

Yih-Chih (Ivy) Hsu

E-mail: ivyhsu@cycu.edu.tw; ivyhsu123@gmail.com

Ph.D., Michigan State University

Associate Professor, Department of Bioscience Technology

Nutraceuticals for disease prevention, Photodynamic Diagnosis and Therapy, Nanotechnology in cancer therapy



◆ Research Interests

Our goal is to research and develop modalities in preventive, diagnosis and treatment on oral precancers and cancers. We are dedicated in oral precancers and cancers diseases control including finding preventive medicine in oral cancer study using nutraceuticals, applying combinational therapy using photodynamic diagnosis and therapy. We are seeking an objective basis, such as biomarkers, for consideration of individual differences involving proteomic profiling, metabolomic analysis, and genomic analysis to discover better healthcare solutions of oral cancers with proactive, personalized preventive medicine.

Selected Publications

- ◆ Yih-Chih Hsu*; Deng-Fu Yang; Chun-Pin Chiang; Jeng-Woei Lee; Meng-Kai Tseng (2012), “Successful treatment of 7,12-dimethylbenz(a)anthracene-induced hamster buccal pouch precancerous lesions by topical 5-aminolevulinic acid-mediated photodynamic therapy”, *Photodiagnosis and Photodynamic Therapy*, Vol.0, No.0, <http://dx.doi.org/10.1016/j.pdpdt.2012.03.003>
- ◆ Chun-Pin Chiang; Wan-Ting Huang; Jeng-Woei Lee; Yih-Chih Hsu* (2012), “Effective treatment of DMBA-induced hamster buccal pouch cancer lesions by topical photosan-mediated photodynamic therapy”, *Head & Neck*, 34(4): 505-512.
- ◆ Yih-Chih Hsu* (2011), “Apoptotic biomarker of topical photosan-mediated photodynamic therapy on DMBA-induced hamster buccal pouch precancerous lesions”, *Photodiagnosis and Photodynamic Therapy*, Vol.8, No.1572 p.214–214.
- ◆ Lee JW; Hsiao WT; Lee KF; Sheu LF; Hsu HY; Hsu LP; Su B, MS; Hsu YC; Chang CH (2010), “Widespread expression of prostate apoptosis response-4 (Par-4) in nasopharyngeal carcinoma. ”, *Head & Neck*, Vol.DOI 10.1002/hed, No.DOI 10.1002/hed p.DOI 10.1002/hed—DOI 10.1002/hed
- ◆ Lee JW; Hsiao WT; Chen HY; Hsu LP; Chen PR; Lin MD; Chiu SJ; Shih WL; Hsu YC (2010), “Upregulated claudin-1 expression confers resistance to cell death of nasopharyngeal carcinoma cells. ”, *Int. J. Cancer*, Vol.126, No.0 p.1353–1366.

◆ Selected Recent Grants

Project name	Grant source	Period
Study of Oral Cancer Photodynamic Therapy Using Novel Photosensitizers	National Science Council	2008/11/01-2010/01/31
Establishment of hamster buccal pouches precancer models for Radion photodynamic therapy	Ministry of Economics	2009/09/01 ~ 2011/08/31
Functional analysis and purification of <i>Nannochloropsis oculata</i> and biomedical application	Industrial Technology Research Institute	2009/09/01 ~ 2012/12/30
Optical imaging and photothermal therapy of oral cancer with plasmonic resonance of Au nanoparticle	National Health Research Institute	2008/03/01 ~ 2013/02/28
Novel LED light source used on topical 5-ALA-mediated photodynamic therapy for DMBA-induced hamster buccal pouch premalignant lesions : an in vivo study	National Science Council	2010/06/01 ~ 2011/05/31
Combination therapy of photodynamic therapy and adjuvant studies for hamster buccal pouch premalignant lesions	National Science Council	2011/08/01~ 2012/07/31