Chang, Geng-Ruei

Associate Professor

Professional specialty:
Animal Pharmacology, Animal Physiology, Human Disease Animal Model Research, Analytical Toxicology, Food Safety Research

Lectures:
Veterinary Pharmacology, Laboratory Animal Science, Veterinary Traditional Chinese Medicine, Traditional Chinese, Animal Welfare

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Educational Background

Ph.D. in Veterinary Medicine, National Chung-Hsing University, Taiwan, 2004-2009.

Master of Veterinary Medical Science, National Chung-Hsing University, Taiwan, 2002-2004.

Bachelor of Veterinary Science, National Chung-Hsing University, Taiwan, 1997-2002.

Current Position and Professional Career

Associate Professor, Department of Veterinary Medicine, NCYU, 08/2018-now

Professional and Research Experience

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

Associate Technical Specialist/ Miaoli county government, Taiwan, 2005-2010.

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

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

Areas of Interest and Achievements

1. Drugs and its molecular on the regulation mechanisms of metabolic syndrome
2. Experimental animal models of human immunosuppression and tumors
3. Wild animal reproduction endocrine physiology

4. Analytic toxicology of drug and toxic residues in animal matrices
5. Basic research and clinical application of Chinese veterinary drugs

Selected Publications

1. 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 = 35/146, 23.9%; IF = 2.304)
2. 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 = 3/110, 2.7%; IF = 5.553)
3. 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 = 63/179, 35.2%; IF = 4.411)
4. 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 = 68/156, 43.6%; IF = 2.847)
5. 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 = 67/298, 22.5%; IF = 5.923)

6. 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 = 67/298, 22.5%; IF = 5.923)
7. 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 thioacetaide-induced liver injury in mice. Molecules 2021; 26: 1937. (SCI; CHEMISTRY, MULTIDISCIPLINARY: Rank Factor = 63/179, 35.2%; IF = 4.411)
8. 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 = 37/275, 13.5%; IF = 5.863; first author and corresponding author)
9. 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 = 174/275, 63.3%; IF = 2.794; first author and corresponding author)
10. 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 =67/298, 22.5%; IF = 5.923)
11. 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 = 51/242, 21.1%; IF = 6.639; corresponding author)

12. 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 = 19/146, 13.0%; IF = 2.752)
13. 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 = 63/179, 35.2%; IF = 4.411)
14. 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 = 63/179, 35.2%; IF = 4.411)
15. 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 = 63/179, 35.2%; IF = 4.411)
16. 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 = 63/179, 35.2%; IF = 4.411)
17. 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 = 82/216, 38.0%; IF = 2.679)

18. 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 = 3/110, 2.7%; IF = 5.553)
19. 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 = 7/81, 8.6%; IF = 6.384)
20. 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 = 94/140, 67.1%; IF = 2.699)
21. 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 = 25/90, 27.8%; IF = 3.802)
22. 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 = 91/274, 33.2%; IF = 4.223)
23. Chang GR. Surveys on banned veterinary drugs residues in marine bivalves and gastropods in Taiwan between 2010 and 2015: a mini review. Journal of Aquatic Pollution and Toxicology 2017; 1: 1-5.
24. Teng IH, Lee MW, Lin CF, Chang GR. Fibrosarcoma of the lower eyelid in a dog. Integrative Journal of Veterinary Biosciences 2017; 1: 1-3.
25. Chang GR, Chen WK, Hou PH, Mao FC. Isoproterenol exacerbates hyperglycemia

and modulates chromium distribution in mice fed with high fat diet. Journal of Trace Elements in Medicine and Biology 2017; 44: 315-321. (SCI; BIOCHEMISTRY & MOLECULAR BIOLOGY: Rank Factor =151/298, 50.7%; IF = 3.849)

26. 張耿瑞、曾昭銘、陳慧珊。以高效能液相層析串聯式質譜儀進行魚及蝦類中13種動物用藥之殘留量調查。台灣農業化學與食品科學期刊。2016; 54(5): 200-211.
27. Chang GR, Chen HS, Chuang WC. Preliminary determination of phthalates in field vegetables and fruits in Taiwan. Taiwanese Journal of Agricultural Chemistry and Food Science 2016; 54: 212-217.
28. Chang GR, Chen HS, Lin FY. Analysis of banned veterinary drugs and herbicide residues in shellfish by liquid chromatography-tandem mass spectrometry (LC/MS/MS) and gas chromatography-tandem mass spectrometry (GC/MS/MS). Marine Pollution Bulletin 2016; 113: 579-584. (SCI; MARINE & FRESHWATER BIOLOGY: Rank Factor = 3/110, 2.7%; IF = 5.553)
29. Chiu TY, Chang GR, Chen WY, Chao TH, Mao FC. The anti-cancer effects of resveratrol combined with 5-fluorouracil treatment in BALB/c mice bearing CT-26 cells. The Journal of Society of Colon and Rectal Surgeon 2016; 27: 65-73.
30. Chang GR, Chen PL, Hou PH, Mao FC. Resveratrol protects against diet-induced atherosclerosis by reducing low-density lipoprotein cholesterol and inhibiting inflammation in apolipoprotein E-deficient mice. Iranian Journal of Basic Medical Sciences 2015; 18(11): 1063-1071. (SCI; MEDICINE, RESEARCH & EXPERIMENTAL: Rank Factor = 94/140, 67.1%; IF = 2.699)
31. Chang GR, Chiu YS, Wu YY, Lin YC, Hou PH, Mao FC. Rapamycin impairs HPD-induced beneficial effects on glucose homeostasis. British Journal of Pharmacology 2015; 172: 3793-3804. (SCI; PHARMACOLOGY & PHARMACY: Rank Factor = 11/275, 4.0%; IF = 8.739)
32. Chao TH, Chang GR, Chen WY, Chen PL, Mao FC. The synergistic effect of rapamycin combined with 5-fluorouracil in BALB/cByJNarl mice bearing CT-26 tumor cells. Anticancer Research 2014;34:3329-3335. (SCI; ONCOLOGY: Rank

Factor = 203/244; IF = 1.994)

33. Chan FT, Chang GR, Wang HC, Hsu TH. Anesthesia with isoflurane and sevoflurane in the crested serpent eagle (Spilornis cheela hoya): minimum anesthetic concentration, physiological effects, hematocrit, plasma chemistry and behavioral effects. Journal of Veterinary Medical Science 2013; 75(12): 1591-1600. (SCI; VETERINARY SCIENCES: Rank Factor = 88/146, 60.3%; IF = 1.267)
34. Chan FT, Lin PI, Chang GR, Wang HC, Hsu TH. Hematocrit and plasma chemistry values in adult collared scops owls (Otus lettia) and crested serpent eagles (Spilornis cheela hoya). Journal of Veterinary Medical Science 2012; 74(7): 893-898. (SCI; VETERINARY SCIENCES: Rank Factor = 88/146, 60.3%; IF = 1.267)
35. Chang GR, Yang CC, Hsu SH, Lin C, Chiu CL, Chan FT, Mao FC. Fecal reproductive steroids profiles for monitoring reproductive pattern in female Formosan black bears (Ursus thibetanus formosanus). Annales Zoologici Fennici 2011; 48(5): 275-286. (SCI; ZOOLOGY: Rank Factor = 100/175, 57.1%; IF = 1.324)
36. Chang GR, Wu YY, Chiu YS, Chen WY, Liao JW, Hsu HM, Chao TH, Hung SW, Mao FC. Long-term administration of rapamycin prevents against adiposity, but impairs glucose tolerance in high fat diet-fed KK/HlJ mice. Basic & Clinical Pharmacology & Toxicology 2009; 105(3): 188-198. (SCI; PHARMACOLOGY & PHARMACY: Rank Factor = 102/275, 37.1%; IF = 4.080)
37. Chang GR, Chiu YS, Wu YY, Chen WY, Liao JW, Chao TH, Mao FC. Rapamycin protects against high fat diet-induced obesity in C57BL/6J mice. Journal of Pharmacological Sciences 2009; 109(4): 496-503. (SCI; PHARMACOLOGY & PHARMACY: Rank Factor = 145/275, 52.7%; IF = 3.337) *cited by Selman et al., in Science, vol 326, p.140-144, 2009.
38. Chang GR, Hsu SH, Hsu TH, Yang CC, Chan FT, Mao FC. Seasonal influence on fecal testosterone concentrations of male Formosan black bears (*Ursus thibetanus formosanus*). European Journal of Wildlife Research. 2009; 55(3): 203-208. (SCI; ZOOLOGY: Rank Factor = 58/175, ; IF = 1.381)
39. Chang GR, Mao FC, Yang CC, Chan FT. Hematological profiles of Formosan black

bear (*Ursus thibetanus formosanus*). Zoolgical Studies 2006; 45(1): 93-97. (SCI; ZOOLOGY: Rank Factor = 78/168, 46.4%; IF = 1.983)

40. 楊吉宗、毛嘉洪、張耿瑞、何東輯、詹芳澤。利用糞類固醇激素監測圈養台灣黑熊的繁殖狀態。特有生物研究。2006; 8(1): 1-11。
41. Chang GR, Mao FC, Yang CC, Chan FT. Seasonal changes in reproductive hormones of female Formosan black bears (Ursus thibetanus formosanus) in captivity. Endemic Species Research 2004; 6(2): 27-34.

And more

Update: 13/09/2021