

Hiroshima Office for Asia and the Pacific (HOAP)

“Scientists in the 21st Century: What new role in society?”

Kiyoshi Kurokawa

President, Science Council of Japan

*Adjunct Professor, University of Tokyo, Research Centre for Advanced Science and Technology; and
Professor, Tokai University, Science and Technology Policy Research Institute*

Hiroshima, 19 October 2004



Kiyoshi Kurokawa has an MD degree from the University of Tokyo. After completing clinical training in medicine and nephrology, Dr. Kurokawa moved to the United States in 1969 where, in a distinguished career spanning 14 years, he taught and researched at the University of Pennsylvania School of Medicine, Department of Medicine, University of Southern California (1974-77), and UCLA School of Medicine (1979-84).

Dr. Kurokawa returned to the University of Tokyo Faculty of Medicine in 1984 and became Chair of the Department of Medicine in 1990. From 1996-2002, he was the Dean of Tokai University School of Medicine and served as the Director of the Institute of Medical Sciences at Tokai University from 2002 to 2004.

Dr. Kurokawa serves as advisor to various Ministries and academic committees, is a member of prestigious professional societies both in the United States and Japan, author of numerous papers, and a leader in medical education, training, and health care policy in Japan. He is currently the President of the Science Council of Japan.

Excerpts

Dr. Kurokawa started his lecture by presenting a synopsis of the evolution of science and scientists alongside the evolution of humanity itself. Providing an overarching review -- from the dawn of history and the discovery of agriculture through to the Renaissance, the Industrial Revolution, the two world wars of the 20th century and up till our present Information Age, he capitulated how human

inventions – ranging from Newtonian mechanics and relativity theory to the modern tools of mass media and information technology – have drastically altered the shape of human history as well as how human beings interact with one another. Following are some “excerpts” from his lecture.

1. On the role of parents and science

‘Children are by nature curious. Without proper nurture (i.e. from parents and teachers) this innate curiosity will not blossom. The importance of the word “why?” in both scientific enquiry as well as in child-rearing cannot be overemphasized. A child will naturally ask questions such as “Why does the sun shine?”, “Why does it snow?”, and so on. Parents and teachers have a moral and societal obligation to both engender and develop this mentality, and not be indifferent or impervious to these pristine inclinations.’

2. On war, disease and scientific development

‘For better or worse, wars have often had a symbiotic relationship with scientific development. The desire of humans, tribes or states to secure land, resources and to promote their own special ideology has induced military developments throughout human history. These developments in turn have percolated to many segments of society with both devastating and positive results – we need only look back to the last century to see this phenomenon – with the nuclear bomb, the Internet, satellite technology and global-positioning-systems (GPS). The outbreak of many diseases during wars, one example being the ravages of beriberi during the Russo-Japanese War, also provided the scientific/medical community with impetus and

urgency to seek remedies. Indeed, many of the major medical discoveries in the 19th century were done so under wartime pressures.'

3. *On the three greatest challenges of our times – the environment, population growth and the North-South dichotomy*

'There is a need and indeed an urgency to look into these problems not as separate entities but rather as parts of a whole – there is a definitive relationship between these elements, with an exponentially rising population requiring food, water and resources which has continued to engender the exploitation of southern countries by northern countries. All this produces devastating environmental consequences, and with a forecasted earth population of nine billion by 2050, it is imperative that all nations work together from the national to the grassroots level to eradicate these problems. Former US President Franklin D. Roosevelt said that "the test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have little." Not only Japan, but also the scientific communities of other countries must build and support the mechanisms that can realize long-term sustainable targets, which means that these targets must be looked at from the viewpoint of global interdependence.'

4. *On Japan's unique development and its challenges and opportunities ahead*

'Japan, never invaded or colonized before WWII, was able to isolate itself for almost three centuries during the Edo Period (not possible today) to develop a set of systems and practices exclusively its own. Now, however the originality and creativity that for long underlay Japanese culture and society seems to be weakening. The Iron triangle of government, industry and politics (today including academics) seems to have frozen different groups into given roles, with little incentive or willpower to seek or bring about change. In external affairs, Japan has good (some would say too good) relations with the United States, but it also has good relations with many other countries in the world, in particular with the Islamic world. In these turbulent times, how will Japan use this capital of trust wisely and effectively? Domestically, it is also time to break away from established roles and business as usual and bring about change and creativity to all aspects of national policy, including scientific policy. We must start asking ourselves the real questions – what our national vision for this country is, what can we each do to improve the status quo?'

Photo Album



UNITAR Hiroshima Office for Asia and the Pacific (HOAP)

Hiroshima Chamber of Commerce and Industry
Building

5-44 Motomachi, Naka-ku, Hiroshima

Tel: (082) 511-2424 Fax: (082) 211-0511

E-mail: hiroshima@unitar.org

Website: www.unitar.org/hiroshima