

Curriculum Vitae

何國牟 (Guor Mour Her)

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Education

1987, Jun. **B.S.**
Department of Marine Food Science
National Taiwan Ocean University (海洋大學)

1989, Jun. **M.S.**
Division of Microbiology
Institute of Marine Food Science
National Taiwan Ocean University (海洋大學)

1998, Dec. **Ph.D.**
Western General Hospital
MRC Human Genetics Unit
University of Edinburgh (英國愛丁堡大學)



Research Experience

1987-1989 **Institute of Zoology, Academia Sinica (中研院動物所)**
Research Student
(Master program) Responsible for molecular cloning and structural study of infectious pancreatitis virus.

1991-1992 **Institute of Molecular Biology, Academia Sinica (中研院分生所)**
Research Assistant Designed a trapping system for identification and isolation of transcriptionally active region.

1992-1994 **Chang Gung Medical College (長庚醫學院)**
Research Assistant Studied cellular genes that effected by EBV viral latent infection

1994-1998 **University of Edinburgh (英國愛丁堡大學)**
Research Student (Ph.D. program)
Postdoctoral Researcher

1998-2000 **University of Pennsylvania (美國賓州大學)**

2000-2004 **Institute of Zoology, Academia Sinica (中研院動物所)**
Postdoctoral

Assistant Professor

Aug. 2004-July 2008 **Institute of Bioscience and Biotechnology Department of Life Science
National Taiwan Ocean University (海大生技所)**

Associate Professor

Aug. 2008-July 2013 **Institute of Bioscience and Biotechnology Department of Life Science
National Taiwan Ocean University (海大生技所)**

Professor

Aug. 2013-present **Institute of Bioscience and Biotechnology Department of Life Science
National Taiwan Ocean University (海大生技所)**

Professor

Aug. 2018-present **Institute of Biopharmaceutical Sciences National Yang-Ming University
(陽明生藥所)**

Award:

2002 Outstanding Poster Award of Institute of Zoology, Academia Sinica

2002 徐千田癌症研究基金會, 2002 Genomic Research Award for promising young scientist

2003 Distinguished Achievement in Poster Award of the 18th Joint Annual Conference of Biomedical Sciences in Taipei

2003 Outstanding Poster Award of the 3th Fall Camp for Era of Functional Genomics from Biomics, Virus Infection to protein Structure & Function, Taiwan Society for Biochemistry and Molecular Biology.

2012-2016 國立臺灣海洋大學 生命科學院研究績優獎(NTOU research award)

2014 國立臺灣海洋大學 校研究進步獎(NTOU research project award)

2014-2017 年獎勵特殊優秀人才獎勵(彈性薪資獎勵) (NTOU research excellent award)

2018-2020 年獎勵特殊優秀人才獎勵(彈性薪資獎勵) (NYCU research excellent award)

學會會員(members of academic society)

中華民國生物化學及分子生物學學會 (The Taiwan Society for Biochemistry and Molecular Biology)

中華民國細胞及分子生物學學會 (The Chinese Society of Cell and Molecular Biology)
臺灣海洋生物科技學會 (Taiwan Marine Biotechnology Society)
臺灣發育生物學會 (Taiwan Developmental Biology Society)

研究計畫及學術審查(Invited grants of reviewers for Taiwan national research council)

受邀 審查 99-106 年度「國科會一般專題計畫」之生物處初審委員

受邀 審查 100-101 年度「農業生物技術產業化發展方案」之初審委員

受邀 審查 102 年度「國科會一般專題計畫」之生物處複審委員

受邀 審查 102 年度「國科會一般專題計畫」之生物申覆審委員

受邀 審查 102 年度國立成功大學生技所「新聘助理教授」案之審查委員

受邀 審查 103 年度國立陽明大學生物醫學暨工程學院「升等兼任副教授」案之審查委員

受邀 審查 105 年度文化大學生命科學院「升等專任教授」案之審查委員

受邀 審查 106 年度國立空中大學新北分院「升等兼任教授」案之召集委員

受邀 審查 107-111 年度「科技部專題計畫」之生物司初審委員

受邀 審查 108 年度「科技部專題計畫」之生物司複審委員

受邀 審查 110 年度「科技部專題計畫」之生物司複審委員

國際期刊審查(Invited Paper reviewers for International Journals)

Editorial Board Member of Journal of Coastal Life Medicine (ELSEVIER Journal)

Guest Editor Invitation : Journal of Pharmacology & Clinical Toxicology

受邀 擔任國際知名期刊 Journal of Fish Biology

受邀 擔任國際知名期刊 International Journal of Molecular Sciences

受邀 擔任國際知名期刊 Cellular and Molecular Life Sciences (CMLS)

受邀 擔任國際知名期刊 Disease Models & Mechanisms (DMM)

受邀 擔任國際知名期刊 METHODS

受邀 擔任國際知名期刊 PLOS ONE

受邀 擔任國際知名期刊 Marine Biotechnology

受邀 擔任國際知名期刊 Zebrafish

受邀 擔任國際知名期刊 Journal of Marine Science and Technology

受邀 擔任國際知名期刊 HISTOLOGY AND HISTOPATHOLOGY

受邀 擔任國際知名期刊 Gene

受邀擔任國際知名期刊 World Journal of Gastroenterology

產學合作(industry-university cooperative research project)

Biotechnological Compies Research Advisors:

Taikong CORP., HONG DA LIFE Sciences Co. Ltd., ZGene Biotech Inc.

受邀擔任「邨港科技全球實驗魚」、「鴻達生命科技」、「力均生物科技」研究顧問

學術著作目錄

1. Tsai YW, Jeng KS, He MK, Hsieh YW, Lai HH, Lai CY, Huang CC, Chang CF, Huang CT, **Her GM***. MXD3 Promotes Obesity and the Androgen Receptor Signaling Pathway in Gender-Disparity Hepatocarcinogenesis. *Cells*. 2021;10(12): 3434. (***Corresponding author**).
2. Lai CY, Yeh KY, Liu BF, Chang TM, Chang CH, Liao YF, Liu YW, **Her GM***. MicroRNA-21 Plays Multiple Oncometabolic Roles in Colitis-Associated Carcinoma and Colorectal Cancer via the PI3K/AKT, STAT3, and PDCD4/TNF- α Signaling Pathways in Zebrafish. *Cancers (Basel)*. 2021;13(21):5565. (***Corresponding author**).
3. Hsieh YW, Tsai YW, Lai HH, Lai CY, Lin CY, **Her GM***. Depletion of Alpha-Melanocyte-Stimulating Hormone Induces Insatiable Appetite and Gains in Energy Reserves and Body Weight in Zebrafish. *Biomedicines*. 2021;9(8):941. (***Corresponding author**).
4. Lai CY, Yeh KY, Lin CY, Hsieh YW, Lai HH, Chen JR, Hsu CC, **Her GM***. MicroRNA-21 Plays Multiple Oncometabolic Roles in the Process of NAFLD-Related Hepatocellular Carcinoma via PI3K/AKT, TGF- β , and STAT3 Signaling. *Cancers (Basel)*. 2021;13(5):940. (***Corresponding author**).
5. Lai CY, Lin CY, Hsu CC, Yeh KY, **Her GM***. Liver-directed microRNA-7a depletion induces nonalcoholic fatty liver disease by stabilizing YY1- mediated lipogenic pathways in zebrafish. *Biochim Biophys Acta-Molecular and Cell Biology Lipids*. 2018;1863(8):844-856. (***Corresponding author**).
6. Hsu CC, Lai CY, Lin CY, Yeh KY, **Her GM***. MicroRNA-27b depletion enhances endotrophic and intravascular lipid accumulation and induces adipocyte hyperplasia in zebrafish. *International Journal of Molecular Sciences*. 2017;19(1):93. (***Corresponding author**).
7. Yeh KY, Lai CY, Lin CY, Hsu CC, Lo CP, **Her GM***. ATF4 overexpression induces early onset of hyperlipidaemia and hepatic steatosis and enhances adipogenesis in zebrafish. *Sci Rep*. 2017;7(1):16362. (***Corresdporning author**)
8. Wang BJ, **Her GM**, Hu MK, Chen YW, Tung YT, Wu PY, Hsu WM, Lee H, Jin LW, Hwang SL, Chen RP, Huang CJ, Liao YF. ErbB2 regulates autophagic flux to modulate the proteostasis of APP-CTFs in Alzheimer's disease. *Proc Natl Acad Sci U S A*. 2017;114(15):E3129-E3138.

9. Roy P, Periasamy AP, Lin CY, **Her GM**, Chiu WJ, Li CL, Shu CL, Huang CC, Liang CT, Chang HT. Photoluminescent graphene quantum dots for in vivo imaging of apoptotic cells. *Nanoscale*. 2015;7(6):2504-2510.
10. Lai WB, Wang BJ, Hu MK, Hsu WM, **Her GM**, Liao YF. Ligand-Dependent Activation of EphA4 Signaling Regulates the Proteolysis of Amyloid Precursor Protein Through a Lyn-Mediated Pathway. *Molecular Neurobiology*. 2014 Apr; 49(2):1055-68.
11. Tung YT, Wang BJ, Hsu WM, Hu MK, **Her GM**, Huang WP, Liao YF. Presenilin-1 regulates the expression of p62 to govern p62-dependent Tau degradation. *Molecular Neurobiology*. 2014 Feb;49(1):10-27.
12. **Her GM***, Pai WY, Lai CY, Lai CY, Hsieh YW, and Pang HW. Ubiquitous transcription factor YY1 promotes zebrafish liver steatosis and lipotoxicity by inhibiting CHOP-10 expression. *Biochim Biophys Acta-Molecular and Cell Biology Lipids*. 2013, Jun;1831(6):1037-51. (***Corresponding author**)
13. Pai WY, Hsu CC, Lai CY, Chang TZ, Yu-Lun Tsai YL, and **Her GM***. Cannabinoid receptor 1 promotes hepatic lipid accumulation and lipotoxicity through the induction of SREBP-1c expression in zebrafish. *Transgenic Research*. 2013, Aug;22(4):823-38. (***Corresponding author**)
14. Hsu CC, Pai WY, Lai CY, Lu MW, **Her GM***. Genetic characterization and in vivo imaging analysis of novel zebrafish pigment mutants. *Journal of Fish Biology*. 2013, May;82(5):1671-83. (***Corresponding author**)
15. Lee SH, Peng KC, Lee LH, Pan CY, Hour AL, **Her GM**, Hui CF, Chen JY. Characterization of tilapia (*Oreochromis niloticus*) viperin expression, and inhibition of bacterial growth and modulation of immune-related gene expression by electrotransfer of viperin DNA into zebrafish muscle. *Veterinary Immunology and Immunopathology*. 2013, Feb 15;151(3-4):217-28.
16. **Her GM***, Hsu CC, Hong JR, Lai CY, Hsu MC, Pang HW, Chan SK, Pai WY. Overexpression of gankyrin induces liver steatosis in zebrafish (*Danio rerio*). *Biochim Biophys Acta-Molecular and Cell Biology Lipids*. 2011 Sep;1811(9):536-48. (***Corresponding author**)
17. Shieh YS, Chang YS, Hong JR, Chen LJ, Jou LK, Hsu CC, **Her GM***. Increase of hepatic fat accumulation by liver specific expression of Hepatitis B virus X protein in zebrafish. *Biochim Biophys Acta-Molecular and Cell Biology Lipids*. 2010 Jul;1801(7):721-30. (***Corresponding author**)
18. Hsu CC, Hou MF, Hong JR, Wu JL, **Her GM***. Inducible male infertility by targeted cell ablation in zebrafish testis. *Mar Biotechnol (NY)*. 2010 Aug;12(4):466-78. (***Corresponding author**)
19. Chang CW, Su YC, **Her GM**, Ken CF, Hong JR. Betanodavirus induces oxidative stress-mediated cell death that prevented by anti-oxidants and zfcatalase in fish cells. *PLoS One*. 2011;6(10):e25853.
20. Pan CY, Rajanbabu V, Chen JY, **Her GM**, Nan FH. Evaluation of the epinecidin-1 peptide as an active ingredient in cleaning solutions against pathogens. *Peptides*. 2010 Aug;31(8):1449-58.
21. Chiu CL, Wu JL, **Her GM**, Chou YL, Hong JR. Aquatic birnavirus capsid protein, VP3, induces apoptosis via the Bad-mediated mitochondria pathway in fish and mouse cells. *Apoptosis*. 2010 Jun;15(6):653-68.
22. Zhan H, Spitsbergen JM, Qing W, Wu YL, Paul TA, Casey JW, **Her GM**, Gong Z. Transgenic

- expression of walleye dermal sarcoma virus rv-cyclin gene in zebrafish and its suppressive effect on liver tumor development after carcinogen treatment. *Mar Biotechnol (NY)*. 2010 Nov;12(6):640-9.
23. Chen PC, Wu JL, **Her GM**, Hong JR. Aquatic birnavirus induces necrotic cell death via the mitochondria-mediated caspase pathway. *Fish Shellfish Immunol*. 2010 Feb;28(2):344-53.
 24. Chen JY, Lin WJ, Wu JL, **Her GM**, Hui CF. Epinecidin-1 peptide induces apoptosis which enhances antitumor effects in human leukemia U937 cells. *Peptides*. 2009 Dec;30(12):2365-73.
 25. Hong JR, Guan BJ, **Her GM**, Evensen O, Santi N, Wu JL. Aquatic birnavirus infection activates the transcription factor NF-kappaB via tyrosine kinase signalling leading to cell death. *J Fish Dis*. 2008 Jun;31(6):451-60.
 26. Rekha RD, Amali AA, **Her GM**, Yeh YH, Gong HY, Hu SY, Lin GH, Wu JL. Thioacetamide accelerates steatohepatitis, cirrhosis and HCC by expressing HCVcore protein in transgenic zebrafish *Danio rerio*. *Toxicology*. 2008 Jan 14;243(1-2):11-22.
 27. Chen LJ, Hsu CC, Hong JR, Jou LK, Tseng HC, Wu JL, Liou YC, **Her GM***. Liver-specific expression of p53-negative regulator mdm2 leads to growth retardation and fragile liver in zebrafish. *Dev Dyn*. 2008 Apr;237(4):1070-81. (*Corresponding author)
 28. Amali AA, Rekha RD, Lin CJ, Wang WL, Gong HY, **Her GM**, Wu JL. Thioacetamide induced liver damage in zebrafish embryo as a disease model for steatohepatitis. *J Biomed Sci*. 2006 Mar;13(2):225-32. (SCI IF=1.962; Discipline: MEDICINE, RESEARCH & EXPERIMENTAL; Ranking: 54/106=50.9%)
 29. **Her GM***, Cheng CH, Hong JR, Sundaram GS, Wu JL. Imbalance in liver homeostasis leading to hyperplasia by overexpressing either one of the Bcl-2-related genes, zfBLP1 and zfMcl-1a. *Dev Dyn*. 2006 Feb;235(2):515-23. (*Corresponding author)
 30. **Her GM***. Y.-H. Yeh and J.-L. Wu. (2004) Functional conserved elements mediate I-FABP expression in the gut epithelia of zebrafish larvae. *Developmental Dynamic*, 230:734-742). (*Corresponding author)
 31. **Her, G. M.**, C.-C. Chiang, and J.-L. Wu.(2004) The zebrafish intestinal fatty acid binding protein (I-FABP) gene promoter drives gut-specific expression in stable transgenic fish. *Genesis* 2004, 38:26-31).
 32. **Her, GM.** Y.-H. Yeh and J.-L. Wu. (2003). A 435 bp upstream region of the liver-type fatty acid binding protein (L-FABP) gene is sufficient to modulate its liver regional expression in transgeniczebrafish. *Developmental Dynamic*. 227:347-356.
 33. **Her, GM.** C.-C. Chiang, W.-Y. Chen and J.-L.Wu. (2003). In vivo studies of liver-type fatty acid binding protein (L-FABP) gene expression in liver of transgenic zebrafish (*Danio rerio*). *FEBS Letter*. 538 (1-3) 125-133.
 34. 表CM302

Patents:

1. 肝脂肪酸結合蛋白之啟動子序列、含有該序列之重組載體、以及檢測該啟動子活性的方法(台灣專利: I328609).2010,10

2. **Transgenic fish germline expression driven by liver fatty acid binding (L-FABP) gene promoter and Applications Thereof (美國專利:US7,411,060B2) 2008, 08,12**
3. **Infertility control of genetically modified fish (美國專利:US8,383,880 B2) 2013, 02,26**

Conference reports:

1. Her. G. M., H. Y. Gong and J. L. Wu. Spatical and temporal expression of hepatocyte nuclear factor 1 genes during zebrafish hepatogenesis. Second NHRI Conference on Developmental Biology. Oct. 27 ~ 28, 2000. P24
2. Her. G. M., H. Y. Gong and J. L. Wu. S Spatiotemporal expression of hepatocyte nuclear factor 1 genes during zebrafish embryogenesis. The sixteenth join annual conference of the chinese biomedical science. Mar. 24 ~ 25, 2001. S48
3. Her. G. M., and J. L. Wu. Identification of a potential cis-regulatory elements required for liver specific expression during zebrafish embryogenesis using modified bacterial artificial chromosomes (BACs). International marine biotechnology symposium. APR. 12 ~ 13, 2001. P4
4. Shentu. H., H.-J. Wen, G.M. Her, J.-L. Wu and S.-P. L. Hwang. Regulation of zebrafish Bmp4 gene expression. International marine biotechnology symposium. APR. 12 ~ 13, 2001. P8
5. Her. G. M., and J. L. Wu. Functional analysis of HNF1 gene regulation and expression using artificial chromosome-mediated transgenesis. Symposium on development and genetics of zebrafish. JUN. 3 ~ 5, 2001. P7
6. Her. G. M. and J. L. Wu. In vivo studies of gene expression in liver regional specification of zebrafish embryos. The seventeenth join annual conference of the chinese biomedical science. Mar. 24 ~ 25, 2002. S69
7. Her. G. M, W.-Y. Chen and J. L. Wu. Cloning of the L-FABP gene promoter by IPCR and analysis of promoter regions required for liver-specific expression in transgenic in zebrafish (*Danio rerio*). 5th International Conference on Zebrafish Development & Genetics JUN 12~16, 2002. USA. P243
8. Cheng, C.H., G.M. Her., H.Y. Gong. and J.L. Wu. 2003. Transgenic analysis of functional role of Bcl-2 gene family (Bcl-XL and Mcl-1A) during zebrafish hepatogenesis. The Eighteenth Joint Annual Conference of Biomedical Science (2003), P74.
9. Her, G. M. Y.-H. Yeh, C.-C. Chiang, P.-H. Peng and J.-L. Wu. A functionally conserved 34 base-pair regulatory sequence in the intestinal-type fatty acid binding protein gene that governs gut regional specification during zebrafish larval development. Third European Meeting on Zebrafish and Medaka Development and Genetics. June 11-14, 2003. Paris. P69
10. Her, G. M. Y.-H. Yeh and J.-L. Wu. A 435 bp upstream region of the liver-type fatty acid binding

protein (L-FABP) gene is sufficient to modulate its liver regional expression in transgenic zebrafish. International Congress of Biochemistry & Molecular Biology. July 20-24, 2003. Canada.

11. Her, G. M. Y.-H. Yeh, C.-C. Chiang and J.-L. Wu. A sufficient distal region of liver fatty acid binding protein (L-FABP) gene controls the specific expression in transgenic zebrafish liver. the 3th Fall Camp for Era of Functional Genomics from Biomics, Virus Infection to protein Structure & Function, Taiwan Society for Biochemistry and Molecular Biology. Nov. 14-16, 2003.
12. Her, G. M. C.-H. Cheng and J. L. Wu. Imbalance in liver homeostasis leading to hyperplasia by overexpressing the Bcl-2-related genes, zfBLP1 and zfMcl-1a. 6th International Conference on Zebrafish Development & Genetics July 29~August 2, 2004. USA. P395
13. Li-Je Chen, Luen-Kuang Jou, Chia-Chun Hsu, and Guor Mour Her. Induction of Liver Degeneration by Transgenic Overexpression of Gankyrin During Zebrafish Hepatogenesis. Biotechnology Taiwan 2007. September 28-30, 2007, Taipei, Taiwan.
14. Li-Je Chen, Luen-Kuang Jou, Hung-Chun Lin, Ying- Tzn Huang, Szu-Ying Wu, Ji-Lin Chen and Guor Mour Her. Induction of liver degeneration and steatohepatitis by transgenic overexpression of gankyrin in zebrafish. The 1st International Cancer Symposium. November 16-17, 2007, Taichn, Taiwan.
15. Li-Je Chen, Luen-Kuang Jou, Jiann-Ruey Hong, Chia-Chun Hsu, Jen-Leih Wu, Hung-Chia Tseng, and Guor Mour Her. Liver-specific expression of p53 negative regulator mdm2 leads to growth retardation and fragile liver in zebrafish. International Conference of Advanced Research on Marine Bioresources. May 8-9, 2008
16. Li-Je Chen, Semon Wu, Chung-Tai Yue, Chia-Chun Hsu and Guor Mour Her. Induction of liver degeneration and cholestasis by transgenic overexpression of gankyrin during zebrafish hepatogenesis. 8th International Conference on Zebrafish Development & Genetics JUN 24~29, 2008. USA. P397.
17. Her GM, Pai WY, Lai CY, Hsieh YW, Pang HW. Ubiquitous transcription factor YY1 promotes zebrafish liver steatosis and lipotoxicity by inhibiting CHOP-10 expression. 8th European Meeting on Zebrafish Development and Genetics. July 05-14, 2013. Spain. P159