香港中文大學
院士講座系列

陳垣崇院士 Prof. Chen Yuan-Tsong

中央研究院生命科學組陳垣崇院士，1948 年出生，台北縣人，是傑出的醫生兼科學家，擅長人類基因病變的研究。他於 1978 年獲美國紐約哥倫比亞大學人類遺傳學博士學位後，曾任職美國杜克大學醫學中心兒科學教授及醫學遺傳系主任，現為兒科學終身教授。陳院士於 2001 年回台，擔任中央研究院生物醫學科學研究所所長，2002 年獲選為中央研究院院士。陳院士致力於醫學創新研究，對罕見疾病研究有獨到分析，不但研究出第一型肝醣儲積症的治療方法，更於 2006 年研發出曾被視為新生兒絕症的罕見疾病 - 龐貝氏症的治療藥物。此藥物更獲歐盟醫藥品管理局（EMA）及美國食品暨藥物管理局（FDA）核准上市，每年可救活全球逾千個新生兒，改變了全球龐貝氏症病患者的命運，也改寫了人類的醫學史。此藥的誕生歷程被寫成小說《孩子，我要你活下去！》，並改編為荷里活電影《愛的代價》(Extraordinary Measures)。

陳垣崇院士也發現數個重要疾病的致病基因，包括嚴重藥物不良反應、糖尿病、川崎症。嚴重藥物不良反應致病基因的發現，促使美國及台灣的藥物食品檢驗局據以重新標示常用醫師處方藥，加上基因資訊的標示，要求醫師在用藥前需先進行基因檢測。這項開拓性的創新實驗室研究，成功的移轉應用到臨床，促使藥物的使用更為安全而有效。陳院士在個人化醫療的研究領域在全球居於領導性的重要地位。

Professor Chen Yuan-Tsong from Life Sciences, Academia Sinica was born in 1948 in Taipei. Prof. Chen is a world famous and distinguished physician and scientist, recognized for his work on human genetic disorders. After obtaining his PhD degree from Columbia University, he worked at Department of Pediatrics, Duke University Medical Center in USA as Chief of Medical Genetics and a Tenured Professor of the University. Returning Taiwan in 2001, Prof. Chen served as Director of Institute of Biomedical Sciences, Academia Sinica. He was awarded Academician of Academia Sinica in 2002. Prof. Chen is dedicated to innovative medical research and has unique analysis on rare disease. Not only did Prof. Chen successfully investigate the therapy for Glycogen storage disease, he has also invented the drug to cure Pompe disease, which is regarded as rare disease with high mortality rate among new born babies, in 2006. This drug has been approved by the European Medicine Agency (EMA) and US Food and Drug Administration (FDA), saving thousands of lives worldwide annually. This invention does not only change the destiny of Pompe patients, but has also modified human medical history. The development of this drug has been adapted to the novel "The Cure" and the Hollywood movie "Extraordinary Measures".

Professor Chen has also identified susceptibility genes for several human diseases, including genes for diabetes, Kawasaki disease and severe adverse drug reactions. The discovery of the latter has prompted US FDA and Taiwan FDA to relabel three commonly prescribed drugs with genetic information and recommend genetic testing before doctors prescribe the medication. This pioneered laboratory research has now translated to clinic use and led to safer and more effective use of drugs worldwide. He played a leading role in the Era of Personalized Medicine.

學術榮譽包括

- 美國最佳醫師獎（1992-2001）
- 美國醣原儲存疾病學會榮譽獎（1992）
- 日本遺傳代謝疾病學會榮譽會員（1993）
- 美國遺傳醫學學院發起人（1993）
- 美國兒童 Pompe 疾病基金會 JC Pompe 獎第一獲獎人（2000）
- Alpha Omega Alpha 醫學榮譽學會膺選委員（2000）
- 中央研究院特聘研究員（2001）

Awards and Honors include:

- The Best Doctors in America (1992-2001)
- Honor of Contributions, The Association for Glycogen Storage Disease (1992)
- Honorary Member, Japanese Society of Inherited Metabolic Disease (1993)
- J.C. Pompe Award (First recipient), Children's Pompe Foundation (2000)
- Alpha Omega Alpha Honor Medical Society, elected faculty (2000)
- Distinguished Research Fellow, Academia Sinica (2001)
- Academician, Academia Sinica (2002)
- Foreign Scientific Advisor, Japanese Society of Lysosomal Storage Disorders (2002)
- Rare Disease Production and Research Development Contribution

- 中央研究院院士（2002）
- 東元科技獎（2002）
- 台灣衛生署罕見疾病藥物供應製造及研究發展特殊貢獻獎（2004）
- 李天德卓越醫藥科技獎（2006）
- 世界科學院院士（2006）
- Michael Frank 終身成就獎（2006）
- 台美基金會第 15 屆人才成就獎（科學工程獎）（2007）
- 美國肝醣貯積症學會終身貢獻獎（2008）
- 第一屆杜克大學醫學創新獎（2012）
- 杜克大學 Distinguished Faculty Award

Award, Taiwan Foundation For Rare Disorders (2004)

- Outstanding Medical and Pharmaceutical Science and Technology Award, Yung Shin T. T. Lee Medical and Pharmaceutical Foundation (2006)
- Elected Member, The World Academy of Sciences (TWAS) (2006)
- Michael Frank Research Prize for lifetime contributions to the diagnosis and treatment of genetic metabolic diseases(2006)
- Science and Engineering Achievement Award Taiwanese-American Foundation (2007)
- Lifetime Contribution Award, The US Association for Glycogen Storage Disease (2008)
- Inaugural Duke Medicine Innovations Award, Duke University (2012)
- Distinguished Faculty Award, Duke University