



Mao, Frank Chiahung

Distinguished Professor

Professional specialty: Animal Physiology,
Animal Genetics, Endocrinology,
Animal Models for Human Chronic Diseases

Courses Taught:

Undergraduate: Veterinary Physiology,
Animal Genetics

Graduate: Molecular Endocrinology,
Metabolic Syndrome

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Educational Background

PhD, University of Wisconsin-Madison, Endocrinology-Reproductive Physiology (1991)

MS, University of Wisconsin-Madison, Meat and Animal Sciences (1988)

BS, National Taiwan University, Animal Sciences (1984)

Professional Career

Dean, College of Veterinary Medicine, National Chung Hsing University (2009-2015)

Chair, Department of Veterinary Medicine, National Chung Hsing University (2006-2009)

Director, Office of Student Assistantship, National Chung Hsing University (2002-2006)

Director, Office of Student Career Counseling, National Chung Hsing University (2000-2002)

Examiners and Members of the Committee in Charge of Examination Affairs, Qualification Screening
Examination for Veterinarians, Examination Yuan

Examiners and Members of the Committee in Charge of Examination Affairs, Civil Service Examination for
Veterinarians, Examination Yuan

Reexamining Members of the Committee of Grant Affairs, National Science Council (NSC)

Convener of the Life Science and Agriculture Committee of Industry-Academy Cooperation Grant Affairs,
NSC

Standing Board Member, Chinese Society of Veterinary Science, Taiwan Association of Veterinary Medicine
and Animal Husbandry, Chinese-Taipei Society Laboratory Sciences

Honors

Teaching Award in Student Extracurricular Activity, Ministry of Education (2002)

Teaching Award, Chinese Society of Veterinary Science (2002)

Glory Award of National Chung Hsing University (2004, 2006)

Excellent Counseling Professor of Innovation Incubator, NCHU (2003, 2007, 2008, 2009)

Distinguish Contribution Award, NCHU (2006, 2010)

Award for Excellent Contributions in Technology Transfer, National Science Council (2010)

Outstanding Contribution Award, Chinese-Taipei Society of Laboratory Animal Sciences (2011)

Award for Excellent Contributions in Technology Transfer, NCHU (2012)

Distinguished Professor, NCHU (2013, 2015, 2018)

Selected Publications

1. Chen WY, Chen CJ, Liu CH, **Mao FC**. Chromium supplementation enhances insulin signaling in skeletal muscle of obese KK/HIJ diabetic mice. *Diabetes Obesity and Metabolism*, 2009; 11:293-303.
2. Chang KR, Chiu YS, Wu YY, Chen WY, Liao JW, Chao TH, **Mao FC**. Rapamycin protects against high fat diet-induced obesity in C57BL6/J mice. *Journal of Pharmacological Sciences*, 2009; 109:496-503.
3. Chen PW, Jheng TT, Shyu CL, **Mao FC**. Antimicrobial potential for the combination of bovine

lactoferrin or its hydrolysate with lactoferrin-resistant probiotics against foodborne pathogens. *Journal of Dairy Science* 2013; 96 :1438–1446.

4. Chen PW, Jheng TT, Shyu CL, **Mao FC**. Synergistic antibacterial efficacies of the combination of bovine lactoferrin or its hydrolysate with probiotic secretion in curbing the growth of meticillin-resistant *Staphylococcus aureus*. *Journal of Medical Microbiology* 2013; 62: 1845- 1851.
5. Chen PW, Lin C, Chen CD, Chen WY, **Mao FC**. Chromium levels in insulin-sensitive tissues and the thigh bone are modulated by prednisolone and high-fat diets in mice. *Biometals* 2013; 26:347-354.
6. Chen PW, Lin C, Chen WY, Sun CC, **Mao FC**. Glucagon and insulin have opposite effects on tissue chromium distribution in an obese mouse model. *Journal of Diabetes Investigation* 2013; 4: 528-532.
7. Hsu HM, Chen WY, Hu TK, **Mao FC**. Supplementation of *Vitis thunbergii* root extract alleviated high-fat diet-induced obesity in C57BL/6J mice. *Bioscience, Biotechnology, and Biochemistry* 2014; 78:867-873.
8. Chao TH, Chang GR, Chen WY, Chen PL and **Mao FC**. The synergistic effect of rapamycin combined with 5-fluorouracil in Balb/cByJNarl mice bearing CT-26 tumor cells. *Anticancer Research* 2014; 34:3329-3336.
9. Hsu HM, Chen WY, Pan PH, **Mao FC**. *Vitis thunbergii* supplementation demonstrates an anti-obesity effect in developing obese mice. *European Journal of Integrative Medicine* 2014; 6:581-587.
10. Chang GR, Chiu YS, Wu YY, Lin YC, Hou PH, **Mao FC**. Rapamycin impaired HPD-induced beneficial effects on glucose homeostasis. *British Journal of Pharmacology* 2015; 172:3793-804.
11. Chen TS, Chen YT, Liu CH, Sun CC, **Mao FC**. Effect of chromium supplementation on element distribution in a mouse model of polycystic ovary syndrome. *Biological Trace Element Research* 2015; 168: 472-480.
12. 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: 1063-1071.
13. Chen TS, Chen YT, Liu CH, Sun CC, **Mao FC**. Steroidogenic enzymes of adipose tissue in modulation of trivalent chromium in a mouse model of PCOS. *Gynecological Endocrinology* 2017; 33(1):48-52.
14. Chang GR, Chen WK, Hou PH, **Mao FC**. Isoproterenol exacerbates hyperglycemia and modulates chromium distribution in mice fed with a high fat diet. *Journal of Trace Elements in Medicine and Biology* 2017; 44:315-321.
15. 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.

