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FP201

- 釀酒酵母及戴爾孢圓酵母發酵龍眼酒之氨基酸、香氣化合物及抗氧化活性
  Amino Acids, Aroma Compounds and Antioxidant Activity of Longan Wine Fermented with *Saccharomyces cerevisiae* and *Torulaspora delbrueckii*

- Statin在末期腎病合併心肌梗塞患者的效果
  Impact of Statin on Long Term Outcome among End-stage Renal Disease Patients with Acute Myocardial Infarction (MI) : A Nationwide Case-Control Study

- 百里醌對於糖尿病鼠的降血糖作用
  Antihyperglycemic Action of Thymoquinone in Diabetic Rats

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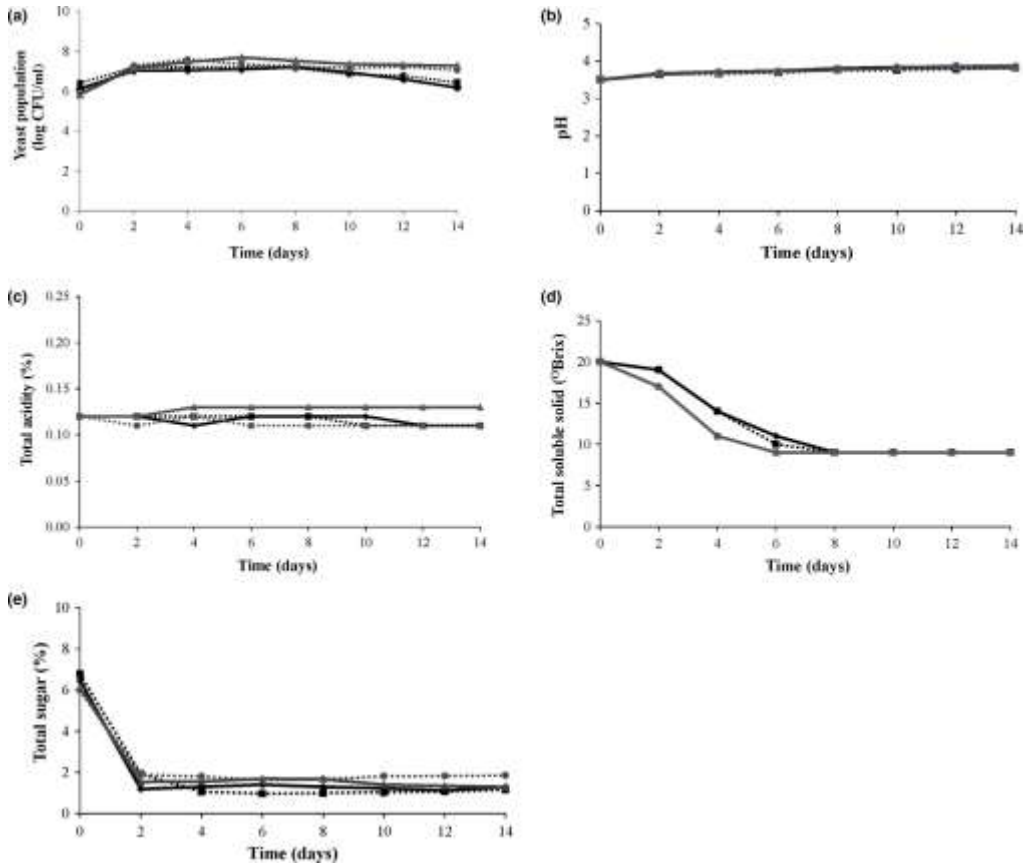
龍眼果實高溫乾燥與低溫脫水兩種處理的龍眼酒中，總酚含量均與抗氧化活性顯著相關。共同接種發酵擁有最好的能力，可於酒中生成大量的揮發性化合物，通過計算香味強度值，發現龍眼酒中的花香和果香具有明顯的強度。本研究成果，為龍眼酒的獨特風味，提供深刻見識，可作為為進一步發展龍眼酒產業，提供科學依據。

The total phenolic content was significantly correlated with the antioxidant activity in both of the dried whole longan wines and golden dried wines. The simultaneous culture also had a better ability to generate a high level of the main volatile compounds in wines and also could achieve a noticeable intensity of floral and fruity aromas of wine as assessed by calculation of the odor activity values. The research will provide insights into the characteristic flavor of longan wines and a scientific basis for further developing this industry.



已發表國際期刊：

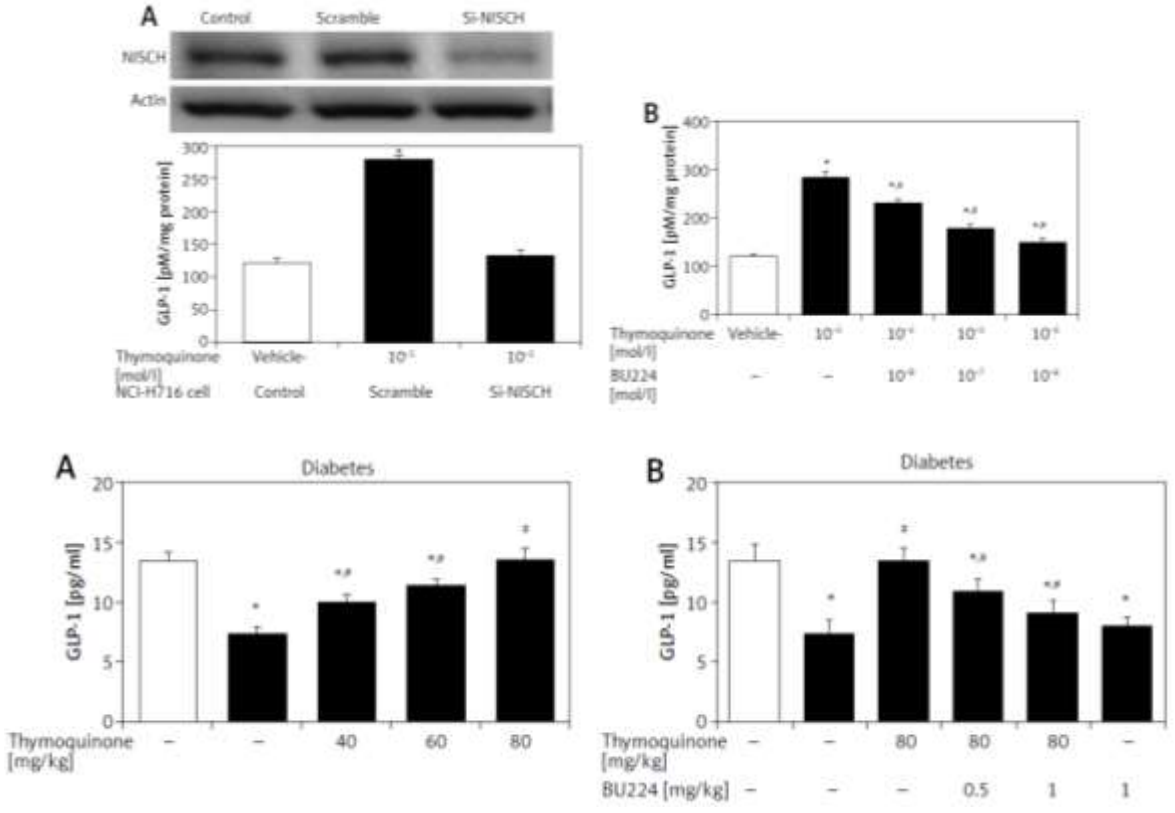
Kanokchan Sanoppa, Tzou-Chi Huang, **Ming-Chang Wu***. 2019. Effects of *Saccharomyces cerevisiae* in association with *Torulaspora delbrueckii* on the aroma and amino acids in longan wines. Food Science & Nutrition, 2019: 1-10. **(SCI, IF=1.747)**

https://onlinelibrary.wiley.com/doi/full/10.1002/fsn3.1076

百里醌對於糖尿病鼠的降血糖作用
Antihyperglycemic Action of Thymoquinone in Diabetic Rats

在細胞和糖尿病大鼠中，百里醌可藉由活化咪唑啉接受體，尤其是I-2亞型來誘導GLP-1的分泌。因此，得出新的結論，TQ可以活化咪唑啉接受體以增加血漿中GLP-1的濃度來降低高血糖。本研究所獲得的新觀點可用以解釋百里醌的抗高血糖作用。因此，可以確定百里醌用於糖尿病治療的潛力。

Thymoquinone (TQ) induced release of GLP-1 through activation of imidazoline receptor, particularly the I-2 subtype, both in cells and in diabetic rats. Therefore, it suggested that TQ can activate imidazoline receptor to increase plasma GLP-1 level for reduction of hyperglycemia. The obtained novel view is suitable to explain the potential mechanisms for antihyperglycemic action of TQ to exciting future clinical applications.



已發表國際期刊：

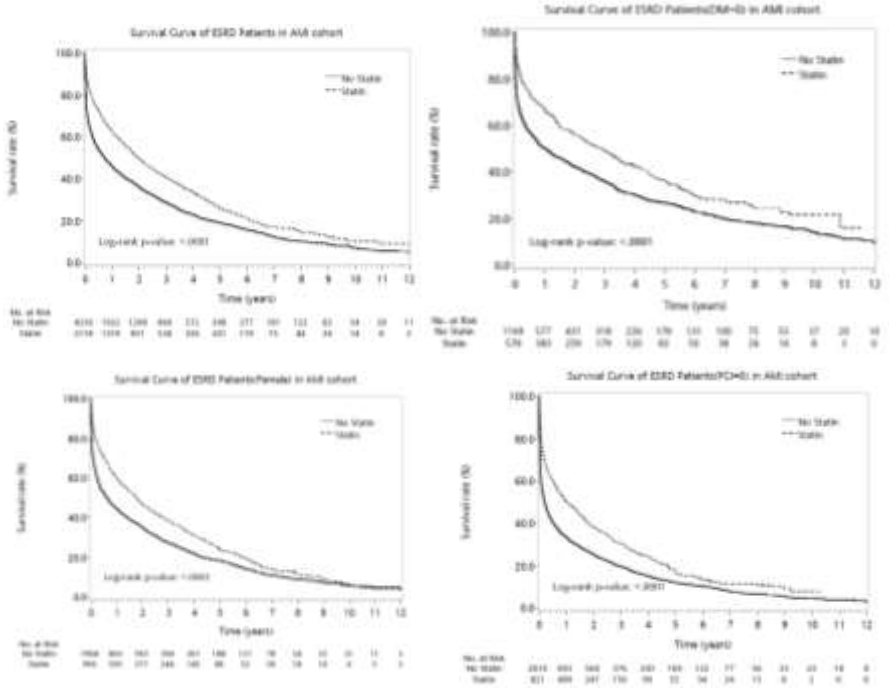
Shu Ping Lee, Feng Yu Kuo, Juei-Tang Cheng*, **Ming Chang Wu***. 2019. Thymoquinone activates imidazoline receptor to enhance glucagon-like peptide-1 secretion in diabetic rats. Archives of Medical Science, 15(1). **(SCI, IF=2.380)**
https://www.termedia.pl/Thymoquinone-activates-imidazoline-receptor-to-enhance-glucagon-like-peptide-1-secretion-in-diabetic-rats,19,37324,0,1.html

Shu-Ping Lee, Feng-Yu Kuo, Juei-Tang Cheng*, **Ming-Chang Wu***. 2019. GLP-1 mediates the modulating effect of thymoquinone on feeding behaviors in diabetic rats. Diabetes Metabolic Syndrome and Obesity-Targets and Therapy, 2019(12): 873–881. **(SCI, IF=3.319)**
https://www.ncbi.nlm.nih.gov/pubmed/31354323

Statin在末期腎病合併心肌梗塞患者的效果
Impact of Statin on Long Term Outcome among End-stage Renal Disease Patients with Acute Myocardial Infarction (MI) : A Nationwide Case-Control Study

我們蒐集臺灣健保資料庫從2000年到2012年的所有心肌梗塞病人，結果發現有使用降膽固醇藥物者，其十二年的死亡率較未使用者低。有使用降膽固醇藥物者中風、腦出血與再心肌梗塞發生機率也較低。在調整過變數(After Propensity match 1:2)後，Cox Proportional Hazard Regression analysis分析發現，降膽固醇藥物可以降低心肌梗塞患者之長期(十二年)死亡率。

Statin therapy was shown to have better long term (12-year) outcome among ESRD patients suffered from first episode of AMI, irrespective of age, diabetes mellitus. In subgroup analysis, the benefit also existed in patients not undergoing cardiac revascularization, male patient. Among ESRD patients with acute MI, statin therapy was associated with reduced all-cause mortality.



已發表國際期刊:

Feng Yu Kuo, Shu Ping Lee, Juei-Tang Cheng*, **Ming Chang Wu***. 2019. The direct effect of lipopolysaccharide on an isolated heart is different from the effect on cardiac myocytes in vitro. Archives of Medical Science, 15(1): DOI: https://doi.org/10.5114/aoms.2019.86976. **(SCI, IF=2.380)**
https://www.termedia.pl/The-direct-effect-of-lipopolysaccharide-on-an-isolated-heart-is-different-from-the-effect-on-cardiac-myocytes-in-vitro,19,37340,0,1.html

Feng-Yu Kuo, Shu-Ping Lee, Juei-Tang Cheng* and **Ming-Chang Wu***. 2019. Cardiac TGR5 expression enhanced by hyperglycaemia in diabetic rats: A preclinical warning for disorders with excess bile acids. Integrative Molecular Medicine, 6: 1-7. (non-SCI)
https://www.oatext.com/cardiac-tgr5-expression-enhanced-by-hyperglycaemia-in-diabetic-rats-a-preclinical-warning-for-disorders-with-excess-bile-acids.php