

## 個人資料

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Education	1. 台灣大學農業化學系農產製造組學士 2. 台灣大學農業化學研究所碩士(發酵化學實驗室) 3. 美國密西根州立大學微生物學博士	
Research Interests	中草藥與食品之天然物抑制癌症、過敏與減肥之分子機制	
Laboratory	分子生物暨蛋白質體	
Work Experience	1. 美國密西根州立大學微生物系助教 2. 嘉南藥理大學藥學系副教授	
Webpage		

## Publications

### Journal Publications (1996 to present)

- Huang KH, Chang CP, Chien LH, Li CF, Tang LY, Chan YY, Wu TF\* (2022). Uncovering the inhibitory molecular mechanism of pomegranate peel to urinary bladder urothelial carcinoma using proteomics techniques. *Life (Basel)* 12(11):1839.
- Wu TF\*, Shi WY, Chiu YC, Chan YY (2021, Mar.). Investigation of the molecular mechanism underlying the inhibitory activities of ethanol extract of *Bombyx mori* pupa-incubated *Cordyceps militaris* fruiting bodies toward allergic rhinitis. *Biomedicine and Pharmacotherapy* 135, 111248.
- Shaikh MO, Huang TC, Wu TF, Chuang CH (2020, June). Label-free Impedimetric Immunosensor for effective bladder Cancer detection in clinical urine samples. *Biomedical Microdevices* 22(3), 45.
- Feng Y.-H., Tung C.-L., SU Y.-C., Tsao C.-J., Wu T.-F. (2019, Nov). Proteomic Profile of Sorafenib Resistance in Hepatocellular Carcinoma; GRP78 Expression Is Associated With Inferior Response to Sorafenib.. *Cancer Genomics & Proteomics*, 16(6), 569-576. (SCI, 109/230, oncology).
- Shaikh MO, Chang LY, Chen CH, Wu TF, Chuang CH. (2018, Nov). Paper-based immunosensor utilizing dielectrophoretic trapping of microprobes for quantitative and label free detection using electrochemical impedance spectroscopy.. *Biomicrofluidics*, 12(6), 064102.
- Chang CP, Chan YY, Li CF, Chien LH, Lee ST, Wu TF\*. (2018). Deciphering the Molecular Mechanism Underlying the Inhibitory Efficacy of Taiwanese Local Pomegranate Peels against Urinary Bladder Urothelial Carcinoma. *Nutrients*. 10: pii: E543.
- Li CF, Shen KH, Chien LH, Huang CH, Wu TF\*, He HL. (2018). Proteomic Identification of the Galectin-1-Involved Molecular Pathways in Urinary Bladder Urothelial Carcinoma. *Int J Mol Sci.* 19: pii: E1242.
- Wu TF, Chan YY, Shi WY, Jhong MT. (2017). Uncovering the Molecular Mechanism of Anti-Allergic Activity of Silkworm Pupa-Grown *Cordyceps militaris* Fruit Body. *Am J Chin Med.* 45(3):497-513.
- Chang IW, Wang YH, Wu WJ, Liang PI, Li WM, Yeh BW, Wu TF, He HL, Huang SK, Li CF. (2016). Necdin Overexpression Predicts Poor Prognosis in Patients with Urothelial Carcinomas of the Upper Urinary Tract and Urinary Bladder. *J. Cancer* 7(3): 304-313.
- Ma LJ, Wu WJ, Wang YH, Wu TF, Liang PI, Chang IW, He HL, Li CF. (2016). SPOCK1

- Overexpression Confers a Poor Prognosis in Urothelial Carcinoma. *J. Cancer* 7(4): 467-476.
11. Lee YY, Wu WJ, Huang CN, Li CC, Li WM, Yeh BW, Liang PI, Wu TF, Li CF. (2016). CSF2 Overexpression Is Associated with STAT5 Phosphorylation and Poor Prognosis in Patients with Urothelial Carcinoma. *J. Cancer* 7(6): 711-721.
12. Wu TF\*, Hsu LT, Tsang BX, Huang LC, Shih WY, Chen LY. (2016). Clarification of the molecular pathway of Taiwan local pomegranate fruit juice underlying the inhibition of urinary bladder urothelial carcinoma cell by proteomics strategy. *BMC Complement. Altern. Med.* 16(1): 96.
13. Chang IW, Wu WJ, Wang YH, Wu TF, Liang PI, He HL, Yeh BW, Chien-Feng Li CF. (2016). BCAT1 overexpression is an indicator of poor prognosis in patients with urothelial carcinomas of the upper urinary tract and urinary bladder. *Histopathology* 68(4): 520-532.
14. Chuang CH, Wu HP, Huang YW, Chen CH, Lee DH, Wu TF. (2016). A Rapid and Sensitive Impedance-Based Immunosensor Utilizing Dielectrophoretic Manipulations of Polyaniline Modified Nanoprobes. *IEEE Sensors J.* 16(11): 4166-4173.
15. Chuang CH, Du YC, Wu TF, Chen CH, Lee DH, Chen SM, Huang TC, Wu HP, Shaikh MO. (2016). Immunosensor for the ultrasensitive and quantitative detection of bladder cancer in point of care testing. *Biosensors and Bioelectronics* 84: 126-132.
16. Shen KH, Li CF, Chien LH, Huang CH, Su CC, Liao AC, Wu TF. (2016). Role of galectin-1 in urinary bladder urothelial carcinoma cell invasion through the JNK pathway. *Cancer Sci.* 2016 Oct;107(10):1390-1398.
17. Su CC, Sheng KH, Chen SY, Tsay YG, Wu TF. (2016). Searching urinary tumor-associated proteins for bladder transitional cell carcinoma in southwestern Taiwan using gel-based proteomics. *Urol. Sci.* : in press.
18. Wu HF, Amstislavskaya TG, Chen PH, Wu TF, Chen YH, Jen CP. Preconcentration-enhanced immunosensing for whole human cancer cell lysate based on a nanofluidic preconcentrator. *BioChip J.* 10(3): 159-166.
20. Ting-Feng Wu, Jyun-Yi Ma and Chien-Tai Cheng (2015). Suppression of upper urinary tract urothelial carcinoma by the ethanol extract of silkworm pupa cultivated Cordyceps militaris fruit body through G2/M-phase arrest . *IWRIS2015 Proceedings*, IWRIS2015, 28-31. (proceedings)..
21. Chang IW, Liang PI, Li CC, Wu WJ, Huang CN, Lin VC, Hsu CT, He HL, Wu TF, Hung CH, Li CF (2015). HAS3 underexpression as an indicator of poor prognosis in patients with urothelial carcinoma of the upper urinary tract and urinary bladder. *Tumor biology*, 36(7), 5441-5450.
22. Eric W. Fan, Ching-Chia Li, Wen-Jeng Wu, Chun-Nung Huang, Wei-Ming Li, Hung-Lung Ke, Hsin-Chih Yeh, Ting-Feng Wu, Peir-In Liang, Li-Jung Ma and Chien-Feng Li (2015). FGF7 Over Expression is an Independent Prognosticator in Patients with Urothelial Carcinoma of the Upper Urinary Tract and Bladder. *Journal of Urology*, 194(1), 223-229.
23. Chuang CH, Wu TF, Chen CH, Chang KC, Ju JW, Huang YW, Nhana VV (2015). Lab on a chip for multiplexed immunoassays to detect bladder cancer using multifunctional dielectrophoretic manipulations. *Lab on a chip*, 15(14): 3056-3064.
24. He HL, Lee YE, Chen HP, Hsing CH, Chang IW, Shiue YL, Lee SW, Hsu CT, Lin LC, Wu TF, Li CF (2015). Overexpression of DNAJC12 predicts poor response to neoadjuvant concurrent chemoradiotherapy in patients with rectal cancer. *Experimental and molecular pathology*, 98(3), 338-345.
25. He HL, Lee YE, Shiue YL, Lee SW, Lin LC, Chen TJ, Wu TF, Li CF (2015). PLA2G2A overexpression is associated with poor therapeutic response and inferior outcome in rectal cancer patients receiving neoadjuvant concurrent chemoradiotherapy.. *Histopathology*, 66(7), 991-1002.
26. Chang IW, Lin VCH, He HL, Hsu CT, Li CC, Wu WJ, Huang CN, Ting-Feng Wu TF, Li CF. (2015). CDCA5 overexpression is an indicator of poor prognosis in patients with urothelial carcinomas of the upper urinary tract and urinary bladder. *Amer. J. Trans. Res.* 7(4): 710-722.
27. Wu TF, Li CF, Chien LH, Shen KH, Huang HY, Su CC3, Liao AC (2015). Galectin-1 dysregulation independently predicts disease specific survival in bladder urothelial carcinoma. *J. Urol.* 193(3): 1002-1008.
28. Li CF, He HL, Wang JY, Huang HY, Wu TF, Hsing CH, Lee SW, Lee HH, Fang JL, Huang WT, Chen

- SH (2014). Fibroblast growth factor receptor 2 overexpression is predictive of poor prognosis in rectal cancer patients receiving neoadjuvant chemoradiotherapy. *J. Clin. Pathology*, 67(12):1056-1061.
29. He HL, Lee YE, Shiue YL, Lee SW, Lin LC, Chen TJ, Wu TF, Hsing CH, Huang HY, Wang JY, Li CF. (2014). Overexpression of REG4 confers an independent negative prognosticator in rectal cancers receiving concurrent chemoradiotherapy. *Journal of Surgical Oncology*, 110(8):1002-1010.
30. Lee YY, Li CF, Lin CY, Lee SW, Sheu MJ, Lin LC, Chen TJ, Wu TF, Hsing CH (2014). Overexpression of CPS1 is an independent negative prognosticator in rectal cancers receiving concurrent chemoradiotherapy. *Tumor Biology*, 35(11): 11097-11105.
31. Chuang CH, Yu YC, Lee DH, Wu TF, Chen CH, Chen SM, Wu HP, Huang YW (2014). Miniaturization of immunoassay by using a novel module-level immunosensor with polyaniline-modified nanoprobe that incorporate impedance sensing and paper-based sampling. *Microfluidics and Nanofluidics*, 16(5): 869-877.
32. Lee ST, Lu MH, Chien LH, Wu TF\*, Huang LC, Liao GI (2013). Suppression of urinary bladder urothelial carcinoma cell by the ethanol extract of pomegranate fruit through cell cycle arrest and apoptosis. *BMC Complement. Altern. Med.*, 13(1): 364.
33. Hsieh CH, Chen GC, Chen PH, Wu TF\*, Chao PM\*. (2013). Altered White Adipose Tissue Protein Profile in C57BL/6J Mice Displaying Delipidative, Inflammatory, and Browning Characteristics after Bitter Melon Seed Oil Treatment. *PLoS One*, 8(9):e72917.
34. Liang PI, Wang YH, Wu TF, Wu WR, Liao AC, Shen KH, Hsing CH, Shiue YL, Huang HY, Hsu HP, Chen LT, Lin CY, Tai C, Wu JY, Li CF. (2013). IGFBP-5 overexpression as a poor prognostic factor in patients with urothelial carcinomas of upper urinary tracts and urinary bladder.. *Journal of Clinical Pathology* 66(7): 573-582.
35. Liang PI, Li WM, Wang YH, Wu TF, Wu WR, Liao AC, Shen KH, Wei YC, Hsing CH, Shiue YL, Huang HY, Hsu HP, Chen LT, Lin CY, Tai C, Lin CM, Li CF. (2012). HuR Cytoplasmic Expression Is Associated with Increased Cyclin A Expression and Poor Outcome with Upper Urinary Tract Urothelial Carcinoma.. *BMC Cancer* 12: 611.
36. Lee ST, Wu YL, Chien LH, Chen ST, Tzeng YK, Wu TF\* (2012). Proteomic exploration of the impacts of pomegranate fruit juice on the global gene expression of prostate cancer cell. *Proteomics* 12(21): 3251-3262.
37. Liang PI, Wu LC, Sheu JJ, Wu TF, Shen KH, Wang YH, Wu WR, Shiue YL, Huang HY, Hsu HP, Chen YH, Chen LT, Li CF, Liao AC (2012). Rsf-1/HBXAP overexpression is independent of gene amplification and is associated with poor outcome in patients with urinary bladder urothelial carcinoma. *Journal of Clinical Pathology* 65(9): 802-807.
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39. Chuang CH, Huang YW, Wu YT, Wu TF. (2011). Programmable Dielectrophoretic Chip for Cell Manipulations. *Japanese J. Applied Physics* 50: 6GL11-1-11-6.
40. Liao KA, Tsay YG, Huang LC, Huang HY, Li CF, Wu TF\* (2011). Search for the tumor-associated proteins of oral squamous cell carcinoma collected in Taiwan using proteomics strategy. *J. Proteome Res.* 10: 2347-2358.
41. Chan YY, Chang CS, Chien LH, Wu TF\* (2010). Apoptotic effects of a high performance liquid chromatography (HPLC) fraction of *Antrodia camphorata* mycelia are mediated by down-regulation of the expressions of four tumor-related genes in human non-small cell lung carcinoma A549 cell. *J. Ethnopharmacology* 127: 652-661.
42. Li CF, Shen KH, Huang LC, Huang HY, Wang YH, Wu TF\* (2010). Annexin-I overexpression is associated with tumor progression and independently predicts inferior disease-specific and metastasis-free survival in urinary bladder urothelial carcinoma. *Pathology* 42: 43-49.
43. Wu TF, Huang WC, Chen YC, Tsay YG, Chang CS. (2009). Proteomic investigation of the impact of oxygen on the protein profiles of hyaluronic acid-producing *Streptococcus zooepidemicus*. *Proteomics* 19(9): 4507-4518.
44. Cheng, B.-C., Chang, C.-P., Tsay, Y.-G., Wu, T.-F., Hsu, C.-Y., and Lin, M.-T.\* (2008). Body Cooling

- Causes Normalization of Cardiac Protein Expression and Function in A Rat Heatstroke Journal of Proteome Research 7, 4935-4945 (SCI).
45. Tsai, W.-C., Pan, Z.-J., Hsiao, Y.-Y., Jeng, M.-F., Wu, T.-F., Chen W.-H., and Chen, H.-H.\* (2008). Interactions of B-class complex proteins involved in tepal development in Phalaenopsis orchid. Plant and Cell Physiology 49, 814-824 (SCI).
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47. Wu, T.-F.\* , Ku, W.-L., and Tsay, Y.-G. (2007). Proteome-based diagnostics and prognosis of bladder transitional cell carcinoma. Expert review of proteomics 4, 639-647 (SCI).
48. Wu, T.-F., Wu, H., Wang, Y.-W., Chang, T.-Y., Chan, S.-H., Lin, Y.-P., Liu, H.-S., and Chow, N.-H.\* (2007). Prohibitin in the Pathogenesis of Transitional Cell Bladder Cancer Anticancer research 27, 895-900 (SCI).
49. Wu, H., Pan, C.-L., Yao, Y.-C., Chang, S.-S., Li, S.-L., Wu, T.-F.\* (2006). Proteomic analysis of the effect of *Antrodia camphorata* extract on human lung cancer A549 cell. Proteomics 6, 826-835 (SCI).
50. Sheng, K.-H., Yao, Y.-C , Chuang, S.-S., Wu, H., and Wu, T.-F.\* (2006). Search for the tumor-related proteins of transitional cell carcinoma in Taiwan by proteomic analysis. Proteomics 6, 1058-1065 (SCI).
51. Wu, T.-F., Wu, H., Chow, N.-H., Liao, C.-F., and Liu, H.-S.\* (2005). Proteomic analysis of bladder cancer cells reveals potential candidates of biomarkers in bladder tumorigenesis. Cancer genomics and proteomics 2, 151-158 (Indexing in Medline).
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54. Liu, C.-Z.\* , Wu, T.-F., Huang, T.-F., Wu, D.-H., and Lin G.-L. (2002). Trimucytin, a collagen-like snake venom protein, activates platelets independent of I-domain within alpha2 subunit of alpha2beta1 integrin. Thrombosis Research 105, 153-160 (SCI,).
55. Wu, H.\* , Shen, H.-W., Wu, T.-F., Brass, L. F., and Sung K.-C. (2002). Extracellular Signal-Regulated Kinases and G protein-Coupled Receptors in Megakaryocytic Human Erythroleukemia Cells: Selective Activation, Differential Regulation, and Dissociation from Mitogenesis. J Pharmcol. Exp. Ther. 300, 339-345 (SCI).
56. Chen, H.-H.\* , Tso, D.-J., Yeh, W.-B., Cheng, H.-J., and Wu, T.-F. (2001). The thymidylate synthase gene of Hz-1 virus: A gene captured from its lepidopteran host. Insect Mol. Biol. 10, 495-503 (SCI).
57. Wu, T.-F.\* , Chen, H.-H., and Wu, H. (2001). Functional characterization of Marek's disease virus (MDV) origin-binding protein (OBP): analysis of its origin-binding properties. Virus Genes 23, 227-239 (SCI).
58. Wu, T.-F.\* , Hwang J. C., and Chen, H. H. (1999). Expression of Marek's disease virus (MDV) gene homologous to UL9 gene of herpes simplex virus type 1 (HSV-1) by recombinant Baculovirus. Chia-Nan Bulletin 25, 165-177.
59. Liu, W. H.\* , Wu, T.-F., and Lo, C. K. (1997). Transformation of sitosterol to testosterone by *Mycobacterium* sp. J. of the Chinese Agricultural Chemical Society 35, 124-131 (國科會優良期刊).
60. Wu, T.-F., and Coussens, P. M.\* (1996). Cloning and sequence analysis of a Marek's disease virus (MDV) gene homolog to herpes simplex virus type 1 (HSV-1) UL9. In : Current Research on Marek's Disease, R. F. Silva, H. H. Cheng, P. M. Coussens, L. F. Lee, and L.F. Velicer, eds. American Association of Avian Pathologist, Kennett Square, PA. pp. 436-441.
61. Wu, T.-F., Wei, S., Mekki, B., Southwick, R., and Coussens, P. M.\* (1996). Cloning and sequence analysis of a Marek's disease virus origin binding protein (OBP) reveals strict conservation of structural motifs among OBPs of divergent alphaherpesviruses. Virus Genes 13, 143-157 (SCI)

## Conference papers (2019-2024)

論文名稱	參與作者	研討會名稱
Investigation of the molecular mechanism underlying the inhibitory activities of ethanol extract of <i>Bombyx mori</i> pupa-incubated <i>Cordyceps militaris</i> fruiting bodies toward allergic rhinitis	Wan-Yi Shi, Yi-Chen Chiu, Yu-Yi Chan and Ting-Feng Wu	2024 精準保健食品未來展望國際研討會
The effects of <i>Eurotium cristatum</i> cultivated-Songboling black tea or Yunnan large-leaf tea on the insulin signaling pathway	Wan-Yin Shih, Nai-Chuan Hu, Wei-Hsuan Chou and Ting-Feng Wu*	第 29 屆細胞及分子生物新知研討會
Therapeutic evaluation of mesenchymal stem cell in traumatic brain-injury induced retinal ganglion cell damage	曾中信、郭淑純、吳定峰、張菁萍	第 28 屆細胞及分子生物新知研討會
The ethanol extract of rice bran suppresses the PMA/A23187- stimulated mast cells through the inhibition of PLC $\gamma$ /IP3R/PKC $\mu$ signaling pathway	Ting-Wen Wen, Ting-Feng Wu*	第 28 屆細胞及分子生物新知研討會
Impacts of silkworm pupa-grown <i>Cordyceps militaris</i> fruiting bodies on the transforming growth factor- $\beta$ 1 evoked epithelial-mesenchymal transition of fibroblast cells	Wan-Yin Shih and Ting-Feng Wu	第 28 屆細胞及分子生物新知研討會
Impacts of silkworm pupa-cultured <i>Cordyceps militaris</i> fruiting bodies on epithelial-mesenchymal transition in the presence of transforming growth factor- $\beta$ 1	Wan-Yin Shih and Ting-Feng Wu	2021 International symposium on novel and sustainable technology
The therapeutic effects of pomegranate on urinary bladder urothelial carcinoma	Ting-Feng Wu	2021 International symposium on advanced Technology
Effects of silkworm pupa-cultured <i>Cordyceps militaris</i> fruiting bodies on human podocyte cells and human fibroblast cells under the impacts of transforming growth factor- $\beta$ 1	Chia-Chun Wu, Wan-Yin Shih, and Ting-Feng Wu*	2020 International symposium on novel and sustainable technology
Characterization of <i>Cordyceps militaris</i> fruiting bodies cultured using brown rice broth and its effect on the allergy	Ting-Feng Wu*, Yu-Hsiu Chen, and Chien-Yai Cheng	2020 International symposium on novel and sustainable technology

The ethanol extract of silkworm pupa-cultivated <i>Cordyceps militaris</i> fruiting bodies can alleviate the symptoms of unilateral ureteral obstruction-induced renal fibrosis in mice	Wan-Yi Shih, Chia-Chun Wu and Ting-Feng Wu*	第二十七屆細胞及分子生物新知研討會
Ethanol extract of silkworm pupa-cultivated <i>Cordyceps militaris</i> fruiting bodies inhibits endoplasmic reticulum stress in IgE-triggered rat basophilic leukemia RBL2H3 cells	Yu-Hsiu Chen, Wan-Yin Shih, Hsiao-Ju Kuo, Yi-Chen Chiu and Ting-Feng Wu*	第二十七屆細胞及分子生物新知研討會
Effects of silkworm-cultured <i>Cordyceps militaris</i> fruiting bodies on human podocyte cells with diabetic nephropathy	Chia-Chun Wu, Wan-Yi Shih, and Ting-Feng Wu*	2019 International symposium on novel and sustainable technology
Alleviation of renal fibrosis mice by the ethanol extract of silkworm pupa-grown <i>Cordyceps militaris</i> (L.) Link fruiting bodies	Chia-Chun Wu, Wan-Yi Shih, and Ting-Feng Wu*	2019 International symposium on novel and sustainable technology
Antiallergic effect of <i>Cordyceps militaris</i> (L.) Link fruit bodies on ovalbumin-induced allergic rhinitis in mouse	Wan-Yin Shih, Chen Yu-Hsiu, Ting-Feng Wu*	全國生物技術暨健康產業學術研討會
Antiallergic effect of <i>Cordyceps militaris</i> (L.) Link fruit bodies on ovalbumin-induced allergic rhinitis in mouse	Wan-Yin Shih, Ting-Feng Wu	第二十六屆細胞及分子生物新知研討會
The effects of ethanol extract of silkworm pupa-cultured <i>Cordyceps militaris</i> fruit bodies on human podocyte cell injury	Chien-Wei Hsiung、Yi-Hsin Chien、Wan-Yin Shih, Andrew Wilson, Ting-Feng Wu*	第二十六屆細胞及分子生物新知研討會

## Grants

### National Science Council grants

Year	Grant title (grant number)	Duration
91	昆蟲細胞專一之新型基因表達誘導系(NSC 91-2313-B-218-001)	2002/08/01 至 2003/07/31
92	找尋重金屬砷引發膀胱癌之蛋白質分子機轉(1/3) (NSC92-2314-B-006-147)	2003/08/01 至 2004/07/31
92	以功能性基因組學研究健康食品松之萃對細胞整體基因表達的影響 (NSC 92-2313-B-218-001)	2003/08/01 至 2004/07/31
93	提升私校研發能量專案計劃子計劃一-以以蛋白質體學技術探討代謝控制對蟲草屬及其相關屬種蛋白質圖譜的影響(1/3)	2004/08/01 至 2005/07/31

	(NSC 93-2745-B-218-002)	
93	以蛋白質學技術探討固態發酵樟芝乙醇萃取液對肺癌A549細胞蛋白質圖譜的影響 (NSC 93-2313-B-218-002)	2004/08/01 至 2005/07/31
93	找尋重金屬砷引發膀胱癌之蛋白質分子機轉(2/3) (NSC93-2314-B-006-023)	2004/08/01 至 2005/07/31
94	提升私校研發能量專案計劃子計劃一-以蛋白質學技術探討代謝控制對蟲草屬及其相關屬種蛋白質圖譜的影響(2/3) (NSC 94-2745-B-218-001-URD)	2005/08/01 至 2006/07/31
94	找尋重金屬砷引發膀胱癌之蛋白質分子機轉(3/3) (NSC 94-2320-B-006-075-)	2005/08/01 至 2006/07/31
95	樟芝酒精萃取液調控 galectin-1 基因表達之分子機制	2006/08/01 至 2007/07/31
95	提升私校研發能量專案計劃子計劃一-以蛋白質學技術探討代謝控制對蟲草屬及其相關屬種蛋白質圖譜的影響(3/3)	2006/08/01 至 2007/07/31
96	由樟芝菌絲體分離可影響五種癌症相關基因之表達的化合物	2007/08/01 至 2008/07/31
97	由樟芝菌絲體分離可影響五種癌症相關基因之表達的化合物	2008/08/01 至 2009/07/31
98	由樟芝菌絲體分離可影響五種癌症相關基因之表達的化合物	2009/08/01 至 2010/07/31
99	以蛋白質學方法探討本土石榴抑制膀胱泌尿上皮細胞癌之機制(1/3)	2010/08/01 至 2011/07/31
100	以蛋白質學方法探討本土石榴抑制膀胱泌尿上皮細胞癌之機制(2/3)	2011/08/01 至 2012/07/31
101	以蛋白質學方法探討本土石榴抑制膀胱泌尿上皮細胞癌之機制(3/3)	2012/08/01 至 2013/07/31
102	探討本土紅石榴活性成份抑制泌尿生殖系統腫瘤之分子機制及其在轉譯醫學上之應用—探討本土紅石榴活性成份抑制泌尿生殖系統腫瘤之分子機制及其在轉譯醫學上之應用(2/3)( NSC 101-2632-B-218 -001 -MY3)	2013/08/01 至 2014/07/31
103	探討本土紅石榴活性成份抑制泌尿生殖系統腫瘤之分子機制及其在轉譯醫學上之應用—探討本土紅石榴活性成份抑制泌尿生殖系統腫瘤之分子機制及其在轉譯醫學上之應用(2/3)( MOST 101-2632-B-218 -001 -MY3)	2014/08/01 至 2015/07/31
104	蛹蟲體蛹蟲草子實體抑制 IgE 抗體引發的過敏反應分子機制之研究(MOST 104-2320-B-218-001)	2015/08/01 至 2016/07/31
105	探究含蟲體蛹蟲草子實體緩解速發型過度敏感反應的分子機制(1/3) (MOST 105-2320-B-218 -001 -MY3)	2016/08/01 至 2017/07/31
106	探究含蟲體蛹蟲草子實體緩解速發型過度敏感反應的分子機制(2/3) (MOST 105-2320-B-218 -001 -MY3)	2017/08/01 至 2018/07/31
107	探究含蟲體蛹蟲草子實體緩解速發型過度敏感反應的分子機制(3/3) (MOST 105-2320-B-218 -001 -MY3)	2018/08/01 至 2019/07/31
108	從家蠶蛹蟲培養之蛹蟲草子實體分離可抑制過敏性鼻炎之成分(MOST 108-2320-B-218-001)	2019/08/01 至 2020/07/31

## Government grants

Year	Grant title (grant number)	Duration
99	堆肥分離菌株能力之探討	2010/7/1 至 2010/12/31

99	EH98 造成紅唇之機制的探討	2010/8/1 至 2010/12/31
100	以微生物發酵方法淨化太陽能晶片製造廠的廢水	2011/7/1 至 2011/12/31
101	以生物科技方法防治有機合成工廠排放之廢水	2012/5/1 至 2012/10/31
101	以微生物發酵技術提升生鮮蔬果藥理功效之研究	2012/5/1 至 2012/10/31
108	科技大學推動深耕專業技術研發及人才培育計畫(第二年)	2019/08/01 至 2020/07/31
109	科技大學推動深耕專業技術研發及人才培育計畫(第三年)	2020/08/01 至 2021/07/31
99	堆肥分離菌株能力之探討	2010/7/1 至 2010/12/31

### Industrial grant

Year	Grant title	Duration
92	以蛋白質體學技術尋找移形細胞惡性腫瘤的分子符號	2003/7/1 至 2004/6/30
94	以蛋白質體學技術找尋膀胱移形細胞惡性腫瘤病人尿液中的生物性符號	2005/7/1 至 2006/6/30
98	利用微生物製作有機堆肥	2009/6/1 至 2009/12/31
99	EH98 抗發炎效果之研究	2010/4/1 至 2010/8/31
100	抗過敏乳酸菌數檢測方法開發	2011/4/1 至 2011/9/30
100	以微生物發酵方法淨化生產太陽能晶片之廢水	2011/6/1 至 2011/11/30
101	代檢測抗過敏乳酸菌數	2012/3/1 至 2012/12/31
101	以發酵工程方法淨化有機合成廠之廢水	2012/5/1 至 2012/8/31
101	以生化酵素處理有機合成廠之廢水	2012/8/1 至 2013/1/31
102	以生化酵素淨化有機合成廠廢合成廠廢水之探討	2013/1/1 至 2013/12/31
102	藥用植物有效成分之萃取純化、分離鑑活性分析之研究	2013/12/1 至 2014/08/31
103	建立蛹蟲草抗過敏動物實驗模式	2014/03/1 至 2015/2/28
103	蛹蟲草抗前列腺癌之研究	2014/05/1 至 2015/4/30
103	分析蛹蟲草細胞內抑制前列腺癌之化學成分	2014/08/1 至 2015/7/31
104	金針菇改善便秘動物模式之研究	2015/1/1 至 2015/12/31
104	探討蛹蟲草抑制前列腺癌之分子機制	2015/3/1 至 2016/6/30
104	蛹蟲草抗膀胱癌之研究	2015/05/1 至 2016/4/30
105	探討花生葉助眠之效果	2016/1/1 至 2016/7/31
105	分析蛹蟲草子實體內抑制膀胱癌之化學成分	2016/5/1 至 2017/4/30
106	蛹蟲草對足細胞形成突起之影響	2017/4/1 至 2018/3/31
106	探究含蟲體蛹蟲草子實體引發膀胱泌尿上皮惡性腫瘤細胞凋亡之分子機制	2017/5/1 至 2018/4/30
107	蛹蟲草對足細胞過濾裂隙形成之影響	2018/5/1 至 2019/4/30
107	腎臟保護研究轉譯實驗室成立暨 CM-816 護腎功效探討	2018/8/1 至 2019/7/30
108	從蛹蟲草菌絲體篩選與子實體形成有關的基因	2019/5/1 至 2020/4/30
108	腎臟保護研究轉譯研究室成立暨 CM-816 護腎功效探討	2019/8/1 至 2020/7/31
109	蛹蟲草酒萃物對纖維母細胞的保護功效探討	2020/5/1 至 2021/4/30
109	腎臟保護研究轉譯研究室成立暨 CM-816 護腎功效探討	2020/8/1 至 2021/7/31
109	三、四與五胜肽對人類纖維母細胞(Fibroblast)產生膠原蛋白質的影響	2020/9/15 至 2020/12/15
110	光譜對蛹蟲草子實體之抗過敏活性的影響	2021/8/1 至 2022/7/31

110	腎臟保護研究轉譯實驗室-開發冠突散囊菌(Eurotium cristatum)緩解糖尿病之功效	2021/8/1 至 2022/7/31
1111	蛹蟲草子實體與菌絲體抗過敏活性的差異	2022/8/1 至 2023/7/31
111	腎臟保護研究轉譯實驗室-冠突散囊菌(Eurotium cristatum)降低血糖功效之研究	2022/8/1 至 2023/7/31
112	腎臟保護研究轉譯實驗室-以松柏嶺紅茶與大葉種茶利用冠突散囊菌(Eurotium cristatum)發酵開發荷磚茶的製程及降低血糖功效之研究	2023/8/1 至 2024/7/31

## Patents

1. 紅石榴果實的脂溶性萃取物及其製備方法與用途，台灣發明專利，已核准，  
2017/02/21-2035/04/22，證書字號 I571262。
2. 蛹蟲草萃取與濃縮術開發，南寶樹脂化學工廠股份有限公司。
3. 含蟲體蛹蟲草子實體緩解速發型過度敏感反應的分子機制，南寶樹脂化學工廠股份有限公司。

## Certificates

1. 實驗動物飼養管理，合格證書(實動訓字(89)第 00043 號)，國科會。
  2. 動物實驗管理小組，參加證書(實動(95)-257)，中華實驗動物學會。
  3. 小鼠解剖與採樣實習(南)，結業證書，財團法人國家實驗研究院，國家實驗動物中心。
  4. 小鼠解剖與組織學簡介，結業證書，財團法人國家實驗研究院，國家實驗動物中心。
  5. 加強動物保護計畫-實驗動物行政管理班，結業證書(103 農科產實動字第 0040 號)，財團法人農業科技研究院，。
  6. 104 年度 IACUC 成員再教育訓練班，結業證書(104 農科產實動字第 0152 號)，財團法人農業科技研究院。
  7. International IACUC Training: The key elements of a humane and responsible animal care and use program，參加證書(實動字第 10704-004 號)，中華實驗動物學會。
  8. 108 年度 IACUC 委員會或小組成員基礎訓練班，結業證書(108 農科實動字第 0309 號)，財團法人農業科技研究院。
  9. 優良臨床試驗規範訓練，結業證書(中藥字第 1021084 號)，國立成功大學附設醫院。
  10. 優良臨床試驗規範訓練，結業證書(中藥字第 1031136 號)，國立成功大學附設醫院。
  11. 優良臨床試驗規範訓練，結業證書(中藥字第 1051018 號)，國立成功大學附設醫院。
- 臨床研究主持人講習，參加證書(奇(人)發證字第 1031003056 號)，奇美醫療財團法人奇美醫學。