

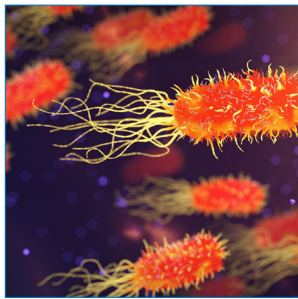
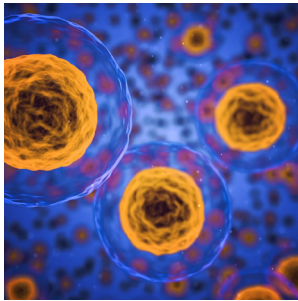
---

# Poster Presentation

---

***STD AIDS 2019***

***IMMUNOLOGY CONGRESS 2019***



Joint Event on  
Global Experts Meeting on  
**STD-AIDS and Infectious Diseases**

&

12<sup>th</sup> International Conference on  
**Allergy, Immunology and Rheumatology**

November 21-22, 2019 | Singapore

Global Experts Meeting on  
**STD-AIDS and  
Infectious Diseases**

&

12<sup>th</sup> International Conference on  
**Allergy, Immunology  
and Rheumatology**

November 21-22, 2019 | Singapore

## **Application of two novel NGS-based detection methods in HPV genomic studies**

**Zhu Houshun**

Beijing Genomics Institute (BGI), China

**H**uman papillomavirus (HPV) is deemed as the leading cause of cervical cancer which is the fourth most common cancer in women. Here we will show two novel detection assays applied in genomic studies of HPV based on NGS. Probe seq could be used in the scenario of acquiring the full virus genome and integration sites at the same time from HPV positive swabs which are collected in HPV routine surveillance. Single tube long fragment read (stLFR) technology could be performed on large molecular HPV genomes which are amplified through rolling cycle amplification (RCA). stLFR shed light on revealing differences among HPV viruses in the same host and may help in illuminating important virus mutations

that contribute to the progress after virus infection. The two novel HPV detection methods are developed and tested and showed potential in HPV genomic studies, as well as in finding new targets for HPV infection prognosis.

### **Speaker Biography**

Zhu Houshun has completed his PhD study in 2017 at The University of Hong Kong. He became the researcher of BGI, China from the year 2018 and employed as a visiting professor by Anhui Medical University at 2019. He has 14 publications that have been cited over 200 times. The main study filed of Houshun is focused on pathogenesis of infectious pathogens such as influenza virus as well as HPVs

e: [houshunzhu@gmail.com](mailto:houshunzhu@gmail.com)

 *Notes:*

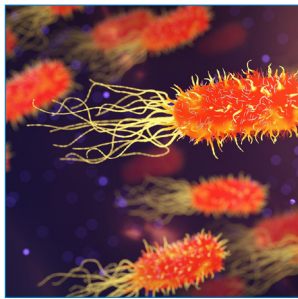
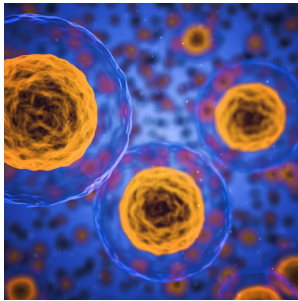
---

# Accepted Abstracts

---

***STD AIDS 2019***

***IMMUNOLOGY CONGRESS 2019***



Joint Event on  
Global Experts Meeting on  
**STD-AIDS and Infectious Diseases**

&

12<sup>th</sup> International Conference on  
**Allergy, Immunology and Rheumatology**

November 21-22, 2019 | Singapore

## The drug allergy app: Key strategy to overcome barriers to best practice

Shuayb E<sup>3</sup>, G Calisti<sup>1</sup>, A Amini<sup>2</sup>, L Hernandez<sup>2</sup>, L Owens<sup>1</sup>, R Carman<sup>1</sup>, K Dodgson<sup>1</sup>, K Alexander<sup>1</sup> and T Garcez<sup>1</sup>

<sup>1</sup>University NHS Foundation Trust-MFT, UK

<sup>2</sup>Birmingham City University, UK

<sup>3</sup>University of Manchester, UK

Drug allergies are common. They limit treatment options, can lead to medication errors, suboptimal management and result in increased morbidity, mortality, prolonged hospitalisation and costs. Accurate collection and documentation of drug allergy history is essential to minimise the risk of serious medication errors.

### Aim:

- To develop a drug allergy app that will guide drug allergy history taking and documentation and serve as an educational platform that encourages safe medical practice and reinforce best practice.
- The classification generated by the app is based on the NICE clinical guidance [183] on the diagnosis and management of drug allergies.

### Objectives:

- To evaluate the accuracy of penicillin allergy history documentation at the Trust and whether current practice is in line with NICE clinical guidance 183.
- To assess prescribers knowledge of penicillin allergy diagnosis and management

- To Identify prescribers views on best practice
- To explore practical aspects of implementing a de-labelling pathway in an NHS hospital Results and discussion:

We found that inappropriate penicillin allergy labelling (In-PenA) is related to many factors, these included: knowledge gaps, lack of training in allergy medicine amongst healthcare professionals and errors in documentation. In-PenA may subsequently increase the risk of multi-resistant microorganisms such as Methicillin Resistant *Staphylococcus aureus* (MRSA) and *Clostridium difficile* (C diff). The algorithm has the lowest risk for misclassification of outcomes with a high NPV (100%) and sensitivity (100%) with good PPV (95%) and Specificity (96%) on the retrospective validation. It is currently undergoing prospective validation with favourable outcome.

**Conclusion:** The drug allergy App may revolutionise the prescribers approach to patients with a penicillin allergy label. From our survey of prescribers; there was an obvious tendency to adopt an over-cautious approach to prescribing alternative beta-lactams in patients with reported penicillin allergy.

e: shuayb.elkhalifa@sft.nhs.uk

 Notes:

Global Experts Meeting on  
**STD-AIDS and  
Infectious Diseases**

&

12<sup>th</sup> International Conference on  
**Allergy, Immunology  
and Rheumatology**

November 21-22, 2019 | Singapore

## **Neoantigen discovery in non-small cell lung cancer**


**Asma Khanniche**

Shenzhen Institutes of Advances Technology, China

Advances in next generation sequencing and bioinformatics have allowed the prediction and the identification of neoantigens that are endowed with exquisite tumor specificity and ability to induce T cell reactivity, which render them promising targets for cancer immunotherapies. Herein, taking into consideration the prevalence of the HLA-A0201 allele, we aimed at identifying a set of HLA-A0201 restricted neoantigens in NSCLC patients and evaluating their immunogenicity and specificity. Results showed the presence

of immunogenic neoantigens; derived from genes such as TP53 and CDH10, etc. that are experimentally good binders with high affinity and ability of inducing a T cell response in vitro as compared to their WT counterparts suggesting a higher immunogenicity and specificity. These findings warrant more investigation of the therapeutic applications of these neoantigens aiming at enhancing anti-tumor immunity.

e: [asmakhanniche@hotmail.com](mailto:asmakhanniche@hotmail.com)

 *Notes:*

Global Experts Meeting on  
**STD-AIDS and  
Infectious Diseases**

&

12<sup>th</sup> International Conference on  
**Allergy, Immunology  
and Rheumatology**

November 21-22, 2019 | Singapore

## Innate and adaptive immunity

**Ahmed Mansour**

ISMU, Russia

Immunity is the capability of multicellular organisms to resist harmful microorganisms from entering it. Immunity involves both specific and nonspecific components. The nonspecific components act as barriers or eliminators of a wide range of pathogens irrespective of their antigenic make-up. Other components of the immune system adapt themselves to each new disease encountered and can generate pathogen-specific immunity. An immune system may contain innate and adaptive components. The innate system in mammals, for example, is composed of primitive marrow cells that are programmed to recognise foreign substances and react. The adaptive system is composed of more advanced lymphatic cells that are programmed to recognise self-substances and don't react. The reaction to foreign substances is etymologically described as inflammation, meaning to set on fire. The non-reaction to self-substances is described as immunity, meaning to exempt or as immunotolerance.

These two components of the immune system create a dynamic biological environment where "health" can be seen as a physical state where the self is immunologically spared, and what is foreign is inflammatorily and immunologically eliminated. "Disease" can arise when what is foreign cannot be eliminated or what is self is not spared.

- Innate immunity, also called native immunity, exists by virtue of an organism's constitution, that is its genetic make-up, without an external stimulation or a previous infection. It is divided into two types: (a) Non-Specific innate immunity, a degree of resistance to all infections in general. (b) Specific innate immunity, a resistance to a

particular kind of microorganism only. As a result, some races, particular individuals or breeds in agriculture do not suffer from certain infectious diseases.

- Adaptive immunity can be sub-divided depending on how the immunity was introduced in 'naturally acquired' through chance contact with a disease-causing agent, whereas 'artificially acquired immunity' develops through deliberate actions such as vaccination. Both naturally and artificially acquired immunity can be further subdivided depending on whether the host built up immunity itself by antigen as 'active immunity' and lasts long-term, sometimes lifelong. 'Passive immunity' is acquired through transfer (injection or infusion) of antibodies or activated T-cells from an immune host; it is short lived—usually lasting only a few months.
- Adaptive immunity can also be divided by the type of immune mediators involved; humoral immunity is the aspect of immunity that is mediated by secreted antibodies, whereas cell mediated immunity involves T-lymphocytes alone. Humoral immunity is called active when the organism generates its antibodies, and passive when antibodies are transferred between individuals or species. Similarly, cell-mediated immunity is active when the organisms' T-cells are stimulated, and passive when T cells come from another organism.

e: Ahmedmohsenmisbah@yahoo.com

 Notes:

Global Experts Meeting on  
**STD-AIDS and  
Infectious Diseases**

&

12<sup>th</sup> International Conference on  
**Allergy, Immunology  
and Rheumatology**

November 21-22, 2019 | Singapore

## **Skin dendritic cells: The sentinel paradox**


### **Baptiste Janela**

Skin Research Institute of Singapore (SRIS) , Singapore  
Singapore Immunology Network (SIgN), Singapore

As the largest barrier organ in the body, the skin is a challenging immune site, requiring vigilance for invading pathogens, coupled with tolerance to self, environmental antigens, and the microbiota. Dendritic cells (DC) are professional pathogen-sensing and antigen-presenting cells (APC) that are central to the initiation and regulation of immune responses. In the skin, three subsets of ontogenetically-distinct and functionally-specialized conventional DC (cDC) exist: cDC1, cDC2 and Langerhans cells. Together, these APC populations sense and integrate multiple signals from the internal and external environments in order to initiate and shape optimal immune responses. Thus DC biology is at the

center of allergic and autoimmune skin conditions, as well as pathogen infections, wound healing and skin cancers and promising targets for next-generation immunotherapies. However, understanding the roles of the DC populations and their interactions with other immune cells in the skin is necessary for the development of improved therapies for such conditions. In this symposium, I will introduce a new and essential role for cDC1 in the regulation of neutrophil biology and highlight a new role of the minor cDC1 subset in the regulation of mouse and human skin innate immunity that goes beyond antigen presentation and T cells priming.

e: [Baptiste\\_Janela@immunol.a-star.edu.sg](mailto:Baptiste_Janela@immunol.a-star.edu.sg)

 *Notes:*

Global Experts Meeting on  
**STD-AIDS and  
Infectious Diseases**

&amp;

12<sup>th</sup> International Conference on  
**Allergy, Immunology  
and Rheumatology**

November 21-22, 2019 | Singapore

## **Diagnoses of HIV/AIDS and STD: Primary care perspective**


**Abdul Hafiz Mohamad Gani**

Ministry of Health, Malaysia

Primary care physicians play an essential role in the screening and prevention of HIV/AIDS and STD. Diagnoses of HIV and STD in primary care can be challenging. Sexual history should be a part of history taking to identify those at risk so the doctor may advise appropriate screening. The environment of clinic may affect the attendance of clients to come for screening. Stigma and discrimination in HIV/AIDS are some of the main issues among the key population, and appropriate strategy is needed to overcome the barrier. STD clinic with friendly setting may facilitate the clients to come and use the service. Information technology such as internet and mobile apps can be used to educate and encourage the community to get tested. The self-testing method in HIV and STD is one option that comes with its pros and cons. Point of care test (POCT) is essential in primary care setting and

offers a reliable, low cost and allow diagnosis and treatment in a single visit. POCT CD4 and viral load (VL) are helpful in test and treat strategy and cost sufficient for patients living in remote areas. In some situation, the role of advance test in HIV and STD are needed to confirm patient's diagnosis. Therefore, a link between the laboratory facilities in primary care and hospital is needed in the diagnosis of HIV/AIDS and STD. Nucleic-acid amplification tests, also known as NAATs, are used to identify small amounts of DNA or RNA offer promising results in STD with high sensitivity and specificity. However, the cost is disadvantage and may not be affordable in some middle- and most low-income countries. In this situation, syndromic approach (SA) or modified syndromic approach (MSA) is relevant in clinical diagnosis of STD.

e: hafizgani@moh.gov.my

 Notes:



Global Experts Meeting on  
STD-AIDS and  
Infectious Diseases

&amp;

12<sup>th</sup> International Conference on  
Allergy, Immunology  
and Rheumatology

November 21-22, 2019 | Singapore

## Delayed healthcare seeking is high among patients presented with sexually transmitted infections in HIV hotspot area, Gambella town, Ethiopia

**Mache Tsadik**

Mekelle University, Ethiopia

**Background:** Delay healthcare seeking is one of the major impediments to successfully prevent and control sexually transmitted infections (STIs) including HIV. Gambella is one of the HIV hot spot areas and the most HIV prevalent region in the country. Considering the empirical knowledge of the link between STIs and HIV, gathering information on health seeking behaviour and the associated factors among STI patients is helpful to design interventions that enhance early seeking and treatment adherence.

**Methodology:** A facility based cross-sectional study was employed to collect data from 424 STI patients from February 15 to April 15, 2017, using a face-to-face interview. A consecutive sampling method was used until the allocated sample for each facility was fulfilled. A multivariate logistic regression analysis was used to identify factors associated with health-seeking behavior.

**Result:** The proportion of delayed healthcare seeking among patients treated for STIs was 56.8%. knowledge, behavior and perception variables were found significantly associated with early seeking behavior in multivariate logistic regression: patients who had good knowledge of STIs (AOR = 1.74, 95% CI = 1.10, 2.73), had single sexual partner (AOR = 1.83, 95% CI = 1.19, 2.78), those who perceived stigma for STIs (AOR = 0.52, 95% CI = 0.34, 0.79), and perceived severity of STIs (AOR = 1.97, 95% CI = 1.18, 3.29).

**Conclusion:** This study reported a high proportion of delayed healthcare seeking. This may challenge the prevention and control effort and alarms the potential threat to the spread of STI/HIV in the region. Provision of intensive health education is crucial to improve awareness and to avoid risk behaviors and negative perceptions.

e: [adhana2008@gmail.com](mailto:adhana2008@gmail.com) Notes:

Global Experts Meeting on  
**STD-AIDS and  
Infectious Diseases**

&amp;

12<sup>th</sup> International Conference on  
**Allergy, Immunology  
and Rheumatology**

November 21-22, 2019 | Singapore

## **Knowledge and Practice of Positive Prevention among HIV Sero-discordant Couples in South India**

**Manjunatha R<sup>1</sup>, R K Arya<sup>2</sup>, Krishnamurthy J<sup>2</sup> and Reynold Washington<sup>3</sup>**

Institute of Health Management Research, India

Karnataka Health Promotion Trust, India

University of Manitoba, Canada

**Introduction:** An important aspect of success in a HIV Prevention program is the effectiveness of interventions to reduce HIV transmission between serodiscordant couples. This study aims to explore the understanding and practice of positive prevention including condom use, sexually transmitted infections (STIs), opportunistic infections (OIs) and treatment seeking behavior for STIs and OIs among serodiscordant couples in Karnataka, south India.

**Materials and Methods:** A cross sectional survey, was conducted among 326 serodiscordant couples in Haveri and Chitradurga Districts located in central part of Karnataka, between January 2014 to May 2015. Participants were selected using a simple random sampling technique and were recruited with the help of peer groups while seeking care and support services. Index people living with HIV (PLHIVs) were interviewed with the help of a pretested structured interview schedule. Data was analysed by calculating mean, standard deviations and proportions. The tests of significance applied were Chi-square test. A P-value of 0.05 was considered to be statistically significant.

**Results:** 99.4% believe that condoms can protect them from

STIs whereas only 80.4% (81.7% of men & 74% of women) reported that they use condoms with spouse. PLHIV in the younger age group (21-30 years) reported higher condom use with their spouse when compared to middle (31-40 years) and older (>40 years) age groups. 80.8% (79% of men & 90% of women) of participants had good knowledge on STIs. Those with good knowledge on STI reported higher rates of condom use with spouse (81.7%) and reported lesser STI episodes, while compared to others. 21.4% of PLHIV who have adopted permanent methods of contraception reported not using condoms with spouse. Education of Index PLHIV, spousal education and enrollment with support groups were found to be positively associated with higher condom use with spouse, lower incidence of STIs and OIs.

**Conclusions:** Gaps exist in translation of knowledge into practice. Low levels of condom use among middle aged couples and those who have adopted permanent methods of contraception, is a cause for concern and calls for further investigation of other structural and social barriers to condom use among these population groups.

e: manjunatha@iihmr.org

 Notes:

Global Experts Meeting on  
**STD-AIDS and  
Infectious Diseases**

&amp;

12<sup>th</sup> International Conference on  
**Allergy, Immunology  
and Rheumatology**

November 21-22, 2019 | Singapore

## **Lived experiences of people living with individual immunodeficiency virus ages 18-30 in Dasmariñas City Cavite**

**Lourence L Castro, Marielle P Gaitan and Evelyn M Del Mundo**

Cavite State University, Philippines

The focus of this paper is to present the studies of lived experiences and stigma, discrimination of individual living with Human immunodeficiency and explore about the struggles, needs, and lived changes. This paper also described the role of these individuals' construction and reconstruction of the meaning of their lived experiences having HIV. The study utilized a phenomenological qualitative research design which summarized the lived experiences of the six (6) individual living with human immunodeficiency virus. In this study, the phenomenon were the people living with human immunodeficiency virus and their lived experiences which was determined in terms of their struggles, needs, and lived changes aspects as they verbalized during the interview. Qualitative research methodology using narrative interviews was used to explore the experiences of individual living with Human Immunodeficiency Virus at Dasmariñas City Cavite. Data were collected from 18-30 years old respondents. Interviews were conducted at Trece Martirez City Cavite Collaboration Building and each interview lasted

20 to 30 minutes. The verbatim of the six (6) individual living with human immunodeficiency virus were transcribed, and analyzed using a descriptive phenomenological approach until saturation of themes was achieved.

Data analysis revealed eight (8) main themes: discrimination, social stigma, rejection, adaptation, emotional and health needs, lived changes in being and belongingness. Societal attitudes towards HIV were a key factor in stigmatization, which leads to discrimination and stereotyping. Respondents experienced a negative self-image, feelings of shame and a threat to self-worth. Disclosure (when and to whom) of their positive HIV status was a great concern, while non-disclosure was a protective measure against stigmatization. Highly confidentiality of the respondents HIV status was observed. In response to their experiences all six (6) people living with human immunodeficiency virus accepted their diagnoses.

e: [castrolourence1998@gmail.com](mailto:castrolourence1998@gmail.com)

 *Notes:*