A pursuit of better treatment in oncology: the 4th Hong Kong International Oncology Symposium 2017

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The 4th Hong Kong International Oncology Symposium (HKIOS) was held on 3–4 November 2017. It provides an international academic exchange platform for experts to discuss the latest development of oncological advances. This year, the symposium took place at the Lecture Theater, Hong Kong Adventist Hospital (Tsuen Wan) and at the 19th Floor, Liu Ming Wei Academic Building, City University of Hong Kong, respectively. The symposium was sponsored by ACT Genomics and co-organized by the Hong Kong Lung Cancer Society and the Hong Kong Society of Clinical Oncology. The co-sponsors include the City University of Hong Kong, Hong Kong Radiological Society, Hong Kong Hong Kong Hospital and Hong Kong Comprehensive Oncology Center.

The symposium was chaired by Dr. Joseph Siu-Kie Au, the Chairman of organizing committee, 4th HKIOS 2017. This year, the invited participates are not limited but included pivotal surgeons, experts and researchers from all over the world. All the professionals gathered together to unravel the latest breakthroughs and discoveries of the development of cancer treatment. In the meantime, AME is honored to seize the opportunity to report some of the highlights of the symposium.

AME Publishing Company is invited to attend the Symposium this year, we have tracked the highlights during the 2-day symposium in a follow-up report (*Figure 1*).

November 3, 2017 (the 1st day): Hong Kong Adventist Hospital (Tsuen Wan)

The opening speech was delivered by Mr. Alex Lan, the Dean and Chief Executive Officer of Hong Kong Adventist Hospital. He thanked the speakers, researchers, and professionals for attending the symposium. He is much appreciated that an academic platform is provided for bringing the valuable medical data, which hinted out the technology and clinical development of cancer in the next 10 to 20 years. Meanwhile, Mr. Lan also shared his vision for the future development of precision medical services, which embarked the beginning of the symposium.

Different from the previous symposia, this time, the coverage of discussed areas is more comprehensive and diversified, including topics of oncology, cancer immunotherapy, urogenital cancers, advances in lung cancer, prevision radiotherapy and prevision oncology. During the speeches, heated topics were intensely debated, a number of experts initiated discussions actively by interacting with the audience (*Figure 2*).

The theme is "Exciting advances with potential to transform cancer management". The topics for the first day can be divided into three categories, including the Big Data Analysis, CAR-T Cell Therapy/Personalized Cancer Vaccines and Advances in Urogenital Cancers. The invited speakers are all senior researchers, who specialized in studying oncology. Everyone has captured this rare opportunity to discuss the possibility and applicability of future cancer management through different perspectives.

For the big data analysis of the frontiers in oncology, Dr. Yu illustrated the cellular heterogeneity of cancers. He thoroughly explained both in text and pictures on the resolutions of our technologies. As an endowed Professor of Beijing Institute of Genomics at the Chinese Academy of Sciences Beijing, Dr. Yu contributed to the scientific work of human genomic sequencing since 1939. He has made a significant progress in helping to unlock the human genetic code.

Dr. Yu put forwards a question during his speech, "Can the current generations of sequencers meet the real demands of precision medicine?" He inspired the audience

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Figure 1 Group Photo@ HKIOS 2017.



Figure 2 Scholars were communicating with each other.



Figure 3 Dr. Jun Yu, Beijing Institute of Genomics, Chinese Academy of Sciences.

to have a deep thought on the issue. Many scholars raised follow-up questions, and he believed that cancer management would be more effective in the near future (*Figure 3*).

Dr. Shu-Jen Chen from Taiwan Precision Medicine Society stressed on a study about seeking biomarkers for checkpoint inhibitors. In the discussed areas of personalized



Figure 4 Prof. Lei Zheng, Associate Professor of Oncology and Surgery, Johns Hopkins University School of Medicine, USA.

cancer vaccines, she analyzed the pros and cons of the future trend of increasing immune checkpoint inhibitors. She emphasized on seeking the biomarkers to identify patients suitable for immune checkpoint inhibitors, which determines the strategy for better use of immune checkpoint inhibitors.

Dr. Chen is currently the Chief Scientific Officer of ACT Genomics. She specializes an automated drug screening system, genomics, omics data analysis and biological database integration.

Professor Lei Zheng, an associate professor of Oncology and Surgery at the Johns Hopkins University School of Medicine, shared his distinctive views on a new era of cancer vaccines. He believed that using immune checkpoint inhibitors as single agent are often considered as not effective in the majority of solid tumor patients. Nevertheless, he advocated the approach of neoantigen-based vaccines, which complements this deficiency (*Figure 4*).

Professor FY Cheung introduced systemic therapy to the audience. He explained how the future vaccine development will strengthen the adjuvant therapy, and hence effectively control the disease.

For urogenital cancer, Dr. Cheung pointed out that systemic therapies are not introduced only for metastatic prostate cancer but also for locally advanced disease. He explained it by breaking the term into four parts: hormonal therapy, chemotherapy, immunotherapy and drugs used for bone metastasis.

Dr. Cheung is currently the Head of Clinical Oncology at the Hong Kong Integrated Oncology Center. He is a very experienced oncologist in Hong Kong, whom shared experiences and data analysis and everyone is benefited from it.

After several rounds of speeches, Dr. Cheung acted as a

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Figure 5 Panelists: Prof. Ronnie T. P. Poon (left) and Dr. William Cho (right).

member of the discussion panel and raised few questions to stimulate thoughts and reflection on the concerned topics (*Figure 5*).

November 4, 2017 (2nd day): City University of Hong Kong

On the second day of the symposium, the venue was moved to the lecture hall on the 19th floor of the Liu Ming Wei Academic Building, City University of Hong Kong. As the lecture hall is able to accommodate more than one hundred people, we, AME is honored to see more scholars and students to come to attend the symposium, learning about the experiences and research findings from the speakers.

The second day's symposium broadly followed the theme: Exciting advances with potential to transform cancer management. The discussed areas can be divided into four sessions, including the next generation sequencing and precision medicine/pharmacogenomics, advances in lung cancer, precision radiotherapy and precision oncology. As more professionals and researchers were invited to attend the symposium, the academic atmosphere of the discussion sessions was becoming livelier and more enthusiastic.

Dr. Stephanie Huang proposed using high-throughput data for pharmacogenomics and drug repurposing. Ultimately, it is to improve patient's survival and developed a set of freely available computational tools to facilitate pharmacogenomics by utilizing the clinical sequencing data.

As an experienced research scientist in pharmacogenomics, Dr. Huang analyzed the data collected in the panel study and elaborated on the relationship between the human genome and drug response, and the toxicity under the pharmacogenomics system. Dr. Huang is a currently tenured Associated Professor in the Department of Experimental and Clinical Pharmacology at College of Pharmacy, University of Minnesota. Her goal is to develop a clinically useful model to predict the risk for adverse drug reactions and non-response prior to administration of chemotherapy.

For the advances in lung cancer, Dr. Ramesh Rengan focused on the utilization of radiation to generate an anti-tumor immune response in non-small cell lung cancer (NSCLC). He further provided an analysis on the advantages and limitations of the current standard of care in cancer immunotherapy for lung cancer, and looked into the potential future of optimizing radiation as a tool to generate a durable anti-tumor immune response.

Dr. Rengan, a Professor of Radiation Oncology at the University of Washington School of Medicine. He has clinical expertise in the use of proton beam therapy in the management of localized and locally advanced solid tumors.

For the precision radiotherapy, Dr. Tong Wong shared many of his clinical experiences in Seattle, especially in the areas of proton beam therapy technological research and development.

Proton beam therapy is still facing the challenges, including the higher sensitivity of dose distribution to uncertainties in treatment setup, anatomy variation, tumor motion and so on.

Dr. Wong is the Director of Medical Physics at the Seattle Cancer Care Alliance (SCCA) Proton Therapy Center in Seattle. His research interest is mainly improving clinical workflow and accuracy in proton therapy with spot scanning and adaptive radiation therapy.

For precision oncology, Dr. Michael Yang has some personal experiences and feelings on anatomical and functional imaging technology for cancer for the past 20 years. He introduced an advanced functional imaging technology: Positron Emission Tomography (PET Scan). It exploits a very advanced positron scan instrument to examine systemic or local scan on patients. It is considered as the most effective method to locate the tumor within a patient's body.

Dr. Yang addressed the future focus on genetic or biomarker imaging with an aim to reduce the use of biopsy while maintaining high specificity and accuracy. For example, neuroimaging in neuroblastoma.

Dr. Yang is an experienced radiology specialist in Hong Kong. He is currently the Head of Radiology of Hong Kong Integrated Imaging and Endoscopy Diagnostic

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Figure 6 Dr. Joseph Siu-Kie Au, Department of Oncology, Hong Kong Adventist Hospital, has delivered a closing speech and thanked all for coming and looking forward to seeing them again!



Figure 7 AME's editorial team took a picture with Dr. Joseph Siu-Kie Au (middle), the Chairman of organizing committee, 4th HKIOS 2017.

Cite this article as: Wong V. A pursuit of better treatment in oncology: the 4th Hong Kong International Oncology Symposium 2017. Ann Transl Med 2018;6(14):289. doi: 10.21037/ atm.2018.06.18 Centre. He hopes the advances in science and technology will greatly enhance the level of detecting the tumors and molecular status.

Through the multi-angle analysis of the data and case studies in-depth exchange of views, the experts were benefited from the talks, and already started to anticipating the symposium next year (*Figure 6*)!

AME is honored to seize the opportunity to have interviews with some of the speakers, including the Chairmen of the Organizing committee, Dr. Joseph Siu-Kie Au, Dr. Cameron Turtle, Prof. Lei Zheng and Dr. Stephanie Huang from the United States. The interview articles will be published on *Annals of Translational Medicine* (*ATM*). Meanwhile, Dr. Au will also lead a focused issue dedicated to this symposium in the *Annals of Translational Medicine* (*ATM*). Please stay tuned (*Figure 7*)!

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Footnote

Conflicts of Interest: The author has no conflicts of interest to declare.