

DOCTOR OF ENGINEERING *honoris causa*

Professor Daniel IC WANG

Citation

Perhaps one of the greatest achievements any of us can make in our lifetimes is to contribute to the well being of humankind. Over his long and distinguished career in biotechnology and chemical engineering, Professor Daniel IC Wang has done this.

Professor Wang's work at the Massachusetts Institute of Technology (MIT) and elsewhere has shed light on the workings of the most basic element of animal and human life: the cell. How does it grow? How does it react when exposed to other cells, elements, and various types of radiation? What causes it to die, and how does its demise affect the cells around it?

Professor Wang has published five books and more than 200 articles on these and other questions, and contributed greatly to the field of biochemical engineering. His research will be used to discover new tests and therapies for human afflictions.

But research is only one aspect of Professor Wang's work. His teaching has shaped the education of many researchers and process engineers now active in the biotechnology field in the US as well as throughout the world. And his leadership has inspired generations of aspiring professionals who are today making their own contributions to the field of biotechnology.

Professor Wang was born in China, received his BS in chemical engineering in 1959 and MS in biochemical engineering in 1961, both from MIT. He completed his PhD in chemical engineering at the University of Pennsylvania in 1963. After two years in the US Army serving in an army biological laboratory, he returned to his *alma mater*, MIT, as an Assistant Professor in 1965. Professor Wang founded MIT's Biotechnology Process Engineering Center and served as its Director from 1985 to 1998. He was named an Institute Professor of chemical engineering in 1996.

Over the years, Professor Wang has received numerous awards and honors that recognized his contributions and achievements. He has lectured at numerous symposia and conferences around the world, including delivering the Institute Lecture at the American Institute of Chemical

工程學榮譽博士

王義翹教授

讚辭

為人類謀福祉，可以說是我們人生最大的成就之一；王義翹教授在生物科技與化學工程的領域作出了寶貴的貢獻，他已經成功做到了這一點。

王教授在麻省理工等學府的研究，讓我們對生物最基本的元素——細胞有了更深入的了解：細胞如何生長？遇到其他細胞、元素或各種輻射時會產生什麼反應？細胞緣何而滅？死了的細胞對周圍的細胞有何影響？

凡此種種研究，均已載入王教授五本論著及200多篇專文，為生化工程學作出了重要的貢獻。他的研究成果將有助於發明新的測試，找尋能解除人類疾苦的藥療。

王教授的成就並不限於研究與著論，他在教學上亦樹立了風範，為美國及世界多國的生物科技研究人員及工程師所步武。今日生物科技界的俊傑，很多都得自王教授的啟迪。

王教授生於中國，後在美國麻省理工學院修讀生化工程，1959年獲理學學士學位，兩年後獲理學碩士學位，並於1963年取得賓夕凡尼亞大學化學工程學博士學位。其後兩年在美軍生物實驗所服務，1965年回到麻省理工學院當助理教授。王教授在母校創辦了生物科技程序工程中心，從1985至98年出任中心總監，並於1996年就任為化學工程學駐院教授。

歷年以來，王教授所獲的殊榮及獎項不計其數，其公認之成就及貢獻可以想見。他屢應世界各地邀請，主講過無數專題會議及研討會。其中包括1986年在美國化學工程師學院發表學院演講，及

Engineers in 1986 and last fall, the inaugural address lecture at the Frontiers in Biotechnology conference at MIT.

It is interesting to note that, when asked what he considers to be his greatest achievements, he offers a short list, the first and last of which have to do with his students. Twelve of his past graduate students have received the WH Peterson Award from the American Chemical Society for presenting outstanding research papers at its annual meetings. He is most proud of those who defied the statement "It cannot be done" and proved that it could indeed be done, by taking risks and by persevering.

Having given so much to his MIT students, Professor Wang has in recent years turned his attention to giving something back to his Asian heritage. For example, HKUST is lucky enough to have Professor Wang on the Advisory Board of our Department of Chemical Engineering and the International Advisory Committee of the Biotechnology Research Institute. He was one of the US academics involved in the MIT "Made By Hong Kong" project. He continues to work with HKUST and several other local universities, as well as the Hong Kong Institute of Biotechnology and the Innovation and Technology Commission, on the standardization and certification of Chinese medicine and other biotechnology projects.

Mr Pro-Chancellor, I have the honor to present to you, on behalf of the University, Professor Daniel IC Wang, Institute Professor of chemical engineering at the Massachusetts Institute of Technology, for the degree of Doctor of Engineering *honoris causa*.

Read by Prof Po Lock YUE.

去年秋在麻省理工學院的生物科技前線會議發表開幕演說。

不過，縱然王教授獎項盈室，論著充棟，在他看來，還不及桃李滿園。他其中12位得意門生先後在美國化學學會的周年大會上發表出色的研究報告，而獲頒發彼得遜獎。他最引以為傲的，是他們那種“知其不可為而為之”的精神，甘於冒進，鍥而不捨，而終有創發。

王教授多年來在麻省理工學院積極培育後進，近年亦在亞洲地區薪傳其學。香港科技大學邀得王教授擔任化學工程學系顧問委員及生物科技研究所國際顧問委員。同時，他以美國學人身分，參與麻省理工學院的“香港製造”計劃；並且跟香港科技大學和數間本地大學、香港生物科技研究院及創新科技署合作，致力於中藥標準化及規範化和多項生物科技研究項目，帶領我們邁向生化技術新里程。

副監督先生，本人謹代表香港科技大學，恭請閣下向麻省理工學院化學工程駐院教授王義翹教授頒授工程學榮譽博士學位。