## Yung-Chi Cheng, Ph.D.

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### **Education**

1900 <b>D.S.</b> , Chemistry, Tunghai University, Taiwan	1966	B.S., Chemistry, Tunghai University, Taiwan
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Ph.D., Biochemical Pharmacology, Brown University, U.S.A. 1972

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Research and Pro	ofessional Positions Held in Chronological Sequence			
1973-1974	Research Assisatant Prefessor, Department of Pharmacology, Yale University			
	School of Medicine, U.S.A.			
1974-1976	Senior Cancer Research Scientist, Department of Experimental Therapeutics,			
	Roswell Park Memorial Institute, U.S.A.			
1974-1977	Assistant Professor, Department of Pharmacology, Roswell Park Division of			
	the Graduate School, State University of New York, U.S.A.			
1976-1977	Associate Cancer Research Scientist, Department of Experimental			
	Therapeutics, Roswell Park Memorial Institute, U.S.A.			
1977-1979	Associate Professor, Department of Pharmacology, Roswell Park Division of			
	the Graduate School, State University of New York, U.S.A.			
1977-1979 Cancer Research Scientist V, Department of Experimental Therapeur				
	Roswell Park Memorial Institute, U.S.A.			
1979-1989	Professor, Departments of Pharmacology and Medicine, School of Medicine			
	University of North Carolina, U.S.A.			
1979-1989	Head, Drug Development Program, Lineberger Cancer Research Center,			
	School of Medicine, University of North Carolina, U.S.A.			
1987	Special Chair, Institute of Biomedical Science, Academia Sinica, Taiwan			
1989-present	ent Professor, Pharmacology and Internal Medicine, Yale University School of			
	Medicine, U.S.A.			
1989-present	Henry Bronson Professor of Pharmacology, Yale University School of			
	Medicine, U.S.A.			
1990-2011	Program Director, Developmental Therapeutics/Chemotherapy, Yale			
	Comprehensive Cancer Center, U.S.A.			
Professional	American Association for Cancer Research			
Societies:	Member of Sigma XI			
	American Microbiology Society			
	American Society of Pharmacology and Experimental Therapeutics			

American Society of Pharmacology and Experimental Therapeutics

American Society of Biological Chemistry

American Association for the Advancement of Science

American Society for Clinical Pharmacology and Therapeutics Society of Chinese Bioscientists in America The Protein Society

#### **Research Interests**

My interests are in the development of new drugs and the improvement of the use of clinically proven drugs for the treatment of cancer, and herpes virus, human immunodeficiency virus or hepatitis B virus associated diseases. The types of agents are deoxyribonucleoside analogs, folate analogs and compounds that interfere with DNA and RNA metabolism. Currently we are also interested in the potential uses of Chinese medicines. Therefore, we are studying:

- 1. The metabolism of nucleosides, oligonucleotides, folates and natural products in cell culture;
- 2. The properties of human or virus nucleoside, folate and DNA metabolizing enzymes;
- 3. Gene regulation of these enzymes in cells;
- 4. The behavior of nucleoside analogs, folate analogs, oligonucleotides and DNA metabolic targeting compounds toward these enzymes and cells;
- 5. The effects of these compounds on virus specific enzymes and virus replication;
- 6. The action of promising compounds on tumor growth in vivo;
- 7. The combined use of these agents with other agents, including collaterally sensitive compounds and Chinese medicines, and scheduling the drug for chemotherapy of cancer and virus induced diseases;
- 8. The mechanisms of drug toxicity, drug resistance and development of drug resistance;
- 9. The association of human tumors with herpes virus, hepatitis B and retrovirus
- 10. The biochemical behavior and genetic stability of tumor cells taken from patients.
- 11. The approaches in bringing Chinese Medicine into the mainstream of new medicine in the 21<sup>st</sup> century.
- 12. Discovery of anti-HIV, HBV and HCV chemicals with selectivity by targeting viral proteins.

There are over 450 publications in Refereed Jounals. There are four approved drugs currently used in clinic. These includes: Gancyclovir, Lamivudine, Clevudine, and Emtricitabine. In addition, three chemicals discovered in this lab and one Chinese medicine formula were discovered and are currently at different stages of Clinical Trial for the treatment of cancer as well as HIV and HBV infection.

#### **Major Honors and Awards**

1976-1981	American Leukemia Society Scholar
1981	Rhoads Memorial Award, American Association of Cancer Research
1987-1997	Outstanding Investigator Award, National Cancer Institute, U.S.A.
1990	Outstanding Alumni Award, Brown University, U.S.A.
1991	Honorary Professor, Beijing Medical University, China
1992	Honorary Professor, Union Medical University and CAMS, China
1992	Outstanding Award in Bio-Medical Science, SCBA
1994	Academician, Academia Sinica, Taiwan
1998	Honorary Vis Sci, Institute of the Advancement of Chinese Medicine, Hong

	Kong Chinese University			
1998	Academician, Connecticut Academy of Science and Engineering, U.S.A.			
1999	ASPET Award (American Society For Pharmacology and Experimental			
	Therapeutics)			
1999	Honorary Professor, Harbin Medical University, China			
2000-present	National Foundation for Cancer Research Fellow			
2001	Distinguished Alumni Award, Tunghai University, Taiwan			
2001	Honorable Professor, Zhejiang Unviersity, Hangzhou, China			
2002	Outstanding Achievement Award, Chinese/American Acad Prof Soc			
2002	Honorable Professor, School of Medicine, University of Hong Kong			
2003	Honorary Professor, Institute of Materia Medica, Chinese Academy of			
	Science			
2004	Presidential Award, Society of Chinese Bioscientists in America			
2005	BMRC Distinguished Visitor, Singapore			
2005	Distinguished Visiting Professor, The University of Hong Kong			
2007	Honorary Chair Professor, Chinese Medical University, Taiwan			
2008	Honorary Professor, Xiamen University			
2008	Honorary Professor, Yunan Medical College			
2011	Honorary Professor Shanghai Chinese Medicine University			
2011	Honorary Professor Heilongjiang University of Chinese Medicine			
2012	Cheung on Tak International Award for Outstanding Contributions to Chinese			
	Med			

# Extramural Committees Served

### **Business:**

1981-1988	Consultant, Antivirus Program, Syntex Inc.
1981-1986	Member, Scientific Advisory Board, G.D. Pharmaceutical Co
1985	Member, Burroughs-Wellcome Fund Task Force, NC
1986-1991	Consultant, Antivirus Program, Bristol-Myers, Inc.
1987	President, Society of Chinese Bioscientists in America
1988-1994	Consultant, Antivirals, Wyeth-Ayerst Laboratories
1988-1998	Consultant, Scientific Advisory Board, Genelabs, Inc.
1989-1993	Consultant, DuPont Pharmaceuticals
1990-1994	Consultant, Boehringer Ingelheim Pharmaceuticals
1990-1994	Consultant, Boehringer Ingelheim Pharmaceuticals
1990-1998	Member and Co-Chairman, Scientific Advisory Board, Sparta
	Pharmaceuticals
1991-1994	Member, Scientific Advisory Board, Genelabs, Inc.
1991-1994	Member, Scientific Advisory Board, MicroProbe, Inc.
1991-1996	Member, Scientific Advisory Board, HEM Pharmaceuticals
1991-1998	Member, Scientific Advisory Board, U.S. Bioscience
1994-1997	Chairman of the Board, Division of Bio/Pharm, SCBA
1995-2007	Member, Scientific Advisory Board, Vion Pharmaceutical
1996-2002	Consultant, Biochem Pharma

	1997-2000	Director, Board of Directors, Response Biomedical Board, Vancouver, B.C					
	1998-2000	Member, Scientific Advisory Board, Triangle Pharmaceuticals					
	1999-2000	Consultant in Chinese Medicine, New World Development, HK					
	1999-Present	Scientific Founder/Chairman, Scientific Advisory Board, Phytoceutic					
	2000-2003	Consultant, Triangle Pharmaceuticals					
	2000-2006	Scientific Founder/Chairman, Scientific Advisory Board, Achillion					
	2006-Present	Chairman, Consortium for the "Globalization of Chinese Medicine" (CGCM)					
	2006-Present	Member, Sci Adv Bd, FINOVI "Foundation Innovations en Infectiologie"					
	2007-Present						
Ac	ademic and Go	vernment:					
	1980-1984 Member, Study Section of Experimental Therapeutics, NIH						
	1983-1984	Chairman, Study Section of Experimental Therapeutics, NCI/ NIH					
	1984	Chairman, Gordon Research Conf "Purines, Pyrimidines, and Related					
		Compounds					
	1986-1990	Member, Board of Scientific Counselors, Division of Cancer					
		Treatment, NCI/NIH					
	1984-1986	Member, External Advisory Board of Wisconsin Clinical Cancer					
	Center, Madison						
	1987	President, Society of Chinese Bioscientists in America					
	1987	Chairman, Biochemistry Section, Annual Meeting of the AACR					
	1988	Chairman, AACR Clowes Award Subcommittee					
	1991-1994	Member, AIDS Research Advisiory Committee, NIAID, NIH					
	1994-1997	Chairman, Study Section of the Biopharmaceutical Science, NHRI					
	1994-1997	Chairman of the Board, Bio/Pharm Division SCBA					
	1995–Present	Member, Board of Scientific Counselors, National Health Research					
		Institute, Taiwan					
	1996-1999	Chairman, Action Committee for Med. Biotech., Academia Sinica					
	1996-2000	996-2000 Special Advisor to the Committee for the Riotechnology Industry					

## Special Advisor to the Committee for the Biotechnology Industry 1996-2000 Under Executive Yuan, Taiwan 1996-2003 Panel Member of Biomedical Science. University Grant Committee, Hong Kong 1999 Consultant, The Hong Kong University of Science & Technology 1999-2001 Chairman, Advisory Committee for Med. Biotech. Academia Sinica 1999-2004 Chairman, International Advisory Board for Bio/Pharm Division (SCBA) Sponsored Herbal Medicine Symposium (1) Toronto, 1997); (2) Hong Kong, 1998; (3) Taiwan, 2000; and (4) Shanghai, 2004. 2001-present Member Scientific Advisory Board – Beijing Nat'l Biochip Research and Engineering Center 2002-Present Chairman, Steering committee for program of Chinese Medicine, Hong Kong University

2002-Present	Chief Consultant, Program of Chinese Medicine, Shanghai Institute of				
	Life Sciences, Chinese Academy of Science				
2003-Present	Chief Consultant, Program of Chinese Medicine, Chinese Acad Med				
	Sci (CAMS)				
2003-Present	Chairman, Consortium for "Globalization of Chinese Medicine"				
	(CGCM)				
2005-2008	Ad hoc Member, National Advisory Council for (NCAM/NIH), U.S.A.				
2007-present	Chief Consultant and Advisor for Biotech/Pharm, Yunnan Province				
2008-present	Chairman, Sci Adv Bd, Agriculture Biotech Ctr, Academia Sinica				
2008-present	Member, Sci Adv Bd, FINOVI Foundation Innovations en				
	Infectiologie				
2009-present	Member, International Advisory Board TCM Research Center, Graz,				
	Austria				
2010-present	Co-Chairman, Advisory Board GP-TCM Advisory Board, London, UK				
Editorial Boards:					
	Associate Editor Methodorous Hodete Laded, Laborateria				
1983-1986	Associate Editor, Methotrexate Update, Lederle Laboratories				
1987-Present	Editorial Board, Virus Genes, Martinus Nijhoff Publishing				
1989-Present	t Editorial Board, Cancer Communications, Pergamon Press				
1990-1995	Associate Editor, Cancer Research, Waverly Press				
1990-2003	Associate Editor, Biochemical Pharmacology, Pergamon Press				
1995-Present	Advisory Board, J. Biomedical Science, Kerger Press				
1995-Present	resent Advisory Board, Chinese Journal of Pharmacology & Toxicology				