September 2013 SCBA Newsletter

FROM THE PRESIDENT’S DESK…..

September, 2013

Dear SCBA members,

I hope you all enjoyed your summer. For those who could not attend the 14th SCBA International Symposium in Xi’an, we provide a short summary in this issue of Newsletter to share some of the exciting events with you. We will also have more information and photos to share with you in the next issue of the Newsletter.

I know that many of you have been working on your grant applications. The environment is still tough in North America. I wish the best of luck for those who have submitted their applications.

Respectfully yours,
Xiao-Fan Wang, Ph.D.
SCBA President (2012-2013)

REPORT ON THE 14TH SCBA INTERNATIONAL SYMPOSIUM
FROM THE SECRETARY AND TREASURER

Dear SCBA Members,

The 14th SCBA International Symposium was held at Xi’an Wanda Hilton Hotel from July 19th to July 22nd 2013. It was another amazing, successful event that brought so many top-notch scientists together from various research fields to share their successes and interesting ideas with us. Our President Professor Xiao-Fan Wang and Professor Zhinan Chen from the 4th Military University in Xi’an co-chaired the Symposium.

There were many special guests and local dignitaries that attended the opening ceremony, including, the Vice Chairman of the Standing Committee of the National People’s Congress of China, Dr. Zhu Chen, the Governor of Shannxi Province, Mr. Qin-Jian Lou, and the President of the Fourth Military Medical University, Dr. Yi-Min Zhao and Nobel Laureate Dr. Jules Hoffmann. Many Academicians and leaders in various biological research fields from Asian and North America attended the symposium.

There were two days of plenary sessions arranged in this symposium, more than in any other ones we had before. There were more than 50 concurrent sessions organized by high profile scientists. Both the plenary and concurrent sessions were well attended.

The SCBA awardees as well as the presenters of the KT Jeang Memorial Lectures were among the plenary speakers. Dr. Xiaodong Wang from the National Institute of Biological Sciences in Beijing delivered the 2013 Presidential Award Lecture, Dr. Sophia Tsai from Baylor College of Medicine presented the Lifetime Achievement Award Lecture on behalf of Dr. Ming-Jer Tsai and herself, and Hui-Kuan Lin from M.D. Anderson Cancer Center gave the Junior Investigator Award Lecture. Dr. Wei Yang from the National Institute of Health in the United States and Dr. Wenhui Li from the National Institute of Biological Sciences, Beijing, China delivered the KT Jeang Memorial Lectures. Following their presentations, each one of them received a special souvenir, a crystal stand with their favorite protein structure inscribed in it.

SYMPOSIUM ACTIVITIES ON JULY 19TH

The activities on July 19 were highlighted by several exciting events. First, the one-hour opening ceremony was well executed and it reflected the enthusiastic support from the
local hosts and governments. The event was hosted by Miss Quanling Zhang from CCTV. Dr. Zhinan Chen on behalf of the local host and our President Dr. Xiao-Fan Wang on behalf of our SCBA gave welcome speeches. In addition, the University President, Dr. Yi-Min Zhao and the governor of Shannxi Province Mr. Qin-Jian Lou also welcomed the symposium participants.

The first Keynote Lecture was given by Dr. Zhu Chen from Shanghai Ruijin Hospital. Dr. Chen is also a Vice Chairman of the Standing Committee of the National People’s Congress of China but he attended the symposium as a scientist. The title of his presentation was “From Cure of Leukemia to Universal Coverage”. He summarized concisely the work from his research team and his colleagues on how patients with a form of leukemia have benefited from the research. He also described how people in China will benefit from the Universal Coverage policy. Following Dr. Chen’s Keynote Lecture, Dr. Xiaodong Wang gave the SCBA Presidential Award Lecture. Dr. Wang’s work in the field of apoptosis is well known. However, he delivered a very interesting presentation on biochemical pathways of programmed necrosis as his Presidential Award Lecture. The last plenary session in the morning was on molecular medicine, featuring Dr. Yang Shi from Harvard Medical School who spoke about regulation of epigenetics by histone methylation, Dr. Xuetao Cao from Chinese Academy of Medical Sciences who talked about regulation of innate immune responses, and Dr. Feng Shao from the National Institute of Biological Sciences who presented on biochemical dissection of bacterial virulence and macrophage innate immunity.

The afternoon plenary sessions began with a Keynote Lecture by Dr. Jules Hoffmann, a Nobel Laureate from the National Center of Scientific Research (CNRS) of France. He delivered an interesting presentation on innate immunity from flies to humans. Following Dr. Hoffmann’s lecture was a plenary session on stem cell and epigenetics. In this session, Dr. Haifan Lin from Yale University delivered a lecture on an epigenetic program guided by piRNAs and Dr. Qi Zhou from the Institute of Zoology, Chinese Academy of Sciences gave a presentation on cell fate determination and regulation. In addition, Dr. Jinsong Li from Shanghai Institutes of Biological Sciences, Chinese Academy of Sciences spoke about the generation of mammalian haploid embryonic stem cells and Ning Yan from Tsinghua University talked about structural analysis of voltage-gated Na+ channels. The last plenary session of the day was on agriculture and plant...
sciences. Four Academicians from the United States and China presented their exciting work related to the topic. Dr. Xinnian Dong, an Investigator of Howard Hughes Medical Institute, from Duke University, gave the first talk on dynamic regulation of plant immune responses, which was followed by a talk on the role of phytohormones in regulation of plant architecture by Dr. Jiayang Li from the Institute of Genetics and Developmental Biology, Chinese Academy of Sciences. Then, Dr. Jiankang Zhu from Shanghai Institutes of Biological Sciences, Chinese Academy of Sciences gave a presentation on mechanisms of reducing water loss and promoting drought resistance in plants. The final talk of the session was given by Dr. Qifa Zhang from Huazhong Agricultural University and he talked about understanding reproductive isolation based on the rice model.

The exciting day did not end with the scientific sessions. The banquet was another high note among the activities during the first day of the symposium. At the banquet, Dr. Zhinan Chen gave another welcome speech and he introduced the research programs of his group and his university to the audience. To thank Dr. Chen and his team for their effort to support the SCBA symposium, our President Dr. Xiao-Fan Wang presented a crystal stand with the protein structure of CD147, Dr. Chen’s favorite molecule, inscribed in it. To keep the SCBA tradition and to thank the meeting participants for their support, the leaders of the current SCBA administration visited each and every table and made toasts to all guests and friends.

P L E N A R Y  S E S S I O N S  O N  J U L Y  2 0

The second symposium day began with the Lifetime Achievement Award Lecture from Drs. Sophia and Ming-Jer Tsai who made enormous contributions to the understanding of the function of COUP family transcription factors. Dr. Sophia Tsai delivered a presentation entitled “The role of COUP-TFII in development and disease” on their behalf.

Following the Lifetime Achievement Award Lecture was a plenary session on Medicine and Health. Dr. Xinyuan Liu from Zhejiang Science and Technology University was the first speaker in this session and he delivered a talk entitled “To partly win the war against cancer”. Then, Dr. Zhinan Chen, the executive co-chair of the symposium, from the Fourth Military Medical University delivered a presentation on “Multiple phase control mechanisms in tumor and its epitope antibodies”. After Dr. Chen’s presentation, Dr. Xifeng Wu from M.D. Anderson Cancer Center gave a talk
on new avenue for risk prediction, prevention and early detection research, and Dr. Yinghao Sun from the Second Military Medical University talked about biomarker research on prostate cancer in China. The last two talks of the session were given by Dr. Shumin Duan from Zhejiang University speaking on purine-mediated signaling in glial cells and Dr. Yibin Kang from Princeton University on tumor-stromal interactions in breast cancer bone metastasis.

After the plenary session on Medicine and Health, Dr. Wei Yang delivered the first KT Jeang Memorial Lecture entitled: “Watching a chemical bond form at atomic resolution in real time”, followed by the second lecture entitled “Reveal a major secret of HBV infection: NTCP is a functional receptor for hepatitis B and D viruses” given by Dr. Wenhui Li from the National Institute of Biological Sciences. The last talk in the morning session was the Junior Investigator Award Lecture given by Dr. Hui-Kuan Lin from MD Anderson Cancer Center on targeting ubiquitination pathways for cancer therapy.

**CONCURRENT SESSIONS ON JULY 20-21 AFTERNOON**

The one and a half day concurrent sessions featured workshops covering many aspects of the biological sciences, from molecular signaling to drug development and from agriculture to public health. Most of the co-chairs and speakers are the leaders in their own fields. The workshops were so well attended that there were not enough seats for audience in some workshops. To make our biennial event more inclusive, organizers made a good effort to invite top-notch scientists in the field of agriculture and plant sciences to organize four workshops since this area had been underrepresented in the past.

To commemorate the immense contributions of our late past President Kuan-Teh Jeang to our society, three KT Jeang Memorial Symposia were organized. Two of these were arranged by scientists from the NIH where Dr. Jeang worked for decades and made tremendous contributions to the field of infectious disease research. The third one was organized by Professor Li-Min Huang from National Taiwan University Hospital. A short video shown at the beginning of the symposium captured some emotional moments of Dr. Jeang’s life. Born in Taiwan, Dr. Jeang spent his childhood in Libya. He was a prodigy and went to MIT at the age of 16. It was so thoughtful of Dr. Huang to put such a video together for the event.

**SYMPOSIUM ACTIVITIES ON JULY 22**

Although only a half day of symposium activities was arranged on July 22, the momentum of the excitement was well maintained. The plenary session was called Translational Research. The first presentation was given by Dr. Yigong Shi from Tsinghua University in Beijing. Instead of telling “A tale of TALE”, he presented his new work on a potentially interesting role of GABA receptor in pH regulation in cells. The second speaker was Dr. Chuan He from the University of Chicago who talked about reversible RNA methylation in regulation of protein expression. The third speaker of the session was Dr. Soo-Chen Cheng from Academia Sinica Taiwan and she talked about splicesome dynamics in the catalytic steps of RNA splicing. Dr. Tak Mak from the University of Toronto delivered the last talk before the morning Tea break and he talked about new ideas for developing drugs for cancer treatments. His lecture title was “Future anti-cancer targets: put the cart before the horses”. It was timely to hear such a talk since the paradigm for cancer research is shifting and the ground of oncogenes is shaking.

The session continued with a presentation from Dr. Jude Samulski, a pioneer in the field of Adeno-associated viral vectors, from the University of North Carolina and his presentation title was “Gene genetics and gene therapy: the future has arrived”. It was exciting to hear that the success of gene therapy is coming. Following Dr. Samulski’s talk, Dr. Zhijian Chen from the University of Texas Southwestern Medical Center (member of Howard Hughes Medical Institute) gave a talk on innate immune sensing and signaling of cytosolic DNA. After Dr. Chen’s presentation, Dr. Yongzhang Luo from Tsinghua University gave a talk on potential therapeutic targets in multiple aspects of the tumor microenvironment. The last talk was given by Dr. Yong-Jiang Hei from the Global Development Department of Amgen. The title of his talk was “From bench to bedside: the development of novel biologies”.

The symposium ended with a few announcements. Our President announced the result of the trainee travel fellowship competition (see page 6-7 for details) and the new SCBA election results. The President-elect, Dr. Chuxia Deng from NIH, gave a brief speech on behalf of the elected officers. Following Dr. Deng’s speech, Dr. Yun Bo Shi, the Editor-in-Chief of our society Journal, Cell & Biosciences, reported the success the journal has achieved so far. The
journal received the first impact factor of 3. Dr. Shi emphasized the importance of the paper submission from our members. Before our President Dr. Xiao-Fan Wang adjourned the symposium, Dr. Dihua Yu, our President for the next administration gave a short speech. Dr. Yu mentioned that there were several cities in the competition for organizing the next SCBA International Symposium and she would keep members informed on the venue for the next Symposium.

Respectfully yours,
Jim Hu, Ph.D
SCBA Secretary (2012-2013)

Respectfully yours,
Xin-Hua Feng, Ph.D
SCBA Treasurer (2012-2013)

It is a great honor for me to welcome you all to attend the 14th SCBA International Conference co-sponsored by the Society of Chinese Biologists in America and the Chinese Academy of Engineering.

Before I go further with the welcome message, I would like to give you a very brief introduction on SCBA and its conferences. SCBA was established in the 1980s with a primary mission to promote the career development, fight for the rightful recognition of biologists of Chinese descents against tangible and intangible discrimination existed in both the scientific community and the general public. Although this mission remains true even today, another mission has been developed in the past fifteen-or so years to promote the development of biological sciences in Asia where a majority of SCBA members are originated through enhancing cooperation and collaboration, in both scale and depth, among scientists. SCBA has held its past conferences in Beijing, Hong Kong, Singapore, Taipei, and the last one in Guangzhou two years ago. This trend of increased interactions is in line with the significant increase of investments in research of basic sciences, including biological sciences by the governments, and the returning of ever more scientists to the region, including members of SCBA, who have been trained and worked in universities and research institutions in North America.

Upon this background, after the Guangzhou conference, a majority of our members voted to select Xi’an as our next location of the conference for two main reasons: First, we have had our conferences in coastal regions of Mainland China, HK, twice in Taipei, so it would be beneficial for our members to engage interactions with scientists in the inland areas of Mainland China, particularly because the Central Government has initiated major plans to develop the vast areas of the mid to western parts of the country as part of the economic transition strategy in the next stage of the economic development. Xi’an has a very strong base of scientific and technology development with a large number of universities (in fact, according to Governor Lou, within China, Shannxi has been a major exporter of new technologies developed here, although it lags behind in translating the technologies into commercial products for the markets). In this regard, its biological sciences are relatively weak in comparison to other areas of research and development, and major improvements are needed to increase the competitiveness in this critical area.

Second, we chose Xi’an for another reason. As scientists, we are by nature curious. We like to ask questions, explore the unknown, and seek for answers. Although we specialize in seeking the truth of nature, we are also naturally explorers and Xi’an has a long and rich history as the capital for multiple dynasties lasting more than a thousand years. So we will have plenty to explore while in Xi’an to absorb the tremendous amount of information from both scientific discoveries at our conference and visits to so many historic sites in and around Xi’an.

Speech at the Open Ceremony of the 14th SCBA International Symposium by President Dr. Xiao-Fan Wang

Honorable Vice Chairman of the Standing Committee of the National People’s Congress of China Chen Zhu,
Honorable Governor of Shannxi Province Lou Qin-Jian,
Honorable President of the Fourth Military Medical University Zhao Yi-Min,
Ladies and Gentlemen, Friends and Colleagues:
Science has no national boundary, but each country has some of its unique challenges. With climate change due to global warming and the huge demands from an increasingly prosperous population, mankind faces enormous challenges such as combating diseases associated with an aging population and emerging infectious diseases, provide sufficient foods with high-safety standard, and reverse environmental degradation. In this context, we biologists bear special responsibilities to face these challenges, and to help and benefit the people who support our research. In this regard, we hope that SCBA could make our contributions to this major effort currently undergoing in China, through this conference and ensured establishment of existing and new cooperation and collaboration between our members and scientists in China. We sincerely hope that we could contribute to the fundamental transition of the economical model from “made in China” to “created in China”, thus fulfilling the dream to build a prosperous China that will benefit not only its own people but the whole mankind.

Now, I would like to take this opportunity to express our great gratitude to our local host, the Fourth Military Medical University, and particularly Professor Chen Zhinan for making this conference possible. As a non-profit organization, operations of SCBA are supported by our membership fees and limited small donations. Thus, the major financial burden to support this conference has disproportionally fallen onto the shoulder of Prof. Chen and his colleagues. Through their tremendous and tireless efforts, we have been able to secure sufficient funds to support all the official activities associated with this conference without any direct governmental funding. In the meantime, we are also extremely grateful to all the companies that have contributed to the financing of our conference.

Finally, I wish you all to have a wonderful time in Xi’an and great success of our conference!

Respectfully yours,

Xiao-Fan Wang, Ph.D.
SCBA President (2012-2013)
To encourage postdocs and graduate students to participate in the symposium, the symposium organizers decided to have a completion for fellows and students to present their work in the symposium. The award committee was co-chaired by Xin-Hua Feng and Jim Hu with Gensheng Feng, Jian-Li Jiang, Tianru Jin, Yunbo Shi, Jianping Weng, Li Su, Yongliang Zhang as committee members. All committee members read the submitted abstracts and provided scores for each abstract. The award winners were selected based on the submitted abstract as well as the presented posters. The following trainees were the award winners for the year of 2013:

Chi-Ping Chan, Department of Biochemistry, the University of Hong Kong, Hong Kong
Presentation title: “Influenza A virus NS1 protein suppresses innate antiviral immune response by preventing PACT-induced activation of RIG-I”

Shuo-Hsiu Chang, Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan
Presentation title: “Functional Analysis of the Alanine-Rich Domain in RBM4”

Fenfang Chen, Life Sciences Institute, Zhejiang University
Presentation title: “Nuclear Export of Smad1 by RamBP3L regulates BMP-induced mesenchymal stem cell differentiation”

Renqing Feng, College of Life Sciences, Peking University
Presentation title: “The role of Goosecoid in TFG-beta induced EMT”

TIENFEN KUO, Agricultural and Biotechnology Research Center, Academia Sinica, Taiwan
Presentation title: “Mechanistic study and target identification of a novel anti-diabetic phyto-compound, cytopiloyne”

Ying Li, Life Sciences Institute, Zhejiang University
Presentation title: “FtsZ protofilaments use a hinge-opening mechanism for constrictive force generation”

Lu Meng, Department of Chemical Engineering and Biotechnology, University of Cambridge, Cambridge, CB2 3RA, UK
Presentation title: “Polyglutamine aggregate degradation in the crosstalk between UPS and autophagy pathways”

Hei-Man Vincent Tang, Department of Biochemistry and State Key Laboratory for Liver Research, the University of Hong Kong
Presentation title: “CRTC coactivators are required for hepatitis B virus transcription”

Jing-Ya Wang, Institute of Cellular and System Medicine, National Health Research Institutes, Zhunan, Taiwan
Presentation title: “Aberrant Nucleokinesis of Purkinje Cells and Cerebellar Ataxia in SUN deficiency”

Jing-Song Wei, Department of Biochemistry and Molecular Biology, College of Life Science, Northwest A&F University, Yangling, Shannxi, China 712100
Presentation title: “HIV-1 Tat stimulates bacteria growth in vivo and in vitro”

Yulan Zhao, Life Sciences Institute, Zhejiang University
Presentation title: “SCP4 modulates the canonical bone morphogenetic protein signalling via Smad dephosphorylation”