

OBITUARY

Sir John Eccles (1903 - 1997)

Professor Sir John Eccles, F. R. S., Nobel Laureate, is no more. What does this mean to the world of Physiology? This giant among all the neurophysiologists of his time was one of the first who led the neurophysiologists to dare to investigate and understand the central nervous system, first at the cellular level and then later, at the membrane and even at the molecular level. At the same time, having been bred in the understanding of the nervous system in terms of functioning circuits, he would always see a particular nervous function as the way a whole system worked. He would then dissect the functioning in order to understand it at the most micro level possible : quite unlike many physiologists at the present time, who try to understand the functioning first at the most micro level and then try to interpret the working of a complete system. Similarly, Eccles was among those who saw the heralding in of the electronic and computer ages in physiology. Whereas he was quick to incorporate the advantages of electronic recording of nervous impulses into his research, he also knew precisely where the disadvantages lay. For example, when computers were beginning to be used for analysis of nervous signals, he had the insight to tell me : "Remember, junk fed into a computer will result in junk being put out!" This was in the days when there were neither desk top computers nor any of the modern computer languages and software. It is a piece of advice that all of us who are now bred in computer technology, would do well to remember. It is almost redundant to state that he led his students and co-workers into understanding the nervous system from its working as a system, to its working at molecular level. Though patch clamping techniques were not available, he could understand the ionic channels and predict the electrical signs that they should produce when investigated. Similarly, his ability to interpret the electrical fields around an active neuron and thereby to locate precisely excitatory and inhibitory synapses was absolutely amazing. Finally, a word about his human feelings. He was always deeply concerned for the welfare of his students. I will never forget that when the news that Pandit Jawaharlal Nehru was dead reached, he was the first one to meet me at the head of the laboratory and condole the loss with me. He was always available as a friend to his students and colleagues. The world has indeed lost a great human being.

MARCUS DEVANANDAN
Vellore