

ASPET-JPS Lecture at the 92nd Annual Meeting of the Japanese Pharmacological Society

Submitted by Lorraine J. Gudas



Osaka, Japan

The large port city of Osaka, with a population of almost 3 million, was the host city for the 92nd Annual Meeting of the Japanese Pharmacological Society (JPS). Osaka is a commercial city known for its street food (okonomiyaki, kushikatsu, etc.) and active night life. A famous landmark in Osaka is the Osaka Castle, which played a large part during the Azuchi-Momoyama period (16th century) in the unification of Japan. The conference was held at the Osaka International Convention Center from March 14-16, 2019. At the same time, Osaka was hosting the 2019 Grand Sumo Tournament at the Osaka Prefectural Gymnasium. This vibrant city was a stimulating setting for pharmacologists to listen to talks and participate in poster sessions focused on, in the words of the JPS president, Dr. Yoshikatsu Kanai, "future pharmacology in international, inter-disciplinary, and industry-academic-government collaboration." The meeting's theme, "Concerto on Science and Innovation toward a New Horizon of Pharmacology," was chosen to stimulate Japanese pharmacologists to further develop

by "collaboration with various fields of life sciences." Because pharmacology bridges and integrates multiple research approaches, this theme was appropriate and captured the exciting and positive interactions among a large number of pharmacologists from countries around world. ASPET views partnering with other national societies, such as the JPS, as a high priority. In addition to sessions featuring cutting-edge drug discovery and novel disease treatments, Dr. Kanai also wanted this JPS meeting to include sessions on "diversity and pharmacological education," so that promising young researchers can "find their future in pharmacology."

It was my great honor to give the ASPET-JPS lecture at the 92d Annual Meeting of the JPS. My talk, "Combining Pharmacology and Genetics to Study and Treat Human Diseases," was focused on two areas of my laboratory's research: first, the role of cancer stem cells in the development of head and neck squamous cell carcinoma (HNSCC) and our use of a highly selective, synthetic retinoid agonist of the



Lorraine Gudas receives a certificate of appreciation from the JPS for speaking at the ASPET-JPS Lecture

retinoic acid receptor gamma in the prevention and treatment of HNSCC, and second, our recent findings that in adult mice, a diet deficient in vitamin A (retinol) causes hyperglycemia and pancreatic beta-cell loss. Following up on this discovery, we found that obesity results in depletion of vitamin A in organs such as the liver, pancreas, lung, and kidney. This organ specific deficit in vitamin A occurs even though these models provide vitamin A in the diet and the mice have normal vitamin A levels in their blood. Thus, our recent results suggest that obesity profoundly changes the storage and utilization of vitamin A in the body, and that this could have a major impact on numerous diseases associated with aging, such as diabetes, heart disease, hepatic steatosis, and cancer. Dr. Matsamitsu lino (Cell and Molecular Pharmacology, Nihon University School of Medicine, and former president of the JPS) was the chair for my lecture. It was exciting to present my research in front of Japanese pharmacologists because Japan has produced many outstanding research publications in the area of retinoid pharmacology over the past two decades.

Among the many interesting symposia at the conference was the 22nd Japanese-Korean Pharmacology Joint Seminar, which featured many fascinating presentations, alternating talks by Korean and Japanese pharmacologists. In addition, the Young Investigator Outstanding Oral Presentation Award Sessions showcased the research of talented, poised, up-and-coming Japanese pharmacologists. Dr. Mitsuhiro Yoshioka, president of the Japanese Pharmacological Society, introduced the plenary lecture by Dr. Shuh Narumiya (Kyoto University Graduate School of Medicine), in which he traced his career from his early work with Dr. John Vane at the Wellcome Research Labs in England to his most recent, and most creative, work on prostanoid receptors. Dr. Shizuo Akira (Osaka University) spoke on the endoribonuclease Regnase-1 and its key role in inflammatory and immune responses. Dr. Narumiya summed up the mood of the meeting at the end of his abstract for his lecture where he wrote: "The joy of pharmacology never ceases."

We look forward to the next annual meeting of the JPS where the collaborations of scientists, young and established, from diverse countries and disciplines will share their newest discoveries.

ASPET will be exhibiting at the following meetings this fall:

AACR-NCI-EORTC MOLECULAR TARGETS AND CANCER THERAPEUTICS CONFERENCE Boston, MA October 26-30, 2019 https://www.aacr.org/Meetings/ Pages/MeetingDetail. aspx?EventItemID=184 ANNUAL BIOMEDICAL RESEARCH CONFERENCE FOR MINORITY STUDENTS (ABRCMS) Anaheim, CA November 13-16, 2019 http://www.abrcms.org/

HEALTH PROFESSIONS WEEK Online Virtual Meeting November 16-21, 2019 https:// explorehealthcareers. org/hpw/



PHARMACOLOGY 2019 Edinburgh, UK December 15-17, 2019 https://www.bps. ac.uk/news-events/ events/2019/ pharmacology-2019