

"US-JAPAN CONFERENCE: INFLAMMATION, DIABETES AND CANCER" held at the Beckman Research Institute of City of Hope, Duarte, CA, USA

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Summary

The conference was held to facilitate research collaborations between US and Japan scientists, and to commemorate the rich history of the Beckman Research Institute of City of Hope (COH) research contributed by many Japanese doctors. Most noticeable is Dr. Ryojun Kinoshita, an internationally renowned oncologist who built the first research team at the campus of COH Medical Center in 1952. The conference received enthusiastic support from Junichi Ihara, Consul General of Japan, Los Angeles. During the two day conference, seven scientists from Japan, six scientists from Southern California, and six scientists from COH presented various aspects of cancer and diabetes research which included nuclear receptor regulation, DNA base and chromatin modifications, cancer glycosylation, circadian clock, cell polarity, tumorigenesis, micro and small RNA therapies, genomics, epigenetics, and signaling.

Keywords: Diabetes, cancer research, Ryojun Kinoshita

The two-day conference (Figure 1A) was held at Argyros Auditorium of the Beckman Research Institute of City of Hope (COH) in Duarte, CA, USA on August 4-5, 2011, with the support of the Consulate General of Japan, Los Angeles. The major aim of the conference was not only to facilitate collaborations between Japanese scientists and COH scientists as well as Southern Californian researchers, but also to commemorate the rich history of COH research which started in 1952 by Japanese doctors at the campus of COH Medical Center. Prior to the conference, a welcome reception was hosted by Junichi Ihara, Consul General of Japan, Los Angeles, at his residence in Hancock Park for conference speakers and invited guests (Figure 1B).

On the first day of the conference, Dr. Arthur

Riggs, Chair of Diabetes and Metabolic Diseases Research and Emeritus Director of Beckman Research Institute, presented historic aspects of COH Research (Figure 1C). As seen in the photo on the screen behind Dr. Riggs, the first research team was launched in 1952 by bringing an internationally renowned oncologist, Dr. Ryojun Kinoshita, as Director who was a visiting professor at UCLA at the time. This initial phase of COH research establishment is briefly described at the end of this article. Figure 1D shows the conference center audience listening to Dr. Riggs' presentation, including at the front row from the right, Dr. Richard Jove (Director of Beckman Research Institute), Dr. Michael Friedman (President and CEO of COH), and the Honorable Junichi Ihara, Consul General of Japan, Los Angeles who gave welcome speeches. The sessions started by a keynote speaker, Dr. Shizuo Akira (Osaka University) (Figure 1E), followed by Dr. Hua Yu (COH), Dr. Christopher Glass (UCSD), Dr. Rama Natarajan (COH), Dr. Peter Jones (USC), Dr. Taeko Miyagi (Tohoku Pharmaceutical University), Dr. Paolo Sassone-Corsi (UCI), Dr. Fumitoshi Ishino (Tokyo Medical and Dental University), and Takahiro

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Figure 1. Event photos. (A) The program, (B) Keynote speaker Dr. Akira at the pre-conference reception at Consul Ihara's residence, (C) Dr. Riggs talked about Dr. Kinoshita, (D and E) oral presentations and the audience, (F) poster session, (G) Keynote speaker Dr. Evans, (H) Consul Ihara, (I) Dinner reception at the COH Visitor Center, and (J) Dr. Itakura talked about Dr. Kinoshita.

Maeda (COH). Poster session and reception were held after the excellent first day presentations (Figure 1F). The poster session was planned to enhance interaction between young Japanese scientists and COH researchers. Most of the invited speakers from Japan brought their associates who presented their research. Three young scientists from Japan presented their posters and introduced their projects to COH researchers and invited speakers. During the reception, Dr. Ronald Evans who gave a keynote lecture on the 2nd day of the conference was greeted by COH scientists, Drs. Shi, Hua, and Jove (Figure 1G).

During COH-hosted dinner at the beautiful COH Visitor Center (Figures 1H-1J), the Honorable Junichi Ihara, Consul General of Japan, Los Angeles, gave a speech to celebrate the occasion of the US-Japan Conference (Figure 1H). Dr. Keiichi Itakura then commemorated the rich history of the early COH research by showing the photo of the first director of COH Research Institute, Dr. Ryojun Kinoshita (Figure 1I), and presenting stories of Dr. Susumu Ohno who joined COH at the beginning and stayed to contribute to cytogenetics and theoretical biology by outstanding discoveries (Figure 1J).

On the 2nd day of the conference, after a great talk by keynote speaker Dr. Ronald Evans, Dr. John Rossi (COH), Dr. Masatoshi Hagiwara (Kyoto University), Dr. Barbara Wold (CALTECH), Dr. Hong Wu (UCLA), Dr. Seishi Ogawa (The University of Tokyo Hospital), Dr. Gerd Pfeifer (COH), Dr. Shigeo Ohno (Yokohama City University Medical School), and Dr. Satoshi Inoue (The University of Tokyo), presented their forefront research findings. Over 200 scientists and graduate students from COH and other institutions fully benefited from the excellent presentations by invited speakers.

The conference thoroughly covered the theme of inflammation, a currently emerging new root for cancer and diabetes. Experts in their own fields presented various aspects of cancer and diabetes research which included nuclear receptor regulation, DNA base and chromatin modifications, cancer glycosylation, circadian clock, cell polarity, tumorigenesis, micro and small RNA therapies, genomics, epigenetics, and signaling as seen in the program.

Acknowledgements

We thank the speakers for sharing their research findings, Beckman Research Institute of the City of Hope, Japan Consulate, and Tokai University for their support. We also thank the meeting staff and organizers for their time and effort. YFY and RJL thank Ms. Faith Osep for her excellent secretarial assistance and Mr. Patrick Cunningham for the professional photography of the conference events.



The Program

Thursday, August 4, 2011

Welcome

Michael A. Friedman, M.D., President and Chief Executive Officer, Cancer Center Director City of Hope

The Honorable Junichi Ihara, Consul General of Japan, Los Angeles

Historic Aspects of City of Hope Research

Arthur D. Riggs, Ph.D., Chair, Diabetes and Metabolic Diseases Research, Beckman Research Institute, City of Hope

SESSION 1: INFLAMMATION

Chair: **Janice Huss**, Ph.D. and **Ravi Bhatia**, M.D., City of Hope

1-1. Keynote Speaker: Shizuo Akira, M.D., Ph.D., Immunology Frontier Research Center, Osaka University

Negative regulation of immune responses by the zinc finger domain containing nuclease, Zc3h12a

1-2. Hua Yu, Ph.D., Beckman Research Institute, City of Hope
STAT3 in cancer inflammation and immunity

1-3. Christopher K. Glass, M.D., Ph.D., University of California, San Diego
Macrophages, inflammation and insulin resistance

1-4. Rama Natarajan, Ph.D., F.A.H.A., F.A.S.N., City of Hope
Epigenetics and MicroRNAs in the regulation of inflammatory genes Under diabetic conditions

SESSION II: MOLECULAR ONCOLOGY

Chair: **Susan Kane**, Ph.D. and **Yun Yen**, M.D., Ph.D., City of Hope

2-1. Peter A. Jones, Ph.D., D.Sc., USC Norris Comprehensive Cancer Center
The cancer epigenome

2-2. Taeko Miyagi, M.D., Ph.D., Cancer Glycosylation Research Laboratory, Tohoku Pharmaceutical University
Aberrant expression of sialidase and cancer progression

2-3. Paolo Sassone-Corsi, Ph.D., University of California, Irvine
Joining the dots: epigenetics, metabolism, and the circadian clock

2-4. Fumitoshi Ishino, Ph.D., Medical Research Institute, Tokyo Medical and Dental University
Role of retrotransposons in mammalian evolution

2-5. Takahiro Maeda, M.D., Ph.D., City of Hope
Endocytic regulation of normal and malignant hematopoiesis by the clathrin assembly protein CALM

Poster Session & Reception

Friday, August 5, 2011

SESSION III: GENE REGULATION

Chair: **Yanhong Shi**, Ph.D. and **Toshifumi Tomoda**, M.D., Ph.D., City of Hope

3-1. Keynote Speaker: Ronald M. Evans, Ph.D., Salk Institute for Biological Studies
Nuclear receptor regulation of the inflammatory cistrome

3-2. John Rossi, Ph.D., City of Hope
Small RNA therapies for HIV and cancer

3-3. Masatoshi Hagiwara, M.D., Ph.D., Graduate School of Medicine, Kyoto University
Visualization of alternative splicing and the therapeutic manipulation with chemical compounds

3-4. Barbara J. Wold, Ph.D., California Institute of Technology
Genome-wide chromatin modification status and transcription factor occupancy in differentiating systems: Relating physical connectivity to biological function

SESSION IV: GENOMICS AND SIGNALING

Chair: **Piroska Szabo**, Ph.D., City of Hope and **Nozomu Mori**, Ph.D., Nagasaki University

4-1. Hong Wu, M.D., Ph.D., University of California, Los Angeles
PTEN and Tumorigenesis

4-2. Seishi Ogawa, M.D., Ph.D., The University of Tokyo Hospital
Genetic analysis of myelodysplastic syndromes and related disorders

4-3. Gerd Pfeifer, Ph.D., City of Hope
DNA base modifications in human cancer

4-4. Shigeo Ohno, Ph.D., Yokohama City University School of Medicine
Cell polarity and the maintenance and disruption of epithelial tissues

4-5. Satoshi Inoue, M.D., Ph.D., Graduate School of Medicine, The University of Tokyo
Genome-wide androgen receptor signaling in prostate cancer

CLOSING REMARKS

Yoko Fujita-Yamaguchi, Ph.D., Tokai University School of Engineering

Prof. Ryojun Kinoshita, M.D. (1893-1977)

— An oncologist who started the research department at City of Hope

In 1952, Dr. Kinoshita who was then a visiting professor at UCLA was appointed as the director to take on the challenging task of developing cancer research at City of Hope Medical Center. City of Hope originally started as a sanatorium for Jewish tuberculosis patients in 1913 in a small town called Duarte in the Los Angeles suburb. Dr. Kinoshita was recommended by Prof. Charles Carpenter, who was Chairman of the Department of Infectious Diseases in the new Medical School at UCLA. Prior to coming to the US in 1949, Dr. Kinoshita was professor at Hokkaido and Osaka Imperial Universities, and became the first dean of the new Osaka City University Medical School. He organized three consecutive annual meetings of Japanese Cancer Association (1947-1949) as the president of the association. Dr. Kinoshita, when he was at Osaka University, visited the US as a guest of the American Cancer Association and achieved fame as the discoverer of "butter-yellow" cancer in rats fed with a yellow dye.

Dr. Kinoshita asked Susumu Ohno (D.V.M., Ph.D.) to join City of Hope, who was a post-doctoral fellow under the mentorship of Prof. Charles Carpenter at UCLA. Dr. Ohno was instrumental in the drive to further cytogenic research and to develop forefront biology programs. Later in 1982, he was elected to be a member of the National Academy of Sciences in recognition of his work on X chromosome inactivation and his theory of evolution by gene duplication. Dr. Eugene Roberts joined City of Hope as the chairman of Department of Biochemistry in 1954. During 1960s, the Divisions of Biology and Neurosciences headed by both scientists, respectively, were created. Dr. Roberts has been a member of the National Academy of Sciences since 1988 in recognition of his discovery of GABA which is a major inhibitory neurotransmitter in the vertebrate central nerve



Prof. Ryojun Kinoshita, M.D. (1893-1977)

system, and is now Director Emeritus. Dr. Roberts is 91 years old and he actively participated at the US-Japan Conference. The Division of Immunology was established in 1972 by Dr. Charles Todd. Dr. Kinoshita had successfully accomplished his mission during his tenure. Dr. Kinoshita spent some years of his early research training in Cambridge and married an English woman. He had a manner as an English gentleman with an excellent command of English. Mrs. Kinoshita passed away in 1971 at City of Hope Medical Center. Dr. Kinoshita died in 1977 of a stroke after several years of suffering. He was survived by Ms. Akiko Lotspiech, Dr. Kinoshita's niece and an adopted daughter.

(Received October 29, 2011)