

Professor Yang Fujia

Doctor of Science *honoris causa*

Citation

A native of Ningbo, Zhejiang, Prof Yang Fujia was born in Shanghai. He graduated from Fudan University in 1958 with a degree in physics, staying on at the university as a teaching assistant on account of academic excellence. In 1963, he was selected to go to the Niels Bohr Institute in Copenhagen (Denmark), a place known for atomic physics research, to further his work in nuclear physics as a visiting scholar, specialising in nuclear spectroscopy. During this time, his research confirmed a type of single particle motion in nuclei, which is still widely cited by the international nuclear physics community. Equally valuable to this young scholar was the opportunity to work with over 50 scientists from various nations. Through cooperation, interaction and mutual encouragement, Prof Yang felt deeply inspired by the Institute's "rich academic atmosphere of engagement in equal, free discussion and close collaboration".

On return to China in 1965, Prof Yang resumed his teaching and nuclear physics research at Fudan University. The Cultural Revolution broke out in the following year, which seriously disrupted educational work and scientific research. Amid social instability and a scarcity of resources, Prof Yang persisted in academic research. In nuclear spectroscopy, for instance, he developed a more unified formula for the decay of complex energy levels, which encompassed (as specific cases) most known formulas used in China and abroad. This has been widely used in the radioactive industry, leading to the development of a generalised formula for measuring the half-life of nuclei. When the Cultural Revolution ended, Prof Yang turned his focus to the advancement of nuclear physics in China: the nation's first accelerator-based atomic and nuclear physics laboratory was built under his persistent effort and leadership.

Promoted to professor in 1980, Prof Yang later served as Director of the Shanghai Institute of Nuclear Research (now called Shanghai Institute of Applied Physics) of the Chinese Academy of Sciences. On account of his distinguished and ground-breaking achievement in nuclear physics research, Prof Yang was elected an academician of the Chinese Academy of Sciences in 1991, and a fellow of The Academy of Sciences for the Developing World in the same year. He was appointed Vice-President of Fudan University in 1992, and also served successively as Chairman of the Shanghai Association for Science and Technology, as well as Vice-Chairman of the China Association for Science and Technology. In 1993, this nuclear physicist stepped onto a new path in his career—he was installed as President of Fudan University.

Moving from teaching and research to a position of educational administration, Prof Yang led Fudan during his six-year tenure to become a high-quality, people-oriented university that excels in both the humanities and the sciences. His goals and policies as an educator included requiring professors known for research to teach foundation courses, and reminding faculty "to teach students to be proper human beings first". On a practical level, he established the Fudan Development Institute, which acts as a government think-tank supporting efforts by Shanghai and the Central Government to develop a knowledge-based economy. Besides setting up a think-tank promoting the development of a knowledge-based economy, President Yang also actively promoted the international recognition of Chinese universities, by way of helping the world better understand China. He was founding President of the Association of University Presidents of China, and was elected an executive member of the International Association of University Presidents. He served as China's representative on the Board of Directors of the Association of East Asian Research Universities, and as a member of the Association of University Presidents of the Pacific Rim. His ideas for reforming and developing China's higher education did not go unnoticed in international higher education circles.

In 2001, two years after retiring as President of Fudan, Prof Yang was appointed Chancellor of the University of Nottingham in the United Kingdom. This was unprecedented in British higher education, for by tradition the role was assumed only by royalty or peers of the realm. In all, Prof Yang's Nottingham appointment lasted twelve years, which further broadened his horizon and deepened his understanding of education, while stimulating new thoughts on reforming China's higher education. In 2004, just into his fourth year as Chancellor, Prof Yang led Nottingham to establish The University of Nottingham Ningbo China—China's first Sino-foreign collaborative university with full pedagogical independence granted to the foreign partner.

Nottingham Ningbo began admitting students in autumn 2004, with Prof Yang as its founding President to this day. This university created a new model for China's higher education to engage the world. Its goal is not to transplant a Western educational enterprise to Chinese soil, still less to make a profit for Nottingham, but to blend the best educational ideas and practices in the Chinese and British traditions, so as to cultivate true world citizens. After all, education in ancient China was a form of liberal arts education: the "six arts" of rites, music, archery, driving, writing and arithmetic stated in the *Rites of Zhou* cover civil and martial arts as well as the humanities and sciences; the humanistic education Confucius offered his pupils 2500 years ago included ethics, language, government, culture and learning, particularly the first aspect. Prof Yang set up a "dream foundation" at both Nottingham and Nottingham Ningbo to offer learning opportunities for qualified but underprivileged Chinese students. His dream is to help capable students transform their lives through education, and in turn contribute to society, country, and the world.

Over the past decade or so, President Yang has led Nottingham Ningbo to become a base for practising modern liberal arts education in China. Education at Nottingham Ningbo is marked by small scale, open atmosphere, teacher-student interaction, and student-based operation. He clearly stated that the university's main objective lies in nurturing talent and cultivating good, responsible citizens; the first duty of a university teacher also lies in nurturing people rather than publishing academic articles. Some students of Nottingham Ningbo told President Yang that the school's education has changed their lives.

Prof Yang's contribution to nuclear physics research and its applications is widely esteemed by the scientific community. What is more, he has served as helmsman of three Chinese and British universities in total: Fudan, Nottingham and Nottingham Ningbo. No wonder that this exemplary scientist and educator has been honoured with honorary degrees by Soka University (Japan), State University of New York (USA), The University of Hong Kong, University of Nottingham (UK), University of Connecticut (USA), Macau University of Science and Technology, and The Chinese University of Hong Kong.

Mr Chairman, in recognition of his distinguished achievement in nuclear physics research and his significant contribution to Chinese higher education and to the international development of liberal arts education, may I present Prof Yang Fujia to you for conferment of the degree of Doctor of Science *honoris causa*.

Chinese citation written and delivered by Professor Charles Kwong

楊福家院士

榮譽理學博士

贊辭

楊福家院士出生於上海，祖籍浙江寧波。楊院士一九五八年畢業於復旦大學，主修物理，成績優異而留校擔任助教。一九六三年，他獲選遠赴丹麥，到原子物理研究重鎮哥本哈根的尼爾斯-玻爾研究所當訪問學者，進修核能物理學，專注於核能譜方面的研究。這段期間，他證實了「一種核的運動狀態」；這項成果至今仍然被國際核能物理學界廣泛引用。對這位年青學者同樣寶貴的是，他有機會與五十多名來自各國的科學家共事，合作切磋，互相砥礪，讓他深受研究所「平等、自由討論、緊密合作的濃厚學術氣氛」感染和啟發。

楊院士於一九六五年回國後，仍然任教於復旦大學，繼續核能物理的研究工作。翌年，「文化大革命」爆發，嚴重破壞了教育工作，亦窒礙了科學研究。在社會動盪和資源貧乏的艱難環境下，他堅持學術工作。例如在原子核能譜學方面，他推導出複雜核能級的衰變公式，概括了國內外已知的各種公式，廣泛應用於放射性廠礦企業，並推導出圖心法測量核壽命的普適公式。「文革」結束後，楊院士轉而集中思考學科領域在中國的發展，努力不懈，結果成功推動中國建成第一所利用加速器研究原子、原子核物理的實驗室。

由一九八零年開始，楊院士先後升任教授，又當上中國科學院上海原子核研究所（如今稱為上海應用物理所）所長。基於他在核物理研究傑出而突破性的成就，楊院士於一九九一年當選中國科學院院士，同年獲選為發展中國家科學院院士，次年又被委任為復旦大學副校長。他亦先後擔任過上海市科學技術協會主席，以及中國科學技術協會副主席。一九九三年，這位核物理學家的事業踏上了一條新的道路——他被任命為復旦大學校長。

楊院士由教學科研轉到教育行政的位置上，在主持校政的六年間，把復旦打造成一所「以人為本，文理俱精」的優質大學。作為教育家，他的方針和政策包括要求著名教授上基礎課，以及提醒老師「首先教學生怎樣做人」。在實用層面上，他在復旦成立發展研究院，扮演政府「智庫」的角色，支持上海市以至中央政府發展知識為本的經濟。除了成立「智庫」推動「知識型經濟」發展外，他亦積極推動中國大學的國際認受性，走出本國舞台，讓世界多了解中國。楊院士曾是中國大學校長聯誼會創會會長，又曾當選為國際大學校長協會的執行理事；他又曾擔任東亞研究型大學協會的中國代表，以及環太平洋大學校長聯盟成員。楊校長對發展與改革中國高等教育的想法，引起了國際高等教育界的注意。

卸任復旦校長後才兩年，楊院士就在二零零一年當上了英國諾丁漢大學的校監。這在英國是史無前例的，因為傳統上只有皇室成員和擁有爵位者才獲委任此職。楊院士在諾丁漢的校監職任一共延續了十二年，使他眼界更廣闊，對教育的認識更深刻，同時對中國高等教育的改革之途，醞釀出新的想法。擔任校監才第四年，楊院士就帶領諾丁漢大學，在寧波創立了第一所由國外大學獨立進行教學的中外合辦大學——寧波諾丁漢大學。

寧波諾丁漢於二零零四年秋天開學，楊院士出任創校校長至今。這所大學為中國高等教育懷抱天下創造了新的模式。它的辦學宗旨，並不是把西洋的教育企業移植到中國發展，更不是替諾丁漢大學賺錢，而是要把中國傳統和英國傳統最好的教育理念和教育實踐結合，培養真正的世界公民。中國古代的教育原就是一種博雅教育：《周禮》所說的「六藝」（禮、樂、射、御、書、

數），兼含文理及文武領域；孔子二千五百年前傳授的人文教育，亦包括德行、言語、政事、文學等範疇，尤其是前者。楊院士分別在諾丁漢及寧波諾丁漢設立了「夢想基金」，為考得進這兩所大學的貧寒中國學生提供教育機會。他的夢想，正是讓有能力讀大學的學生，透過教育去改造自己的生命，進而貢獻社會、國家和世界。

過去十多年來，楊院士一直帶領寧波諾丁漢大學，成為現代博雅教育在中國的實踐基地：寧波諾丁漢大學的教育規模精巧、氣氛開放、師生互動、運作以學生為本。他清楚指出，大學應以培育人才、培養負責任的良好公民為主要目標；大學教師的首要職責也是育人，而不是發表學術文章。這所大學的學生曾經對楊校長說：學校的教育改變了他們的生命。

楊院士在核物理研究和應用方面的貢獻，在科學界受到廣泛尊重。他更先後擔任過中、英兩國三所大學的領導人——分別為復旦大學校長、諾丁漢大學校監、寧波諾丁漢大學創校及現任校長，堪稱國際高等教育界的典範。無怪楊院士先後獲得創價大學(日本)、紐約州立大學(美國)、香港大學、諾丁漢大學(英國)、康涅狄格大學(美國)、澳門科技大學及香港中文大學頒授榮譽博士學位。

主席先生，為表揚楊院士在核物理科研方面的卓越成就，以及對中國高等教育界和國際博雅教育發展的重要貢獻，本人謹恭請閣下頒授榮譽理學博士學位予楊福家院士。

中文贊辭由鄺龔子教授撰寫及宣讀