



Prof. Chien-Jen Chen

Distinguished Professor; former Vice President of Taiwan (ROC) (2016-2020); former Vice President, Academia Sinica (2011-2015)



Most important awards, prizes and academies

Fellowships: Overseas Fellow, American College of Epidemiology, 1989; Fogarty International Research Fellow, US National Institute of Health, 1989; Fellow, American College of Epidemiology, 1993; Outstanding Scholar, Foundation for Outstanding Scholarship, Taiwan, 1995-1999; Outstanding Research Fellow, National Science Council, Taiwan, 2003. *Academies:* Academician, Academia Sinica, Taiwan, 1998; Member, World Academy of Sciences, 2005; Honorary Member, Mongolian Academy of Sciences, 2007; International member, US National Academy of Sciences, 2017. *Honours:* National Chair Professor, Ministry of Education, Taiwan, 1997-2002; Honorary Doctor of Philosophy Degree, China Medical University, Taiwan, 2014; Honorary Doctor of Philosophy Degree, Kaohsiung Medical University, Taiwan, 2020; Honorary Doctor of Science Degree, National Sun Yet-Sen University, Taiwan, 2020. *Awards:* Outstanding Research Award, National Science Council, Taiwan, 1986-1996; Medical Research Award, Ching-Hsing Medical Foundation, Taiwan, 1990; Outstanding Teaching Award, Ministry of Education, Taiwan, 1992; Medical Research Award, United Medical Foundation, Taiwan, 1992; Academic Award, Ministry of Education, Taiwan, 1997; ISI Citation

Classic Award, ISI Thomas Scientific, USA, 2001; Garland W. Clay Award, American Academy of Optometry, USA, 2003; Presidential Science Prize, Taiwan, 2005; Science and Engineering Achievement Award, US Taiwanese-American Foundation, 2009; Outstanding Merit Award, Wang Ming-Ning Memorial Foundation, Taiwan, 2010; Knowledge for the World Award, Johns Hopkins University, USA, 2012; Outstanding Achievement Award in Science and Technology, Taiwan, 2013. *Medals and Orders*: Achievement Medal (First Class), Executive Yuan, Taiwan, 2005; Health Medal (First Class), Department of Health, Taiwan, 2005; Officier dans l'Ordre des Palmes Academiques, Ministry of Education, France, 2009; Knight, Equestrian Order of the Holy Sepulchre of Jerusalem, Vatican, 2010; Science Profession Medal (First Class), National Science Council, Taiwan, 2012; Knight, Pontifical Equestrian Order of St. Gregory the Great, Vatican, 2013; Distinguished Service Medal (First Class), Academia Sinica, Taiwan, 2016; Order of Dr. Sun Yat-sen with Grand Cordon, Office of the President, Taiwan, 2020

Summary of scientific research

Prof. Chen discovered multiple health hazards and acquired and genetic susceptibility of chronic arsenic poisoning, which led to the global awareness and mitigation of the largest environmental calamity via consumption of high-arsenic drinking water. He identified multiple risk predictors of virus-caused cancers for the derivation of useful risk calculators. He pioneered the viral load paradigm in the pathological progression of viral hepatitis. He verified the efficacy of first cancer-preventing vaccine, which led to the use of vaccines and antivirals/antibiotics to prevent infection-related cancers.

Main publications

The following are Prof. Chen's ten most representative publications: C.J. Chen, Y.C. Chuang, T.M. Lin and H.Y. Wu, Malignant neoplasms among residents of a blackfoot disease-endemic area in Taiwan: High-arsenic artesian well water and cancers, *Cancer Res.*, 45, 5895-9 (1985); C.J. Chen, T.L. Kuo and M.M. Wu, Arsenic and cancers (letter), *Lancet*, 1, 414-5 (1988); M.M. Wu, T.L. Kuo, Y.H. Hwang and C.J. Chen, Dose-response relation between arsenic concentration in well water and mortality from cancers and vascular diseases, *Am. J. Epidemiol.*, 130, 1123-32 (1989); C.J. Chen, C.W. Chen, M.M. Wu and T.L. Kuo, Cancer potential in liver, lung, bladder and kidney due to ingested inorganic arsenic in drinking water", *Brit. J. Cancer*, 66, 888-92 (1992); M.H. Chang, C.J. Chen, M.S. Lai, M.S. Kong, T.C. Wu, D.C. Liang, H.M. Hsu, W.Y. Shau, D.S. Chen and Taiwan Childhood Hepatoma Study Group, Universal hepatitis B vaccination in Taiwan and the incidence of hepatocellular carcinoma in children, *New Engl. J. Med.*, 336, 1855-59 (1997); Y.C. Chien, J.Y. Chen, M.Y. Liu, H.I. Yang, M.M. Hsu, C.J. Chen and C.S. Yang, Serologic markers of Epstein-Barr virus infection and nasopharyngeal carcinoma in Taiwanese men, *New Engl. J. Med.*, 345, 1877-82 (2001); H.I. Yang, S.N. Lu, S.L. You, C.A. Sun, L.Y. Wang, K. Hsiao, P.J. Chen, D.S. Chen, Y.F. Liaw and C.J. Chen, Hepatitis B e antigens and the risk of hepatocellular carcinoma, *New Engl. J. Med.*, 347, 168-74 (2002); U.H. Iloeje, H.I. Yang, J. Su, C.L. Jen, S.L. You and C.J. Chen, Predicting cirrhosis risk based on the level of circulating hepatitis B viral

load, *Gastroenterology*, 130, 678-686 (2006); C.J. Chen, H.I. Yang, J. Su, C.L. Jen, S.L. You, S.N. Lu, G.T. Huang and U.H. Iloeje, Risk of hepatocellular carcinoma across a biological gradient of serum hepatitis B virus DNA level, *JAMA-J. Am. Med. Assoc.*, 295, 65-73 (2006); H.I. Yang, M.F. Yuen, H.L. Chan, K.H. Han, P.J. Chen, D.Y. Kim, S.H. Ahn, C.J. Chen, V.W. Wong, and W.K. Seto, Risk estimation for hepatocellular carcinoma in chronic hepatitis B (REACH-B): development and validation of a predictive score. *Lancet Oncol.*, 12, 568-74 (2011).