

# Minutes of the 5<sup>th</sup> Annual Meeting of the Asia Pacific Medicine and Bio-Immunology Association (APAMBI)

**Committee of APAMBI: Jinglan Jiang<sup>#</sup>, Xueli Wan<sup>#</sup>, Banfuwu Wu<sup>#</sup>, Husong Zeng<sup>#</sup>, Jiangying Yang<sup>#</sup>, Jianchuan Xia<sup>\*</sup>, Fusheng Wang<sup>\*</sup>, Xiaomai Fu<sup>\*</sup>**

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**Harbin, China, August 17-19, 2018**

**Chairman:** Fusheng Wang and Xiaobing Fu

**Executive Chairman:** Jianchuan Xia, Yi Zhang and Xueli Yuan

In order to establish an academic exchange platform for immunotherapy in the Asia-Pacific region and promote the vigorous development of bio-immunotherapy in China and Asia-Pacific region, the 5th annual meeting Year of the Asia-Pacific Medical Bio immunology Society was successfully held at the Huaqi Hotel in Harbin from August 17th to 19th, 2018. The chairman of the conference was chaired by Academician Fusheng Wang and Xiaobing Fu; the executive chairman was Professor Jianchuan Xia, Yi Zhang and Xueli Yuan. The content covers basic research, clinical research, biological agents, immune cell therapy technology and stem cell therapy technology, covering many related disciplines such as tumor, blood, infectious diseases, rheumatoid immunity, kidney disease, liver disease, autoimmune diseases, and allergic diseases. Academician Baofeng Yang, President of Harbin Medical University, Vice President Qiubin Zhang of the Provincial Medical Association, Dean Changjiu Zhao of the Fourth Hospital of Harbin Medical University, and Dean Jin Zhou of the First Hospital of Harbin Medical University were invited to attend. The participants included well-known scholars from the Asia Pacific region, including the United States, Japan, Singapore, Germany, Italy, and China and Taiwan.

The opening ceremony of the conference was presided over by Professor Xueli Yuan of the Fourth Hospital of Harbin Medical University. First, the President of the General Assembly, Professor Fusheng Wang, President Baofeng Yang of Harbin Medical University, Vice President Qiubin Zhang of the Provincial Medical Association, and Dean Changjiu Zhao of the Fourth Hospital of Harbin Medical University delivered speeches respectively, expressing their expectations and attention to this conference, and looking forward to the bright future of immunotherapy. In his speech, President Yang also reviewed the active exploration and achievements of Harbin Medical University in the field of cancer and other immune-related diseases and encouraged the participating experts and Harbin Medical University to carry out active and effective cooperation.

Subsequently, the academic exchanges of the conference gradually began. Academician Fusheng Wang published a keynote speech on the progress and prospects of hepatic cell therapy; and later Jianchuan Xia, Yi Zhang, Han Baohui, Antonio Bertolotti, Uwe Heemann, Avery August (Weishan Huang), Yamamoto, jilin Cheng, Huasong Zeng, Yang Xiao, Hongbing Yao, Wanli Liu, Andian Lew, Xiao Hong,

Jianqing Mi, Xueli Yuan and many other experts have reported the latest developments in related fields and their latest research results.

At the same time as the main venue meeting, from the afternoon of August 18th, the clubs held academic conferences in the conference rooms of Huaqi Hotel, including the tumour branch, blood section, rheumatism immunization, and kidney disease, liver disease sub-site, autoimmune diseases, children allergic immune rheumatism and other sub-sites. Each of the sub-meetings was delivered a keynote speech by experts from relevant fields. After each speech, there was a heated discussion. The meeting was in full swing, and the participants expressed great gains. After the tumour session, the Youth Committee of the Heilongjiang Provincial Medical Association Immunotherapy Branch was established, and the relevant work arrangements were deployed. After the main venue, the results of the second council and the second academic committee were announced, and the relevant issues of the sixth annual meeting were discussed.

The conference comprised of two parts: translational medicine research and clinical research progress. The first part is presided over by Professor Yuqing Xu from the Second Hospital of Harbin Medical University. First, Professor Haoyi Wang from the Institute of Zoology of the Chinese Academy of Sciences reported on the application of gene editing technology in tumour immunotherapy and reported on the frontier work of his team in related fields. Professor Mobin Karimi from Upstate Medical School in New York reported on the role of NKG2D in cellular immunity and the potential application of targeted NKG2D in tumours, autoimmune diseases, and graft-versus-host responses. Professor Dongqi Tang of Shandong University reported their work on targeting PD1 CAR-T and the development of automated cell product preparation equipment. Dr. Wei Wang from the team of professors of the Fourth Hospital of Harbin Medical University reported to the conference on the progress of CAR-T treatment targets and the development of the team's CAR-T treatment technology in genitourinary tumours.

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The progress of clinical research was partly reported by experts from the frontline of the clinic and was chaired by Professor Zhuang Yu of Qingdao University. Professor Hua Zhong of Shanghai Chest Hospital reported the clinical application progress of anti-PD-1 monoclonal antibody and the treatment of toxic and side effects. Professor Li Liu from Huazhong University of Science and Technology explained the indicators and significance of predicting the efficacy of tumour immunotherapy. Professor Quanli Gao from Henan Cancer Hospital showed the effect of their application of cellular immunotherapy technology combined with anti-PD-1 monoclonal antibody in the treatment of clinical tumours and analysed its mechanism.

Because the content of the conference report was very cutting-edge, and closely combined with clinical practice, many experts and graduate students were attracted to listen. After each part of the report, everyone was scrambling to ask questions, and the discussion atmosphere was very enthusiastic. Professor Weishan Huang from the University of Minnesota, Professor Xiaoyi Huang from Heilongjiang Province, Professor Haifeng Zhao, Professor Xia Wu, Professor Yuru Wang and Professor Zhiqiang Wang participated in the discussion as panellists. Professor Jianchuan Xia also visited the venue to inspect the progress of the meeting. The final meeting ended in an atmosphere filled with joy and reluctance to acquire new knowledge. Each expert hoped to hold more such a frontier and substantive conference.

Firstly, Professor Jieruo Gu, organizer and director of the Department of Rheumatology, introduced the progress and 13 new members who were added to the club this year. The focus was on the development of the Northeastern Region team of the Department of Rheumatology and Immunology of the First Affiliated Hospital of Harbin Medical University in Northeast China and improved the regional distribution of the members of the entire Rheumatology Immunization Branch. Professor Gu introduced the development and purpose of the Rheumatology and Immunology Branch of the Asia-Pacific Medical and Immunological Society to the new members. He hopes that the new colleagues would work together in the bio-immunotherapy segment of rheumatic immune diseases to bring more hope for treatment to patients with rheumatic immune diseases.

The subsequent academic conference was firstly led to the progress of diagnosis and treatment of psoriatic arthritis by Professor Zhenbiao Wu of Xi'an Xijing Hospital. Professor Wu is a senior expert in rheumatology in China. From the disease mechanism to clinical diagnosis and treatment, he gave a detailed presentation of the whole picture of psoriatic arthritis. In particular, he highlighted the special features of psoriatic arthritis and other types of spinal arthritis such as ankylosing spondylitis in terms of pathogenesis, clinical joint involvement, imaging features and differences in efficacy; For example, in terms of pathogenesis, HLA-B27 is also a major gene involved in psoriatic arthritis, but the IL-23/IL-17 pathway also plays an important role, and the biological agent against IL-23/IL-17 is in silver. Good results have been shown in arthritic arthritis and poorly in ankylosing spondylitis, suggesting a significant difference between these diseases.

Then Professor Jinlan Jiang from China-Japan Union Hospital of Jilin University reported the progress of magnetic targeting stem cells in the treatment of osteochondral defect rabbit model of rheumatoid arthritis. Professor Jiang is one of the senior stem cell experts in China. Non-invasive intravenous injection of magnetic targeting of stem cells not only provides systemic immunomodulation of the disease, but also uses magnetic targeting to treat osteochondral defect. She proposed a new treatment strategy for the treatment of refractory diseases such as rheumatoid arthritis.

Professor Yang Li, from the Second Affiliated Hospital of Harbin Medical University, brought about the process in the diagnosis and treatment of Sjogren's syndrome. Based on the basic research and clinical guidelines of Sjogren's syndrome at home and abroad, Professor Li reported in detailed about the pathogenesis of Sjogren's syndrome and compared the evolutions and differences of different classification standards of sjogren's syndrome. The 2012 classification criteria for ACR/SICCA sjogren's syndrome included corneal staining, focal salivary gland lymphoid aggregation and autoantibody positivity, while the 2017 ACR-EULAR classification was scored on a nine-point scale. Treatment protocols include symptomatic treatments and drug selections involving different organs.

Professor Weiguo Xiao, from the First Affiliated Hospital of China Medical University, brought the progress in the diagnosis and treatment of Macrophage Activation Syndrome (MAS). Professor Xiao started from the evolution of the names, explained the evolution of related concepts, and clarified the examination, diagnosis and treatment program. He pointed out that hemophagocytic syndrome (HPS) was a clinical manifestation. Hemophilic lymphohistiocytosis (HLH), autoimmune disease-related hemophilia syndrome and macrophage activation syndrome (MAS) were concepts of histocytology, etiology and pathophysiology, respectively. The commonly used diagnostic criteria for HLH have some defects, such as not reflecting the dynamic reduction of blood cells and fibrinogen for early diagnosis. MAS is a secondary hemophilic syndrome associated with rheumatic diseases, most commonly seen in juvenile onset arthritis. But it is noteworthy that MAS has also been reported in children with systemic lupus erythematosus. Therefore, doctors in Department of rheumatism should be alert to the situation of rheumatic immune disease combined with MAS.

Professor Zhengzong Wei from Zhongshan Medical University in Taiwan reported about the pathogenesis of spinal arthritis. Professor Wei is an internationally renowned expert in the field of spinal arthritis. He talked in humorous way about the genetic and environmental factors affecting the pathogenesis of spondylarthrosis. Osteoarthritis of the spine is a kind of disease with axial manifestations, peripheral arthritis, rotator cuff inflammation, and external joint manifestations. At present, Hla-b27 is discovered to be the main pathogenic gene, but it can only explain about 20% of the genetic characteristics of the disease. The interaction of ERAP-1, IL-23 and other genes is closely related to the occurrence of the disease. Environmental factors including smoking and infection and so on. Professor Wei elaborated on the related pathways of inflammation and new bone formation, such as Wnt pathway and TH17 axis, to help us comprehensively understand the pathogenesis of spinal arthritis. At the end of the meeting, Professor Jianchuan Xia, chairman of the Asia-Pacific Society of Medical Biology and Immunology, and Professor Jieruo Gu, chairman of the Rheumatic Immunology Branch, issued certificates for the newly elected members, and the meeting was successfully concluded.

The content of the kidney branch academic conference was novel and unique, which discarded the form of academic lectures in the past. Each section begins with a topic discussion. The project leader who has started or was ready to start is the speaker. The discussion included research plans, informed consent, Multi-center cooperation agreements and other content, promote the progress of multi-center research of initiated projects, and promote cooperation in new multi-center research projects. One of the goals of the Kidney Branch was to provide a clinical multi-center collaborative research platform for participating participants. This conference invited famous experts

and professors from Germany, Singapore, the United States, and the United Kingdom to come and exchange. The venue was packed, and the discussion was warm.

At the beginning of the meeting, the Chairman of the Kidney Branch, Professor Hequn Zou (the Third Affiliated Hospital of Southern Medical University) gave a speech at the opening ceremony, summarizing the work of the Kidney Branch in the past year. Professor Jianchuan Xia, Executive Vice President of the Asia-Pacific Medical and Immunological Society and Chairman of the Academic Committee, announced the list of new members of the Kidney Branch and issued certificates on the spot. At the same time, he made constructive comments and expectations on the future development of the Kidney Branch.

Subsequently, the wonderful academic exchanges gradually spread out. Professor Hong Zhang from the First Hospital of Peking University, Professor Adriew. Liew from Singapore Dushen g Chen Hospital, Professor Hong Zhang from Peking University First Hospital, Professor Adriew. Liew from Singapore Chen Yusheng Hospital, Professor Uwe Heemann from Munich University of Technology, Germany, Professor Hong Xiao from the University of North Carolina School of Medicine, USA, Professor Bin Yang from the University of Leicester, UK, Professor Shougang Zhuang of Rhode Island Hospital affiliated to Brown University, USA, Professor Jingbo Chen, Kaohsiung Chang Gung Memorial Hospital, Taiwan, Professor Guohua Ding of Wuhan University People's Hospital, Professor Wenjian Wang of Guangdong Provincial People's Hospital, Professor Huiming Wang, People's Hospital of Wuhan University, Professor Bing Li, the Second Affiliated Hospital of Harbin Medical University, Professor Xingfei Deng, chief scientist of Ardent Biomed, Silicon Valley, USA, Professor Xinzhou Zhang of Shenzhen People's Hospital, Prof. Weiping Hu, the First Affiliated Hospital of Xiamen University, elaborated on the multi-center clinical research projects carried out by them. Mainly involved in IgA nephropathy, diabetic nephropathy, special membranous nephropathy, plasma purification treatment of rheumatic immune diseases, CART cell therapy, renal pathological diagnosis alliance and many other multi-center clinical research projects, the field discussion was in full swing. During the club meeting, the experts' profound knowledge and wonderful lectures were well received by the participants, and they wished that the society and the clubs would continue to grow and become an academic exchange platform with international influence in Asia-Pacific bio-immune medical research!

The Department of Liver Diseases invited Dr. Anthony from DUKE-NUS Medical School in Singapore (the main venue to make a report), Professor Chaofeng Huang from the Medical College of Sun Yat-Sen University, and several deputy chairmen of the branch as guest speakers to make progress on the basic and clinical research of chronic liver disease.

Professor Jilin Cheng (Deputy Chairman) (Shanghai Fudan University Public Health Center), the chairman of the conference, delivered an opening speech for the meeting of the Hepatology Branch. Professor Dongliang Yang (Deputy Chairman) of the liver disease immunology expert (Huazhong University of Science and Technology Tongji Medical College Affiliated Union Hospital) gave an academic speech entitled "Immunological mechanism of HBV persistent infection and its clinical significance". Professor Yang expounded the mechanism of low HBV-specific immune response in patients with chronic HBV infection/hepatitis B pointed out the most critical factors for chronic HBV infection difficult to be cleared by the body and made

a comprehensive analysis of the exploration of hepatitis B treatment strategy based on immune regulation.

Professor Yuemin Nan (Third Hospital of Hebei Medical University), a deputy chairman of the branch, gave a wonderful academic speech entitled "Blocking the transmission of mother-to-child transmission of chronic HBV infection", and believed that the use of antiviral drugs in pregnant women with high viral load could effectively block the mother-to-child transmission of HBV, and further sharing of safety data. Confessor Zhu Ying (Deputy Chairman) from the First Affiliated Hospital of Dalian Medical University gave a keynote speech entitled "Long-term treatment of nucleoside (acid) analogues and immune status of CHB patients".

Dr. Hong Zhang, who spoke on behalf of Professor Junqi Niu from the First Hospital of Jilin University, gave a wonderful report on the latest progress of hepatitis B-related immunotherapy at the meeting. He shared the latest developments in the development of chronic hepatitis B immunotherapy drugs (TQ-A3334/TLR7 agonist and T01/hepatitis B therapeutic vaccine albumin interferon) at the Phase I Clinical Research Center of the First Hospital of Jilin University; Prof. Wei Jia (Deputy Chairman) from the Second People's Hospital of Yunnan Province shared the results of his team's research on the impact of HBV quasi-species genome evolution on HBsAg immune response, which revealed HBV quasispecies in HBsAg/HBsAb double positive patients. Genomic characteristics may lay the foundation for the next step of gene therapy for chronic HBV infection.

Professor Peng Hu (Deputy Chairman), from the Second Affiliated Hospital of Chongqing Medical University, gave an excellent report entitled Clinical Cure of CHB - Combined Therapy Based on PEG-IFN. This report systematically introduced a series of important studies on PEG-IFN/NAs Add-on or Switch-to therapy in recent years and pointed out that body's clearance of HBV would ultimately rely on the enhancement and reconstruction of HBV-specific immunity. Professor Li Yan from the Public Health Clinical Center of Fudan University introduced new progress and clinical application of HBV serum markers (HBsAg/HBcrAg/anti-HBc/HBV cccDNA/HBV pgRNA) in CHB antiviral therapy research and pointed out the current indicators 'important function and shortcomings of antiviral therapy.

Professor Chaofeng Huang (Special guest) from Zhongshan University shared his research team's excellent academic report "CAR-T cells' application in solid tumour immunotherapy". The results showed that the CAR-T cells had good cytotoxic activity against mouse breast cancer and ovarian cancer cells, indicating the possibility of clinical transformation. Professor Qinghe Nie, from Tangdu Hospital of Air Force Military Medical University, made an academic report on the research status of serological markers and circulating microRNA for primary hepatocellular carcinoma, pointing out the shortcomings of serum markers in HCC screening. It was still worthwhile to explore new HCC markers or detect combined with multiple markers at present.

In the field of HCV chronic infection, Professor Xiaohong Zhang, Deputy Chairman, from the Third Affiliated Hospital of Zhongshan University gave an academic report entitled Progress in the Treatment of Chronic HCV Infection with Direct Antiviral Drugs (DAAs). This report systematically introduced the current global and domestic market of DAA drugs and their indications for use, which introduced drug selection of DAAs in special populations. Professor Fuxiang Wang from Shenzhen Third People's Hospital introduced the strategy of Antiviral Therapy for Co-infection of HBV or HCV with HIV in



detail. Professor Xiaohong Chen from the Fourth Affiliated Hospital of Harbin Medical University introduced the progress of diagnosis and treatment of chronic HCV infection with autoimmune diseases in detail.

Professor Qing Mao, deputy chairman of the Society (Southwest Hospital of the Army Military Medical University) gave a wonderful report entitled "Research Progress in the Mechanism of Immune Mechanism of Liver Failure", who pointed that the current mechanism of liver failure had not been well explained in their team research. It was found that the individual differences in different pathogenic factors and genetic predisposition factors were the two most important factors for liver failure; Professor Kai Wang from Qilu Hospital of Shandong Medical University shared the "Cholesterol Corticosteroid Therapy Strategy" at the meeting. Clinically important experience, it was believed that the early use of high-dose glucocorticoids in the early stage of liver failure might play an important role in preventing hepatocyte necrosis; Deputy Professor Xinhua Li and Deputy Professor Luzhen Chen (Secretary-General) from the Third Affiliated Hospital of Sun Yat-sen University respectively reported on the diagnosis and treatment of other liver diseases, including the genetic diagnosis of hereditary high indirect bilirubinaemia and the progress of diagnosis and treatment of hepatic sinusoids syndrome, further enriched the exchange content of this meeting.

The 5th Annual Meeting of Asia-Pacific Association of Medicine and Bio-immunology on Children's Allergy and Immune Rheumatism was first introduced to the Asia-Pacific Medical Bioimmune Society's family this year under the leadership of Professor Huasong Zeng. The paediatric participants attending the grand opening ceremony of the Asia-Pacific main venue not only met with well-known experts in domestic and international bio immunology, but also heard wonderful lectures from top experts in the domestic paediatrics community at the paediatric branch. Professor Hongmei Song from Beijing introduced the children's rheumatic immune disease for us. Professor Xuemei Tang from Chongqing gave us a diagnosis trap of juvenile idiopathic arthritis through actual cases. Professor Juan Xiao of Beijing let us see systemic erythema. The complexity of the disease and the long course of the disease in the patients with lupus. The medical dispute case of the teacher of the paediatric version of the lilac garden, Xin Wang, is to let our clinicians always call the alarm. Professor Lihong Ren's difficult case sharing in our hospital was rare and difficult and broadens our horizons. Professor Xiaofan Zhang of Children's Hospital has brought us a variety of imaging diagnosis of paediatric neurological diseases. Professor Sirui Yang of Jilin University introduced the increasing number of children with allergic diseases and common allergen tests.

Professor shuqiang Qu of our hospital explained non-infectious diseases other than common infectious diseases that cause lung diseases. Through the wonderful lectures of the above experts, the participants had a more systematic and in-depth understanding of children's rheumatoid immunity and allergic diseases. The level of diagnosis and treatment had been greatly improved for such diseases that have not been known in the past, cannot be diagnosed, and are not well regulated.

At the same time, during the fifth annual meeting of the Asia Pacific medical bio-immunology association, the first Chinese group to focus on children with allergic diseases of the ear, nose and throat was announced. Committee put to a national children's medical center-children's hospital of Fudan University and head of otolaryngology head and neck surgery, director of the physician the chair of the

association of paediatrics branch of children ent branch Zhengmin Xu professor as an adviser, Children's hospital affiliated to Chongqing medical university professor Hongbing Yao as the group leader, several authoritative experts and doctors in the field of otolaryngology in women's and children's hospitals across the country are gathered to exchange and learn from each other and jointly promote the healthy development in the field of Chinese children ent allergic disease, Wuhan beidouxing ent Zhinan Wang dean, Jianji Zhang of Qilu children's hospital, director of Dongguan children's hospital Chang Jiang served as the deputy team leader, representing the highest level of domestic children ear-nose-throat, and to attract young talents with good development potential to enrich the talent echelon of the association in the future.

Professor Jianchuan Xia and professor Huasong Zeng respectively gave high comments and good wishes on the establishment conference of the study group and placed high hopes on the goal of improving the diagnosis and treatment level of children's ear, nose and throat allergic diseases. Professor Zhengmin Xu and Professor Hongbing Yao spoke on behalf of the school of children's otolaryngology and the department of children's allergic diseases, summarized the current status of diagnosis and treatment of allergic diseases in the school of children's otolaryngology, and pointed out the direction for the future development of the group.

The symposium was held by four experts: professor Jianji Zhang gave his first lecture on the expert advice of 2017 children's otorhinolaryngology allergic rhinitis by the special committee of children's otorhinolaryngology of pediatric branch of doctor's association, professor Zhinan Wang as 2014 physicians association infectious nasal sinusitis in children guide writer, this guide is unscrambled from the perspective of immunology, Xinqiang Gao director of Xiamen children's hospital found that the nodular structure of the posterior end of the nasal septum is one of the reasons for the obstruction of the nasal cavity after adenoid body surgery, which causes a strong resonance. Dr. Zhiqi Liu, from Hubei provincial maternal and child health hospital, explained in detail the relationship between TH cells and allergies that he found in scientific research.

In the subsequent round table, Professor Zhengmin Xu pointed out the significance of the establishment of the Children's Otorhinolaryngology Allergy Disease Group: Currently in the era of precision medicine, otolaryngology technology was developing rapidly, and the standardized diagnosis and treatment of allergic rhinitis was the latest work of children's otolaryngology. Due to the immature technology of hospitals at all levels, there are many unregulated treatments, and many problems remain. This situation needed to be solved urgently.

Professor Hongbing Yao pointed out that the experts convened at this inaugural meeting were leaders of the children's otolaryngology discipline in China. Professor Hongbing Yao pointed out that the experts convened at this inaugural meeting are leaders of the children's otolaryngology discipline in China. They had great popularity and influence in various fields. Please gave suggestions to design the framework of the Children's Otorhinolaryngology Allergy Diseases Group and set the direction for future development.

Secretary-General Bangfu Wu presided over the closing ceremony of the meeting and announced the list of newly elected executive directors, directors, deputy directors, standing committee members and members. Professor Jianchuan Xia and Professor Baohui Han issued certificates. Then, Professor Xueli Yuan announced the results

of the excellent paper selection. The papers of Professor Huasong Zeng's team and five other experts won the first, second and third prizes respectively, and the award certificates and prizes were awarded by Professor Jianchuan Xia. Finally, Professor Jianchuan Xia made a concluding speech.

The conference was successfully carried out. The focused and difficult issues of immunotherapy in various disciplines were raised. Experts from various fields shared the latest research results and data.

The discussion atmosphere was intense and enthusiastic. Professor Jianchuan Xia made a suggestion that we should make more rational use of time and space. The main venue will arrange concentrated and targeted lectures, which can shorten the time schedule appropriately, avoid conflicts with the time of the venue, and ensure the number of participants in the main venue. The sub-venue should give more time for discussion and on-site Q&A, which is convenient for in-depth exchanges between experts and scholars in the field.