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Professor Yan-Hsiung Wang, Ph.D.

**Current position :**

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**Education and Training :**

PhD. National Taiwan University Institutes of Molecular Medicine and Clinical Medicine  
MS. Tunghai University Department of Biology  
BS. Tunghai University Department of Biology

**Experience :**

Kaohsiung Medical University School of Dentistry Associate Professor  
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Kaohsiung Medical University Orthopaedic Research Center Postdoctoral Fellow

**Major Awards:**

1. 2019 The 16th National Innovation Award of Taiwan Government
2. 2020 The 17th National Innovation Award of Taiwan Government
3. 2015~2023 KMU Outstanding Research Awards

**參與重要計畫:**

NO	計畫名稱	補助單位	計畫編號	起迄日期
1	研發高骨誘導與抗菌之羥基磷灰石聚氨酯多孔型泡棉骨材(3/3)	國科會(原科技部)	NSTC112-2314-B-037-114-MY3	114/8/1 115/7/31
2	研發高骨誘導與抗菌之羥基磷灰石聚氨酯多孔型泡棉骨材(2/3)	國科會(原科技部)	NSTC112-2314-B-037-114-MY3	113/8/1 115/7/31
3	研發高骨誘導與抗菌之羥基磷灰石聚氨酯多孔型泡棉骨材(1/3)	國科會(原科技部)	NSTC112-2314-B-037-114-MY3	112/8/1 115/7/31
4	去細胞化腎臟移植動物功效與體內 3D 生物支架之技術開發	產學合作		112/10/1 114/3/31
5	研發具軟骨分化的聚氨酯多孔型泡棉應用於軟骨重建	國科會產學合作計畫(原科技部)	NSTC 112-2622-B-037-003-	112/11/1 113/10/31

6	研發具軟骨分化的聚氨酯多孔型泡棉應用於軟骨重建	國科會產學合作計畫-廠商配合款(原科技部)	NSTC 112-2622-B-037-003-	112/11/1 113/10/31
7	低溫大氣電漿處理之紅藜脂質萃取物在牙周病的應用	高醫屏科大	NPUST-KMU-111-P006	111/1/1 111/12/31
8	研發促進骨生成之聚氨酯多孔型泡棉骨材	國科會(原科技部)	MOST111-2314-B-037-045	111/8/1 112/7/31
9	112 年度大專學生研究計畫-魏立耘(口衛 3)	大專學生研究計畫及博士後	NSTC112-2813-C-037-045-B	112/7/1 113/2/29

## **Papers**

著作(近五年內已發表著作之題目、刊物名稱、起迄頁次、刊出年份)

1. Fang-Hsuan Ku, Ping-Ho Chen, Je-Kang Du, Yan-Hsiung Wang (2024, Jan). Water temperature for fabrication of autopolymerizing polymethyl methacrylate (PMMA) interim fixed restoration affects cytotoxicity and residual methyl methacrylate (MMA). *J Dent Sci.* 2024 Jan;19(1):124-129, 19(1):124-129. 本人為通訊作者.
2. Hing-Ger Lau, Jun-Shen Huang, Hsiu-Wen Chien, Yan-Hsiung Wang, Shih-Fu Ou (2024, Jan). Preparation of a Zn/hydroxyapatite/chitosan composite coating with an antibacterial ability and cytocompatibility on a NiTi alloy. *Progress in Organic Coatings*, 186, 108050.
3. Chi-Hua Chang, Ching-Ping Lin, Yuk-Kwan Chen, Yu-Fang Hsiao and Yan-Hsiung Wang (2023, Oct). Simvastatin Attenuates Areca Nut Extract-Induced Subdermal Fibrosis in Mice by Targeting TGF- $\beta$  Signaling Pathways. *Curr. Issues Mol. Biol.*, 45(11), 8622-8632. 本人為通訊作者.
4. Chiu-Fang Chen, Szu-Hsien Chen, Rong-Fu Chen, Keng-Fan Liu, Yur-Ren Kuo, Chih-Kuang Wang, Tzer-Min Lee and Yan-Hsiung Wang (2023, Aug). A Multifunctional Polyethylene Glycol/Triethoxysilane-Modified Polyurethane Foam Dressing with High Absorbency and Antiadhesion Properties Promotes Diabetic Wound Healing. *Int. J. Mol. Sci.*, 24(15), 12506. 本人為通訊作者.
5. Lin Kang, Ai-Lun Yang, Chao-Han Lai, Tsan-Ju Chen, Sung-Yen Lin, Yan-Hsiung Wang, Chau-Zen Wang, Edward M Conway, Hua-Lin Wu, Mei-Ling Ho, Je-Ken Chang, Chung-Hwan Chen, Tsung-Lin Chen (2023, May). Chondrocyte Thrombomodulin Protects against Osteoarthritis. *International Journal of Molecular Sciences*, 24(11), 9522.
6. Shih-Fu Ou, Yan-Hsiung Wang, Hong-Min Huang, Chin-Fu Chen (2023, Mar). Effects of superelasticity and shape memory ability of NiTi-based alloys on deposition efficiency of ultrasonic-assisted coating. *Journal of Alloys and Compounds*, 937, 168189.
7. Tzu-Yu Song, Yan-Hsiung Wang, Hsiu-Wen Chien, Ching-Hou Ma, Chia-Lin Lee, Shih-Fu Ou (2022, Dec). Synthesis of cross-linked chitosan by calcium phosphate as long-term drug delivery coating with cytocompatibility. *Progress in Organic Coatings*, 173, 107162. 本人為第一作者.
8. Kuo-Lung Tung, Su-Zhen Wu, Chun-Chuan Yang, Hong-Yi Chang, Chun-Sheng Chang, Yan-Hsiung Wang, Bu-Miin Huang, Yu-Yan Lan (2022, Oct). Cordycepin Induces Apoptosis through JNK-Mediated Caspase Activation in Human OECM1 Oral Cancer Cells. *Evidence-Based Complementary and Alternative Medicine*, 2022,1842363. 本人為通訊作者.
9. Hsin-Chiao Chou, Sung-Yen Lin, Liang-Yin Chou, Mei-Ling Ho, Shu-Chun Chuang, Tsung-Lin Cheng, Lin Kang, Yi-Shan Lin, Yan-Hsiung Wang, Chun-Wang Wei, Chung-Hwan Chen, Chau-Zen Wang (2022, Sep). Ablation of Discoidin Domain Receptor 1 Provokes an Osteopenic Phenotype by Regulating Osteoblast/Osteocyte Autophagy and Apoptosis. *Biomedicines*, 10(9), 2173.
10. Tien-Ching Lee, Hui-Ting Chen, I-Chun Tai, Li-Ting Kao, Ming-Hsin Hung, Chung-Hwan Chen, Yin-Chih Fu, Yan-Hsiung Wang, Chih-Ming Kao, Je-Ken Chang, Mei-Ling Ho (2022, Aug). Anabolic Effects of a Novel Simvastatin Derivative on Treating Rat Bone Defects. *BIOMEDICINES*, 10(8):1915.
11. Cheng-Hsiang Kuo, Ban-Hua Zhang, Shang-En Huang, Jong-Hau Hsu, Yan-Hsiung Wang, Thi

- Tuyet Ngan Nguyen, Chao-Han Lai, Jwu-Lai Yeh (2022, Apr). Xanthine Derivative KMUP-1 Attenuates Experimental Periodontitis by Reducing Osteoclast Differentiation and Inflammation. *Front Pharmacol*, 13, 821492. DOI: 10.3389/fphar.2022.821492.
12. Ming-Hong Lin, Fang-Yu Fan, Cheng Hsien Kuo, Liang-Wei Lin, Kuang-Kuo Wang, Chin-Fu Chen, Yan-Hsiung Wang, Shih-Fu Ou (2022, Feb). Nanostructured hydroxyapatite coatings on NiTi shape memory alloys by ultrasonic mechanical coating and armouring. *Surface and Coatings Technology*, 431,127998.
  13. Ji-Hua Lee, Su-Chii Kong, Chia-Hsin Chen, Ying-Chun Lin, Kun-Tsung Lee, and Yan-Hsiung Wang (2021, Oct). The Effects of Photobiomodulation on Bone Defect Repairing in a Diabetic Rat Model. *International Journal of Molecular Sciences*, 22(20): 11026. 本人為通訊作者.
  14. Shyi-Tien Chen, Hsiu-Wen Chien, Chih-Yu Cheng, Hui-Min Huang, Tzu-Yu Song, Yi-Cheng Chen, Chien-Hui Wu, Yi-Huang Hsueh, Yan-Hsiung Wang, Shih-Fu Ou (2021, Oct). Drug-release dynamics and antibacterial activities of chitosan/cefazolin coatings on Ti implants. *Progress in Organic Coatings*, 159, 106385. 本人為通訊作者.
  15. Ming-Hong Lin, Yan-Hsiung Wang, Cheng-Hsien Kuo, Shih-Fu Ou, Pin-Zhen Huang, Tzu-Yu Song, Yi-Cheng Chen, Shyi-Tien Chen, Chien-Hui Wu, YiHuang Hsueh, Fang-Yu Fan (2021, Apr). Hybrid ZnO/chitosan antimicrobial coatings with enhanced mechanical and bioactive properties for titanium implants. *Carbohydrate Polymers*, 257:117639. 本人為第一作者.
  16. Che-Wei Lin, Yu-Feng Su, Chih-Yun Lee, Lin Kang, Yan-Hsiung Wang, SungYen Lin, Chih-Kuang Wang (2021, Feb). 3D printed bioceramics fabricated using negative thermoresponsive hydrogels and silicone oil sealing to promote bone formation in calvarial defects. *Ceramics International*, 47(4), 5464-5476.
  17. Min-Hsuan Chiang, Kun-Tsung Lee, Chia-Hsin Chen, Ker-Kong Chen, YanHsiung Wang (2020, Oct). Photobiomodulation therapy inhibits oral submucous fibrosis in mice. *Oral Diseases*, 26(7):1474-1482. 本人為通訊作者.
  18. Chou HC, Chen CH, Chou LY, Cheng TL, Kang L, Chuang SC, Lin YS, Ho ML, Wang YH, Lin SY, Wang CZ. (2020, Sep). Discoidin Domain Receptors 1 Inhibition Alleviates Osteoarthritis via Enhancing Autophagy. *International Journal of Molecular Sciences*, 21(19):6991.
  19. Chou LY, Chen CH, Chuang SC, Cheng TL, Lin YH, Chou HC, Fu YC, Wang YH, Wang CZ. (2020, Sep). Discoidin Domain Receptor 1 Regulates Runx2 during Osteogenesis of Osteoblasts and Promotes Bone Ossification via Phosphorylation of p38. *International Journal of Molecular Sciences*, 21(19):7210.
  20. GUO-CHUNG DONG, TZN-YUAN MA, CHI-HAN LI, CHIH-YING CHI, CHAO-MING SU, CHIH-LING HUANG, YAN-HSIUNG WANG, TZERMING LEE (2020, Aug). A Study of *Drynaria Fortunei* in Modulation of BMP-2 Signalling by Bone Tissue Engineering. *TURKISH JOURNAL OF MEDICAL SCIENCES*, 50(5):1444.
  21. Kuan-Yu Chiu, Ker-Kong Chen, Yan-Hsiung Wang, Feng-Huei Lin, Jian-Yuan Huang (2020, Jul). Formability of Fe-doped bioglass scaffold via selective laser sintering. *Ceramics International*, 46 (10): 16510.
  22. Yan-Hsiung Wang, Chun-Chung Liao, Cheng-Hsien Kuo, Xiang-Han Huang, Shyi-Tien Chen, Chien-

Hui Wu, Yi-Huang Hsueh, Shih-Fu Ou (2020, May). Controlled aggregation of Ag nanoparticles on oxide templates on nitinol by electrodeposition. *Materials Letters*, 267:127531. 本人為第一作者..

23. Chih-Ling Huang, Wei Fang, Bo-Rui Huang, Yan-Hsiung Wang, Guo-Chung Dong and Tzer-Min Lee (2020, Apr). Bioactive Glass as a Nanoporous Drug Delivery System for Teicoplanin. *Applied Sciences*, 10: 2595.
24. Yan-Hsiung Wang, Chun-Chung Liao, Yi-Cheng Chen, Shih-Fu Ou\*, Che-Yu Chiu (2020, Mar). The feasibility of eco-friendly electrical discharge machining for surface modification of Ti: A comparison study in surface properties, bioactivity, and cytocompatibility. *Materials Science & Engineering C Materials for Biological Applications*, 108:110192. 本人為第一作者.
25. Chen PH, Chuang LY, Wu KC, Wang YH, Shieh TY, Sheu JJ, Chang HW, Yang CH. (2019, Aug). Application of simulation-based CYP26 SNP-environment barcodes for evaluating the occurrence of oral malignant disorders by odds ratiobased binary particle swarm optimization: A case-control study in the Taiwanese population. *PLoS One*, 14(8):e0220719.
26. Lee KD, Chiang MH, Chen PH, Ho ML, Lee HZ, Lee HE, Wang YH. (2019, Jul). The effect of low-level laser irradiation on hyperglycemia-induced inflammation in human gingival fibroblasts. *Lasers in Medical Science*, 34(5):913-920. 本人為通訊作者.
27. Wang CZ, Wang YH, Lin CW, Lee TC, Fu YC, Ho ML, Wang CK. (2018, Dec). Combination of a Bioceramic Scaffold and Simvastatin Nanoparticles as a Synthetic Alternative to Autologous Bone Grafting. *International Journal of Molecular Sciences*, 19(12): 4099.
28. Wang YH, Wu JY, Kong SC, Chiang MH, Ho ML, Yeh ML, Chen CH. (2018, Apr). Low power laser irradiation and human adipose-derived stem cell treatments promote bone regeneration in critical-sized calvarial defects in rats. *PLoS One*, 13(4):e0195337. 本人為第一作者.
29. Tien-Ching Lee, Yan-Hsiung Wang, Shih-Hao Huang, Chung-Hwan Chen, MeiLing Ho, Yin-Chih Fu, Chih-Kuang Wang (2018, Mar). Evaluations of clinical grade bone substitute-combined simvastatin carriers to enhance bone growth: In vitro and in vivo analyses. *Journal of Bioactive and Compatible Polymers*, 33 ( 2): 160-177. 本人為第一作