Reflections on Japanese Cancer Science and Hospitality: February, 1990

As President of the American Association for Cancer Research, I and my wife, Rose, visited Japan on February 16-28, 1990 as invitees of the Japanese Foundation for Promotion of Cancer Research, a private Foundation which responded favorably to the suggestion of Dr. Takashi Sugimura of the National Cancer Center. As part of the visit, I gave lectures on the "Final Common Pathway of Cancer" at National Cancer Center; Faculty of Medicine, University of Tokyo; Osaka University, School of Medicine; University of Occupational and Environmental Health, School of Medicine; and Central Research Division, Takeda Chemical Industries, Ltd.

Since this was the fourth visit to Japan, I was especially interested to learn about the improvements in the scientific, social political and economic areas that I could observe from the perspective of an infrequent but very interested visitor.

The "Miracle of Japan" is all around. Ultramodern hotels abound and the shops have a dazzling array of elegant and expensive merchandise. The auto industry has been "too successful" so the numbers and extent of traffic jams are quite frustrating even to the patient Japanese who are few in number compared to the many "A" types.

Success is the hallmark of Japan. It is clearly "Opportunity-Land" in business, enterprise and science. The rich rewards of economic expansion are seen everywhere.

What is even more impressive is the unique warmth of the people. The great degree of individualism and personal character of the Japanese people take longer for the Westerner to appreciate because their customs are quite different and their distinctive mannerisms have been developed through generations.

Underneath these superficial distinctions are warm hearted, family oriented, socially exuberant, dedicated and loving human beings who care very much about their lives, their accomplishments and their children's future in the world.

Like other island nations, Japan is both "protected" by the sea and yet aware that the sea is a "highway" of most transport and commerce. Now they can reach out by plane, telephone and Fax so they are truly "world citizens." Indeed, phone calls from Japan sound like the people are next door. Their TV is virtually free of lines.

In our visits, we were "cared for" everywhere. From the time we came to Tokyo until we left, Dr. Susumu Nishimura, National Cancer Center Research Institute, was at our side helping to smooth our path and insure our comfort. His warmth and collegiality extended to shopping and meals as well as science.

We were very fortunate early on to have the great pleasure of dinner with Professor Osahiko Abe, School of Medicine, Keio University and Dr. Hiroshi Takami, School of Medicine, Teikyo University and their wives early in our visit and with the "Tokyo Branch" of the Busch group. While we spent much serious time in scientific discussions, we were fortunate to have some meals with individual Division Chief and Research Scientists as a group in the course of our visit to the National Cancer Center.

We were welcomed to the National Cancer Center by Dr. Takashi Sugimura, who is its President. He is a warm and empathetic colleague. President Sugimura is a distinguished Scientist, winner of many awards, a member of the U.S. National Academy of Science and a pleasant warm host, but his very busy schedule provided too little opportunity to share many thoughts with him. He is highly regarded in his own Institution and his efforts in carcinogenesis and cancer prevention have been prolific. He is justly proud of the interactions between the hospital and its clinical efforts to improve cancer diagnosis and treatment and the harmonious relations between the basic and clinical scientists.

Dr. Sugimura's efforts to strengthen clinical and basic science collaboration are very laudable and are a model that hopefully will be inspirational to others. Certainly, in my career, I have had undue difficulty in interaction with clinical scientists and with getting adequate clinical material. It would be a pleasure to be in a research setting where the communication is encouraged.

The general attitude throughout Japan is that the Science should be world class and publication in English language journals, both in Japan and elsewhere is encouraged. Many excellent publications are in PNAS, the JBC, Nature and other high quality journals. Their publications in each field are many and varied in their areas of specialization so that if anything, the level of depth is diminished by the effects to broadly cover many fields. Actually, the National Cancer Center Research Institute is surprisingly small. It is divided into sections or divisions including Pathology, Biochemistry, Genetics, Biology, Radiobiology, etc., each of which has special leadership and interesting problems.

Although the National Cancer Center Research Institute is a splendid research facility, in a country with as much cancer as Japan, it would seem that much more funding should go into Cancer Research. Japan could afford to put a great deal of resources into basic research in an effort to deal with the problem as a whole and in an effort to develop much better therapy. Strangely, this does not seem to be a major national initiative. The human resources are available but the buildings and the research facilities are not.

Why is it that all countries have so much money to spend on military for death and so little for human life? Some people even in Japan want to spend more money for military. Why not take the money for 10 years of military cost and put it into cures for cancers and other terrible human diseases? Perhaps the "Miracle of Japan" can extend to the health and welfare of human beings rather than their destruction.

Even with the multi-billion dollar USA Cancer Program, the depth and breadth of Cancer Research is so vast these days that no one Cancer Center can cover more than a small part a piece of the problem. The only hope we can all have is for far more manpower and improving facilities for the attack on this problem. In Japan, the National Cancer Center will be expanded in the near future with another "satellite" hospital and institute which is being developed about 15 miles away. Clearly, distance will be a barrier to communication. The old "Yale Rule" is that communication decreases by the square of the distance under the roof and by the cube of the distance in separate buildings.

In my brief visit to the clinic, I was pleased by the efforts of the Toshiba Company to produce a smaller MRI scanner and to improve their images. A bronchial TV endoscope having a small TV for endoscopy camera in the tip have enhanced visualization of bronchioles and the stomach. Attention to technological improvements clearly benefits diagnosis and patient care.

President Sugimura has clearly developed an advanced high quality institute which would be comparable with the best I have seen. Its access to and use of clinical material is a great advantage in the fields of stomach, lung, and liver cancer which are common in Japan.

In my visit to Faculty of Medicine, University of Tokyo, we had the great pleasure to be with my former student, Professor Masami Muramatsu who, amazingly, is going to be retiring in two years. Professor Muramatsu is only 58 and he is the zenith of a brilliant career in Biochemistry. It seems to me to be a great waste for a man with four major research programs in biochemistry, and an energetic student and postdoc group to have to retire because of the current retirement policy. I will be age 67 in May and I am working furiously and with high enthusiasm trying to solve mysteries of the G1 phase of the cell cycle. I cannot comprehend a system that would decrease the activities of such an excellent leader at so early an age.

Dr. Muramatsu's facilities are far less modern than those in the National Cancer Center Research Institute. By his own capability, he has evolved a laboratory which has excellent research, equipment and has the enthusiasm of his young colleagues. If Japan would permit, I would be happy for Professor Muramatsu to come back to the United States as he is a man of extraordinary intelligence, energy and enthusiasm. Drs. Muramatsu and Takami organized a beautiful buffet for us in a hotel; this lovely gathering was attended by many colleagues who had been in our laboratory over the last 30 years.

From Tokyo, we went to Kitakyushu where we visited the Department of Ken Higashi, M.D., Ph.D., Professor of Biochemistry. Dr. Higashi is an able leader and a valued member of medical school on Kyushu which is a beautiful island south of Honshu. This medical school (University of Occupational and Environmental Health, School of Medicine) has a special interest in occupational medicine which is an area of great need in the U.S. and throughout the world. I was very pleased to meet a number of his colleagues including Professor Takesumi Yoshimura, an authority on "Yusho." I had the good fortune that Professor Yasutomi Nishizuka presented a lecture on protein kinase C on the same day as mine. Fortunately, Dr. Nishizuka came to hear my lecture and I had the great pleasure of hearing his comments and joining him for lunch. He is in Kobe which we did not visit, but I am sure this city reflects the excellence of his science.

Dr. Higashi took us to Nagasaki which is a beautiful city, a center of famous gardens, and the place where the Peace Park was built. We also saw the Museum. The idea that one bomb on could kill 78,000 people in the first wave and another 80,000 people later is even now incomprehensible. Hopefully, mankind will never see this weapon used again. It is worth the 30 Trillion dollars the U.S. has spent to prevent development of nuclear war.

We took the "Bullet" train from Kyoto to Osaka where we stayed in the final part of our trip. Kyoto and its neighbor city of Osaka are ultramodern, highly populated cities. Osaka University, School of Medicine where I gave a lecture is ancient and the buildings are hardly conducive to excellent research. However, the equipment is excellent and the people work hard and productively. We were entertained in the "Alaska Restaurant" by Dean Keishi Matsumoto of Osaka University, School of Medicine and the members of the faculty. Happily, Dr. Harold Dutsch, who was one of my professors when I was at the University of Wisconsin almost 40 years ago, was there on a 8 months professorship. The faculty members I met were bright, enthusiastic and very knowledgeable.

Through the invitation of Dr. Yukio Sugino and with the great help of Dr. Koichiro Ootsu, I had the pleasure of giving a lecture in the Takeda Company. This is Japan's largest pharmaceutical company and is high in world sales. Dr. Sugino and his staff were wonderful hosts and their very high quality scientific group, which attended my lecture, were as enthusiastic as any industrial groups I have spoken to. Hopefully, the opportunity will develop for further interactions for drug development based on fundamental discoveries in the molecular biology to the field of chemistry. Certainly the scientists in Japan have the opportunity to work very hard in this highly advanced area for future products.

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