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Education

BS, National Taiwan University, Agricultural Chemistry, 1985
MS, National Taiwan University, Institute of Agricultural Chemistry, 1987
Ph. D., National Yang-Ming University, Institute of Microbiology and Immunology,
1998

Professional Experience

2012.8-present
Associate Professor
Department of Life Science, Institute of Molecular Biology and Institute of Biomedical
Science, National Chung Cheng University, Taiwan

2002.2-2012.7
Assistant Professor
Institute of Molecular Biology, National Chung Cheng University, Taiwan

2000.10-2002.1
Postdoctoral fellow, with Dr. Paul Ahliquist, Institute for Molecular Virology,
University of Wisconsin at Madison, USA

1998.9-2000.10
Postdoctoral Fellow, with Dr. Soo-Chen Cheng, Institute of Molecular Biology,
Academia Sinica, Taiwan

Honors and Awards

1998 Award of excellent Ph. D. thesis sponsored by Dr. Chien-Tien Hsu.
1998 Award of outstanding merit and high scholastic achievement in medical and
pharmaceutical research sponsored by Wang Ming-Ning Memorial Foundation.
2006 Award for excellent teacher, National Chung Cheng University.
2006 Award for excellent instructor, National Chung Cheng University.
2013 Award for outstand teacher of genera education, National Chung Cheng University

Publications (2010- present)

1. Chiu C.-C., Chen B.-H., Hour T.-C., Chiang W.-F., Wu Y.-J., Chen C.-Y., **Chen H.-R.**, Chan P.-T., Liu S.-Y., and Chen J.Y. –F (2010) Betel quid extract promotes oral cancer cell migration by activating a muscarinic M4 receptor-mediated signaling cascade involving SFKs and ERK1/2. *Biochem. Biophys. Res. Commun.* 399(1), 60-65.
2. Huang, T.-T., Chen, J. Y.-F., Tseng, C.-E., Su, Y.-C., Ho, H.-C., Lee, M.-S., Chang, C.-T., Wong, Y.-K., and **Chen, H.-R.** (2010) Decreased GRP78 protein expression

is a potential prognostic marker of oral squamous cell carcinoma in Taiwan. *J Formos Med Assoc* 109,326-337.

3. Reddy, A.-S., Chen, C.-Y., Chen, C.-C., Jean, J.-S., **Chen, H.-R.**, Tseng, M.-J., Fan, C.-W., and Wang, J.-C. (2010) Biological synthesis of gold and silver nanoparticles mediated by the bacteria *Bacillus subtilis*. *J Nanosci Nanotechnol.*10, 6567-6574.
4. Chiang, W.-F., Ho, H.-C., Chang, H.-Y., Chiu, C.-C., Chen, Y.-L., Hour, T.-C., Chuang, S.-J., Wu, Y.-J., **Chen, H.-R.**, Chen, J.-H., Liu, S.-Y., Lu, C.-L., and Chen, J. Y.-F. (2011) Overexpression of Rho GDP-dissociation inhibitor alpha predicts poor survival in oral squamous cell carcinoma. *Oral Oncol* 47, 452-458.
5. Nimje, V.-R., Chen, C.-Y., Chen, C.-C., Tsai, J.-Y., **Chen, H.-R.**, Huang, Y.-M., Jean, J.-S., Chang, Y.-F., and Shih, R.-C. (2011) Microbial fuel cell of *Enterobacter cloacae*: Effect of anodic pH microenvironment on current, power density, internal resistance and electrochemical losses. *Int J Hydrogen Energ* 36(17), 11093-11101
6. Nimje, V.-R., Chen, C.-Y., Chen, C.-C., **Chen, H.-R.**, Tseng, M.-J., Jean, J.-S., and Chang, Y.-F. (2011) Glycerol degradation in single-chamber microbial fuel cells. *Bioresource Technology* 102(3), 2629-2634
7. Jyoti M., Lin, T.-J., Cheng, P.-H., Chen, C.-Y., Reddy, A.-S., Atla, S.-B., Chang, Y.-F., **Chen, H.-R.**, and Chen, C.-C. (2011) Synthesis of brushite particles in reverse microemulsion of biosurfactant, surfactin. *Int J Mol Sci.* 12(6), 3821-3830
8. **Chen, H.-R.**, Chen, C.-C., Reddy, A.-S., Chen, C.-Y., Li, W.-R., Tseng, M.-J., Liu, H.-T., Pan, W., Maity, J.-P., and Atla, S.-B.(2011) Removal of mercury by foam fractionation using surfactin, a biosurfactant. *Int J Mol Sci.* 12(11), 8245-8258
9. Nimje, V.-R., Chen, C.-Y., **Chen, H.-R.**, Chen, C.-C., Huang, Y.-M., Tseng, M.-J., Cheng, K.-C., and Chang, Y.-F. (2012) Comparative bioelectricity production from various wastewaters in microbial fuel cells using mixed cultures and a pure strain of *Shewanella oneidensis*. *Bioresource Technology* 104, 315-323
10. Nimje, V.-R., Chen, C.-C., **Chen, H.-R.**, Chen, C.-Y., Tseng, M.-J., Cheng, K.-C., Shih, R.-C., and Chang, Y.-F. (2012) A single-chamber microbial fuel cell without an air cathode. *Int J Mol Sci.* 13(3), 3933-3948
11. Lu, C.-K., Lai, Y.-C., Lin, Y.-F., **Chen, H.-R.**, and Chiang, M.-K. (2012) CCAR1 is required for Ngn3-mediated endocrine differentiation. *Biochem. Biophys. Res. Commun.*418(2), 307-312
12. Lee, Y.-R., Wu, W.-C., Ji, W.-T., Chen, J.Y.-F., Cheng, Y.-P., Chiang, M.-K., and **Chen, H.-R.** (2012) Reversine suppresses oral squamous cell carcinoma via cell cycle arrest and concomitantly apoptosis and autophagy. *J. of Biomed. Sci.*19, 9-
13. Lu, C.-K., Lai, Y.-C., **Chen, H.-R.**, and Chiang, M.-K. (2012) Rbms3, an RNA-binding protein, mediates the expression of Ptf1a by binding to its 3'UTR during mouse pancreas development. *DNA Cell Biol.*31(7), 1245-1251

14. Ji, W.-T., Yang, S.-R., Chen, J. Y.-F., Cheng, Y.-P., Lee, Y.-R., Chiang, M.-K., and **Chen, H.-R.** (2012) Arecoline downregulates levels of p21 and p27 through the reactive oxygen species/mTOR complex1 pathway and may contribute to oral squamous cell carcinoma. *Cancer Sci* 103(7), 1221–1229
15. Ji, W.-T., Lee, C.-I., Chen, J. Y.-F., Cheng, Y.-P., Yang, S.-R., Chen, J.-H and **Chen, H.-R.** (2013) Areca nut extract induces pyknotic necrosis in serum-starved oral cells via increasing reactive oxygen species and inhibiting GSK3 β : an implication for cytopathic effects in betel quid chewers. *PLoS One* 8(5), e63295.
16. Chiang, W.-F., Hwang, T., Hour, T.-C., Wang, L.-H., Chiu, C.-C., **Chen, H.-R.**, Wu, Y.-J., Wang, C.-C., Wang, L.-F., Chien, C.-Y., Chen, J.-H., Hsu, C.-T., Chen, J.Y.-F. (2013) Calreticulin, an endoplasmic reticulum-resident protein, is highly expressed and essential for cell proliferation and migration in oral squamous cell carcinoma. *Oral Oncol* 49(6), 534-541.
17. Huang, T.-T., Gonzales, C.B., Gu, F., Hsu, Y.-T., Jadhav, R.R., Wang, C.-M., Redding, S.W., Tseng, C.-E., Lee, C.-C., Thompson, I.M., **Chen, H.-R.**, Huang, T.-H., Kirma, N.B. (2013) Epigenetic deregulation of the anaplastic lymphoma kinase gene modulates mesenchymal characteristics of oral squamous cell carcinomas. *Carcinogenesis* 34(8), 1717-1727
18. Lin, S.-J., Yu, K.-H., Wu, J.-R., Lee, C.-F., Jheng, C.-P., **Chen, H.-R.**, and Lee, C.-I. (2013) Liberation of GPI-anchored prion from phospholipids accelerates amyloidogenic conversion. *Int J Mol Sci.* 14(9), 17943-17957
19. Ji, W.-T., **Chen, H.-R.**, Lin, C.-H., Lee, J.-W., Lee, C.-C. (2014) Monocyte chemotactic protein 1 (MCP-1) modulates pro-survival signaling to promote progression of head and neck squamous cell carcinoma. *PLoS One* 9(2), e88952.
20. Majumder, D., Maity, J.-P., Tseng, M.-J., Nimje, V.-R., **Chen, H.-R.**, Chen, C.-C., Chang, Y.-F., Yang, T.-C. and Chen, C.-Y. (2014) Electricity generation and wastewater treatment of oil refinery in microbial fuel cells using *Pseudomonas putida*. *Int J Mol Sci.* 15(9), 16772-16786
21. Lai, P.-Y., Hsu, C.-T., Wang, S. -H., Lee, J.-C., Tseng, M.-J., Hwang, J., Ji, W.-T. and **Chen, H.-R.** (2014) Production of a neutralizing antibody against envelope protein of dengue virus type 2 using the linear array epitope technique. *J. Gen. Virol.* 95, 2155-2165.
22. Ji, W.-T., Chuang, Y.-C., Cheng, P.-H., Lee, C.-C., Chen, J.Y.-F, Yang, S.-R., Chen, J.-H., Wang, C.-J. and **Chen, H.-R.** (2014) Areca nut extracts exert different effects in oral cancer cells depending on serum concentration: A clue to the various oral alterations in betel quid chewers. 32(1), 20-31.
23. Majumder, D., Maity, J.P., Chen, C.-C., Chen, C.-C., Yang, T.-C., Chang, Y.-F., Hsu, D.-W. and **Chen, H.-R.** (2014) Electricity generation with a sediment microbial fuel cell equipped with an air-cathode system using photobacterium. *Int J Hydrogen Energ* 39(36)1215-21222.

24. Huang, C.-C., Chien, C.-Y., Chiang, W. -F., Lin, C.-S., Hour, T.-C., **Chen, H.-R.**, Wang, L.-F., Ko, J.-Y., Chang, C.-H. and Chen, J.Y.-F. (2015) p22phox confers resistance to cisplatin, by blocking its entry into the nucleus. *Oncotarget* 6(6), 4110-4125.
25. Chen J.Y.-F., Hour, T.-C., Yang, S.-F., Chien, C.-Y., **Chen, H.-R.**, Tsai, K.-L., Ko, J.-Y. and Wang, L.-F. (2015) Autophagy is deficient in nasal polyps: implications for the pathogenesis of the disease. *Int Forum Allergy Rhinol.* 5(2), 119-123.
26. Wang, L.-F., Chien, C.-Y., Yang, Y.-H., Hour, T.-C., Yang, S.-F., **Chen, H.-R.**, Tsai, T.-L., Ko, J.-Y. and Chen, J.Y.-F. (2015) Autophagy is deficient and inversely correlated with COX-2 expression in nasal polyps: a novel insight into the inflammation mechanism. *Rhinology* 53(3), 270-276.
27. Chen, S.-F., Liu, G.-H., Chao, W.-Y., Shi, C.-S., Lin, C.-Y., Lim, Y.-P., Lu, C.-H., Lai, P.-Y. Hau-Ren **Chen, H.-R.**, and Lee, Y.-R. (2016) Piperlongumine suppresses proliferation of human oral squamous cell carcinoma through cell cycle arrest, apoptosis and senescence. *Int J Mol Sci.*17(4), 616

Abstracts of Conferences (2010- present)

1. Wu, W.-C., Chen, S.-H., Wu, F.-L., Chang, Y.-P., Hsu, Y.-C., Lee, Y.-R., and **Chen, H.-R.** (2010) Evaluation of reversine as an anticancer drug in oral cancer. The 18th symposium on recent advances in cellular and molecular biology. Ping Tung, Taiwan. Abs #45.
2. Lee, Y.-R., **Chen, H.-R.**, and Wei-Ching Wu, W.-C. (2011) Evaluation of Reversine as an Anticancer Drug in Oral Cancer. The 19th Symposium on Recent Advances in Cellular and Molecular Biology. The Splendor Hotel Kaohsiung, Taiwan. Abs#22.
3. Lai, P.-Y., Hsu, C.-T., Ji, W.-T., Tseng, M.-J., and **Chen, H.-R.** (2011) Preparation of a monoclonal-like polyclonal antibody against domain III of dengue virus envelope protein by linear array epitope technique. American Society for Virology 30th Annual Meeting. Minneapolis, Minnesota, USA. Abs P23-10
4. **Chen, H.-R.**, Wu, W.-S., Chiang, P.-Y., Hung, H.-Y., and Ji, W.-T. (2011) Core protein of dengue virus interacts with hTAF7 and might affect the transcription of RNA polymerase II . American Society for Virology 30th Annual Meeting. Minneapolis, Minnesota, USA. Abs P7-3
5. Cheng, Y.-P., Yang, S.-R, Ji, W.-T., Hsu, C.-T. and **Chen, H.-R.** (2013) Areca nut extract induces pyknotic necrosis in serum-starved oral cancer cell lines: an implication for cytopathic effects in betel quid chewers. The 28th Joint Annual Conference of Biomedical Science. Taipei, Taiwan. Abs. 869 (p221).
6. Chen, J.-H., Lin, C.-Y., Wang, C.-J. and **Chen, H.-R.** (2013) Studies on the effect and mechanism of GRP78 downregulation after areca nut extract treatment in oral cancer cell. The 28th Joint Annual Conference of Biomedical Science. Taipei, Taiwan. Abs. 085 (p25).

7. Lai, P.-Y., Hsu, C.-T., Wang, S. -H., Lee, J.-C., Tseng, M.-J., Hwang, J., Ji, W.-T. and **Chen, H.-R.** (2014) Production of a monoclonal-like polyclonal antibody against domain III of dengue virus envelope protein using linear array epitope(LAE) technique. The 22th Symposium on Recent Advances in Cellular and Molecular Biology. Ping Tung, Taiwan. Abs. #188 (p247).
8. Tsai, H.-P., Yang, S.-C., Tsai, Y.-R., Chen, C.-N. N. and **Chen, H.-R.** (2015) Cultivation and processing of marine microalgae to produce aquaculture feeds. Asian Congress on Biotechnology. Kuala Lumpur, Istana Hotel, Malaysia, Abs. MB04 (p93).