

Yangchao Chen, PhD,

Assistant Professor, School of Biomedical Sciences, Faculty of Medicine, The Chinese University of Hong Kong (CUHK), Email: frankch@cuhk.edu.hk, Phone: +852 39431100.

Education

2005	Post-doctor, University of Washington, Seattle, USA
2003	PhD Zhongshan University, China
2000	MPhil Guangdong Medical College, China
1997	Hunan Medical University, China

Working experience

04. 2010—	Assistant Professor, School of Biomedical Sciences, CUHK
04.2009—04. 2010	Assistant Professor, Department of Medicine & Therapeutics, CUHK
04. 2007—04.2009	Research Assistant Professor, Department of Medicine & Therapeutics, CUHK

Awards and Distinctions

1. The recipient of a grant amounting to 100,000 US dollars in the second round of Grand Challenges Explorations in 2009 from The Bill & Melinda Gates Foundation. One of the 81 receipts out of more than 3,000 applicants worldwide.

Professional Affiliations

Member, American Association for Cancer Research (AACR)
Member, Chinese Association of Pharmaceutical Scientists, USA (CAPS-USA)
Member, The Consortium for Globalization of Chinese Medicine Foundation(CGCM)

Academic Service

Editorial board member: 2010—, *Journal of Chinese Clinical Medicine*
2011—, *American Journal of Molecular Biology*

Research Grants

1. Functional characterization of EZH2/miR-218 interaction in pancreatic ductal adenocarcinoma. Research Grants Council-General Research Fund, 2012-2015, HK\$: 862,500, Capacity: PI.
2. Functional characterization of Hepatitis B viral X protein/microRNA-21 interaction in HBV associated hepatocellular carcinoma. Research Fund for the Control of Infectious Disease, 2012-2014, HK\$: 1,000,000, Capacity: PI.
3. Generation of Influenza-resistant chicken by triple combination lentiviral vector-mediated genetic modification. Grand Challenges Explorations No. 53011, Bill & Melinda Gates Foundation. 2009-2011, US\$: 100,000, Capacity: PI.
4. Regulation of S100P expression by IL-6 in pancreatic ductal adenocarcinoma. Research Grants Council-General Research Fund, 2009-2012, HK\$: 977,765, Capacity: PI.
5. Triple combination lentiviral vector-based hematopoietic stem cell gene therapy for inhibition of drug resistant HIV-1, Research Fund for the Control of Infectious Disease, 2009-2011, HK\$: 800,000, Capacity: PI.
6. Development of HPV therapeutic vaccine and related immunotherapy for treating cervical cancer, Innovation and Technology Fund, 2008-2010, HK\$: 1,571,682, Capacity: PI.
7. The mechanism of polycomb protein EZH2 silencing of microRNA-34a in pancreatic cancer and its significance in tumorigenesis, National Natural Science Foundation of China (NSFC), 2012-2015, RMB: 260,000.

8. Functional characterization of EZH2/miR34a interaction in cancer. Shenzhen Basic Research Program, 2012-2014, RMB: 100, 000.

Publications

1. Wang Y, Zhou Q, Ma JY, Li CH, Feng R, Xia T, Xiao Z, Fu J, Deng YL, Wong BC, Zhang YK, Chen Y. A pure compound FR429 isolated from *Polygonum Capitatum* inhibited hepatocellular tumor growth by targeting histone methylase EZH2. Under review.
2. Wong CCM, Zhang L, Li ZJ, Wu WKK, Ren SX, Chen Y, Ng TB, Cho CH. Protective Effects of Cathelicidin-Encoding *Lactococcus lactis* in Murine Ulcerative Colitis. *J Gastroenterol Hepatol*. 2012, accepted.
3. Tian XY, Yung LH, Wong WT, Liu J, Leung FP, Liu L, Chen Y, Kong SK, Kwan KM, Ng SM, Lai PB, Yung LM, Yao X, Huang Y. Bone morphogenic protein-4 induces endothelial cell apoptosis through oxidative stress-dependent p38MAPK and JNK pathway. *J Mol Cell Cardiol*. 2012;52:237-44.
4. Yip WK, Cheng ASL, Zhu R, Lau SK, Chen Y, Sung JG, Lai PB, Ng EK, Yu J, Wong N, To KF, Wong WS, Sung JJY, Chan HLY. Carboxyl-terminal truncated HBx regulates a distinct microRNA transcription program in hepatocellular carcinoma development. *PLoS One*, 2011;6:e22888.
5. Cheng ASL, Lau SS, Chen Y, Kondo Y, Li MS, Feng H, Ching AK, Cheung PK, Wong KH, Jin H, Choy R, Yu J, To KF, Wong N, Huang TH, Sung JJY. EZH2-mediated concordant repression of Wnt antagonists promotes β -catenin -dependent hepatocarcinogenesis. *Cancer Res*, 2011;71 4028-4039.
6. Cai MY, Tong ZT, Zheng F, Liao YJ, Wang Y, Rao HL, Chen Y, Wu QL, Liu YH, Guan XY, Lin MC, Zeng YX, Kung HF, Xie D. EZH2 protein: a promising immunomarker for the detection of hepatocellular carcinomas in liver needle biopsies. *Gut*, 2011; 60:967-76.
7. Yue Y, Jin F, Deng R, Cai J, Chen Y, Lin MC, Kung HF, Wu C. Revisit complexation between DNA and polyethylenimine-Effect of uncomplexed chains free in the solution mixture on gene transfection. *J Control Release*. 2011 155:67-76.
8. Lu J, He ML, Wang L, Chen Y, Liu X, Dong Q, Chen Y, Peng Y, Yao KT, Kung HF, Li XP. MiR-26a inhibits cell growth and tumorigenesis of nasopharyngeal carcinoma through repression of EZH2. *Cancer Res*. 2011;71:225-33.
9. Lan FF, Wang H, Chen Y, Chan CY, Ng SS, Li K, Xie D, He ML, Lin MC, Kung HF. Has-let-7g inhibits proliferation of hepatocellular carcinoma cells by down-regulation of c-Myc and up-regulation of p16(INK4A). *Int J Cancer*, 2011, 128:319-31.
10. Zhang J, He ML, Dong Q, Xie WD, Chen Y, Lin MC, Leung PC, Zhang YO, Kung HF. Aqueous extracts of *Fructus Ligustri Lucidi* enhance the sensitivity of human colorectal carcinoma DLD-1 cells to doxorubicin-induced apoptosis via TBX3 suppression. *Integr Cancer Ther*, 2011;10:85-91.
11. Diao S, Zhang JF, Wang H, Chen Y*, Kung HF. Proteomic identification of microRNA-122a target proteins in hepatocellular carcinoma. *corresponding author, *Proteomics*, 2010, 10:3723-31.
12. Wong WT, Tian XY, Chen Y, Leung FP, Wong SL, Lee HK, Ng CF, Yao X, Vanhoutte, Tipoe G, Huang Y. COX-2 up-regulation and prostaglandin F2 α mediate bone morphogenic protein 4-induced endothelial dysfunction in hypertension. *Circ Res*, 2010, 107:984-991.
13. Li XY, Chen Y, Zhou KY, Zhang MH, Luo HQ, Kung HF, Zhou X. Overexpression of Bax inhibitor-1 (BI-1) induces cell transformation in NIH3T3 cells. *Cell Biol Int*, 2010, 34:1099-104.

14. Rao ZY, Cai MY, Yang GF, He LR, Mai SJ, Hua WF, Liao YJ, Deng HX, Chen Y, Guan XY, Zeng YX, Kung HF, Xie D. EZH2 supports ovarian carcinoma cell invasion and/or metastasis via regulation of TGF-beta1 and is a predictor of outcome in ovarian carcinoma patients. *Carcinogenesis*. 2010; 31:1576-83.
15. Chen Y, Xie D, Li WY, Cheung CM, Yao H, Chan CY, Xu FP, Liu YH, Sung JYY, Kung HF. RNAi targeting EZH2 inhibits tumor growth and liver metastasis of pancreatic cancer in vivo, *Cancer Lett*, 2010, 297:109-16.
16. An X, Ng SS, Xie D, Zeng YX, Sze J, Wang J, Chen Y, Chow BK, Lu G, Poon WS, Kung HF, Wong BC, Lin MC. Functional characterisation of cell cycle-related kinase (CCRK) in colorectal cancer carcinogenesis. *Eur J Cancer*. 2010, 46:1752- 61.
17. Wu GQ, Liao YJ, Qin ZQ, He LR, Chen Y, Zeng YX, Kung HF, Xie D. PYRIN domain of NALP2 inhibits cell proliferation and tumor growth of human glioblastoma. *Plasmid*, 2010, 64:41-50.
18. Hua WF, Fu YS, Liao YJ, Xia WJ, Chen Y, Zeng YX, Kung HF, Xie D. Curcumin induces down-regulation of EZH2 expression through the MAPK pathway in MDA-MB-435 human breast cancer cells. *Eur J Pharmacol*, 2010, 637:16-21.
19. Jiang L, Chen Y*, Chan CY, Lu G, Wang H, Li JC, Kung HF. Dynamic transcriptional changes of TIEG1 and TIEG2 during mouse tissue development. *Anat Rec*. 2010, 293:858-64.
20. He LR, Liu MZ, Li BK, Rao HL, Liao YJ, Chen Y, Guan XY, Zeng YX, Kung HF, Xie D. High expression of EZH2 is associated with tumor aggressiveness and poor prognosis in patients with esophageal squamous cell carcinoma treated with definitive chemoradiotherapy. *Int J Cancer*; 2010, 127:138-47.
21. Chen SC, Lu G, Chan CY, Chen Y, Yew DT, Feng ZT, Kung HF. Microarray profile of brain aging related genes in frontal cortex of SAMP8, *J Mol Neurosci*. 2010, 41: 12-6.
22. Zhang JF, Li G, Chan CY, Meng CL, Lin MC, Chen Y, He ML, Leung PC, Kung HF. Flavonoids of Herba Epimedii regulate osteogenesis of human mesenchymal stem cells through BMP and Wnt/β-catenin signaling pathway. *Mol Cell Endocrinol*, 2010, 314:70-4.
23. Ma Y, Yu J, Chan HL, Chen Y, Wang H, Chen Y, Chan CY, Go MY, Tsai SN, Ngai SM, To KF, Tong JH, He QY, Sung JJ, Kung HF, Cheng CH, He ML. Glucose-Regulated Protein 78 is an intracellular antiviral factor against Hepatitis B virus. *Mol Cell Proteomics*, 2009, 8:2582-94.
24. Li M, Wang J, Ng SS, Chan CY, He ML, Yu F, Lai L, Shi C, Chen Y, Yew DT, Kung HF, Lin MC. Adenosine diphosphate-ribosylation factor 6 is required for epidermal growth factor-induced glioblastoma cell proliferation. *Cancer*, 2009, 115:4959 -4972.
25. Deng R, Yue Y, Jin F, Chen Y, Kung HF, Lin MC, Wu C. Revisit the complexation of PEI and DNA- How to make low cytotoxic and high efficient PEI gene transfectiopn non-viral vectors with a controllable chain length and structure? *J Control Release*, 2009, 140:40-6.
26. Liu LX, Lee NP, Chan VW, Xue W, Zender L, Lee TK, Zhang C, Dai H, Wang XL, Ng IO, Chen Y, Kung HF, Lowe SW, Poon RT, Wang JH, Luk JM. Targeting Cadherin-17 Inactivates Wnt Signaling and Inhibits Tumor Growth in Liver Carcinoma, *Hepatology*, 2009, 50:1453-1463.
27. Moorman J, Zhang Y, Liu B, Lesage G, Chen Y, Stuart C, Prayther D, Yin D. HIV-1 gp120 primes lymphocytes for opioid-induced, beta-arrestin 2-dependent apoptosis. *Biochim Biophys Acta*. 2009, 1793:1366-71.
28. Liang B, He ML, Chan CY, Chen Y, Li XP, Li Y, Zheng D, Lin MC, Kung HF, Shuai XT, Peng Y. The use of folate-PEG-grafted-hybranched-PEI nonviral vector for the inhibition of glioma growth in the rat. *Biomaterials*. 2009, 30:4014-4020.
29. Xia H, Qi Y, Ng SS, Chen X, Chen S, Ge R, Li G, Chen Y, He ML, Kung HF, Lai L, Lin

- MC. microRNA-146b inhibits glioma cell migration and invasion by targeting MMPs. *Brain Res.* 2009, 1269:158-165.
30. Dong Q, Liu Z, **Chen Y**, Chan CY, Lin MC, Kung HF, Chan HL, Sung JJ, He ML. High Level Virion Production and Surface Antigen Expression with One and a Half Copies of Hepatitis B Viral Genome. *J Virol Methods*. 2009, 159: 135–140.
 31. Xia H, Qi Y, Ng SS, Chen X, Chen S, Fang M, Li D, Zhao Y, Ge R, Li G, **Chen Y**, He ML, Kung HF, Lai L, Lin MC. MicroRNA-15b regulates cell cycle progression by targeting cyclins in glioma cells. *Biochem Biophys Res Commun.* 2009, 380: 205- 10.
 32. Wang X, **Chen Y***, Han QB, Chan CY, Wang H, Liu Z, Cheng CHK, Yew DT, Lin MC, He ML, Xu HX, Sung JJY, Kung HF. Proteomic identification of molecular targets of gambogic acid: role of stathmin in hepatocellular carcinoma. *Proteomics*. 2009, 9:242–253.
 33. Jiang L, **Chen Y***, Chan CY, Wang X, Lin L, He ML, Lin M, Yew D, Sung JJY, Li JC, Kung HF. Down-regulation of stathmin is required for TGF- β inducible early gene 1 induced growth inhibition of pancreatic cancer cells. *Cancer Lett.* 2009; 274:101-108.
 34. Zhang B, Bai YX, Ma HH, Wang ZW, Huang PT, Huang CF, Peng Y, **Chen Y**, Kung HF, Huang JJ. Silencing PinX1 compromises Telomere length maintenance as well as tumorigenicity in telomerase-positive human cancer cells. *Cancer Res.* 2009, 69: 1-9.
 35. Li Z, He ML, Yao H, Dong Q, **Chen Y**, Chan CY, Zheng BJ, Yuen KY, Peng Y, Sun Q, Yang X, Lin MC, Sung JJY, Kung HF. Inhibition of HBV replication and gene expression in vitro and in vivo with a single AAV vector delivering two shRNA molecules. *BMB Rep.* 2009, 42:59-64.
 36. Li Z, Yao H, Ma Y, Dong QM, **Chen Y**, Peng Y, Zheng B, Huang JD, Chan CCY, Lin MC, Sung JJ, Yuen KY, Kung HF, He ML. Inhibition of HBV gene expression and replication by stably expressed interferon- α 1 via adeno-associated viral vectors. *J Gene Med.* 2008, 10: 619-627.
 37. Dong Q, Chan HLY, Liu Z, Chan DP, Zhang B, **Chen Y**, Kung HF, Sung JJY, He ML. A1762T/G1764A Mutations of Hepatitis B virus, Associated with the Increased Risk of Hepatocellular Carcinoma, Reduce Basal Core Promoter Activities. *Biochem Biophys Res Commun.* 2008, 374:773-776.
 38. **Chen Y**, Cheung YT, Kong LD, Ng TB, Qiao CF, Mo SF, Xu HX, Kung HF. Transcriptional regulation of Corticotropin-Releasing-Factor gene by Furocoumarins isolated from Seeds of Psorales Corylifolia. *Life Sci.* 2008, 82:1117-1121.
 39. **Chen Y**, Lin MC, Yao H, Wang H, Zhang AQ, Yu J, Hui CK, Lau GK, He ML, Sung J, Kung HF. Lentivirus-mediated RNA interference targeting enhancer of zeste homolog 2 inhibits hepatocellular carcinoma growth through down-regulation of stathmin. *Hepatology*. 2007, 46:200-208 (IF 11.25, citation 45).
 40. Ng SS, Gao Y, Chau DH, Li GH, Lai L, Huang PT, Huang C, Huang JJ, **Chen Y**, Kung HF, Lin MC. A novel glioblastoma cancer gene therapy using AAV-mediated long-term expression of human TERT C-terminal polypeptide. *Cancer Gene Ther.* 2007, 14:561-572.
 41. **Chen Y**, Lin MC, Wang H, Chan CY, Jiang L, Ngai SM, Yu J, He ML, Shaw PC, Yew DT, Sung JJ, Kung HF. Proteomic analysis of EZH2 downstream target proteins in hepatocellular carcinoma. *Proteomics*. 2007, 7:3097-3104.
 42. Ng SS, Cheung YT, An XM, **Chen Y**, Li M, Li G, Cheung W, Sze J, Lai L, He ML, Peng Y, Xia H, Wong BCY, Leung SY, Kung HF, Lin MC. Cell cycle related kinase (CCRK): a novel candidate oncogene in human glioblastoma. *J Natl Cancer Inst.* 2007, 99:936-948.
 43. **Chen Y**, Stamatoyannopoulos G, Song CZ. Down-regulation of CXCR4 by inducible expression of siRNAs inhibited breast cancer cell invasion in vitro. *Cancer Res.* 2003, 63:4801-4804 (IF 8.3, citation 131).

44. Song CZ, Keller K, **Chen Y**, Stamatoyannopoulos G. Functional interplay between CBP and PCAF in acetylation and regulation of transcription factor KLF13 activity. *J Mol Biol.* 2003, 329:207-215.
45. Song CZ, Keller K, **Chen Y**, Murata K, Stamatoyannopoulos G. Transcription coactivator CBP has direct DNA binding activity and stimulates transcription factor DNA binding through small domain. *Biochem Biophys Res Commun*, 2002, 296:118 -124.
46. **Chen Y**, Song C, Luo CQ. Short hairpin RNAs induced RNA interference in human cells, *Ai Zheng*. 2003, 22:566-570.
47. **Chen Y**, Zhou M, Zhang Y, Zhou K. Cisplatin induced apoptosis in nasopharyngeal cancer cells and decrease membrane potential. *Ai Zheng*. 2001,20:887-888.
48. Zhang Y, **Chen Y**, Zhou K, Cai K, Liang T. bcl-xS mediated sensitization of human nasopharyngeal carcinoma cells to camptothecin-induced apoptosis, *Chin Arch Otolaryngeal Head Neck Surg*. 2001,8:114-117.
49. Zhang Y, **Chen Y**, Zhou K, Cai K. Mitochondrial mechanisms of CPT-induced apoptosis in nasopharyngeal carcinoma cells, *J Clinical Otorhinolaryngology*. 2001, 15: 309- 311.
50. Zhang Y, **Chen Y**, Zhou K, Liang T. Bcl-xS promotes arsenic trioxide-induced apoptosis in nasopharyngeal carcinoma cells, *Chin J Otorhinolaryngology- Skull Base Surgery*. 2001,7:95-97.
51. Xie T, Tang D, **Chen Y**, Liu CQ, Zhou K. Clinical characteristics of angiotension converting enzyme gene polymorphism in chronic glomerulonephritis and primary nephrotic syndrome. *Guangdong Medical Journal*. 2001, 22: 11-12.
52. **Chen Y**, Zhang Y, Zhou K. Preliminary studies of apoptosis in human nasopharyngeal carcinoma CNE-2Z cells induced by arsenic trioxide and its mechanism, *Ai Zheng*. 2001, 20: 61-65.
53. **Chen Y**, Zhang Y, Zhou K, Ling G. GFP used as a reporter gene for optimizing lipofection. *Journal of Guangdong Medical College*, 2001, 3: 28-29.
54. **Chen Y**, Zhang Y, Zhou K, Ling G. Transcription and expression of bcl-x gene in two cell lines of nasopharyngeal carcinoma. *Journal of Guangdong Medical College*, 2001, 1: 8-9.
55. **Chen Y**, Zhang Y, Zhou K, Zhou M, Liang T. bcl-xS gene sensitizes nasopharyngeal carcinoma cells to cisplatin-induced apoptosis, *Chin J Cancer Biother*, 2000, 8: 84- 87.
56. **Chen Y**, Zhou K. Bcl-x gene and its regulation on apoptosis, *Prog Biochem Biophys*. 1999, 26: 534-537.

Book chapters

1. **Chen Y**, Li CH. Novel therapeutic targets for hepatocellular carcinoma treatment. In“Hepatocellular Carcinoma-Basic Research” Lau WY (Ed.). InTech. 02,2012, pp35-60.