

7<sup>Th</sup> Khwarizmi International Award

Feb 1994

**Research Title:** Molecular and cell biology: eukaryotic DNA replication and cancer control of replication processes and protein chemistry

**Researcher:** Muhammad Anwar Waqar

**Rank:** Second

**Country:** Pakistan

**Field:** Biotechnology and Basic Medical Sciences



Prof. Muhammad Anwar Waqar was born in Batala, East Punjab, India, in June 1941. He obtained his BSc degree from Punjab University, Lahore, Pakistan, in 1963 and completed his masters from the same university in 1964. His area of interest since then has been biological sciences. He began his research career as a senior research fellow in the Pakistan council of scientific and industrial research laboratories, Lahore, and later joined Pakistan atomic energy commission. He received his PhD, from Flinders University of South Australia in 1972. There is thesis work was based on DNA synthesis in mammalian nuclei. Indeed, this work resulted into the first identification and characterization of the endogenous nuclease of rat liver cells. This information provided a strong evidence for the action of this enzyme, and hence, paved the way for discovery of nucleosomes. In recognition of this work, he was awarded a postdoctoral fellowship by the Massachusetts Institute of Technology (MIT), Cambridge, Massachusetts, USA. He was Advisor in the Department of Zoology, University of the Punjab, Lahore, Pakistan, 1982. In 1987, he was elected to the Fellowship of Pakistan Academy of Medical Science (PAMS). In 1991, he was elected to the Fellowship of the Institute of Biology (IOB), London.

In 1991, Dr Waqar won the First Award for publication of articles in the discipline of Biological Sciences by the National Book Council of Pakistan, Ministry of Education. He was elected to the Corresponding Fellowship of the Third World Academy of Sciences (TWAS), Trieste, Italy, in 1991. He is also the 1991 awardee of the Gold Medal in Chemistry of the Council of the Pakistan Academy of Sciences (PAS), and the 1993 Convocation Medal of Flinders University of South Australia.

He has been studying of eukaryotic cell biology for 29 years, with emphasis on the mechanism and biochemistry of DNA replication mainly in higher organisms.

He was appointed as professor and chairman, department of biochemistry, the Aga Khan University in 1986, and is working there since then.