

## CURRICULUM VITAE

### CHENG, YUNG-CHI

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#### PERSONAL DATA

Date of Birth: December 29, 1944  
Place of Birth: Great Britain  
Citizenship: USA  
Marital Status: Married, to Elaine HC Cheng  
Number of Children: Two  
Home Address: 961 Baldwin Road, Woodbridge, CT 06525

#### EDUCATION

<u>Institution</u>	<u>Subject &amp; Degree</u>	<u>Year</u>
Tunghai University Taiwan Republic of China	Chemistry B.S.	1966
Brown University Providence, RI	Biochemical Pharmacology Ph.D.	1972

#### POSTDOCTORAL TRAINING

6/72-8/72 Research Associate, Section of biochemical Pharmacology, Brown University, Providence, RI with Dr. R.E. Parks.

9/72-6/73 Postdoctoral Research Staff, Pharmacology Department, School of Medicine, Yale University, New Haven, CT with Dr. W.H. Prusoff

#### POSITIONS HELD

7/89-Present Henry Bronson Professor of Pharmacology, Yale University School of Medicine, New Haven, CT

6/89-Present Professor of Pharmacology and Internal Medicine, Yale University School of Medicine, New Haven, CT

7/90-2011 Program Director, Developmental Therapeutics/Chemotherapy, Yale Comprehensive Cancer Center, New Haven, CT

7/79-6/89 Head, Drug Development Program, Lineberger Cancer Research Center, University of North Carolina, School of Medicine, Chapel Hill, NC

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- 4/79-6/89 Professor, Departments of Pharmacology and Medicine, University of North Carolina, School of Medicine, Chapel Hill, NC
- 2/87-12/87 Special Chair, Institute of Biomedical Science, Academia Sinica, Taipei, Taiwan, Republic of China
- 9/77-4/79 Cancer Research Scientist V, Department of Experimental Therapeutics, Roswell Park Memorial Institute, Buffalo, NY
- 6/77-4/79 Associate Professor, Department of Pharmacology, Roswell Park, Division of the Graduate School, State University of New York, Buffalo, NY
- 6/76-9/77 Associate Cancer Research Scientist, Department of Experimental Therapeutics, Roswell Park Memorial Institute, Buffalo, NY
- 9/74-6/77 Assistant Professor, Department of Pharmacology, Roswell Park, Division of the Graduate School, State University of New York, Buffalo, NY
- 9/74-6/76 Senior Cancer Research Scientist, Department of Experimental Therapeutics, Roswell Park Memorial Institute, Buffalo, NY
- 7/73-7/74 Research Associate (equivalent to Research Assistant Professor), Department of Pharmacology, Yale University School of Medicine, New Haven, CT

## **PROFESSIONAL SOCIETIES**

American Association for Cancer Research  
Member of Sigma XI  
American Microbiology Society  
American Society of Pharmacology and Experimental Therapeutics  
American Society of Biological Chemistry  
American Association for the Advancement of Science  
American Society of Clinical Pharmacology and Therapeutics  
Society of Chinese Bioscientists in America  
The Protein Society

## **HONORS**

American Leukemia Society Scholar	1976-1981
Rhoads Memorial Award, American Association of Cancer Research	1981
Outstanding Investigator Award, National Cancer Institute	1987-1997
Member, Board of Directors, American Association for Cancer Research	1990-1992
Outstanding Alumni Award, Brown University, Providence, RI	1990
Honorary Professor, Beijing Medical University, Beijing, China	1991
Honorary Professor, Union Medical University and CAMS, Beijing, China	1992
Outstanding Award in Bio-Medical Science, SCBA	1992
Member, Academia Sinica, Republic of China	1994
Outstanding Investigator Award, National Cancer Institute	1987-1997
Honorary Visiting Scientist, Inst of the Advancement of Chinese Medicine, Hong Kong, Chinese University Hong Kong	1998
Member, Connecticut Academy of Science and Engineering	1998
1999 ASPET Award (Am Soc Pharm and Exp Therap)	1999
Honorary Professor, Harbin Medical University, China	1999
National Foundation for Cancer Research Fellow	2000-2013
Distinguished Alumni Award, Tunghai University, Taipei, Taiwan	2001
Honorable Professor, Zhejiang University, Hangzhou, China	2001
Outstanding Achievement Award, Chinese/American Acad Prof Soc	2002
Honorable Professor, School of Medicine, University of Hong Kong	2002
Honorary Professor, Institute of Materia Medica, Chinese Acad of Sci	2003
Presidential Award, Society of Chinese Bioscientists in America	2004
BMRC Distinguished Visitor, Singapore	2005
Distinguished Visiting Professor, The University of Hong Kong	2005
Honorary Chair Professor, Chinese Medical University, Taiwan	2007
Honorary Professor, Xiamen University	2008
Honorary Professor, Yunan Medical College	2008
Honorary Professor Shanghai University of Traditional Chinese Medicine	2011
Honorary Professor Chang Chun University of Trad Chinese Medicine	2011
Honorary Professor Hua Qiao University	2011
Cheung on Tak Intl Award for Outstanding Contribution to Chinese Med	2012
Honorary Member, GP-TCM Association	2013

## **EXTRAMUARAL COMMITTEES SERVED**

### **BUSINESS**

Member, Sci Adv Board, G.D. Searle Pharmaceutical Co.	1981-1986
Consultant, Antivirus Program, Syntex, Inc.	1981-1988
Member, Burroughs-Wellcome Fund Task Force, NC	1985
Consultant Antivirus Program, Bristol-Myers, Inc.	1986-1991
President, Society of Chinese Bioscientists in America (SCBA)	1987
Consultant, Antivirals, Wyeth-Averst Laboratories	1988-1994
Consultant, DuPont Pharmaceuticals	1989-1993
Consultant, Boehringer Ingelheim Pharmaceuticals	1990-1994
Member and Co-Chair, Sci Adv Bd, Sparta Pharmaceuticals	1990-1998
Member, Scientific Advisory Board, Genelabs, Inc.	1991-1994
Member, Scientific Advisory Board, US Bioscience	1991-1998

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Member, Scientific Adv Bd, MicroProbe, Inc.	1991-1994
Member, Scientific Advisory Board, HEM Pharmaceuticals	1991-1996
Chairman of the Board, Division of Bio/Pharm, SCBA	1994-1997
Member, Scientific Advisory Board, Vion Pharmaceuticals	1995-2007
Consultant, Biochem Pharma	1996-2002
Director, Board of Directors, Response Biomedical Board, Vancouver, BC	1997-2000
Member, Scientific Advisory Board, Triangle Pharmaceuticals	1998-2000
Scientific Founder/Chairman, Scientific Advisory Board, PhytoCeutica	1999-Present
Consultant in Chinese Medicine, New World Development, Hong Kong	1999-2000
Consultant, Triangle Pharmaceuticals	2000-2003
Scientific Founder/Chairman, Scientific Advisory Board, Achillion	2000-2006
Consultant, Oncolys BioPharma, Inc.	2007-2010

## **ACADEMIC AND GOVERNMENT**

Member, Study Section of Experimental Therapeutics, NIH	1980-1984
Chairman, Study Section of Experimental Therapeutics, NCI/NIH	1983-1984
Member, External Adv Bd of Wisconsin Clinical Cancer Ctr, Madison	1984-1986
Chair, Gordon Res Conf "Purines, Pyrimidines, and Related Compounds"	1984
Member, Board of Sci Counselors, Div of Cancer Treatment, NCI/NIH	1986-1990
President, Society of Chinese Bioscientists in America	1987
Chairman, Biochemistry Section, Annual Meeting of the AACR	1987
Chairman, AACR Clowes Award Subcommittee	1988
Member, AIDS Research Advisory Committee, NIAID/NIH	1991-1994
Chairman, Study Section of the Biopharmaceutical Science, NHRI	1994-1997
Chairman of the Board, Bio/Pharm Division SCBA	1994-1997
Member, Board of Sci Counselors, NHRI, Taiwan	1995-Present
Chairman, Action Committee for Medical Biotechnology, Academia Sinica	1996-1999
Special Advisor to the Committee for the Biotechnology Industry Under Executive Yuan, Taiwan	1996-2000
Panel Member of Biomedical Sci, Univ Grant Committee, Hong Kong	1996-2003
Consultant, The Hong Kong University of Science and Technology	1999
Chairman, Advisory Comfor Medical Biotechnology, Academia Sinica	1999-2001
Chairman, Intl Adv Bd for Bio/Pharm Division (SCBA) Sponsored Herbal Medicine Symposium (1) Toronto, 1997; (2) Hong Kong, 1998; (3) Taiwan, 2000; and (4) Shanghai, 2004.	1999-2004
Member Sci Adv Bd, Beijing Nat'l Biochip Res and Engineering Ctr	2001-Present
Chairman, Steering Comfor Program of Chinese Medicine, Hong Kong	2002-Present
Chief Consultant, Prog of Chinese Med, Shanghai Inst of Life Sciences Chinese Academy of Science (CAS)	2002-Present
Chief Consultant, Prog of Chinese Med, Chinese Acad Med Sci (CAMS)	2003-Present
Chairman, "Consortium for the Globalization of Chinese Med" (CGCM)	2003-Present
Ad hoc Mbr, Nat'l Adv Council, Mbr of Blue Ribbon Com (NCAM/NIH)	2005-2008
Chief Consultant and Advisor for Biotech/Pharm, Yunan Province	2007-Present
Chairman, Sci Adv Bd, Agriculture Biotech Ctr, Academia Sinica	2008-Present
Mbr, Sci Adv Bd, FINOVI Foundation Innovations en Infectiologie	2008-Present
Mbr, Intl Adv Board TCM Research Center, Graz, Austria	2009-Present
Co-Chairman, Adv Bd, GP-TCM Advisory Board, London, UK	2010-Present
Visiting Professor, Heilongjiang University of Chinese Medicine	2011-Present

## **EDITORIAL BOARDS**

Associate Editor, Methotrexate Update, Lederle Laboratories	1983-1986
Editorial Board, Virus Genes, Martinus Nijhoff Publishing	1987-Present
Editorial Board, Cancer Communications, Pergamon Press	1989-Present
Associate Editor, Cancer Research, Waverly Press	1990-1995
Associate Editor, Biochemical Pharmacology, Pergamon Press	1990-2003
Advisory Board, J. Biomed Science, Kerger Press	1995-Present
Advisory Board, Chinese Journal of Pharmacology and Toxicology	1995-Present
Advisory Board, Journal of Chinese Academy of Medical Science	1995-Present
Associate Editor, American Association for Cancer Research	2001-2003
Editorial Board, Molecular Cancer Therapeutics	2001-2005
Chinese Journal of Integrative Medicine (CJM)	2007-Present
International Society for Chinese Medicine (JSCM), Macao	2009-Present
Advisory Board, Chinese Medicine Journal	2010-Present

## **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; and
- 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.

## **DRUGS DISCOVERED**

There are four (4) approved drugs currently used in clinic. They were initially discovered in this laboratory. These includes:

- Gancyclovir – For Cytomegalo Viral infection
- Lamivudine – For Hepatitis B Virus infection

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- Clevudine -- For Hepatitis B Virus infection
- Emtricitabine -- For HIV and HBV

Three additional chemicals 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.

## **PUBLICATIONS** (Over 420 publications in Refereed Journals)

### **REFEREED JOURNALS**

1. Cheng YC, Agarwal RP, Parks RE, Jr. Erythrocytic nucleoside diphosphokinase. IV. Evidence for electrophoretic heterogeneity. *Biochemistry*. 1971;10(11):2139-43. PubMed PMID: 5562833; PubMed Central PMCID: PMC5562833.
2. Cheng Y, Prusoff WH. Relationship between the inhibition constant (K<sub>1</sub>) and the concentration of inhibitor which causes 50 per cent inhibition (I<sub>50</sub>) of an enzymatic reaction. *Biochem Pharmacol*. 1973;22(23):3099-108. PubMed PMID: 4202581; PubMed Central PMCID: PMC4202581.
3. Cheng YC, Prusoff WH. Mouse ascites sarcoma 180 thymidylate kinase. General properties, kinetic analysis, and inhibition studies. *Biochemistry*. 1973;12(14):2612-9. PubMed PMID: 4711469; PubMed Central PMCID: PMC4711469.
4. Cheng YC, Robison B, Parks RE, Jr. Demonstration of the heterogeneity of nucleoside diphosphokinase in rat tissues. *Biochemistry*. 1973;12(1):5-10. PubMed PMID: 4683483; PubMed Central PMCID: PMC4683483.
5. Parks RE, Jr., Brown PR, Cheng YC, Agarwal KC, Kong CM, Agarwal RP, Parks CC. Purine metabolism in primitive erythrocytes. *Comp Biochem Physiol B*. 1973;45(2):355-64. PubMed PMID: 4351428; PubMed Central PMCID: PMC4351428.
6. Cheng YC, Prusoff WH. A new rapid assay for measuring deoxycytidylate- and deoxythymidylate-kinase activities. *Anal Biochem*. 1974;60(2):545-50. PubMed PMID: 4367536; PubMed Central PMCID: PMC4367536.
7. Cheng YC, Prusoff WH. Mouse ascites Sarcoma 180 deoxythymidine kinase. General properties and inhibition studies. *Biochemistry*. 1974;13(6):1179-85. PubMed PMID: 4814718; PubMed Central PMCID: PMC4814718.
8. Cheng YC, Goz B, Neenan JP, Ward DC, Prusoff WH. Selective inhibition of herpes simplex virus by 5-amino-2,5-dideoxy-5-iodouridine. *J Virol*. 1975;15(5):1284-5. PubMed PMID: 167186; PubMed Central PMCID: PMC167186.
9. Cheng YC, Goz B, Prusoff WH. Deoxyribonucleotide metabolism in Herpes simplex virus infected HeLa cells. *Biochim Biophys Acta*. 1975;390(3):253-63. PubMed PMID: 164949; PubMed Central PMCID: PMC164949.
10. Cheng YC, Neenan JP, Goz B, Ward DC, Prusoff WH. Synthesis and biological activity of some novel analogs of thymidine. *Ann N Y Acad Sci*. 1975;255(751106-751230-2):332-41. PubMed PMID: 1059364; PubMed Central PMCID: PMC1059364.
11. Cheng YC. Deoxythymidine kinase induced in the HELA TK- cells by herpes simplex virus type I and type II. Substrate specificity and kinetic behavior.

- Biochim Biophys Acta. 1976;452(2):370-81. PubMed PMID: 188465; PubMed Central PMCID: PMC188465.
12. Cheng YC, Domin BA, Sharma RA, Bobek M. Antiviral action and cellular toxicity of four thymidine analogues: 5-ethyl-, 5-vinyl-, 5-propyl-, and 5-allyl-2'-deoxyuridine. *Antimicrob Agents Chemother.* 1976;10(1):119-22. PubMed PMID: 185944; PubMed Central PMCID: PMC185944.
  13. Cheng YC, Ostrander M. Deoxythymidine kinase induced in HeLa TK- cells by herpes simplex virus type I and type II. II. Purification and characterization. *J Biol Chem.* 1976;251(9):2605-10. PubMed PMID: 177418; PubMed Central PMCID: PMC177418.
  14. Lee LS, Cheng Y. Human deoxythymidine kinase II: substrate specificity and kinetic behavior of the cytoplasmic and mitochondrial isozymes derived from blast cells of acute myelocytic leukemia. *Biochemistry.* 1976;15(17):3686-90. PubMed PMID: 1066165; PubMed Central PMCID: PMC1066165.
  15. Lee LS, Cheng YC. Human deoxythymidine kinase. I. Purification and general properties of the cytoplasmic and mitochondrial isozymes derived from blast cells of acute myelocytic leukemia. *J Biol Chem.* 1976;251(9):2600-4. PubMed Central PMCID: PMC1063125.
  16. Lin TS, Neenan JP, Cheng YC, Prusoff WH. Synthesis and antiviral activity of 5- and 5'-substituted thymidine analogs. *J Med Chem.* 1976;19(4):495-8. PubMed Central PMCID: PMC177781.
  17. Cheng YC. A rational approach to the development of antiviral chemotherapy: alternative substrates of herpes simplex virus Type 1 (HSV-1) and Type 2 (HSV-2) thymidine kinase (TK). *Ann N Y Acad Sci.* 1977;284:594-8. PubMed Central PMCID: PMC212988.
  18. Cheng YC, Chadha KC, Hughes RG, Jr. Biochemical and immunological characterization of deoxythymidine kinase of thymidine kinaseless HeLa cells biochemically transformed by herpes simplex virus type. *Infection and immunity.* 1977;16(2):486-92. PubMed Central PMCID: PMC193790.
  19. Cheng YC, Domin B, Lee LS. Human deoxycytidine kinase. Purification and characterization of the cytoplasmic and mitochondrial isozymes derived from blast cells of acute myelocytic leukemia patients. *Biochim Biophys Acta.* 1977;481(2):481-92. PubMed Central PMCID: PMC265735.
  20. Dolnick BJ, Cheng Y. Human thymidylate synthetase derived from blast cells of patients with acute myelocytic leukemia. Purification and characterization. *J Biol Chem.* 1977;252(21):7697-703. PubMed Central PMCID: PMC269853.
  21. Lee LS, Cheng Y. Human thymidylate kinase. Purification, characterization, and kinetic behavior of the thymidylate kinase derived from chronic myelocytic leukemia. *J Biol Chem.* 1977;252(16):5686-91. PubMed Central PMCID: PMC18469.
  22. Wigler M, Silverstein S, Lee LS, Pellicer A, Cheng Y, Axel R. Transfer of purified herpes virus thymidine kinase gene to cultured mouse cells. *Cell.* 1977;11(1):223-32. PubMed Central PMCID: PMC194704.
  23. Bloch A, Cheng YC. Modulation of cyclic CMP-specific phosphodiesterase activity by polyamines and by cyclic purine nucleotides. *Adv Enzyme Regul.* 1978;17:283-7. PubMed Central PMCID: PMC230708.

24. Bobek M, Cheng YC, Bloch A. Novel arabinofuranosyl derivatives of cytosine resistant to enzymatic deamination and possessing potent antitumor activity. *J Med Chem.* 1978;21(7):597-8. PubMed Central PMCID: PMC276611.
25. Chang CH, Cheng YC. Ribonucleotide reductase isolated from human cells. Heterogeneity among the sources. *Biochem Pharmacol.* 1978;27(19):2297-300. PubMed Central PMCID: PMC569483.
26. Chang KP, Steiger RF, Dave C, Cheng YC. Effects of methylglyoxal bis(ganylhydrazone) on trypanosomatid flagellates: inhibition of growth and nucleoside incorporation in *Trypanosoma brucei*. *J Protozool.* 1978;25(1):145-9. PubMed Central PMCID: PMC660567.
27. Cheng YC, Bloch A. Demonstration, in leukemia L-1210 cells, of a phosphodiesterase acting on 3':5'-cyclic CMP but not on 3':5'-cyclic AMP or 3':5'-cyclic GMP. *J Biol Chem.* 1978;253(8):2522-4. PubMed Central PMCID: PMC204654.
28. Cheng YC, Domin B. Behavior of various ribo- and deoxyribonucleosides, nucleoside monophosphate kinases, and nucleoside diphosphokinase on Blue Sepharose affinity columns. *Anal Biochem.* 1978;85(2):425-9. PubMed Central PMCID: PMC206165.
29. Dolnick BJ, Cheng YC. Human thymidylate synthetase. II. Derivatives of pteroylmono- and -polyglutamates as substrates and inhibitors. *J Biol Chem.* 1978;253(10):3563-7. PubMed Central PMCID: PMC645589.
30. Hoffmann PJ, Cheng YC. The deoxyribonuclease induced after infection of KB cells by herpes simplex virus type 1 or type 2. I. Purification and characterization of the enzyme. *J Biol Chem.* 1978;253(10):3557-62. PubMed Central PMCID: PMC206546.
31. Allen GP, McGowan JJ, Randall CC, Mancini W, Cheng YC, Gentry GA. Purification and characterization of deoxythymidine kinase (dTK) induced in dTK-3T3 mouse cells by equine herpesvirus type 1 (EHV-1). *Virology.* 1979;92(2):367-74. PubMed Central PMCID: PMC218350.
32. Chang CH, Cheng YC. Demonstration of two components and association of adenosine diphosphate-cytidine diphosphate reductase from cultured human lymphoblast cells (Molt-4F). *Cancer Res.* 1979;39(2 Pt 1):436-42. PubMed Central PMCID: PMC570093.
33. Chang CH, Cheng YC. Effects of nucleoside triphosphates on human ribonucleotide reductase from Molt-4F cells. *Cancer Res.* 1979;39(12):5087-92. PubMed Central PMCID: PMC498136.
34. Chang CH, Cheng YC. Substrate specificity of human ribonucleotide reductase from Molt-4F cells. *Cancer Res.* 1979;39(12):5081-6. PubMed Central PMCID: PMC498135.
35. Cheng YC, Grill S, Dutschman G. Time-dependent action of 5-propyl deoxyuridine as antiherpes simplex virus type 1 and type 2 agents. *Biochem Pharmacol.* 1979;28(24):3529-32. PubMed Central PMCID: PMC231448.
36. Cheng YC, Tsou TY, Hackstadt T, Mallavia LP. Induction of thymidine kinase and DNase in varicella-zoster virus-infected cells and kinetic properties of the virus-induced thymidine kinase. *J Virol.* 1979;31(1):172-7. PubMed Central PMCID: PMC228052.



37. Hoffmann PJ, Cheng YC. DNase induced after infection of KB cells by herpes simplex virus type 1 or type 2. II. Characterization of an associated endonuclease activity. *J Virol.* 1979;32(2):449-57. PubMed Central PMCID: PMC228069.
38. McHugh M, Cheng YC. Demonstration of a high affinity folate binder in human cell membranes and its characterization in cultured human KB cells. *J Biol Chem.* 1979;254(22):11312-8. PubMed Central PMCID: PMC500647.
39. Szeto DW, Cheng YC, Rosowsky A, Yu CS, Modest EJ, Piper JR, Temple C, Jr., Elliott RD, Rose JD, Montgomery JA. Human thymidylate synthetase--III. Effects of methotrexate and folate analogs. *Biochem Pharmacol.* 1979;28(17):2633-7. PubMed Central PMCID: PMC518674.
40. Williams MV, Chang CH, Cheng YC. An enzymatic method for distinguishing deoxyuridine and deoxythymidine nucleotide pools and its application for determining ribonucleotide reductase activity. *J Biochem Biophys Methods.* 1979;1(3):153-62. PubMed Central PMCID: PMC369611.
41. Williams MV, Cheng Y. Human deoxyuridine triphosphate nucleotidohydrolase. Purification and characterization of the deoxyuridine triphosphate nucleotidohydrolase from acute lymphocytic leukemia. *J Biol Chem.* 1979;254(8):2897-901. PubMed Central PMCID: PMC285077.
42. Brockman RW, Cheng YC, Schabel FM, Jr., Montgomery JA. Metabolism and chemotherapeutic activity of 9-beta-D-arabinofuranosyl-2-fluoroadenine against murine leukemia L1210 and evidence for its phosphorylation by deoxycytidine kinase. *Cancer Res.* 1980;40(10):3610-5. PubMed Central PMCID: PMC6254636.
43. Caradonna SJ, Cheng YC. The role of deoxyuridine triphosphate nucleotidohydrolase, uracil-DNA glycosylase, and DNA polymerase alpha in the metabolism of FUdR in human tumor cells. *Mol Pharmacol.* 1980;18(3):513-20. PubMed Central PMCID: PMC6110169.
44. Caradonna SJ, Cheng YC. Uracil DNA-glycosylase. Purification and properties of this enzyme isolated from blast cells of acute myelocytic leukemia patients. *J Biol Chem.* 1980;255(6):2293-300. PubMed Central PMCID: PMC6766936.
45. Chang CH, Cheng YC. Effects of deoxyadenosine triphosphate and 9-beta-D-arabinofuranosyl-adenine 5'-triphosphate on human ribonucleotide reductase from Molt-4F cells and the concept of "self-potential". *Cancer Res.* 1980;40(10):3555-8. PubMed Central PMCID: PMC6159965.
46. Cheng YC, Chen JY, Glaser R, Henle W. Frequency and levels of antibodies to Epstein-Barr virus-specific DNase are elevated in patients with nasopharyngeal carcinoma. *Proc Natl Acad Sci U S A.* 1980;77(10):6162-5. PubMed Central PMCID: PMC6255477.
47. Cheng YC, Chen JY, Hoffmann PJ, Glaser R. Studies on the activity of DNase associated with the replication of the Epstein-Barr virus. *Virology.* 1980;100(2):334-8. PubMed Central PMCID: PMC6243430.
48. Cheng YC, Grill S, Ruth J, Bergstrom DE. Anti-herpes simplex virus and anti-human cell growth activity of E-5-propenyl-2'-deoxyuridine and the concept of selective protection in antiviral chemotherapy. *Antimicrob Agents Chemother.* 1980;18(6):957-61. PubMed Central PMCID: PMC6263181.

49. Ostrander M, Cheng YC. Properties of herpes simplex virus type 1 and type 2 DNA polymerase. *Biochim Biophys Acta*. 1980;609(2):232-45. PubMed Central PMCID: PMC6250618.
50. Williams MV, Cheng Y. Glycyl-L-histidyl-L-lysine, a growth promoting factor for human cells. *Cytobios*. 1980;27(105):19-25. PubMed Central PMCID: PMC7418444.
51. Caradonna SJ, Cheng YC. Induction of uracil-DNA glycosylase and dUTP nucleotidohydrolase activity in herpes simplex virus-infected human cells. *J Biol Chem*. 1981;256(19):9834-7. PubMed Central PMCID: PMC6115860.
52. Cheng YC, Derse D, Tan RS, Dutschman G, Bobek M, Schroeder A, Bloch A. Biological and biochemical effects of 2'-azido-2'-deoxyarabinofuranosylcytosine on human tumor cells in vitro. *Cancer Res*. 1981;41(8):3144-9. PubMed Central PMCID: PMC7248971.
53. Cheng YC, Dutschman G, De Clercq E, Jones AS, Rahim SG, Verhelst G, Walker RT. Differential affinities of 5-(2-halogenovinyl)-2'-deoxyuridines for deoxythymidine kinases of various origins. *Mol Pharmacol*. 1981;20(1):230-3. PubMed Central PMCID: PMC6270535.
54. Cheng YC, Dutschman G, Fox JJ, Watanabe KA, Machida H. Differential activity of potential antiviral nucleoside analogs on herpes simplex virus-induced and human cellular thymidine kinases. *Antimicrob Agents Chemother*. 1981;20(3):420-3. PubMed Central PMCID: PMC6272634.
55. Cheng YC, Grill S, Derse D, Chen JY, Caradonna SJ, Connor K. Mode of action of phosphonoformate as an anti-herpes simplex virus agent. *Biochim Biophys Acta*. 1981;652(1):90-8. PubMed Central PMCID: PMC6260189.
56. Derse D, Cheng YC. Herpes simplex virus type I DNA polymerase. Kinetic properties of the associated 3'-5' exonuclease activity and its role in araAMP incorporation. *J Biol Chem*. 1981;256(16):8525-30. PubMed Central PMCID: PMC6167579.
57. Derse D, Cheng YC, Furman PA, St Clair MH, Elion GB. Inhibition of purified human and herpes simplex virus-induced DNA polymerases by 9-(2-hydroxyethoxymethyl)guanine triphosphate. Effects on primer-template function. *J Biol Chem*. 1981;256(22):11447-51. PubMed Central PMCID: PMC6271750.
58. Ruth JL, Cheng YC. Nucleoside analogues with clinical potential in antiviral chemotherapy. The effect of several thymidine and 2'-deoxycytidine analogue 5'-triphosphates on purified human (alpha, beta) and herpes simplex virus (types 1, 2) DNA polymerases. *Mol Pharmacol*. 1981;20(2):415-22. PubMed Central PMCID: PMC6272095.
59. Schroeder AC, Bardos TJ, Cheng YC. Synthesis and antiviral activity of 1-(2-deoxy-beta-D-ribofuranosyl)-5-(methylmercapto)-2-pyrimidinone. *J Med Chem*. 1981;24(1):109-12. PubMed Central PMCID: PMC6259353.
60. Cheng YC, Schinazi RF, Dutschman GE, Tan RS, Grill SP. Virus-induced thymidine kinases as markers for typing herpes simplex viruses and for drug sensitivity assays. *Journal of virological methods*. 1982;5(3-4):209-17. PubMed Central PMCID: PMC6296179.
61. Derse D, Bastow KF, Cheng Y. Characterization of the DNA polymerases induced by a group of herpes simplex virus type I variants selected for growth in

- the presence of phosphonoformic acid. *J Biol Chem.* 1982;257(17):10251-60. PubMed Central PMCID: PMC6286645.
62. Domin BA, Cheng YC, Hakala MT. Properties of dihydrofolate reductase from a methotrexate-resistant subline of human KB cells and comparison with enzyme from KB parent cells and mouse S180 AT/3000 cells. *Mol Pharmacol.* 1982;21(1):231-8. PubMed Central PMCID: PMC7132960.
  63. Domin BA, Cheng YC, Nair MG. Effect of 11-oxahomofolate and its reduced derivatives on human dihydrofolate reductase and on human cells having different amounts of dihydrofolate reductase. *Biochem Pharmacol.* 1982;31(2):255-6. PubMed Central PMCID: PMC7059366.
  64. Domin BA, Grill SP, Bastow KF, Cheng YC. Effect of methotrexate on dihydrofolate reductase activity in methotrexate-resistant human KB cells. *Mol Pharmacol.* 1982;21(2):478-82. PubMed Central PMCID: PMC7099148.
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