



**IUPS Kyoto 2009, Opening Ceremony, Monday 27 July,
In the presence of His Imperial Highness, the Crown Prince of Japan**

**Speech of Professor Denis Noble
President of the International Union of Physiological Sciences.**

Your Imperial Highness, distinguished guests, and fellow physiological scientists,

I am proud to address you all today as the newly-elected President of the International Union of Physiological Sciences.

We gather here in the historical city of Kyoto to celebrate not only the present achievements of our science and its applications in health care, but also to confront the exciting and immense challenge that our science faces in the 21st century. Having used molecular biology to break man down into his tiniest components – his genes, his proteins and all the other molecules – we need to understand how to put all those pieces back together again. That is precisely what physiology is about. (And let me add that I greatly appreciated your Imperial Highness's correct and insightful remarks about the work of William Harvey, one of our distinguished predecessors as the discoverer of the circulation of the blood).

After sequencing the genome, our subject could not be more important to the understanding and future development of medicine. Moreover, aging populations, such as that in Japan and elsewhere in the developed world, suffer from complex diseases that absolutely require integrative physiological understanding to inform good treatment.

It is particularly appropriate that we should be celebrating here in Japan. For, in addition to the excellent contributions that modern Japanese scientists have made to our field – contributions that will be very evident in this Congress – Japan has also been the guardian of some of the most important ancient oriental medical texts, which are by their very nature integrative. Your Imperial Highness's own library, the Imperial Library, contains a valuable handwritten copy of the *Ishimpō* (醫心方), the original of which is now preserved in the Tokyo National Museum. The *Ishimpō* (醫心方) was collated over 1000 years ago by the Heian period Japanese physician Tamba Yasuyori (丹波康賴). He worked here in Kyoto as physician to the Imperial family. The *Ishimpō* is of incalculable value, containing texts based on Chinese Tang dynasty medicine, but that the Chinese themselves had destroyed. It was therefore unique, until the excavations of the *Mawangdui* 馬王堆 tomb revealed Chinese texts from over 2000 years ago that confirm the essential accuracy of *Ishimpō* as a repository of ancient integrative oriental medicine.

While commenting on the scientific value of the Imperial library, we should also pay tribute to your Imperial Highness's father, Japan's Emperor, who not only maintains the science laboratory in the Palace grounds established by your grandfather, but also publishes the results in prestigious scientific journals. There must be few royal palaces in the world that contain such an active scientific laboratory, specialising in marine fish. Fish now form an important object of study in physiology, with the zebra fish in particular benefiting from sequencing its genome and contributing immensely to scientific knowledge relating genetics to development and physiology. It was just earlier this year that the complete sequence of the zebrafish genome was announced. Perhaps, one day, we shall be able to present your Highness with the genome sequence of the Goby fish, the species that form the focus of the Imperial marine science laboratory.

Finally I come to a very special personal reason for expressing immense pleasure that you should honour us with your presence on the occasion of this opening ceremony. Both your Imperial Highness and Her Imperial Highness the Crown Princess Masako are alumni of my own University, Oxford; you studied at the ancient Colleges of Merton (where William Harvey was once the Warden) and Balliol, the latter being my own College. Needless to say, Oxford University and your Colleges, of which you and the Crown Princess are both Honorary Fellows, are open to welcome you whenever you have the opportunity to visit England.

I should like to conclude my greetings in Japanese.

十一年前に、日本の生理学会は私を 名誉会員に 選びました。それ故に、私は この国際学会に日本の生理学会・会員として今回、来ました。

私は、この会が、 大成功となることを希望します。

(Eleven years ago I was made an Honorary Member of the Physiological Society of Japan. So I come to this meeting as one of your members. I wish this Congress to be a great success)