



張力天 Chang, Lee-Tian

特聘教授

專長：內分泌學、免疫學、中草藥醫學研究、實驗動物、抗菌/抗原蟲飼料添加物、智能設備

主要教授課程：

獸醫生理學及實習、營養代謝、獸醫麻醉學

Tel: 04-22840894 ext 608

E-mail : ltchang@nchu.edu.tw

簡要學經歷及重要榮譽

國立中興大學獸醫學系 研究助理 1991.1-1994.6/ 國立中興大學獸醫教學醫院 獸醫師 1994.6-1998.6/ 國立中興大學獸醫學系 博士 1998.9-2002.6

中央研究院農業生物科技研究中心 (原生物農業研究所) 博士後研究員 2002.10-2007.1

國立中興大學獸醫學系助理教授 2007.2~2012.8/ 國立中興大學獸醫學系副教授 2012.8~2016.2

/ 國立中興大學獸醫學系教授 2016.2~/國立中興大學獸醫學系特聘教授 2018/08~

102年第十屆國家新創獎(國家生技醫療產學策進會)(作品:研發抗雞隻球蟲之咸豐草配方)/102年國家發明創作獎(經濟部)(作品:聚炔類化合物)/104年台灣生醫暨新農業產業選秀大賽:新農業組潛力新秀獎(時代基金會)(作品:抗雞隻球蟲病天然物配方) / 108年科技部2019未來科技突破獎(作品:新型植生劑作為經濟動物保護劑/咸豐草改善腸道菌相與動物健康)/108~109年國家新創獎續獎(X2):新創精進獎(作品:研發抗雞隻球蟲之咸豐草配方)



研究興趣及成果簡述

- 一、開發新型植生劑作為經濟動物保護劑與治療糖尿病併發症植物藥
- 二、開發抗原蟲的雞隻飼料添加物、動物藥與生物藥
- 三、智能視覺辨識設備研製(雞蛋品質分析)

代表著作

1. Cytopiloyne, a polyacetylenic glucoside, prevents type 1 diabetes in non-obese diabetic mice. *Journal of Immunology*, 2007(178):6984-6993. (First author)
2. Anti-hyperglycemic effects and mechanism of *Bidens pilosa* water extract. *Journal of Ethnopharmacology*, 2009(122):379-383
3. Role of Cybr, a cytohesin binder and regulator, in CD4+ T-cell function and host immunity. *Molecular Immunology*, 2009(46):3218-3223
4. Anti-Hyperglycemic Properties of Crude Extract and Triterpenes from *Poria cocos*. *Evid Based Complement Alternat Med*. 2011: 1-8. (Corresponding author)
5. Catenarin prevents type 1 diabetes in non-obese diabetic mice via inhibition of leukocyte migration involving the MEK6/p38 and MEK7/JNK pathways. *Evid Based Complement Alternat Med*. 2011:1-13. (Corresponding author)
6. Combined phytochemistry and chemotaxis assays for identification and mechanistic analysis of anti-inflammatory phytochemicals in *Fallopia japonica*. *PLOS one* 2011(6):e27480- (Corresponding author)

7. Analysis of the Expression of CD45, CD11b and NSA of Blood Cells in Healthy and Tumor-bearing Dogs by Flow Cytometry. *Taiwan Vet. J.* 2012(38):233-242.(Corresponding author)
8. Exendin-4 improves resistance to *Listeria monocytogenes* infection in diabetic db/db mice. *J Vet Sci* 2012;(13):245-252 (Corresponding author)
9. Natural Cures for Type 1 Diabetes: A Review of Phytochemicals, Biological Actions, and Clinical Potential. *Current Medicinal Chemistry.* 2013(20): 899-907, (First author)
10. Antidiabetic Effect and Mode of Action of Cytopiloyne. *Evid Based Complement Alternat Med.* 2013:1-13. (Integrative & complementary medicine;7/24)(First author)
11. Herbal therapies for type2 diabetes mellitus: Chemistry, biology and potential application of selected plants and compounds. *Evid Based Complement Alternat Med.* Article 2013, ID 378657, 33 pages (First author)
12. Effect of *Bidens pilosa* on infection and drug resistance of *Eimeria* in chicken. *Research in Veterinary Science.* 2015(98):74-81. (corresponding author)
13. *Bidens pilosa* formulation improves blood glucose homeostasis and β -cell function in men: A pilot study. *Evid Based Complement Alternat Med.*; 2015, Article ID 832314 (corresponding author)
14. Beneficial effect of *Bidens pilosa* on body weight gain, food conversion ratio, gut bacteria and coccidiosis in chickens. *PLoS ONE*; 2015, 11(1): e0146141. (First author)
15. Cytopiloyne, a polyacetylenic glucoside from *Bidens pilosa*, acts as a novel anticandidal agent via regulation of macrophages. *Journal of ethnopharmacology*; 2016(184):72-80.(Corresponding author);
16. Data on the effect of cytopiloyne against *Listeria monocytogenes* infection in mice. *Data in Brief*, 2016(7):995-998. (Corresponding author)
17. Field trial of medicinal plant, *Bidens pilosa*, against eimeriosis in broilers. *Scientific reports*, 2016 srep24692. (First author)
18. *Bidens pilosa* and its active compound inhibit adipogenesis and lipid accumulation via down-modulation of the C/EBP and PPAR γ pathways. 2016 srep24285. (Corresponding author)
19. Anti-coccidial properties and mechanisms of an edible herb, *Bidens pilosa*, and its active compounds for coccidiosis. *Scientific Reports*, 2019(9):2896. (Corresponding author)
20. Toxicity study of *Bidens pilosa* in animals. *Journal of Traditional and Complementary Medicine*, 2020(10):150-157 (Corresponding author)
21. Functional and mechanistic studies of two anti-coccidial herbs, *Bidens pilosa* and *Artemisia indica*. *Plant Med*, 2021, DOI: 10.1055/a-1527-9715 (Corresponding author)

專利:

1. Polyacetylenic compounds (US 7763285 B2)(EP 1955701)
2. Butanol extract of *Bidens pilosa* (US 8048860 B2)
3. 咸豐草之正丁醇萃取物 (I347191) / 聚炔類化合物(I370738)
4. 咸豐草及聚乙炔化合物之組合物及其用途(I465242)/*Bidens pilosa* and polyacetylenic compounds for prevention and treatment of coccidiosis(US9072312B2)/*Bidens pilosa* dan senyawa-senyawa poliasetilenik untuk pencegahan dan pengobatan koksidirosis(IDP000050884)
5. 咸豐草改善腸道菌相與動物健康(I664974)(I672148)
6. 咸豐草與其化合物於增加肌肉生長與減少脂肪累積之用途(I664990)
7. 以 PDIA4 蛋白作為糖尿病之診斷、監測及治療之標的(I627957)

技術轉移:

- 1.大豐化學製藥股份有限公司:2014年
- 2.祥圃實業股份有限公司:2106年/2021年

更新日期：2021年8月1日