions have got more than 400 citations till now. As per the available details, he has published more than fifty research papers of current scientific temper in various reputed journals covering most of the world famous publishers. He has complied more than seven books and several book chapters till now. Dr Mir is currently serving as editor as well as reviewer for several esteemed journals.

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A CASE STUDY FOR VERIFICATION OF "E = MC2": CALCULATION OF FOOD SHORTAGE

Cemil Koyunoğlu

Yalova University, Turkey

Abstract

"Earth Overshoot Day" means that we will begin to manage with the foods that are produced in 1 year in our world on August 4, which we passed, and only the foods that are stocked in the markets. Albert Einstein tried to draw attention to the use of energy stored in the form of carbohydrates as nutrients in addition to the fertility-enhancing features of the bees, with a question mark from many years ago with the interpretation of "all bees have vanished, and humanity has four years left." The depletion of the agricultural resources declared on August 4 has turned out to be a threat to humanity. According to the Ecological Footprint Atlas, we have lived in a state of ecological overshoot since the 1970s, which means that human demands have exceeded the Earth's biocapacity. Human needs measure the environmental assets that a given population requires to produce the natural resources it uses, and biocapacity refers to the productivity of that ecological asset. Human demands alter ecosystems by creating environmental pressures such as land-use changes, resource extraction and depletion (such as deforestation and overfishing), emissions of waste and pollution, and the modification and movement of organisms. The resulting environmental impacts include, but are not limited to, climate change, land degradation, loss of biodiversity, and pollution. Consequences affect primarily the very poor and vulnerable populations in developing countries through, for instance, famine, water shortages, and competition over resources. The following sections are explained due to the below physical laws used to calculate the food shortage according to Einstein's famous quote; Stefan-Boltzmann radiation law, Doppler effect, Stefan-Boltzmann distribution law Section, E=mc² defines as rest energy

Background: According to the Ecological Footprint Atlas, we have lived in a state of ecological overshoot since the 1970s, which means that human demands have exceeded the Earth's biocapacity.

Objective: Consequences affect primarily the very poor and vulnerable populations in developing countries through, for instance, famine, water shortages, and competition over resources.

Methods: Following sections are explained due to the below physical laws used to calculate the food shortage according to the Einstein's famous quote; Stefan-Boltzmann radiation law, Doppler effect, Stefan-Boltzmann distribution law Section, E=mc² defines as rest energy.

Results: According to the Stefan-Boltzmann distribution law.

 $n_1/n_0=e^{-\Delta E/RT}$ for the population of the humans (no) $n_1/n_0=e^{\left(-2.3352210^{19}\right)/8.314.\left(6.02.10^{23}\right)}.(298.15)$ $n_0=0.99860987431. \ n_0$

n means world population will decrease by (1-0.99860987431) amount.

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Conclusion: The author declares using solar energy to produce food for human population are depending on the key animals which above mentioned ants, bats, bees, termites and also birds. Furthermore, research into the use of renewable energy sources has become an urgent necessity, as well as exploring why global climate is deteriorating, exploring the reduction of carbon footprints and widespread poverty in the world, as well as sustainable development and increased nutritional consumption of means of achieving a cleaner environment. Although some steps have been taken in this direction, such as investigating the effect of microbial organisms, practical measures using 5 key living things are still missing. The year int the Einstein quote is 4 year and calculated is 3,60 year so God gives us 0,4 year more.

Biography

Cemil Koyunoğlu was one of the main people who established Inonu-Pal accredited fuel-oil laboratory with his willingness after his bachelor's degree graduation. Then, he graduated from his Master's degree position in the same department during his proficiency testing connection between SGS Netherland and Inonu-Pal. After the fuel-oil first accepted as an accredited laboratory. He received as a research assistant in Yalova University Energy System Engineering Department. When he started his doctor of philosophy position in Energy Institute, Istanbul Technical University, in 2011, he was moved his staff position to Istanbul Technical University, Energy Institute, in 2013.

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MOLECULAR DOCKING REVEALED THE INHIBITORY PROPERTY OF BACTERIOCIN AGAINST SARS-COV-2 TARGET PROTEINS

Manisha Mandal¹ and Shyamapada Mandal²

¹Department of Physiology, MGM Medical College, India

Abstract

Objective: To explore the binding interactions of bacteriocin with SARS-Cov-2 druggable targets, and ADMET analysis of the ligands.

Methods: We have retrieved two bacteriocins, namely plantaricin BN and bacteriocin 28b, from https://pubchem.ncbi.nlm.nih.gov/, and docked (using Auto Doc Vina) against four target proteins of SARS-CoV-2, such as 3CLpro/Mpro (chymotrypsin-like protease/main protease), helicase, S2 subunit of spike protein and RdRp (RNA-dependant RNA polymerase), the crystal structures of which were retrieved from https://www.rcsb.org/. Binding energy of ≤−6.5 kcal/mol was considered as the cut-off in determining the acceptable binding affinity of bacteriocins to SARS-CoV-2 proteins. The ligands were subjected for the prediction of their drug-likeness and ADMET properties.

Results: The molecular docking revealed good binding affinity, in terms of low binding energy for plantaricin BN, with S protein (-7.1 kcal/mol), 3CLpro (-7.4 kcal/mol), RdRp (-6.6 kcal/mol), and helicase (-6.9 kcal/mol). The binding energy for bacteriocin 28b to the SARS-CoV-2 proteins ranged from -7.3 kcal/mol (with helicase) to -7.0 kcal/mol (with 3CLpro and RdRp). The binding affinity of both the bacteriocins to all the SARS-CoV-2 target proteins was $\leq -6.5 \text{ kcal/mol}$. Both the bacteriocin obeyed Lipinski's RO5 for drug-likeness; bioavailability score was 0.55 for bacteriocin 28b and 0.11 for plantaricin BN.

Conclusion: The *in-silico* study suggested the usefulness of bacteriocin 28b as supplement or treatment of COVID-19 caused with the infection of SARS-CoV-2, and plantaricin BN might also be helpful in reducing SARS-CoV-2 infection, because of their high binding affinity to SARS-CoV-2 druggable proteins.

Biography

Shyamapada Mandal, Professor, Department of Zoology, University of Gour Banga, India, is interested on infectious diseases, probiotics, and genomics and bioinformatics research. He did pre-PhD, PhD, and post-PhD research under the guidance of Professor Nishith Kumar Pal at Calcutta School of Tropical Medicine, India. He has published 117 articles with eight book chapters. He is life member of IAMM and IASR, India, and fellow member of SASS, India. Eight national academic and research awards have been conferred to him. He has guided 52 post graduate students; supervised three MPhil and three PhD students, and supervising 6 PhD students. Professor Mandal is among the world's top 2% scientists as per the survey of the Stanford University, published in PLOS (Public Library of Science) Biology (October, 2020).

²Department of Zoology, University of Gour Banga, India

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THE PURPOSE OF TEMPERATURE OF FEVER IN COVID -19

K. M. Yacob

Marma Health Centre, India

Abstract

When the disease made by virus becomes a threat to life or organs blood circulation decreases, Temperature of fever will emerge to increase prevailing blood circulation. And it acts as a protective covering of the body to sustain life. When blood flow decreases to the brain, the patient becomes fainted-delirious. If we try to decreases the temperature of fever, the blood circulation will further be reduced. Blood circulation never increases without temperature increase. Delirious can never be cured without an increase in blood circulation. The temperature of fever is not a surplus temperature or it is not to be eliminated from the body. During fever, our body temperature ncreases like a brooding hen's increased body temperature. The actual treatment to fever is to increase blood circulation. Two ways to increase blood circulation. 1. Never allow body emperature to lose 2. Apply heat from outside to the body. When the temperature produced by the body due to fever and heat which we applied on the body combines together, the blood circulation increases. Then the body will stop to produce heat to increase blood circulation. And the body will get extra heat from outside without any usage of energy.

How can we prove that the temperature of fever in Covid -19 is to increase blood circulation?

If we ask any type of question-related to fever by assuming that the temperature of fever is to increase blood circulation we will get a clear answer. If avoid or evade from this definition we will never get a proper answer to even a single question. If we do any type of treatment by assuming that the temperature of fever is to increase blood circulation, the body will accept, at the same time body will resist whatever treatment to decrease blood circulation. If we measure the heat energy used for which activities in fever, we will know the purpose of the temperature of fever. No further evidence is required to prove the temperature of fever in Covid -19 is to increase blood circulation.

Biography

K. M. Yacob is a practicing physician in the field of healthcare in the state of Kerala in India for the last 32 years and very much interested in basic research. My interest is spread across the fever, inflammation and back pain. I am a writer. I already printed and published nine books on these subjects. I wrote hundreds of articles in various magazines. After scientific studies, we have developed 8000 affirmative cross checking questions. It can explain all queries related to fever.

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PREVALENCE OF HUMAN BOCAVIRUS IN CHILDREN SUSPECTED WITH RESPIRATORY TRACT DISEASES

Sunil Mishra¹, Angelica Rajbhandari², Samikshya Kandel³, Bishnu Prasad Upadhyay⁴ and Pradeep Kumar Shah¹

- ¹Tri-Chandra Multiple Campus, Tribhuvan University, Nepal
- ²Nobel College, Nepal
- ³Nepal Academy of Science and Technology, Nepal
- ⁴Department of Immunology, National Academy of Medical Sciences, Bir Hospital, Nepal

Abstract

Background: Acute Respiratory Infections (ARIs) accounts a higher proportion of global mortality and morbidity. HBoV, a newly identified virus of the family Parvoviridae, has been reported to be associated with upper and lower respiratory tract infections among pediatric population and a causative agent of pneumonia.

Objective: To study the prevalence of Human Bocavirus in respiratory samples obtained from children suffering from respiratory tract diseases.

Methods: A total of 120 nasopharyngeal swabs were collected from children visiting Kanti Children's Hospital of age 0-15 years between December 2018 to May 2019. The viral nucleic acid (DNA) was extracted using Pure Link™ Viral RNA/DNA Mini Kit and detected by Multiplex RT PCR technique using FTD Respiratory pathogens 21 following manufacturer's instruction at Central Diagnostic Laboratory and Research Centre.

Results: Out of 120 samples, 15 (12.5%) were found to be HBoV positive with 15.58% infection rate in male and 6.98% rate in female child. The highest prevalence was observed in population of age group below 2 years 33.33%, followed by 3-5 years and 6-15 years. The highest number of infection was observed in the month of March with 60% prevalence. Infection was observed more in out-door patients than in-door patients. Co-infection of HBoV was found to be 33.33% with Respiratory Syncytial Virus (RSV) and 13.33% with Parainfluenza Virus (PIV) with varying range of symptoms among individuals.

Conclusion: Thus, HBoV infection was found to be one of the prominent causes of respiratory illness among children with co-infection of other viruses. So, prior attention is utmost regarding its detection among pediatric population in countries like ours.

Biography

Sunil Mishra has completed Master's Degree in Medical Microbiology from Tribhuvan University and is currently pursuing Masters in International Relations and Diplomacy from Tribhuvan University. He has served Norwegian Red Cross as a Youth Delegate in the year 2014/15 representing Nepal Red Cross Society. He is 3rd Gold Award Holder of The Duke of Edinburgh's International Award in Nepal and represented Nepal in International Gold Event in 2017, Prague, Czech Republic. He served as a Youth Delegate in a week long exchange program between Nepal and India from Ministry of Youth and Sports in 2019. He was granted Research Fellowship by Sichuan University, China under Belt and Road Initiative Scholarship in 2019.

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PREDICTION OF MULTI-EPITOPIC DOMAINS OF PUTATIVE ORAL VACCINE AGAINST HEPATITIS C VIRUS

Adeoti OM^{1,2,3,4}, Akinsooto AV¹ and Olaoye OJ¹

- ¹The Oke- Ogun Polytechnic, Saki Oyo State Nigeria, Department of Science Laboratory Technology, Nigeria
- ²Ladoke Akintola University of Technology, Department of Pure & Applied Biology, Nigeria
- ³Department of Zoology, Parasitology Unit, University of Ibadan, Nigeria
- ⁴Cellular Parasitology Unit, Department of Zoology, University of Ibadan, Nigeria

Abstract

Tepatitis C virus is the major cause of liver disease. Anti HCV vaccines if designed is rational decision to reinforce specific T-cell as a crucial aspect of effective antiviral treatment. This study explored the use of bioinformatics tools by retrieval of twenty (20) HCV proteins which were selected for vaccine design. We retrieved these from UniProt server based on their antigenicity, virulence and adhesions. These were further screened for antigenicity, virulence, subcellular localization, essentiality non-homology and other further parameters, including, virulence, TM helices, and relative molecular mass. BLASTp revealed 80% identity with Homo sapiens genes. Invariably, only four (4) of all the twenty sequences (HOIL1_HUMAN, HOIL1_HUMAN, TFB2M_HUMAN and RSF1_HUMAN) were human homology which were not a probably good vaccine candidate; a good vaccine targets should not be human homologous. The prediction analysis by different bioinformatics servers for T and B cells (using MHC-I/-II alleles for human and mouse BALB/c) allowed the selection of 20 epitopes based on their scores, number of alleles, and agreement between the servers used. The Epitopes obtained include: Q3S781_9HEPC₅₂₋₇₁, POLG_HCVBK₄₄₂₋₄₆₁, POLG_HCVJA₂₋₂₁, POLG_HCVJ₁₇₇₋₉₅, POLG_HCVCO₄₄₅₋₄₆₄, POLG_HCVR₆₁₁₀₇₋₁₁₂₆, POLG_HCVJP₄₇₋₆₆, POLG_HCVTW₆₆₄₋₆₈₃, POLG_HCVTR₄₄₆₋₄₆₅, LTOR5_HUMAN₂₃₋₄₂, POLG_HCVT₅₁₀₀₋₁₁₉, POLG_HCVJT₇₇₋₉₆, HOIL1_HUMAN₁₆₉₋₁₈₈, POLG_HCVJ₄₆₄₄₋₆₆₃, POLG_HCVJ₈₄₇₋₆₆, TFB2M_HUMAN₄₉₋₆₈, RSF1_HUMAN₁₃₈₋₁₅₇, A8DGK3_9HEPC₇₇₋₉₆, A8DHN1_9HEPC5₄₋₇₃, A8DFL0_9HEPC₂₋₂₁. An antigenicity score of 0.6004 was obtained with the use of VaxiJen server. The allergenicity prediction showed that the vaccine is not allergenic with the use of AllerTOP v.2.0 and AlgPred servers. The molecular weights and theoretical pI of protein were 45.1 kDa and 10.24, respectively. This study designed multivariant regions in these protein with immunogenetic domains which could be antagonistic to HCV.

Biography

Adeoti O.M is working in The Oke- Ogun Polytechnic in Department of Science Laboratory Technology and Ladoke Akintola University of Technology in Department of Pure & Applied Biology, Ogbomoso. He also working in Cellular Parasitology Unit, Department of Zoology, University of Ibadan, Nigeria

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A NON-CLINICAL SPECTROSCOPIC APPROACH FOR COVID-19 DETECTION: A SIMPLIFIED PERSPECTIVE

MW Khan, J M Mir, BA Malik and RC. Maurya

Metallopharmaceutical and Computational Chemistry Laboratory, Department Of P.G. Studies and Research in Chemistry and Pharmacy, RD University, India

Abstract

With the coronavirus infectious disease-19 (COVID-19) outbreak, there have been so many Challenges before the scientific world to curb this pandemic. The main quests like the diagnosis, treatment, and vaccine development for this infection caught main attention of the scientific community. Despite the administration of the COVID-19 vaccine in the current times, the specific treatment for this disease is yet unknown. Meanwhile, the COVID-19 detection or diagnosis has been mainly sought by using polymerase chain reaction-based methods which are cost-effective, not so ideal, less accurate, and is slow to furnish the results. The time duration it takes to prepare a sample for real-time polymerase chain reaction (RT-PCR) indicates that the technique is time-consuming. Hence, the main factors including sensitivity, specificity, and timely diagnosis are important to overcome these challenges. Therefore, in this perspective, the spectroscopic approach is suggested as a potent detection methodology for COVID-19 detection. The famous spectroscopic techniques including Raman spectroscopy, Infrared spectroscopy and mass spectrometry have been discussed in this review for the use in sample testing for COVID-19 diagnosis.

Biography

Mohd Washid Khan working in Coordination, Metallopharmaceutical and Computational Chemistry Laboratory in Department of P.G. Studies and Research in Chemistry and Pharmacy, RD University, Jabalpur, India

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PLANT-BASED SOLUTIONS FOR COVID-19

Kathleen Hefferon¹, Nasir Mahmood¹, Sarah Nasir¹, Nasir Mahmood^{1,2,3}, Sarah Bushra Nasir⁴ and Kathleen Hefferon³

- ¹Department of Cell and Systems Biology, University of Toront, Canada
- ²Department of Biochemistry, University of Health Sciences, Pakistan
- ³Forest Ridge Health Care Inc., Toronto, Canada
- ⁴Department of Life Sciences, Abdus Salam School of Sciences, Nusrat Jahan College, Pakistan

Abstract

The coronavirus SARS-COV-2 has turned our own health and the world economy upside down. While several vaccine candidates are currently under development, antivirals with the potential to limit virus transmission or block infection are also being explored. Plant production platforms are being used to generate vaccines and antiviral proteins inexpensively and at mass scale. The following presentation discusses plant-based approaches to generate a novel COVID-19 antiviral protein and address the challenge that it presents to our way of life.

Biography

Kathleen Hefferon is working in Cell and Systems Biology in University of Toronto, Ontario, Canada.

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STRATEGIES FOR VACCINE PRIORITIZATION AND MASS DISPENSING

Eva Lee

Center for Operations Research in Medicine and Healthcare, USA

Abstract

Te propose a system that helps decision makers during a pandemic find in real time the mass vaccination strategies that best utilize limited medical resources to achieve fast containments and population protection. Our general-purpose framework integrates into a single computational platform a multi-purpose compartmental disease propagation model, a human behavior network, a resource logistics model, and a stochastic queueing model for vaccination operations. We apply the modeling framework to the current COVID-19 pandemic and derive an optimal trigger for switching from a prioritized vaccination strategy to a non-prioritized strategy so as to minimize the overall attack rate and mortality rate. When vaccine supply is limited, such a mixed vaccination strategy is broadly effective. Our analysis suggests that delays in vaccine supply and inefficiencies in vaccination delivery can substantially impede the containment effort. Employing an optimal mixed strategy can significantly reduce the attack and mortality rates. The more infectious the virus, the earlier it helps to open the vaccine to the public. As vaccine efficacy decreases, the attack and mortality rates rapidly increase by multiples; this highlights the importance of early vaccina-tion to reduce spreading as quickly as possible to lower the chances for further mutations to evolve and to reduce the excessive healthcare burden. To maximize the protective effect of available vaccines, of equal importance are determining the optimal mixed strategy and implementing ef-fective on-the-ground dispensing. The optimal mixed strategy is quite robust against variations in model parameters and can be implemented readily in practice. Studies with our holistic modeling framework strongly support the urgent need for early vaccination in combating the COVID-19 pandemic. Our framework permits rapid custom modeling in practice. And it is generalizable for different types of infectious disease outbreaks, whereby a user may determine for a given type the effects of different interventions including the optimal switch trigger.

Biography

Eva Lee is an American applied mathematician and operations researcher who applies combinatorial optimization and systems biology to the study of health care decision-making and organizational transformation. She's been a critical voice in the scientific community with regards to the COVID-19 pandemic and in previous pandemics like SARS and H1N1. Dr. Lee is Professor and Director of the Center for Operations Research in Medicine and HealthCare at the Georgia Institute of Technology, a center established through funds from the National Science Foundation and the Whitaker Foundation. The center focuses on biomedicine, public health and defense, translational medical research, medical delivery and preparedness, and protection of critical infrastructures. She previously served as the Senior Health Systems Engineer and Professor for the U.S. Department of Veterans Affairs, and was Co-Director for the Center for Health Organization Transformation.

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PORVAC® SUBUNIT VACCINE E2-CD154 INDUCES REMARKABLE RAPID PROTECTION AGAINST CLASSICAL SWINE FEVER VIRUS

Yusmel Sordo-Puga, Marisela Suárez-Pedroso, Paula Naranjo-Valdéz, Danny Pérez-Pérez, Elaine Santana-Rodríguez, Talia Sardinas-Gonzalez, Mary Karla Mendez-Orta, Carlos A. Duarte-Cano, Mario Pablo Estrada-Garcia and María Pilar Rodríguez-Moltó

Center for Genetic Engineering and Biotechnology, Cuba

Abstract

Background: Classical swine fever (CSF) is considered to be a devastating disease for the pig industry throughout the world concerning both economic and sanitary issues The causative agent of CSF, which is a highly contagious disease of swine, is a member of the genus Pestivirus within the family *Flaviviridae* Although the currently available CSFV live attenuated viruses (LAVs) confer an effective, rapid, and solid immune protection, countries that are free of CSFV do not apply vaccination to their national herds due to the inherent difficulty to differentiate infected animals within a vaccinated population (i.e., Differentiating Infected from Vaccinated Animals (DIVA) capability).

Objective: Live attenuated C-strain classical swine fever vaccines provide early onset protection. These vaccines confer effective protection against the disease at 5–7 days post-vaccination. It was previously reported that intramuscular administration of the Porvac® vaccine protects against highly virulent classical swine fever virus (CSFV) "Margarita" strain as early as seven days post vaccination.

Methods: In order to identify how rapidly protection against CSFV is conferred after a single dose of the Porvac® subunit vaccine E2-CD154,(DIVA vaccine) 15 swine, vaccinated with a single dose of Porvac®, were challenged intranasally at five, three, and one day post-vaccination with 2 x 103 LD50 of the highly pathogenic Cuban "Margarita" strain of the classical swine fever virus. Another five animals were the negative control of the experiment.

Results: The results provided clinical and virological data confirming protection at five days post-vaccination. Classical swine fever (CSF) specific IFNγ T cell responses were detected in vaccinated animals but not detected in unvaccinated control animals.

Conclusion: These results provided the first data that a subunit protein vaccine demonstrates clinical and viral protection at five days post-vaccination, as modified live vaccines.

Biography

María Pilar Rodríguez Moltó is a Medical Doctor in Havana University from 1963-1969. She did Master in Sciences, Virology, and Microbiology Specialist in first degree, 1973 PhD in Biological Sciences, 1984 and Senior Research in 1981. She is Titular Joined Professor of the Chemistry Engineering Faculty Virologist, new approach in molecular virology. Mammalian cell transformation. Pharmaceutical Products Quality Control, Viral Validation. Mammalian cell Culture Scale Up. RD for EPO production using CHO cell. New pharmaceutical products expressing in animal milk. New viral vaccine for animal CSFv Work center. Agricultural Research Direction, Center for Genetic Engineering and Biotechnology.

Day-1 Video Persentation

Vaccines and Immunology

May 10 - 11, 2021 | 11:00 - 18:00 GMT (London Time)

ORALMANIFESTATIONS OF SARS-COV-2 INFECTION, SCIENTIFIC EVIDENCE IN THE LITERATURE AND A SMALL EPIDEMIOLOGICAL STUDY

*Cinzia Casu¹, Antonia Sinesi², Gianna Maria Nardi³

- ¹Department of Surgical Sciences, Oral Biotechnology Laboratory, University of Cagliari, Italy
- ²RDH,Freelancer in Canosa di Puglia,Italy
- ³Department of Odontostomatological and Maxillofacial Sciences, University of Rome " Sapienza"

Abstract

ARS-CoV-2 infection does not only affect the respiratory and gastrointestinal systems as was hypothesized until a few months ago, but manifestations can occur at different levels as well as in the oral district. The most well-known oral manifestation of COVID 19 is the alteration of taste, but many other lesions on the mucous membranes have been described in the scientific literature, such as oral ulcers, migratory glossitis, tongue papillitis, opportunistic infections, erythema multiform like and Kawasaki disease like lesions, and so on. The role of the oral doctor in recognizing these, often asymptomatic, lesions is important in intercepting positive patients and reducing the spread of the virus. In addition to an overview of the scientific literature, we also would like to report our experience, with over 100 patients with an established diagnosis of COVID 19, as the prevalence of oral clinical manifestations and symptoms reported by patients, with the aim to be of assistance to other clinicians in recognizing other injuries connected with this pandemic.

Biography

Cinzia Casu graduated in 2010 and works at the moment at her Private Dental Practice in Cagliari (Italy). She had concluded a biennal Master on Oral Surgery and Pathology in 2015, and then others courses of oral pathology. She is the author of several national and international articles and a monograph. She is the president of AIRO (Italian Academy of Oral Research), She is an editorial member of some International Journal such as Biology and Medicine Case Reports, Archives on Dentistry, Journal of Biomedical Practitioner. She is reviewer for British Medical Journal Case Report and for MPDI Journals. She was a speaker in Italian, European, and World congresses. Research Interest: One of my fundamental goals is to find devices for the treatment of oral diseases that do not have side effects on systemic health such as Photodynamic Therapy, Ozone, Laser and so on. A concept dear to me is that oral health is a window on systemic health.

Day-2 Oral Presentations

Vaccines and Immunology

May 10 - 11, 2021 | 11:00 - 18:00 GMT (London Time)

IMMUNITY BOOST SYSTEM AND PRE & POST COVID-19 VACCINE, TREATMENT AND OTHER DISEASE ALSO

Pramod Stephen

The Gideon's International, India

Abstract

Introduction: - Today COVID-19 pandemic is a deadly big problem for the World.

- 1. First thing is to say that we have to keep ourselves fit and healthy with mind and body like soldier to fight against every kind of disease, situation and problems then our body and mind will be ready to face every kind of situation.
- 2. 2nd things is our body must have every nutrition's balance and maintain hygiene not more clean or more dirty because excessive cleanliness decreases immunity.
- 3. Wear clean and pressed clothes and tie yourself as a soldiers.
- 4. be cheerful in every situations and encourage others when you encourage others that time your body mind will get natural strength and your immunity will increase.
- 5. I have prepared a very simple oral vaccine. It is completely harmless and increase immunity, digest all substance needed for good health and excretes all harmful substance by urine, stool, and sweats. Correct body metabolism. I used it since 2005 and found very good results in various problems. After the COVID-19 pandemic, I am using 2 to 3 drops after 15 days and feeling strength doing normal work with all people. But I never apply for approval of this substance properly. Because I have no money and source to apply for that. Now I am seeing that the world has no proper medicine and vaccine for COVID-19 and people dying like any things. According to Government and WHO rules. It must go for clinical trials but I have no facilities and money for that. I request all capable organization to experiment on this vaccine and save the world. We read in the newspaper that corona virus takes some change from time to time according to body, environment, and weather. If it's taking any change then my describe substance works every type of corona virus. My prepare vaccine we can keep in every type of environment without any maintains. No need to maintain a cold chain or hot chain and it has a long life. It can be used at any age and sex.

Types of Corona Viruses

- 1. Common Corona Viruses: (1)229E (alpha) (2) NL63 (alpha) (3) OC43 (beta) (4) HKU1 (beta)
- 2. Less Common Corona Viruses: (1) MERS-COV (beta) (2) SARS-COV (beta) SARS-COV-2 which causes COVID-19

Structure of COVID-19

It is a composite protein/glycan shield by cryo. (Spike Protein)

Mode of action: - As we know that COVID-19 affects our mouth, nose, neck, lungs, blood, heart, and kidney. It's weak our immunity through the blood.

I want to share a natural method to cure CoVID-19 and boosts immunity by bile juice.

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Material & Methods: As we know that it is shield by proteins and glycan and bile juice secret in the duodenum by nature its function is to break the protein and fats (emulsify) and supports digestion in the small intestine and Ethyl alcohol/rectified spirit have the capacity to absorb all ingredients and protect to be waste. If we use this combination then people will get strength and bile juice works as stem cells and rapidly runs in the blood. It helps in reducing blood sugar levels and fats in the blood as it boosts functions of the pancreas, liver, and correct metabolism. Bile juice produces in every living creature and produced by the liver and no harm full substance present in it. Bile juice contains deoxycholic acid that breaks the COVID-19 we can use it is as pre & post and treatment.

Process: Take any healthy chopped animal birds and fish bile juice and boiled it you can add sugar or salt in it or only bile juice and mixed it with 50% Bile juice and 50% ethyl alcohol/rectified spirit or 50% bile juice and 50% corn syrup and shake well in a bottle and keep it for 12 hours and after 12 hours all particles will sit at the bottom and we can use 5 to 15 drop upper site extract by oral admission and repeated dose morning and evening. It can develop immunity. it is the best tonic in the World.

Result: I found that its cure blood clotting factors, liver disease, allergy, virus, bacteria, and many blood-related diseases. It is my humble request to the WHO and every Government and private agency to experiment on this topic and save the world by COVID-19.

Conclusion: - I used it and found a very good result. I also know some herbal plant that can cure COVID-19

Note- We can use the above method. It will give results in five minutes. Although the taste is bitter it is lifesaving and vaccine also.

Help by Dr. Praveen Stephen, B.A.M.S.B.U. Dr. Ashok Kumar MBBS MD Dr. A.K. Singh M.D. (Pediatric) Dr. Shaym Kumar BHMS Dr. P.P. Stephen DHMS

Substance analysis by Central Drug Research Institute Lucknow U.P. India (attached)

Biography

Innovator Pramod Stephen is a Life Member of Swadeshi Science Movement of India New Delhi. Siristi Sanman & Champaran and Rattan Awardees.

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MOLECULAR DYNAMICS SIMULATION OF NATURAL COMPOUNDS BELLADONNA, EUPATORIUM AND LYCOPODIUM EFFECTIVE AGAINST 3CLpro OF SARS-CoV-2

Manisha Mandal

Department of Physiology, MGM Medical College, India

Abstract

In the current study, the natural compounds, such as belladonna, eupatorium and lycopodium, with no violation of Lipinski's RO5 and with favourable ADMET properties, were utilized as inhibitors of 3CLpro of SARS-CoV-2. Molecular dynamic simulation revealed the root mean square (RMS) deviation of ~ 0.12 nm about the protein backbone, and RMS fluctuations < 0.2 nm about the ligand-heavy atoms, indicating the stability of protein-ligand complexes throughout the simulation. The crucial amino acid players in protein-ligand interactions were Lys5, Met6, Ala7 and Val125 through H-bond and hydrophobic bond formation. The net binding free energy of 3CLpro in complex with eupatorium (-121.36 ± 0.77 kJ/mol) was more favorable than that of lycopodium (-114.17 ± 0.56 kJ/mol) and belladonna (-78.96 ± 2.59 kJ/mol); the ligands were found effective to inhibit the 3CLpro of SARS-CoV-2. Thus, belladonna, eupatorium, and lycopodium might be useful in the management of COVID-19 associated symptoms.

Biography

Dr. Manisha Mandal is working in Department of Physiology from MGM Medical College, India

Vaccines and Immunology

May 10 - 11, 2021 | 11:00 - 18:00 GMT (London Time)

WHOLE GENOME SEQUENCE: A COMPUTATIONAL APPROACH TO IDENTIFICATION OF POTENTIAL TARGET FOR ANTIVIRALS AND VACCINE CANDIDATE

Naushad Khan¹, Ruchika Bhat², Vineet Jain³, Ashok K. Patel⁴, Anmol Chandele⁵, Murali Krishna Kaja⁵ and Pratima Ray^{1*}

- ¹Department of Biotechnology, Jamia Hamdard, India
- ²Department of Chemistry, Indian Institute of Technology Delhi, India
- ³Department of Medicine, Hamdard Institute of Medical Sciences and Research (HIMSR), India
- ⁴Kusuma School of Biological Sciences, India
- ⁵ICGEB-Emory Vaccine Center, International Center for Genetic Engineering and Biotechnology (ICGEB), India

Abstract

Background: Chikungunya virus (CHIKV) an arthropod-borne Alphavirus is responsible for the emerging disease chikungunya fever and joint pain etc. Arthralgia is a major symptom; some patients recover early while others suffer for a very long time.

Objective: To describe the epidemiology and molecular characterizations of suspected patients from North India in 2016.

Methods: Epidemiology and molecular characterization of whole genome sequences of CHIKV have carried out and assessed phylogenetic, physiological properties, antigenicity and B cell epitope prediction by in silico.

Results: We report the epidemiology of 325 suspected patients and shown 118 (36.30%) were positive by either PCR or ELISA. Clinical features, rash 47 (39.83%), joint pain 78 (66.10%), joint swelling 61 (51.69%) etc. are observed. Phylogenies are close clustering to 2014 CHIKV India sample. Molecular characterization by WGS of CHIKV case, we find out 38 amino acid changes in the non-structural proteins with respect to S27 ECSA strain, among five located in nsP2. Similarly, 34 amino acid changes in structural proteins, in E1 (D284E) were observed. Change in E3 hydropathacity -0.281 to -0.362, in E2 isoelectric point (pI) 8.24 to 8.37, Instability index 66.08 to 71.062, aliphatic index varies 74.69 to 68.59 and E3 75.79 to 70.05, pI varies in nsP1 6.62 to 8.04, while no other change is observed. The linear B-cell epitopes, position and number are varied with mutation.

Conclusion: The epidemiology and molecular features of the analyzed WGS demonstrate to understanding the atypical magnitude and virulence for identifying suitable targets for therapeutic approaches.

Biography

My self Dr. Md Naushad Khan has completed his M.Phil and Ph.D. from India at Jamia Millia Islamia and Jamia Hamdard, New Delhi. I have published more than 15 papers in reputed journals and have been serving as an editorial board member and reviewer of repute. I also achieved the National Eligibility Test, Department of Biotechnology Junior Research Fellow, Indo-US Human Immunity to Chikungunya Virus project Staff and Senior Research Fellow from Indian council of Medical Research etc.

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COVID-19 PANDEMIC POST-VACCINATION PROTECTION; WHAT'S WENT WRONG TOWARDS ERADICATION

Mohammed Ibrahim Saeed

The National Ribat University, Sudan

Abstract

Background: principally vaccines were approved to protect healthy individuals from exposure to infection, as well as to attenuate the duration and severity of symptoms in those who do develop illness in the future exposure to covid-19. Currently; 14 fast track coronavirus (covid-19) vaccine has been approved out of 106 vaccine candidates' trials. Approved once expected to meet the inquiries for development of new vaccines, product approval process and tracking side effects once a vaccine is administered. This session highlight the gap of covid-19 vaccine design, delivery, post-vaccination immune responses in relation to expected prevention in post vaccination era of reduced viral incidences, vaccine coverage, healthy carriers and new cases among vaccines. In-spite of the long delay and till covid-19 vaccines approval and use since December 2020, with expectation to halt virus spread as vaccination coverage expands, reduced disease severities, hospitalization and death; but different scenario took place among vaccines as some are captured infection in addition to raised issues on vaccines safety and efficiency. The high expectation and challenging pressures on manufacturers to finish vaccine trials and approval in order to halt virus spread and massive death had collectively strengthened market competition, led to lack of collaborative, broad variability in covid vaccines types and manufacturing technologies; neglecting to consider crucial issue like vaccine capabilities of halting covid virus spread, blocking virus invasion to tissue tropism and termination virus shedding. On the other sides; the induction of anti-covid-19 specific mucosal immunity seem the key component and most crucial mechanisms to halt the infection and disease progress through blocking early virus entry, attachment to target cell Aec-2 receptors and inhibits early virus replication.

Conclusion: The ideal covid-19 vaccine design need to be capable to offer vaccinees with triple immune responses; enough cellular memory, specific higher humoral in term of Covid-IgM & IgG and strengthened potent specific mucosal immunity in term of covid-19 IgA antibody at mucosal lining on lung, pharyngeal and nasal sits. Therefore new vaccines design, delivery strategies, carrier, administrative and dosage are on top demands. In addition to modification in vaccine testing and efficiency parameters to include measuring covid-19 IgA titer and developing in-vitro covid neutralization testing protocols & viral specific M-cell flow-cytometry in mucosal samples.

Biography

Mohammed Ibrahim Saeed, has his expertise in design, delivery and post-vaccination monitoring vaccines, Nano-particle adjuvant, tissue culture vaccines, diagnostic virology and mechanism of resistance & alternative antimicrobial therapy. He published in world-class vaccines, medical virology & microbiology journals. He holds broad and accumulated experiences in conventional, Immuno & Molecular diagnostics, Recombinant DNA for research in vaccines and assay development. He is member of diagnostic virology consultant committee NPHL and central blood bank viral reening consultant committee, Sudan.

Vaccines and Immunology

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ABOUT 20 MILLIONS CORONA VIRUS INFECTIONS WITH MANY SPIKE PROTEIN MUTATIONS AND DELETIONS CAUSING >4000 DEATHS PER DAY IN INDIA: AN ACCOUNT OF VACCINE SHORTAGE VS VACCINE FAILURE

Asit Kumar Chakraborty and Angsuman Chanda

Vidyasagar University, India

Abstract

Back ground: India has >1300 million people and >20 million have infected with Corona virus. COVID-19 is a 30kb sense single stranded largest RNA virus. SARS-CoV-2 second wave is claiming >4000 deaths per day in India. Corona virus mutates ~2 nucleotides per month. Scientists found a great association of Spike protein D614G mutation with >70% increase infectivity as well as P323L (P4715L as orf1ab) mutation of nsp12 RNA-dependent RNA polymerase.

Objectives: Many vaccines (DNA, mRNA, Protein) are obtained from spike protein which bounds to ACE-2 receptor of lung cells for virus entry. Corona virus replicate and destruct in lung cells inhibiting oxygen supply with huge cytokine release. We want to check the new mutation status of corona virus that deposited in 2021.

Methods: We download new virus complete genome and protein sequences from NCBI CoV-2 database and analyzed by CLUSTAL-Omega and Multalin softwares.

Result: We detected E484K, N501Y, A570D, Q676H, S981A and D1119H mutations in the spike protein of US, African and European new corona virus isolates. A Δ Y145 deletion in the Spike protein with Δ H69 and Δ V70 deletions were shown as immune-escape mutants. India is claiming E484K plus L452R as double mutant to cause of Corona death but D614G (Clades: G, GH, GR) with some N501Y spike mutations must be there.

Conclusion: Thus, S protein based recombinant vaccine failure may be possible. We postulated targeting nsp2 RNA topoisomerase, nsp13 capping Guanine methyltransferase and nsp16 2'-O Uridine methyltransferase with phyto-drugs, antisense, ribozyme and CRISPR-Cas6 may be an alternate therapeutics against Corona viruses. Interestingly, Pfizer-BioNTech vaccine was reported effective against Indian double mutants. Sadly, at least 0.04% (1st dose) and 0.006% (2nd dose) vaccinated people re-infected with mutated Corona virus (B.1.1.1.7; B.1.177; B.1.617 and P.1).

Biography

Asit K. Chakraborty is an Indian expert in biochemistry and molecular biology. He obtained MSc and PhD degrees in Biochemistry from Calcutta University in 1990. He did postdoctoral work at UC Berkeley and Johns Hopkins, USA. He was Asso Prof at the Department of Biotechnology & Biochemistry, Vidyasagar University. His research directed in DNA topoisomerases, RNA polymerases and phyto-drug design against MDR bacteria. During pandemic he is doing bioinformatics work on corona virus nsp proteins as visiting professor.

Vaccines and Immunology

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PIVOTAL ROLE OF VACCINES WHILE STEPPING INTO THE POST-ANTIBIOTIC ERA

Asma Haque

Department of Bioinformatics and Biotechnology, GCUF, Pakistan

Abstract

ntimicrobial resistance (AMR) is one of the most serious health threats all over the world. In ad-Adition to the rapid emergence of Multi Drug Resistant (MDR) strains in most of the pathogenic bacteria, Extensively Drug Resistant (XDR) strains are being reported at an unexpectedly fast pace. This scenario evidently means that we are heading towards a post- antibiotic era which means failure of all the antibiotics which are presently effective. The choice of available antibiotics is becoming very limited because of a very fast evolution rate in microbes due mainly to the misuse of drugs. In such an alarming situation it becomes mandatory to search for suitable alternatives. Prophylactic vaccines can be highly effective and valuable tools to fight AMR but these have historically been under-recognized, yet the positive effect in reducing AMR has been well established. For example, *Haemophilus influenzae* type B (Hib) as well as *Streptococcus pneumoniae* (pneumococcal) conjugate vaccines have impressive track records in not only preventing life threatening diseases caused by these bacteria, but also reducing antibiotic use and AMR. Newer vaccines under development such as vaccines to prevent C. difficile or S. aureus, pneumococcal conjugate vaccines with extended serotype coverage or vaccines to prevent infections with Gram-negative bacteria and M. tuberculosis hold a profound promise to address these life-threatening diseases. Integrated efforts in the fields of antibiotics, vaccine development and newer technologies like monoclonal antibodies are hoped to provide affordable solutions to tackle antimicrobial resistance.

Biography

Asma Haque got her Ph. D. in Biotechnology from National Institute for Biotechnology and Genetic Engineering (Centre of Excellence), Pakistan. Her area of research is molecular biology of infectious diseases with particular emphasis on bacterial pathogenesis and she has gained an experience of more than 15 years in this field. She is the founding Chairperson of Department of Bioinformatics and Biotechnology, Government College University, Faisalabad, Pakistan and Founding President of Pakistan Society for Computational Biology.

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May 10 - 11, 2021 | 11:00 - 18:00 GMT (London Time)

HUMAN PAPILLOMAVIRUS INFECTION IN GENITAL WOMEN IN FOUR REGIONS OF SENEGAL

El Hadji Seydou Mbaye^{1,2,3}, Tarik Gheit¹, Ahmadou Dem³, Sandrine McKay-Chopin¹, Ndeye Coumba Toure-Kane², Souleymane Mboup², Massimo Tommasino¹, Bakary S. Sylla¹, and Cheikh Saad Bouh Boye²

¹International Agency for Research on Cancer (IARC/WHO), Lyon, France

Abstract

Introduction: Cervical cancer is the most frequent cancer among women in Senegal. However, there are few data concerning the HPV types inducing neoplasia and cervical cancers and their prevalence, in the general population of Senegal.

Aims: The aim of this study is to determine the prevalence of HPV infection in Senegalese women aged from 18 years and older.

Materials and Methods: A study was performed on 498 cervix samples collected from healthy women aged 18 and older in Dakar. 438 other samples were collected from three other regions, Thiès, Saint Louis and Louga. The samples were screened for 21 HPV genotypes using an HPV type-specific E7 PCR bead-based multiplex genotyping assay (TS-MPG) which is a laboratory-developed method for the detection of HPV.

Results: The prevalence for pHR/HR-HPV in the region of Dakar was 20.68%. HPV 52 (3.21%) was the most prevalent HPV type, followed by HPV 16 (3.01%) and HPV 31 (3.01%). In the regions of Thiès, Louga and Saint Louis, the prevalence for pHR/HR-HPV was 29.19%, 23.15% and 20%, respectively

Conclusion: The study revealed the specificity of the HR-HPV prevalence in Dakar and other regions of Senegal. The patterns differ from the one observed in the other regions of the world and rise the issue of the development of vaccination program in the country. Such a program should take into account the real HPV prevalence for an effective protection of HPV-associated diseases.

Biography

El Hadji Seydou Mbaye was born in 1978 in Kaolack a region of Senegal. During 2008-2013, he earned his PhD in Biology and Human Pathologies with the collaboration of the International Agency for Research on Cancer (IARC) /WHO, Lyon (France); 2006-2007: Master of Life and Health, Specialty Biology of microorganisms, Virology in Louis Pasteur University of Strasbourg (France); 2005-2006: Master of Life and Health, option of Immuno-physiopathology in Louis Pasteur University of Strasbourg (France); 2004-2005: License of Biochemistry in Louis Pasteur University of Strasbourg (France); 2002-2004: General Degree in Sciences and Technologies in University of METZ (France).

He was certified by the Federation International of Gynecology Obstetrics (FIGO), the Accreditation Council of Oncology in Europe (ACOE, www.acoe.be), the Institute Catalan of Oncology (ICO) for cervical cancer prevention (Grade 10/10) in support of Continuing Medical Education for physicians. These credits are also recognized as Physician's Recognition Award (AMA PRA Category 1 credits) by the American Medical Association. He was certified, by the United Nations for Basic Notion of Security on the Ground-Protection, Health and behavior, by the International Agency for Research on Cancer (IARC)/World Health Organization, Lyon (France) for Safety Certificate. He has published 1 Book with a style of philosophical story. Author of the world program against cancer in low and middle incomes countries, he is lead author (first listed) of more than 90 peer-reviewed research articles published in reputed journals. He is Review Board Member of Acta Scientific Medical Sciences (ASMS), Acta Scientific Microbiology (ASMI), Research and Reviews on Healthcare: Open Access Journal (RRHOAJ), and Editorial Board Member of the Journal of Medicine and Medical Sciences (JMMS), Modern Journal of Medicine and

²Laboratory of Bacteriology and Virology, Aristide Le Dantec Hospital, Dakar, Senegal

³Cancer Institute, Aristide Le Dantec Hospital, Dakar, Senegal

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Biology (MJMB), EC Microbiology, International Journal of Clinical Virology (IJCV), Acta Scientific Cancer Biology (ASCB), BioMed Research Journal (BMRJ), Journal of Medicine and Biology (JMB), Biomedical Research, International journal of vaccines and technologies (IJVT), Journal of Surgery, Operative Techniques and Anaesthesia (JSOTA), Current Research in Bioengineering & Biomedical Sciences (CRBBS), Journal of Women's Health, Gynecology & Obstetrics (JWHGO), Trauma & Emergency Care journal, Journal of Current Medical Research and Opinion (JCMRO), International Journal of Clinical Pharmacology & Pharmacotherapy (IJCPP), Journal of Clinical Microbiology and Infectious Diseases (JCMID), Journal of Retro Virology and Anti Retro Virology (JRVAV), Journal of Antivirals and Antiretrovirals, Research and Reports in Immunology (RRI), Journal of Medical Case Reports and Reviews (JMCRR), Pyrex Journal of Biomedical Research (PJBR), Advances in Immunology and Microbiology (ADIM), Current Scientific Research in Biomedical Sciences (CSRBS), Journal of Clinical & Experimental Immunology (JCEI), Journal of AIDS and HIV Treatment, Edelweiss Journal of AIDS, Journal of HIV and AIDS, Journal of HIV and AIDS Research, Associate Editors for Journal of Bacteriology & Mycology: Open Access (JBMOA), Pediatrics & Neonatal Biology Open Access (PNBOA). Immune & Autoimmune Disorders Journal (IADJ), Annals of Advanced Biomedical Sciences (AABSc) and associate membership of the World Society for Virology, and also, member of BCNet International Working Group, International Agency for Research on Cancer (IARC)/World Health Organization (WHO).

Dr MBAYE has formed for free, more than 250 healthcare professionals for the techniques of cervical cancer screening in Senegal. He has appeared on local media, 2S TV, Mbour TV and Leeral.net.



BOOKMARK YOUR CALENDAR

June			
Webinar on Nutrition Research	June 07-08, 2021		
World Congress on Materials Science & Nanotechnology	June 14-15, 2021		
International Conference on Polymer Science and Technology	June 14-15, 2021		
World Conference and Expo on Vision Science and Optometry	June 14-15, 2021		
International Webinar on Pediatrics and Neonatology	June 14-15, 2021		
World Congress on Neurology	June 17-18, 2021		
International Conference on Biopolymers and Bioplastics	June 21-22, 2021		
International Conference on Renewable Energy and Sustainable Technologies	June 21-22, 2021		
International Conference on Occupational Health and Public Safety	June 21-22, 2021		
Global Webinar on Chemistry and Applied Sciences	June24-25, 2021		
Webinar on Biocatalysis & Green Chemistry	June24-25, 2021		
3rd Webinar on Catalysis, Chemical Engineering & Technology	June24-25, 2021		
2nd E-Meeting on Advanced Catalysis (AdCat-2021)	June24-25, 2021		
July			
4 th Webinar on Nanotechnology & Nanomaterials	July 05-06, 2021		
4th Webinar on 3D Printing & Additive Manufacturing	July 05-06, 2021		
Online International Conference on Diabetes and Endocrinology	July 19-20, 2021		
Online International Conference on Atmospheric and Earth Sciences	July 19-20, 2021		
Webinar on Laser, Optics & Photonics	July 26-27, 2021		
International Webinar on Quantum Physics and Nuclear Technology	July 26-27, 2021		
August			
Online International Conference on Civil Engineering & Architecture Design	August 03-04, 2021		
Webinar on Construction & Steel Structure	August 03-04, 2021		
International Webinar on Mass Spectrometry & Analytical Techniques	August 05-06, 2021		
2 nd E-Meeting on Polymer Science & Biomaterials (Polybiomat-2021)	August 05-06, 2021		
International Webinar on Artificial Intelligence and Robotics	August 11-12, 2021		
Webinar on Remote Sensing and Geosciences	August 11-12, 2021		
Webinar on Sensors and Actuator Networks	August 11-12, 2021		
2 nd Online International Conference on Microbiology	August 26-27, 2021		





September		
2 nd International Webinar on Dentistry and Dental Materials	September 02-03, 2021	
2nd International Webinar on Big Data Analytics & Data Science	September - 06-07 - 2021	

Coalesce Research Group LLC

33 Market Point Dr, Greenville, SC 29607, USA

Phone: +1-718-543-9362

WhatsApp: +1-315-902-2237

Contact Us:

info@coalesceresearchgroup.com contact@coalesceresearchgroup.com sponsors@coalesceresearchgroup.com

Website: https://coalesceresearchgroup.org/