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JSPS Conference – February 5, 2018

### Executive Summary:

The primary goal of this seminar was to organize an academic event that will benefit faculties, fellows, students and other biomedical scientists from Washington-DC area. Secondary goal is to showcase the Japanese Society of Promotion of science (JSPS) long history in contributing to science, as well as in resource development. The venue at Johns Hopkins University and collaborative institute of University of Maryland are among the top research institutes of the world with a large number of students, staffs, trainees and faculties. These two institutions have been harboring students, researchers, scientist from around the world including Japan. Many of their working scientists, faculties and fellows, either obtained Ph.D and/or were trained in Japan. Moreover, a good number of Japanese scientists are also currently working/ training in these institutes. This seminar program to showcased both US-JSPS alumni association and its parent organization JSPS by an academic seminar that facilitated bridging cancer research in Japan and USA as well as provided opportunities for collaboration, networking among Japanese and USA scientists. Most importantly this program encouraged junior scientists in USA including masters and Ph.D students, postdoctoral fellows from across the world to pursue a part of their career in Japan. Although started at early morning the turnout of audience was noticeable and all the 5 speakers were world renowned leaders in cancer research field.

### Topics Discussed, outcomes and future challenges

As the title of the seminar (Cancer Biomarker and Therapy) indicates that, we discussed the most challenging issue of cancer patient management. Biomarkers are necessary for early diagnosis, prediction of therapeutic response and monitoring of patients for prognosis. In this seminar, all the speakers bring wealth of knowledge from their innovative research in this area from cancer diagnosis to therapy.

Cancer has been the leading cause of death in Japan since 1981 and as well as in USA. Although the bio-medical researchers have made significant progress in combatting these deadly diseases, yet it remained as one of the major health problems throughout the world. The success of a scientist in the field of their research area largely depends on their updated knowledge, sharing of ideas and research collaboration. To, contribute to those factors, we cover a range of topics in this seminar that include:

- 1) Understand the complexity of diagnosing and treating cancer and have an over view of the potential causes of regional variations of certain cancer types.
- 2) Have an updates in recent developments of biomarkers for cancer detection, prediction of therapeutic response and prognosis.
- 3) Have an idea of recent developments in of immunogenetics and therapeutic approach.

Cancer is one of the leading causes of morbidity and mortality worldwide including USA and Japan. The number of new cases is expected to rise by about 70% over the next 2 decades. Globally, nearly 1 in 6 deaths is due to cancer. Notably, the incidence of several cancer types varies in different races. As for example, gastric cancer is more in Japanese

population in comparison with Caucasians. The educational activities of this seminar helped the participants to exchange ideas in the field of cancer biomarkers and therapy and to modify/extent their research works for accelerated success. Although tremendous development in technology over the last decades, improvement of patient survival for the majority of cancer types is still dismal. Team works among clinicians, basic researchers, statisticians and nurses are essential to overcome challenges in cancer diagnosis and therapy.





**Japan Society for the Promotion of Science (JSPS)  
US Alumni Association Seminar Program**

**Johns Hopkins University School of Medicine  
Albert H. Owens Jr. Auditorium**

**February 5, 2018**

**“Cancer Biomarker and Therapy”**

**JSPS-US Alumni Association Members  
Organizing Committee**

Mohammad O. Hoque, DDS, PhD.  
Associate Professor at Johns Hopkins University

Rezwanul Wahid, MBBS. PhD.  
Assistant Professor at University of Maryland

**JSPS Washington Office**

Dr. Kohji Hirata, Director  
Mr. Takahiro Fujino, Deputy Director  
Ms. Satoko Ide, Advisor  
Thet Win, Liaison, Officer

**Monday, February 5, 2017**  
**Albert H. Owens Jr. Auditorium**

8:30AM – 9:00AM	<b>Registration and Continental Breakfast</b>	
9:00AM - 9:10 AM	Welcome and Opening Dr. Mohammad O. Hoque, Organizer, JSPS-Hopkins Seminar Program	
<b>Scientific Session</b>		
	<b>Invited Speakers</b>	<b>Title of Presentation</b>
9:10AM - 10:10 AM	Prof. Saraswati Sukumar, Ph.D Professor of Oncology and Pathology, Breast Cancer Program, Johns Hopkins University School of Medicine	Methylation Markers Based Breast Cancer Detection Using an Automated Cartridge for Underdeveloped Regions of the World
10:10AM - 11:10 AM	Toshikazu Ushijima Chief of Division of Epigenomics National Cancer Center Research Institute Tokyo, Japan	Precision Risk Diagnosis With Epigenetic Markers.
11:10 AM - 12:10 PM	Manel Esteller, M.D., Ph.D. Director, Cancer Epigenetics and Biology Program (PEBC), Bellvitge Biomedical Research Institute (IDIBELL), 3rd Floor, Hospital Duran i Reynals, Av.Gran Via de L'Hospitalet 199 – 203,08908 L'Hospitalet de Llobregat, Barcelona, Catalonia, Spain.	Cancer Epigenetics: From Knowledge To Applications
12:10PM - 1:00 PM	<b>LUNCH BREAK</b>	
	<b>Invited Speakers</b>	<b>Title of Presentation</b>
1:00PM - 2:00 PM	Stephen B. Baylin, M.D., Virginia and D.K. Ludwig Professor of Oncology and Medicine, Co-Director of the Cancer Biology Division, Associate Director for Research Programs of SKCCC Johns Hopkins University School of Medicine.	Epigenetic therapy for cancer – some thoughts on where we are and where we may go
	<b>Alumni Speaker</b>	<b>Title of Presentation</b>
2:00PM - 3:00 PM	Mohammad O. Hoque	YAP1 and COX2 Coordinately Regulate Urothelial Cancer Stem- Like Cells
3:00 – 3:30PM	JSPS Information Session Mr. Takahiro Fujino, Deputy Director of JSPS Washington Office	