

CURRICULUM VITAE

Chia-Hung Yen Ph.D.

Associate Professor

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Room 11001, International Academic and Research Building.

Specialty:

Molecular Biology, Tumor Biology, Biochemistry, High throughput drug screen.

Research Interests:

My interests are mainly on developing preventive and therapeutic agents for metabolic disorders, cancer and new emerging pathogens from natural occurring substances and synthetic compounds by using high-throughput and high content screening system. Currently, we are working on: the molecular mechanisms for liver cancer stem cell development after embolization therapy, developing botanic drugs against non-alcoholic fatty liver disease, searching and elucidating the molecular mechanisms of NRF2 modulators in skin and in cancer cells, and identifying new drugs for influenza viruses.

Academic Qualification:

2004.09 - 2009.01 Ph.D., Molecular Medicine Program, Institute of Public Health, School of Medicine, National Yang-Ming University, Taipei, Taiwan.

1999.09 - 2001.11 M.S., Institute of Biochemical Science, College of Science, National Taiwan University, Taipei, Taiwan.

1995.09 - 1999.07 B.Sc., Department of Applied Chemistry, National Chiao-Tung University, Hsinchu, Taiwan.

Personal Experiences:

2013 - Assistant Professor, Graduate Institute of Natural Products, College of Pharmacy, KMU, Kaohsiung, Taiwan.

2009.02 - 2013.01 Postdoctoral research associate, Institute of Microbiology and Immunology, National Yang-Ming University, Taipei, Taiwan.

Academic Honors and Awards:

- 2009 Excellent Award at the Annual Thesis Competition of National Yang-Ming University
- 2018 Award of Asia Pacific Society for Biology and Medical Sciences

Publications:

1. **Yen CH**, Hsiao HH. NRF2 Is One of the Players Involved in Bone Marrow Mediated Drug Resistance in Multiple Myeloma. *Int J Mol Sci*. 2018 Nov 7;19(11). pii: E3503. (Ranking: 52/171)
2. **Yen CH***, Chang HS, Yang TH, Wang SF, Wu HC, Chen YC, Lin KJ, Wang S. High-Content Screening of a Taiwanese Indigenous Plant Extract Library Identifies *Syzygium simile* leaf Extract as an Inhibitor of Fatty Acid Uptake. *Int J Mol Sci*. 2018 Jul 22;19(7). pii: E2130. (Ranking: 52/171)
3. Hung JH, Li CH, Yeh CH, Huang PC, Fang CC, Chen YF, Lee KJ, Chou CH, Cheng HY, Huang HD, Chen M, Tsai TF, Lin AM, **Yen CH**, Tsou AP, Tyan YC, Chen YA. MicroRNA-224 down-regulates Glycine N-methyltransferase gene expression in Hepatocellular Carcinoma. *Sci Rep*. 2018 Aug 16;8(1):12284. (Ranking: 12/64)
4. Kant R†, **Yen CH†**, Lu CK, Tung CY, Chang PC, Hung JH, Tyan YC, Chen YM*. Induction of GNMT by 1,2,3,4,6-penta-O-galloyl-beta-D-glucopyranoside through proteasome-independent MYC downregulation in hepatocellular carcinoma. *Sci Rep*. 2018 (In press). (Ranking: 12/64)
5. Yang MH, **Yen CH**, Chen YF, Fang CC, Li CH, Lee KJ, Lin YH, Weng CH, Liu TT, Huang SF, The BT, and Chen YM*. Somatic mutations of PREX2 gene in patients with hepatocellular carcinoma. *Sci Rep*. 2018 (In press). (Ranking: 12/64)
6. Yang MH†, **Yen CH†**, Liao CC, Lai XT and Chen YM*. Identification of phosphorylated GNMT as a downstream effector for benzo[a]pyrene. *J. Food Drug Anal*. 2018 (In press). (Ranking: 33/133)
7. Liu YP, Chen CH, **Yen CH**, Tung CW, Chen CJ, Chen YA, Huang MS*. HIV Tat-TIP30 interaction promotes metastasis by enhancing the nuclear translocation of Snail in lung cancer cell lines. *Cancer Sci*. 2018 Oct;109(10):3105-3114. (Ranking: 66/223)
8. Chou CK, Liu W, Hong YJ, Dahms HU, Chiu CH, Chang WT, Chien CM, **Yen CH**, Cheng YB and Chiu CC. Ethyl Acetate Extract of *Scindapsus cf. hederaceus* Exerts the Inhibitory Bioactivity on Human Non-Small Cell Lung Cancer Cells through Modulating ER Stress. *Int J Mol Sci*. 2018 June; 19:1832. (Ranking: 52/171)
9. **Yen CH***, Lai CC, Shia TH, Chen M, Yu HC, Liu YP, Chang FR. *Gynura divaricata* attenuates tumor growth and tumor relapse after cisplatin therapy in HCC xenograft model through suppression of cancer stem cell growth and Wnt/ β -catenin signalling. *J Ethnopharmacol*. 2018 Mar 1;213:366-375. (Ranking: 4/26)
10. Tseeleesuren D, Kant R, **Yen CH***, Hsiao HH*, Chen YM*. 1,2,3,4,6-Penta-O-Galloyl-Beta-D-Glucopyranoside Inhibits Proliferation of

- Multiple Myeloma Cells Accompanied with Suppression of MYC Expression. *Front Pharmacol.* 2018 Feb 2;9:65. (Ranking: 33/257)
11. Cheng YB, Liu FJ, Wang CH, Hwang TL, Tsai YF, **Yen CH**, Wang HC, Tseng YH, Chien CT, Chen YA, Chang FR, Wu YC. Bioactive Triterpenoids from the Leaves and Twigs of *Lithocarpus litseifolius* and *L. corneus*. *Planta Med.* 2018 Jan;84(1):49-58. (Ranking: 5/26)
 12. **Yen CH**, Lai CC, Liao CC, Wang SF, Liao YJ, Tung CY, Hung JH, Huang SF, Chen YA. Characterization of a new murine cell line of sarcomatoid hepatocellular carcinoma and its application for biomarker/therapy development. *Sci Rep.* 2017 Jun 8;7(1):3052. (Ranking: 10/64)
 13. Li CH[†], **Yen CH**[†], Chen YF, Lee KJ, Fang CC, Zhang X, Lai CC, Huang SF, Lin HK, Arthur Chen YM. Characterization of the GNMT-HectH9-PREX2 tripartite relationship in the pathogenesis of hepatocellular carcinoma. *Int J Cancer.* 2017 May 15;140(10):2284-2297. (Ranking: 24/217)
 14. Kant R[†], **Yen CH**[†], Lu CK, Lin YC, Li JH, Chen YM. Identification of 1,2,3,4,6-Penta-O-galloyl- β -d-glucopyranoside as a Glycine N-Methyltransferase Enhancer by High-Throughput Screening of Natural Products Inhibits Hepatocellular Carcinoma. *Int J Mol Sci.* 2016 May 4;17(5). pii: E669. (Ranking: 52/1637)
 15. Wang SF, Wang WH, Chang K, Chen YH, Tseng SP, **Yen CH**, Wu DC, Chen YM. Severe Dengue Fever Outbreak in Taiwan. *Am J Trop Med Hyg.* 2016 Jan;94(1):193-7. (Ranking: 4/19)
 16. Lin YT[†], **Yen CH**[†], Chen HL[†], Liao YJ, Lin IF, Chen M, Lan YC, Chuang SY, Hsieh SL, Chen YM. The serologic decoy receptor 3 (DcR3) levels are associated with slower disease progression in HIV-1/AIDS patients. *J Formos Med Assoc.* 2015 Jun;114(6):498-503. (Ranking: 46/155)
 17. Liao YJ, Fang CC, **Yen CH**, Hsu SM, Wang CK, Huang SF, Liang YC, Lin YY, Chu YT, Arthur Chen YM. Niemann-Pick type C2 protein regulates liver cancer progression via modulating ERK1/2 pathway: Clinicopathological correlations and therapeutical implications. *Int J Cancer.* 2015 Sep 15;137(6):1341-51. (Ranking: 31/211)
 18. Wang SF, Tseng SP, Huang SW, **Yen CH**, Hong YW, Chen M, Chen YM. Mitochondria polarization in the contact regions of virus-infected effector cells during cell-to-cell transmission of HIV-1. *AIDS Res Hum Retroviruses.* 2015 Feb;31(2):175-6. (Ranking: 21/33)
 19. Li CH, Lin MH, Chu SH, Tu PH, Fang CC, **Yen CH**, Liang PI, Huang JC, Su YC, Sytwu HK, Chen YM. Role of glycine N-methyltransferase in the regulation of T-cell responses in experimental autoimmune encephalomyelitis. *Mol Med.* 2015 Mar 24;20:684-96. (Ranking: 20/123)
 20. Huang SW, Wang SF, Lin YT, **Yen CH**, Lee CH, Wong WW, Tsai HC, Yang CJ, Hu BS, Lin YH, Wang CT, Wang JJ, Hu Z, Kuritzkes DR, Chen YH, Chen YM.

- Patients infected with CRF07_BC have significantly lower viral loads than patients with HIV-1 subtype B: mechanism and impact on disease progression. PLoS One. 2014 Dec 11;9(12):e114441. (Ranking: 8/55)
21. Wang SF, Tseng SP, **Yen CH**, Yang JY, Tsao CH, Shen CW, Chen KH, Liu FT, Liu WT, Chen YM, Huang JC. Antibody-dependent SARS coronavirus infection is mediated by antibodies against spike proteins. Biochem Biophys Res Commun. 2014 Aug 22;451(2):208-14. (Ranking: 46/74)
 22. Lee CM[†], **Yen CH**[†], Tzeng TY, Huang YZ, Chou KH, Chang TJ, Arthur Chen YM. Androgen response element of the glycine N-methyltransferase gene is located in the coding region of its first exon. Biosci Rep. 2013 Sep 17;33(5). (Ranking: 141/185)
 23. Lin IY[†], **Yen CH**[†], Liao YJ, Lin SE, Ma HP, Chan YJ, Chen YM. Identification of FKBP11 as a biomarker for hepatocellular carcinoma. Anticancer Res. 2013 Jun;33(6):2763-9. (Ranking: 146/197)
 24. **Yen CH**, Lin YT, Chen HL, Chen SY, Chen YM. The Multi-functional Roles of GNMT in Toxicology and Cancer. (Invited review article). Toxicol Appl Pharmacol. 2013; 266:67-75. (Ranking: 12/857)
 25. **Yen CH**, Lu YC, Li CH, Lee CM, Chen CY, Cheng MY, Huang SF, Chen KF, Cheng AL, Liao LY, Wu Lee YH and Chen YM. Functional Characterization of Glycine N-methyltransferase and its Interactive Protein-DEPDC6/DEPTOR in Hepatocellular Carcinoma. Mol Med. 2012; 18:286-296. (Ranking: 25/112)
 26. Liu SP, Li YS, Lee CM, **Yen CH**, Liao YJ, Huang SF, Chien CH, Chen YM. Higher susceptibility to aflatoxin B1-related hepatocellular carcinoma in glycine N-methyltransferase knockout mice. Int J Cancer. 2011; 128:511-523. (Ranking: 32/185)
 27. Chen YM, **Yen CH**, Liu SP, Liao YJ. Response to the Letter to the Editor from Dr. Conrad Wagner. Toxicol Appl Pharmacol. 2009; 237:247. (Ranking: 11/75)
 28. **Yen CH**, Hung JH, Ueng YF, Liu SP, Chen SY, Liu HH, Chou TY, Tsai TF, Darbha R, Hsieh LL, Chen YM. Glycine N-methyltransferase affects the metabolism of aflatoxin B1 and blocks its carcinogenic effect. Toxicol Appl Pharmacol. 2009; 235:296-304. (Ranking: 11/75)
 29. Liao YJ, Liu SP, Lee CM, **Yen CH**, Chuang PC, Chen CY, Tsai TF, Huang SF, Wu Lee TH, Chen YM. Characterization of a glycine N-methyltransferase gene knockout mouse model for hepatocellular carcinoma. Int J Cancer. 2009; 124: 816-826. (Ranking: 30/143)

Conference abstract:

1. **Chia-Hung Yen***. (2018, Dec). Utilizing plant extract libraries and high-throughput screening for drug discovery. 2018 International Conference for Leading and Young Medical Scientists. Taipei, Taiwan. **Invited speaker**
2. **Chia-Hung Yen***. (2018, Oct). Establishment of plant extract libraries for

- high-throughput drug screening. 33rd Symposium on Natural Products, Kaohsiung, Taiwan. **Invited speaker**
3. **Chia-Hung Yen***. (2018, Oct). Utilizing high-throughput screen and natural product libraries for drug discovery. 2018 Taiwan High Content Users Meeting. Taipei, Taiwan. **Invited speaker**
 4. **Chia-Hung Yen***. (2018, May). Utilizing high-throughput screen and natural product libraries for drug discovery. Joint Symposium on Drug Discovery based on High Throughput Screening and Data Analysis between KMU-NRICM-HCMUT-SoM 2018. Ho Chi Minh City, Vietnam. **Invited speaker**
 5. Yi Siao Chen, Yi Ping Kuo, Chih Chung Lai, Hsun Shuo Chang, Ih Sheng Chen, **Chia-Hung Yen***. (2017, Apr). Identification of compound isolated from *Beilschmiedia tsangii* as a liver cancer specific NRF2 inhibitor. 2017 AACR annual meeting, Washington D.C.
 6. **Chia-Hung Yen***. (2017, Mar) Identification of PGG as A Glycine N-Methyltransferase Inducer by High-Throughput Screening of Natural Products Inhibits Hepatocellular Carcinoma. 2017 IBMS-KMU Joint Symposium on Recent Advances in Biomedical Sciences. Kaohsiung, Taiwan. **Invited speaker**
 7. Chih Chung Lai, Tsu-Hsiang Shia, Yu-Peng Liu, **Chia-Hung Yen***. (2016, Apr). Low glucose and hypoxia environment promote the enrichment of liver cancer stem cells. AACR Annual Meeting 2016, New Orleans, LA.
 8. Rajni Kant, **Chia Hung Yen**, Chung Kuang Lu, Chien Yi Tung, Yi-Ming Chen. (2016, Apr). 1,2,3,4,6-penta-O-galloyl-beta-D-glucopyranoside a novel c-Myc inhibitor induces GNMT expression and apoptosis in hepatocellular carcinoma. AACR Annual Meeting 2016, New Orleans, LA.
 9. Yen-Fu A. Chen, Kuo-Jui Lee, Yi-Hsiung Lin, Chung-Hsien Li, **Chia-Hung Yen**, Hui-Kuan Lin, Yi-Ming Chen. (2016, Apr). Identification and characterization of patient-derived PREX2 mutation in HCC. AACR Annual Meeting 2016, New Orleans, LA.
 10. Rajni Kant, Lucas Tung, Chung-Kuang Lu, Yi-Ming Chen, **Chia-Hung Yen***. (2015, Apr). Identification of novel agent for HCC treatment by GNMT promoter orientated cell-based drug screening platform. AACR Annual Meeting 2015, Philadelphia, PA.
 11. **Chia-Hung Yen**, Rajni Kant, Lucas Tung, Chung-Kuang Lu, Yi-Ming Chen. (2014, Oct). Development of new drugs for prevention and treatment of Hepatocellular carcinoma. 2014 International Conference on Infectious Diseases and Cancer, Kaohsiung. **Invited speaker**
 12. **Chia-Hung Yen**, Chu-Chung Lai, Chen-Chung Liao, Chien-Yi Tung, and Yi-Ming Arthur Chen (2014, Sep). Establishment and Characterization of Liver Cancer Cell Lines from Gmmt Gene Knockout Mice. International Liver

- Cancer Association (ILCA) 2014 Annual Conference. Kyoto, Japan.
13. **Yen CH**, Lu YC, Li CH, Huang SF, Chen YM (2012). Characterization of the Functions of Glycine N-methyltransferase (GNMT) and its Interactive Protein-DEPTOR in the Pathogenesis of Hepatocellular Carcinoma. PTEN Pathways & Targets meeting. Cold Spring Harbor, NY, USA.
 14. Li CH, **Yen CH**, Chen YM (2011). Activation of PI3K pathway by P-RRex2 is inhibited by GNMT. 13th Society of Chinese Bioscientists in America (SCBA) International Symposium, Guangzhou, China.
 15. Lu YC, **Yen CH**, Lai XT, Chen YM (2011). Phosphorylation of serine 9 is required for benzo(a)pyrene induced GNMT nuclear translocation. The AACR 102nd Annual Meeting, Orlando, USA.
 16. Lu YC, **Yen CH**, Lai XT, Chen YM (2011). Phosphorylation of serine 9 is required for benzo(a)pyrene induced GNMT nuclear translocation. 13th Society of Chinese Bioscientists in America (SCBA) International Symposium, Guangzhou, China.
 17. **Yen CH**, Chen YM (2011). GNMT activates mTOR/Raptor signaling and delays G2/M progression through interacting with DEPTOR. The AACR 102nd Annual Meeting, Orlando, USA.
 18. **Yen CH**, Chen YM (2011). GNMT activates mTOR/Raptor signaling and delays G2/M progression through interacting with DEPTOR. 13th Society of Chinese Bioscientists in America (SCBA) International Symposium, Guangzhou, China.
 19. **Yen CH**, Huang SF, Chen KF, Cheng AL, Liao LY, Chen YM (2011). GNMT expression activates mTOR/Raptor signaling but delays G2/M progression in hepatocellular carcinoma. 2011 Taiwan Digestive Disease Week Satellite Symposium, Taipei, Taiwan. **Oral**
 20. Lee CM, **Yen CH**, Chen YM (2010). Androgen response element of the glycine N-methyltransferase gene is located in first intron. The AACR 101th Annual Meeting, Washington, DC, USA.
 21. Liu SP, Li YS, Lee CM, **Yen CH**, Liao YJ, Huang SF, Chien CH, Chen YM (2010). Synergistic effects of aflatoxin B1 exposure and glycine Nmethyltransferase deficiency in hepatocarcinogenesis. The AACR 101th Annual Meeting, Washington, DC, USA.
 22. **Yen CH**, Chen YM (2009). Glycine N-methyltransferase affects the metabolism of aflatoxin B1 and blocks its carcinogenic effect. The AACR 100th Annual Meeting, Denver, USA.

Journal reviewer:

Archives of Medical Research, 2010

Biotechnology and Applied Biochemistry, 2014

BMC Research Notes, 2011

Clinics in Oncology, 2016

Food and Chemical Toxicology, 2012

Healthcare, 2014

Journal of Biomedical Science, 2011

Journal of Cellular and Molecular Medicine, 2014

Journal of Traditional and Complementary Medicine, 2016, 2017

Molecules, 2016, 2017

Oncotarget, 2015, 2016

Oncotargets and Therapy, 2017

RSC advances, 2016, 2017, 2018

Studies in Natural Products Chemistry, 2016

The Kaohsiung Journal of Medical Sciences, 2016

Toxicological Sciences, 2009

Patent:

1. Taiwan Patent: A Potential Composition And Its Use For Carcinoma. Patent No. I626051
2. Taiwan Patent: TREATMENT OF LIVER CANCER WITH WATER EXTRACT OF GYNURA DIVARICATA. In preparation.