

## Chen Han-Min

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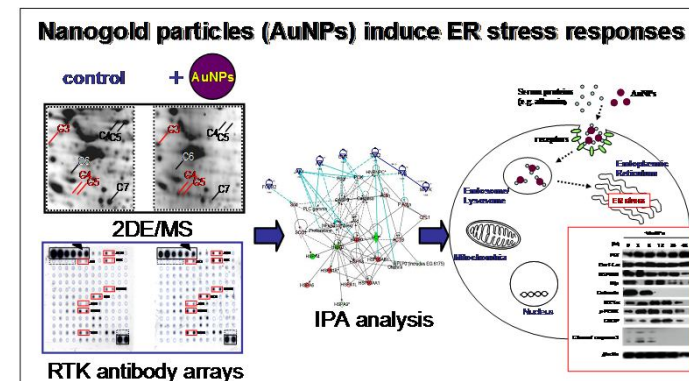
### Education

Ph.D. Agriculture Chemistry, National Taiwan University, R.O.C. 1997..

B.S. Agriculture Chemistry, National Taiwan University, R.O.C. 1993..

My research interest focuses on the development of techniques which improves the reproducibility and stringency of proteomic experiments. For examples, my laboratory has established the standard protocol for quantitating protein samples for two-dimensional electrophoresis (2-DE) experiments [1], as well as establishing an algorithm for estimating the optimal condition for isoelectric focusing experiment [2]. We also evaluated the applicability of using zinc-imidazole reverse protein stain for various proteomic experiments [3]. Furthermore, we invented a Snell's based device that can use for exciting fluorescent signals in gels and transparent matrix [4].

Recently, my laboratory also utilized -omics techniques as well as systems biology approaches to decipher biological phenomena. For examples, using proteomic techniques we identified that transfusion of plasma with adenine many confer anti-folate resistance to cancer cells [5]. Using similar approaches, we also found that nanogold particles may induce endoplasmic reticulum (ER) stress and apoptosis in cancer cells [6]. Another new research interest emerges as the modulation of AMP kinase (AMPK), which is responsible for energy homeostasis and aging process in cells. We have identified natural metabolites for activating AMPK.



## **Selected publication**

1. Evaluating the compatibility of three colorimetric protein assays for two-dimensional electrophoresis experiments, *Proteomics*. 2008 Jun (8):2178-84.
2. IEF management: an investigation for salt interference and an algorithm for optimization. *Journal of Proteome Research*. 2010, 9 (11), 5542–5556.
3. Optimization and evaluation for imidazole-zinc reverse stain: its new allocation in current proteomics *Proteomics*. 2009 Feb(3): 696-709.
4. Direct visualization of fluorescent signals on protein gels using a backlit blue light plate, *Proteomics*. 2008 Aug (8): 3382-3388.
5. A proteomic-based approach demonstrates that adenine antagonizes the cytotoxic effects of antifolates. *Journal of Proteome Research*. 2010 (9), 3091-3102.
6. Identification of the Nanogold Particle-Induced Endoplasmic Reticulum Stress by Omic Techniques and Systems Biology Analysis. *ACS Nano*. 2011 Dec 27;5(12):9354-69.

## **Financial support for Ph.D. students**

[Stipend]

- 1.National Science Council (NSC) Scholarship for Ph.D : up to NT 12,000/mo
- 2.Ministry of Education Teaching Excellent Project for Ph.D: up to NT 12,000/mo (Teaching assistant, optional)
- 3.Fu Jen Catholic University International PhD student Scholarship: NT 10,000/mo

[Tuition]

- 1.The 1<sup>st</sup> and 2<sup>nd</sup> year tuition is waived (around NT 220.000).
- 2.The tuition will be free after the 3<sup>rd</sup> year of Ph.D program