

# Geng-Ruei Chang



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## **Current Position:**

Professor/ Department of Veterinary Medicine, National Chiayi University, Taiwan

## **Education/Training:**

1997-2002 B.V.M. National Chung-Hsing University, Taiwan

2002-2004 M.S. National Chung-Hsing University, Taiwan

2004-2008 Ph.D. National Chung-Hsing University, Taiwan

## **Professional and Research Experience:**

2005 Associate Technical Specialist/ Taichung city animal protection and health inspection office

2005-2010 Associate Technical Specialist/ Miaoli county government

2010-2016 Assistant Investigator/ Division of Residual Control, Agricultural Chemicals and Toxic Substance Research Institute, Council of Agriculture, Taiwan

2013 Visiting Scholar/ Laboratory of Toxicology, Department of Environmental Veterinary Sciences, Graduate School of Veterinary Medicine, Hokkaido University, Japan

2016-2018 Assistant Professor/ Department of Veterinary Medicine, National Chiayi University, Taiwan

2018-2021 Associate Professor/ Department of Veterinary Medicine, National Chiayi University, Taiwan

## **Research Interests:**

1. Endocrine and oncology pharmacology in animal model
2. Analytic toxicology in animal matrixes
3. Veterinary Traditional Medicine in clinical and basic research

## **Biography:**

Dr. Chang (DVM), now is an assistant professor of Department of Veterinary Medicine, National Chiayi University, Taiwan. He got his B Sc (B.V.M.) in veterinary medicine, M Sc in zoology,

specialist in reproductive endocrinology, Ph.D. at National Chung-Hsing University (Taiwan). Currently, Dr. Chang's researches focus on the molecular regulation of endocrine pharmacology in type 2 diabetes and oncology pharmacology in hepatic carcinoma. He tries to find the efficient drugs to overcome type 2 diabetes and hepatic fibrosis. In addition, he analyzes the residues of pesticides, veterinary drugs, and environmental toxicants in animal matrixes, especially in marine products. He uses LC/MS-MS or GC/MS-MS to detect the trace residues which may affect human healthy. He pays attention to food safety, natural medicine and functional food for human health.

### **媒體報導(2020-2022):**

- [[買酵素送台南鳳梨 吃進新鮮 喝進健康 絕對值回票價](#)] 2020/04/21 勁報
- [[「買酵素贈鳳梨」，臺南市府偕大漢酵素做公益](#)] 2020/05/19 工商時報
- [[嘉大攜手林口長庚醫院 發現治療肺癌新藥](#)] 2021/05/11 自由時報
- [[嘉大師生團隊攜手林口長庚紀念醫院 發現治療肺癌新藥](#)] 2021/05/11 新浪新聞
- [[抗肺癌新藥物 嘉大與林口長庚紀念醫院研發有成](#)] 2021/05/11 今傳媒
- [[嘉大攜手林口長庚醫院 發現治療肺癌新契機](#)] 2021/05/11 台灣捷報
- [[攜手林口長庚發現治肺癌新藥 嘉大國際期刊登載受矚目](#)] 2021/05/11 台灣好報
- [[杜絕犬貓狂犬病 嘉大 USR 無償參與疫苗注射](#)] 2021/09/02 勁報
- [[懸賞 50 萬找愛貓引「暴動」 律師提醒法律後果：別亂開價](#)] 2022/01/16 聯合報
- [[致死率比新冠肺炎高！今年 4 例鼬獾狂犬病 嘉縣佔 2 例急打疫苗防堵](#)] 2022/06/10 蘋果新聞網
- [[嘉縣檢出 2 起狂犬病 家畜所趕在梅雨季前完成疫苗注射](#)] 2022/06/10 中時新聞網
- [[嘉縣 2 例鼬獾狂犬病 阿里山各部落完成犬貓預防注射](#)] 2022/06/10 聯合新聞網
- [[嘉大攜手林口長庚 突破大細胞肺癌治療困境](#)] 2022/06/17 自由健康網
- [[嘉大、長庚攜手突破大細胞肺癌治療困境](#)] 2022/06/17 聯合新聞網
- [[突破大細胞肺癌治療困境 嘉大攜手林口長庚為臨床醫學盡心力](#)] 2022/06/17 新浪新聞
- [[嘉大獸醫學系張耿瑞副教授團隊 攜手林口長庚醫院 突破大細胞肺癌治療困境 增加患者存活率並抑制大細胞肺癌轉移](#)] 2022/06/17 台灣華報
- [[嘉大攜手林口長庚突破大細胞肺癌治療困境為臨床醫學盡心力](#)] 2022/06/17 PChome 新聞
- [[嘉大攜手林口長庚突破大細胞肺癌治療困境](#)] 2022/06/17 大紀元新聞網
- [[突破大細胞肺癌治療困境 嘉大攜手林口長庚為臨床醫學盡心力](#)] 2022/06/17 TNN 台灣地方新聞
- [[大細胞肺癌治療困境 有解](#)] 2022/06/17 台灣新生報
- [[登國際期刊 台突破大細胞肺癌治療困境](#)] 2022/06/18 中華日報
- [[嘉大攜手林口長庚突破大細胞肺癌治療 受國際高度重視](#)] 2022/06/18 觀傳媒
- [[花青素能抑制大細胞肺癌腫瘤增長 嘉大攜手長庚突破治療困境](#)] 2022/06/19 蘋果新聞網
- [[嘉義防堵狂犬病入侵 寵物健診打預防針](#)] 2022/08/29 中時新聞網

### **Selected Publications (2018-2022):**

1. Wu CF, Wu CY, Lin CF, Liu YW, Lin TC, Liao HJ, Chang GR. The anticancer effects of cyanidin 3-O-glucoside combined with 5-fluorouracil on lung large-cell carcinoma in nude mice. *Biomedicine & pharmacotherapy* 2022; 151: 113128. (SCI; PHARMACOLOGY & PHARMACY: Rank Factor = 26/279, 9.31%; IF = 7.419)
2. Chang GR, Lin WL, Lin TC, Liao HJ, Lu YW. The ameliorative effects of saikosaponin in thioacetamide-induced liver injury and non-alcoholic fatty liver disease in mice. *International Journal of Molecular Sciences* 2021; 22: 189. (SCI; BIOCHEMISTRY & MOLECULAR BIOLOGY: Rank Factor = 69/296, 23.31%; IF = 6.208)
3. Chang GR, Hou PH, Wang CM, Lin JW, Lin WL, Lin TC, Liao HJ, Chan CH, Wang YC. Imipramine accelerates nonalcoholic fatty liver disease, renal impairment, diabetic retinopathy, insulin resistance and urinary chromium loss in obese mice. *Veterinary Sciences* 2021; 8: 189. (SCI; Veterinary Sciences: Rank Factor = 37/144, 25.69%; IF = 2.518)
4. Wang JH, Chang CP, Chang CC, Wang CM, Lin CF, Lin JW, Lin WL, Liao HY, Kao CY, Fan PS, Yang WC, Chang GR. Analysis of persistent organochlorine pesticides in shellfish and their risk assessment from aquafarms in Taiwan. *Marine Pollution Bulletin* 2021; 172: 112811. (SCI; MARINE & FRESHWATER BIOLOGY: Rank Factor = 2/113, 1.77%; IF = 7.001)
5. Chang GR, Kuo CY, Tsai MY, Lin WL, Lin TC, Liao HJ, Chen CH, Wang YC. Anti-cancer effects of zotarolimus combined with 5-fluorouracil treatment in HCT-116 colorectal cancer-bearing BALB/c nude mice. *Molecules* 2021; 26: 4683. (SCI; CHEMISTRY, MULTIDISCIPLINARY: Rank Factor = 65/179, 36.31%; IF = 4.927)
6. Chang GR, Hsieh WT, Chou LS, Lin CS, Wu CF, Lin JW, Lin WL, Lin TC, Liao HJ, Kao CY Lin CF. Curcumin improved glucose intolerance, renal injury, and nonalcoholic fatty liver disease and decreased chromium loss through urine in obese mice. *Processes* 2021; 9: 1132. (SCI; ENGINEERING & CHEMICAL: Rank Factor = 69/142, 48.59%; IF = 3.352)
7. Chang GR, Liu HY, Yang WC, Wang CM, Wu CF, Lin JW, Lin WL, Wang YC, Lin TC, Liao HJ, Hou PH, Chan CH, Lin CF. Clozapine worsens glucose intolerance, nonalcoholic fatty liver disease, kidney damage and retinal injury and increases renal reactive oxygen species production

- and chromium loss in obese mice. *International Journal of Molecular Sciences* 2021; 22: 6680. (SCI; BIOCHEMISTRY & MOLECULAR BIOLOGY: Rank Factor = 69/296, 23.31%; IF = 6.208)
8. Wu CF, Wu CY, Chiou RYY, Yang WC, Lin CF, Wang CM, Hou PH, Lin TC, Kuo CY, Chang GR. The anti-cancer effects of a zotarolimus and 5-fluorouracil combination treatment on A549 cell-derived tumors in BALB/c nude mice. *International Journal of Molecular Sciences* 2021; 22: 4562. (SCI; BIOCHEMISTRY & MOLECULAR BIOLOGY: Rank Factor = 69/296, 23.31%; IF = 6.208)
  9. Tsai MY, Yang WC, Lin CF, Wang CM, Liu HY, Lin CS, Lin JW, Lin WL, Lin TC, Fan PS, Hung KH, Lu YW, Chang GR. The ameliorative effects of fucoidan in thioacetamide-induced liver injury in mice. *Molecules* 2021; 26: 1937. (SCI; CHEMISTRY, MULTIDISCIPLINARY: Rank Factor = 65/179, 36.31%; IF = 4.927)
  10. Chang GR, Hou PH, Yang WC, Wang CM, Fan PS, Liao HJ, Chen TP. Doxepin exacerbates renal damage, glucose intolerance, nonalcoholic fatty liver disease and urinary chromium loss in obese mice. *Pharmaceuticals* 2021; 14: 267. (SCI; PHARMACOLOGY & PHARMACY: Rank Factor = 69/279, 24.73%; IF = 5.215; first author and corresponding author)
  11. Chang GR, Hou PH, Wang CM, Wu CF, Su HK, Liao HJ, Chen TP. Chronic everolimus treatment of high fat diet mice leads to a reduction in obesity but impaired glucose tolerance. *Pharmacology Research & Perspectives* 2021; 9: e00732. (SCI; PHARMACOLOGY & PHARMACY: Rank Factor = 181/279, 64.87%; IF = 2.963; first author and corresponding author)
  12. Tsai HP, Hou PH, Mao FC, Chang CC, Yang WC, Wu CF, Liao HJ, Lin TC, Chou LS, Hsiao LW, Chang GR. Risperidone exacerbates glucose intolerance, nonalcoholic fatty liver disease, and renal impairment in obese mice. *International Journal of Molecular Sciences* 2021; 22: 49. (SCI; BIOCHEMISTRY & MOLECULAR BIOLOGY: Rank Factor = 65/179, 36.31%; IF = 4.927)
  13. Hseu YC, Chiang YC, Gowrisankar YV, Lin KY, Huang ST, Shrestha S, Chang GR, Yang HL. The in vitro and in vivo anticancer properties of chalcone flavokawain b through induction of ros-mediated apoptotic and autophagic cell death in human melanoma cells. *Cancers*. 2020; 12: 2936. (SCI; ONCOLOGY; Rank Factor = 79/317, 24.92%; IF = 6.575; corresponding author)
  14. Wu CF, Hou PH, Mao FC, Su YC, Wu CY, Yang WC, Lin CS, Tsai HP, Liao HY, Chang GR.

- Mirtazapine reduces adipocyte hypertrophy and increases glucose transporter expression in obese mice. *Animals* 2020; 10: 1423. (SCI; VETERINARY SCIENCES: Rank Factor = 16/144, 11.11%; IF = 3.231)
15. Wu CF, Chen CH, Wu CY, Lin CS, Su YC, Wu CF, Tsai HP, Fan PS, Yeh CH, Yang WC, Chang GR. Quinolone and organophosphorus insecticide residues in bivalves and their associated risks in Taiwan. *Molecules* 2020; 25: 3636. (SCI; CHEMISTRY, MULTIDISCIPLINARY: Rank Factor = 65/179, 36.31%; IF = 4.927)
  16. Chang GR, Hou PH, Chen WK, Lin CT, Tsai HP, Mao FC. Exercise affects blood glucose levels and tissue chromium distribution in high-fat diet-fed C57BL6 mice. *Molecules* 2020; 25: 1658. (SCI; CHEMISTRY, MULTIDISCIPLINARY: Rank Factor = 65/179, 36.31%; IF = 4.927)
  17. Chang CP, Hou PH, Yang WC, Wu CF, Chang CC, Tsai MY, Tsai HP, Lin CT, Xue YJ, Wang JH, Chang GR. Analytical detection of sulfonamides and organophosphorus insecticide residues in fish in Taiwan. *Molecules* 2020; 25: 1501. (SCI; CHEMISTRY, MULTIDISCIPLINARY: Rank Factor = 65/179, 36.31%; IF = 4.927)
  18. Tsai MY, Ho CH, Chang HY, Yang WC, Lin CF, Lin CT, Xue YJ, Lai JM, Wang JH, Chang GR. Analysis of pollution of phthalates in pork and chicken in Taiwan using liquid chromatography-tandem mass spectrometry and assessment of health risk. *Molecules* 2019; 24: 3817. (SCI; CHEMISTRY, MULTIDISCIPLINARY: Rank Factor = 65/179, 36.31%; IF = 4.927)
  19. Tsai MY, Lin CF, Yang WC, Lin CT, Hung KH, Chang GR. Health risk assessment of banned veterinary drugs and quinolone residues in shrimp through liquid chromatography-tandem mass spectrometry. *Applied Sciences* 2019; 9: 2463. (SCI; CHEMISTRY, MULTIDISCIPLINARY: Rank Factor = 100/179, 55.87%; IF = 2.838)
  20. Chang HY, Yang WC, Xue YJ, Tsai MY, Wang JH, Chang GR. Phthalates and organophosphorus insecticide residues in shrimp determined by liquid/gas chromatography-tandem mass spectrometry and a health risk assessment. *Marine Pollution Bulletin* 2019; 144: 140-145. (SCI; MARINE & FRESHWATER BIOLOGY: Rank Factor = 2/113, 1.77%; IF = 7.001)
  21. Hseu YC, Chang GR, Pan JY, Rajendran P, Mathew DC, Li ML, Liao JW, Chen WT, Yang HL. *Antrodia camphorata* inhibits epithelial-to-mesenchymal transition by targeting multiple pathways in triple-negative breast cancers. *Journal of Cellular Physiology* 2019; 234: 4125-4139.

(SCI; PHYSIOLOGY: Rank Factor = 10/81, 12.34%; IF = 6.513)

22. Hou PH, Chang GR, Chen CP, Lin YL, Chao IS, Shen TT, Mao FC. Long-term administration of olanzapine induces adiposity and increases hepatic fatty acid desaturation protein in female C57BL/6J mice. *Iranian Journal of Basic Medical Sciences* 2018; 21: 495-501. (SCI; MEDICINE, RESEARCH & EXPERIMENTAL: Rank Factor = 112/139, 80.58%; IF = 2.532)
23. Hou PH, Mao FC, Chang GR, Huang MW, Wang YT, Huang SS. Newly Diagnosed Bipolar Disorder and the Subsequent Risk of Erectile Dysfunction: A Nationwide Cohort Study. *Journal of Sexual Medicine* 2018; 15: 183-191. (SCI; UROLOGY & NEPHROLOGY: Rank Factor = 39/90, 43.33%; IF = 3.937)
24. Chang GR. Persistent organochlorine pesticides in aquatic environments and fishes in Taiwan and their risk assessment. *Environmental Science and Pollution Research* 2018; 25: 7699-7708. (SCI; ENVIRONMENTAL SCIENCES: Rank Factor = 107/324, 33.02%; IF = 5.190)