

## Name

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## Title

- Associate Professor,  
Graduate Institute of Biomedical Sciences,  
China Medical University, Taiwan

## Contact

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## Resume

- **Education**  
Ph.D., Department of Life Science, National Tsing Hua University
- **Honors**  
2016, Marquis Who's Who in Science and Engineering  
2015, Distinguished Teaching Professor, College of Medicine, China Medical University, Taiwan  
2013, 2014, Marquis Who's Who in the World  
2012, Research Award, Asia University, Taiwan  
2005, A Travel Award to attend the 4th General Meeting of the International Proteolysis Society associated with the International Conference on Protease Inhibitors, Quebec City, Canada.  
1997, Outstanding Scholarship, the 1st International Conference of Asian Society of Toxicology, Yokohama, Japan.
- **Editorial Board member**  
Guest Editor 2016.03 ~ 2017.01 BioMed Research International  
Editor 2016.06 ~ present BAOJ Medical and Nursing
- **Invited Reviewer**

2013.06 Journal of Molecular Histology,  
2013.07 Mini-Reviews in Organic Chemistry  
2014.01 BioMed Research International  
2014.04 Cancer Research  
2014.04 The Scientific World Journal  
2014.06 The Scientific World Journal  
2014.09 Biotechnology and Applied Biochemistry  
2014.11 Tumor Biology  
2015.02 Current Pharmaceutical Biotechnology  
2015.05 Current Topics in Medicinal Chemistry  
2015.06 Journal of Oral Pathology and Medicine  
2015.08 PLoS One  
2015.10 Journal of Oral Pathology and Medicine  
2015.11 Cancer Letters  
2016.08 Oncotarget  
2016.10 Colloids and Surfaces B-Biointerfaces

### Fields of Specialty

- Cancer metastasis
- Epigenomics
- Signaling in cancers and neuronal differentiation

### Research

- Epigenetic modifications in cancers
- Signaling in malignancy of cancers and neuronal differentiation
- 3D Bio-printing

### Paper & Project

<https://www.ncbi.nlm.nih.gov/pubmed?term=Chou%2C%20Ruey%20Hwang%5BAuthor%5D>

#### \*Corresponding Author

1. Peng CM, Liu HC, Kun YY, Hsieh CL, Chen WH, Liu YJ\*, **Chou RH\***. (2016 Sep) Using of robot-assisted single incision with single port platform for resection of gastric duplication cyst. *BAOJ Medical and Nursing*, 2(3), 022.
2. Chiou JW, Fu B, **Chou RH\***, Yu C\*. (2016 Sep) Blocking the Interactions between Calcium-Bound S100A12 Protein and the V Domain of RAGE Using Tranilast. *PLoS One.*, 11(9):e0162000. (SCI, Impact Factor=

**3.234, Ranking: 9/57= 15.79%)**

3. Wu ZS, Liu CF, Fu B, **Chou RH**, Yu C\*. (2016 Sep) Suramin blocks interaction between human FGF1 and FGFR2 D2 domain and reduces downstream signaling activity. *Biochem Biophys Res Commun.*, 477(4):861-7. (SCI)
4. Cho CC, **Chou RH\***, Yu C\*. (2016 Aug) Amlexanox Blocks the Interaction between S100A4 and Epidermal Growth Factor and Inhibits Cell Proliferation. *PLoS One.*, 11(8):e0161663. (SCI, Impact Factor= **3.234, Ranking: 9/57= 15.79%**)
5. Chang CC, Khan I, Tsai KL, Li H, Yang LW\*, **Chou RH\***, Yu C\* (2016 Aug) Blocking the interaction between S100A9 and RAGE V domain using CHAPS molecule: A novel route to drug development against cell proliferation. *Biochim Biophys Acta. (BBA)-Proteins and Proteomics*, 1864(11):1558-1569. (SCI, Impact Factor= **3.016, Ranking: 25/72= 34.7%**)
6. Cho CC, **Chou RH**, Yu C\*. (2016 Jun) Pentamidine blocks the interaction between mutant S100A5 and RAGE V domain and inhibits the RAGE signaling pathway. *Biochem Biophys Res Commun.*, 477(2):188-94. (SCI)
7. Huang YK, **Chou RH**, Yu C\*. (2016 May) Tranilast Blocks the Interaction between the Protein S100A11 and Receptor for Advanced Glycation End Products (RAGE) V Domain and Inhibits Cell Proliferation. *J Biol Chem.*, 291(27):14300-10. (SCI, Impact Factor= **4.573, Ranking: 61/290= 21.03%**)
8. Chang LC, Yu YL, Hsieh MT, Wang SH, **Chou RH**, Huang WC, Lin HY, Hung HY, Huang LJ, Kuo SC\*. (2016 Mar) A novel microtubule inhibitor, MT3-037, causes cancer cell apoptosis by inducing mitotic arrest and interfering with microtubule dynamics. *Am J Cancer Res.*, 6(4):747-63. (SCI)
9. Hsieh YH, Hsieh SC, Lee CH, Yang SF, Cheng CW, Tang MJ, Lin CL, Lin CL, **Chou RH\***. (2015 Oct) Targeting EMP3 suppresses proliferation and invasion of hepatocellular carcinoma cells through inactivation of PI3K/Akt pathway. *Oncotarget*, 6(33):34859-74. (SCI, Impact Factor= **6.359, Ranking: 21/211= 9.95%**)
10. Hsu YC, Hsieh YH, Liao CC, Chong LW, Lee CY, Yu YL, **Chou RH\***. (2015 Oct) Targeting post-translational modifications of histones for cancer therapy. *Cell Mol Biol.*, 61(6):69-84. (SCI)
11. Chong LW, **Chou RH**, Liao CC, Lee TF, Lin Y, Yang KC, Hsu YC\*.

- (2015 Oct) Saturated fatty acid induces cancer stem cell-like properties in human hepatoma cells. *Cell Mol Biol.*, 61(6):85-91. (SCI)
12. Chang LC, Yu YL, Liu CY, Cheng YY, **Chou RH**, Hsieh MT, Lin HY, Hung HY, Huang LJ, Wu YC, Kuo SC\*. (2015 Jun) The newly synthesized 2-arylnaphthyridin-4-one, CSC-3436, induces apoptosis of non-small cell lung cancer cells by inhibiting tubulin dynamics and activating CDK1. *Cancer Chemother Pharmacol.* 75(6):1303-15. (SCI)
  13. **Chou RH**, Chiu L, Yu YL, Shyu WC. (2015 Feb) The Potential Roles of EZH2 in Regenerative Medicine. *Cell Transplant.* 24(3):313-7. (SCI)
  14. Penumutchu SR, **Chou RH**, Yu C. (2014 Oct) Interaction between S100P and the anti-allergy drug cromolyn. *Biochem Biophys Res Commun*, 454(3):404-9. (SCI)
  15. Chang LC, Lin HY, Tsai MT, **Chou RH**, Lee FY, Teng CM, Hsieh MT, Hung HY, Huang LJ, Yu YL, Kuo SC\*. (2014 Sep) YC-1 inhibits proliferation of breast cancer cells by downregulating EZH2 expression via activation of c-Cbl and ERK. *Br J Pharmacol.* 171(17):4010-25. (SCI, Impact Factor= 4.842, Ranking: 24/255= 9.41%)
  16. Penumutchu SR, **Chou RH**, Yu C\*. (2014 Aug) Structural insights into calcium-bound S100P and the V domain of the RAGE complex. *PLoS One.* 9(8):e103947. (SCI, Impact Factor= 3.234, Ranking: 9/57= 15.79%)
  17. **Chou RH**, Wang YN, Hsieh YH, Li LY, Xia W, Chang WC, Chang LC, Cheng CC, Lai CC, Hsu JL, Chang WJ, Chiang SY, Lee HJ, Liao HW, Chuang PH, Chen HY, Wang HL, Kuo SC, Chen CH, Yu YL\*, Hung MC\*. (2014 Jul) EGFR modulates DNA synthesis and repair through Tyr phosphorylation of histone H4. *Dev Cell.* 30(2):224-37. (SCI, Impact Factor= 9.708, Ranking: 3/41= 7.32%)
  18. Wu CS, Lee TY, **Chou RH**, Yen CJ, Huang WC, Wu CY, Yu YL\*. (2014 Jul) Development of a highly sensitive glycan microarray for quantifying AFP-L3 for early prediction of hepatitis B virus-related hepatocellular carcinoma. *PLoS One.* 9(6):e99959. (SCI, Impact Factor= 3.234, Ranking: 9/57= 15.79%)
  19. **Chou RH**, Lu CY, Lee W, Fan JR, Yu YL\*, Shyu WC\*. (2014 Apr) The potential therapeutic applications of olfactory ensheathing cells in regenerative medicine. *Cell Transplant.* 23(4-5):567-71. (SCI)
  20. Wu CS, Yen CJ, **Chou RH**, Chen JN, Huang WC, Wu CY, Yu YL\*. (2014 Apr) Downregulation of microRNA-15b by hepatitis B virus X enhances

- hepatocellular carcinoma proliferation via fucosyltransferase 2-induced Globo H expression. *Int J Cancer*. 134(7):1638-47. (SCI, Impact Factor= 5.085, Ranking: 31/211= 14.69%)
21. Gupta AA, Chou RH, Li H, Yang LW, Yu C\*. (2013 Dec) Structural insights into the interaction of human S100B and basic fibroblast growth factor (FGF2): Effects on FGFR1 receptor signaling. *Biochim Biophys Acta*. 1834(12):2606-19. (SCI)
  22. Chang SL, Chou RH, Zeng HJ, Lin YH, Chiu TY, Yang DM, Hung SC, Lai CH, Hsieh JT, Shyu WC, Yu YL\*. (2013 Sep) Downregulation of DAB2IP promotes mesenchymal-to-neuroepithelial transition and neuronal differentiation of human mesenchymal stem cells. *PLoS One*. 8(9):e75884. (SCI, Impact Factor= 3.234, Ranking: 9/57= 15.79%)
  23. Chou RH, Hsieh SC, Yu YL, Huang MH, Huang YC, Hsieh YH\*. (2013 Aug) Fisetin inhibits migration and invasion of human cervical cancer cells by down-regulating urokinase plasminogen activator expression through suppressing the p38 MAPK-dependent NF-κB signaling pathway. *PLoS One*. 8(8):e71983. (SCI, Impact Factor= 3.234, Ranking: 9/57= 15.79%)
  24. Yu YL<sup>#</sup>, Chou RH<sup>#</sup>, Shyu WC<sup>#</sup>, Hsieh SC, Wu CS, Chiang SY, Chang WJ, Chen JN, Tseng YJ, Lin YH, Lee W, Yeh SP, Hsu JL, Yang CC, Hung SC, Hung MC\*. (2013 Apr) Smurf2-mediated degradation of EZH2 enhances neuron differentiation and improves functional recovery after ischaemic stroke. *EMBO Mol Med*. 5(4):531-547. <sup>#</sup>First authors, equal contribution. (SCI, Impact Factor= 8.665, Ranking: 9/123= 7.32%)
  25. Yu YL, Chou RH, Liang JH, Chang WJ, Su KJ, Tseng YJ, Huang WC, Wang SC, Hung MC\*. (2013 Apr) Targeting the EGFR/PCNA Signaling Suppresses Tumor Growth of Triple-Negative Breast Cancer Cells with Cell-Penetrating PCNA Peptides. *PLoS One*. 8(4):e61362. (SCI, Impact Factor= 3.234, Ranking: 9/57= 15.79%)
  26. Chiang PC, Chou RH, Chien HF, Tsai T, and Chen CT\*. (2013 Jan) Chloride intracellular channel 4 involves in the reduced invasiveness of cancer cells treated by photodynamic therapy. *Lasers Surg Med* 45(1):38-47. (SCI, Impact Factor= 2.619, Ranking: 49/198= 24.75%)
  27. Yiang GT, Chou RH, Chang WJ, Wei CW, and Yu YL\*. (2013 Jan) Long-term expression of rAAV2-hIL15 enhances immunoglobulin production and lymphokine-activated killer cell-mediated human glioblastoma cell death. *Molecular and Clinical Oncology* 1: 321-325.

28. Yu YL #, **Chou RH** #, Wu CH, Wang YN, Chang WJ, Tseng YJ, Chang WC, Lai CC, Lee HJ, Huo L, Chen CH, and Hung MC\*. (2012 Sep) Nuclear EGFR suppresses ribonuclease activity of polynucleotide phosphorylase through DNAPK-mediated phosphorylation at serine 776. *J Biol Chem.* 287(37): 31015-31026. **#First authors, equal contribution (SCI, Impact Factor= 4.573, Ranking: 61/290= 21.03%)**
29. Wu CS, Yen CJ, **Chou RH**, Li ST, Huang WC, Ren CT, Wu CY, and Yu YL\*. (2012 Jul) Cancer-associated carbohydrate antigens as potential biomarkers for hepatocellular carcinoma. *PLoS One.* 7(7): e39466. **(SCI, Impact Factor= 3.234, Ranking: 9/57= 15.79%)**
30. **Chou RH**\*, Wen HC, Liang WG, Lin SC, Yuan HW, Wu CW, Chang WS\*. (2012 Jan) Suppression of invasion and migration of malignant cancer cells by SERPINB family genes and their derived peptides. *Oncol Rep.* 27(1): 238-245. **(SCI)**
31. **Chou RH**\*, Lin SC, Wen HC, Wu CW, Chang WS\*. (2011 Jun) Epigenetic activation of human kallikrein 13 enhances malignancy of lung adenocarcinoma by promoting N-cadherin expression and laminin degradation. *Biochem Biophys Res Commun.* 409(3): 442-447. **(SCI)**
32. **Chou RH**, Yu YL\*, Hung MC\*. (2011 May) The roles of EZH2 in cell lineage commitment. *Am J Transl Res.* 3(3): 243-250. **(SCI)**
33. Yao HT\*, Chiang MT, Lii CK, Chang YW, Hsieh SH, Lin JH, **Chou RH**, Yeh TK. (2011 Apr) Effect of Shengmai san on insulin resistance, tumor necrosis factor-alpha and oxidative stress in rats fed on a high-fat diet. *J Food Drug Anal* 19(1): 40-48. **(SCI)**
34. Yu YL#, **Chou RH**#, Chen LT, Shyu WC, Hsieh SC, Wu CS, Zeng HJ, Yeh SP, Yang DM, Hung SC, Hung MC\*. (2011 Mar) EZH2 regulates neuronal differentiation of mesenchymal stem cells through PIP5K1C-dependent calcium signaling. *J Biol Chem.* 286: 9657-9667. **#First authors, equal contribution (SCI, Impact Factor= 4.573, Ranking: 61/290= 21.03%)**
35. Kumar SM, Wang HM, Mohan SK, **Chou RH**, Yu C\*. (2010 Dec) Molecular level interaction of the human acidic fibroblast growth factor with the antiangiogenic agent, inositol hexaphosphate. *Biochemistry* 49:10756-10764. **(SCI)**
36. Yao HT\*, Lii CK, **Chou RH**, Lin JH, Yang HT, Chiang MT. (2010 Apr) Effect of chitosan on hepatic drug-metabolizing enzymes and oxidative stress in rats fed low- and high-fat diets. *J Agric Food Chem*

- 58:5187-5193. (SCI, Impact Factor= 2.912, Ranking: 2/56= 3.57%)
37. Tsai T, Ji HT, Chiang PC, **Chou RH**, Chang WS, Chen CT\*. (2009 Apr) ALA-PDT results in phenotypic changes and decreased cellular invasion in surviving cancer cells. *Lasers Surg Med* 41:305-315. (SCI, Impact Factor= 2.619, Ranking: 49/198= 24.75%)
  38. Chang WS\*, **Chou RH**, Wu CW, Chang JY\*. (2007) Human tissue kallikreins as prognostic biomarkers and as potential targets for anticancer therapy. *Expert Opinion on Therapeutic Patents* 17, 1227-1240. (SCI)
  39. Chen PY, Chang WS\*, **Chou RH**, Lai YK, Lin SC, Chi CY, Wu CW\*. (2007 Jan) Two non-homologous brain diseases-related genes, SERPINI1 and PDCD10, are tightly linked by an asymmetric bidirectional promoter in an evolutionarily conserved manner. *BMC Mol Biol* 8, 2. (SCI)
  40. Sher YP, Chou CC, **Chou RH**, Wu HM, Chang WS, Chen CH, Yang PC, Wu CW, Yu CL, Peck K\*. (2006) Human kallikrein 8 protease confers a favorable clinical outcome in non-small cell lung cancer by suppressing tumor cell invasiveness. *Cancer Res.* 66:11763-70. (SCI, Impact Factor= 9.329, Ranking: 11/211= 5.21%)
  41. **Chou RH**, Lin KC, Lin SC, Cheng JY, Wu CW, Chang WS\*. (2004) Cost-effective trapezoidal modified Boyden chamber with comparable accuracy to a commercial apparatus. *Biotechniques* 37: 724-6. (SCI)
  42. **Chou RH**, Huang H\*. (2002) Restoration of p53 tumor suppressor pathway in human cervical carcinoma cells by sodium arsenite. *Biochem Biophys Res Commun* 293: 298-306. (SCI)
  43. **Chou RH**, Huang H\*. (2002) Sodium arsenite suppresses human papillomavirus-16 E6 gene and enhances apoptosis in E6-transfected human lymphoblastoid cells. *J Cell Biochem* 84: 615-24. (SCI)