

NEWS

HONORARY D. SC. DEGREE TO HARKISHAN SINGH FROM UNIVERSITY OF THE SCIENCES IN PHILADELPHIA

Pardeep Gupta*

Dr Harkishan Singh, Professor Emeritus, University Institute of Pharmaceutical Sciences, Panjab University, is a well-recognized pharmaceutical academic, medicinal chemistry researcher, and a science historian with over half a century of experience. Dr. Singh was recently honoured with an honorary degree of Doctor of Science from University of the Sciences in Philadelphia (USciences). The honorary degree, the highest honour bestowed by the university, was awarded to Dr. Singh during a ceremony of Founder's Day at USciences on February 20, 2014. USciences is the parent organization of the historic Philadelphia College of Pharmacy, the first college of pharmacy in the United States. By receiving this honour, Dr. Singh has joined a number of eminent scientists, including Nobel laureates, who have also received the honorary degree from USciences.

Text of Dr. Harkishan Singh's Speech

Chairman Marvin Samson and members of the Board of Trustees, President

Helen Giles-Gee, faculty, staff, students, honored guests and families:

I am happy to be here today to receive a coveted recognition from the University of Sciences in Philadelphia. I am grateful to the Board of Trustees and the President of USciences to have considered me worthy for the honour which has been bestowed upon me. This



Harkishan Singh (center) with Heidi Anderson, provost and vice president for academic affairs; University president Helen Giles-Gee; Marvin Samson, chairman of the board; and B.J. Cunningham, dean of students (from left to right)

does credit also to several dozens of my research students who associated with me in the creation of new knowledge and to the University Institute of Pharmaceutical Sciences (UIPS) of the Panjab University, Chandigarh, to which I belong. The UIPS is considered to be at the top of all several hundred of pharmaceutical education departments and colleges of different universities in India.

The beginning of the USciences is traced to establishment of the Philadelphia College of Pharmacy (PCP) in 1821. This was the first pharmaceutical education center created in the United States. At the international level a couple of decades later in 1842, there was established School of Pharmacy at London, under the aegis of the Pharmaceutical Society of Great Britain, which itself had been organized in 1841. In colonial India,

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at the Portuguese possession Goa pharmaceutical education started in 1846 and in British India pharmaceutical education made a beginning at Madras Medical College around 1874.

It appears that the PCP is the first among pharmaceutical education institutions established in the English speaking and English using countries in the world, spreading over the continents of Americas, Asia, Africa and Australia. I have insufficient information about the pharmaceutical education history of the countries of European mainland. This is what needs to be explored which may be done here at the Marvin Samson Center for the History of Pharmacy. The study can determine as to where PCP stood with regard to priority in the start of pharmaceutical education world over.

For students from India the PCP has been an institution of choice for higher pharmaceutical studies. Several of them on graduation from PCP returned to India and contributed to progress of the pharmaceutical profession and industry, but most of them have stayed back to make career in the US. I may make mention of two of the PCP alumni whom I have known well. One is Dr Pardeep Gupta who is on the faculty of USciences and the other was J. K. Bhatnagar who did his Ph.D. in 1961 from PCP and returned home. He was my colleague and rose to become professor of pharmacognosy and chairman of the UIPS.

About my ownself I may say that experimental science has been my vocation till my superannuation from the Panjab University in 1988. The fields of investigations have been chemistry of natural products, organic chemistry and medicinal chemistry. I may briefly tell about our work on heterosteroidal neuromuscular blocking agents leading to the discovery of a new drug to which we gave the name of Chandonium Iodide, after the Chandigarh city, later given the International Nonproprietary Name Candocuronium Iodide by the World Health Organization. We had collaboration with the University of Strathclyde at Glasgow for biological testing and Birkbeck College of the University of London

for X-ray crystallographic examination. The developmental, toxicity and clinical testing were carried out through the Central Drug Research Institute, Lucknow. The Drug Control Administration, Ministry of Health, Government of India, approved the drug for manufacture and marketing. It is rare that new drugs get discovered at University laboratories. I have gone world over lecturing on Chandonium at institutions and forums in India, the United States of America, Canada, United Kingdom, Switzerland and China. The Harvard Medical School of the Harvard University considered discovery of Chandonium of sufficient merit that I was invited to speak there.

After superannuation, I chose to be a science historian and that is the field I am continuing to engage in for the last around twenty-five years. My major interest has been on study of history of pharmaceutical developments in India during the last couple of centuries. Dozens of research papers and many book monographs have been published. For collecting the archival material, I have visited several libraries in India, England and US. The source material I have collected has been properly organized and housed in upper floor of our house at Chandigarh. The collection is of its own kind with so much of archival material on pharmaceutical history of India available anywhere under one roof. There are over twelve hundred bound volumes of the collection.

I may close by saying that this is not my first visit to Philadelphia. I have been here before. Twice I delivered lectures on my pharmaceutical history research at the Chemical Heritage Foundation on the Chestnut Street. My working at the Joseph W. England Library of the Philadelphia College of Pharmacy and Library of the College of Physicians of Philadelphia was very rewarding. I could locate some rare source material for my writing. Earlier when I came to Philadelphia College of Pharmacy I was an outsider but now on my getting a degree from the University I consider myself to be a member of the USciences family.

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