

Curriculum Vitae

Tzu-Hung (Dusty) Lin PhD

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EDUCATION

PhD, Pharmacology, National Taiwan University 2004-2010

Dissertation: Studies of PPAR γ ligands, heme oxygenase-1, and disintegrin in bone metabolism and inflammation.

PROFESSIONAL EXPERIENCE

Industrial Technology Research Institute, HsinChu, Taiwan

Research Scientist

2016 April -- present

Responsible for the application of multiscale X-ray detection and analysis lab

1. Responsible for the construction of multiscale nano-CT based X-ray analysis lab.
2. Responsible for applications and research using micro-CT and X-ray associated technology and combined micro-CT with traditional technology including SEM/EDS/XRF/XRD.
3. Responsible for the characterization and analysis of medical devices and animal disease models.
4. Responsible for image analysis for clinical CT data
5. Conducted study for pre-clinical drug evaluation
 1. Conducted the first preclinical study of dietary supplement for osteoporosis application under the new regulation of TFDA (No. 00333).

hyGene Biotech Company (Distributor of Bruker Skyscan), Taipei, Taiwan

Application Manager

2014 Jan — 2016 March

Responsible for the application of image center of micro CT

1. Responsible for the lecture, external training and presentations of Bruker Skyscan micro-CT
 1. The first and only certified advanced application scientist by Bruker microCT in Taiwan
 2. Conducted the external training for 4 animal centers during 2014-2015
 3. Presented over 20 presentations in conference and medical college
 4. Arranged the meeting of Bruker micro-CT Asia User Meeting 2014.
2. Leader of the micro-CT application core (hyTecimage Solution Core) with 4 members

1. Setup the first Skyscan ex-vivo nano-CT application center in Taiwan.
2. Improved the service number by six fold compared with 2014.
3. Associated with the high quality publication with clients (ex: ACSNano, Stem Cells) and was interviewed by Taiwan TV station (CtiTV).
3. Contract Scan SOP and documents for ISO 17025 certification in progress

Drug Research Center of National Taiwan University, Taipei, Taiwan

Postdoctoral Scientist

2010 Feb – 2014 Jan

1. Investigated the physiological mechanisms and drug evaluation including osteoporosis, inflammatory arthritis, cancer research
 1. Published 11 SCI papers (4 first author, 4 second author)
 2. Published and attended to 5 international conferences.
2. Cooperated with pharmaceutical companies for drug development/pre-clinical drug evaluation
 1. AnChen Pharmaceuticals for cancer, angiogenesis and osteoporosis studies
 2. Won-Lin pharmaceutical company for osteoporosis research
3. Team leader and responsible for micro-CT service in Drug Research Center
 1. Best revenue of micro-CT contract scan service facility in medical college in Taiwan.

Certificate

1. Bruker Skyscan Advanced Scientist/Trainer Certificate (2014)
2. Bruker Skyscan Initial Trainer Certificate (2013)
3. English Certificate, IELTS overall band score 7.0 (Equal to CEFR C1, Effective operational proficiency or advanced) (2013)

AWARDS

1. Award of Excellent of paper research award of TOA (Taiwanese Osteoporosis Association), 2004
2. 2nd Prize of paper research award of TOA, 2005
3. Award of Excellent of best paper award of college of medicine, National Taiwan University, 2008
4. Award of Excellent of best paper award of college of medicine, National Taiwan University, 2010

Journal Publications:

1. PPARgamma inhibits osteogenesis via the down-regulation of the expression of COX-2 and iNOS in rats. **Lin TH**, Yang RS, Tang CH, Lin CP, Fu WM. *Bone* 2007, 562-574
2. Regulation of the maturation of osteoblasts and osteoclastogenesis by glutamate. **Lin TH**, Yang RS, Tang CH, Wu MY, Fu WM. *Eur J Pharmacol.* 2008, 37-44

3. Upregulation of heme oxygenase-1 inhibits the maturation and mineralization of osteoblasts. **Lin TH**, Tang CH, Hung SY, Liu SH, Lin YM, Fu WM, Yang RS. *J Cell Physiol.* 2010, 757-768
4. 15-deoxy- $\Delta(12,14)$ -prostaglandin-J2 and ciglitazone inhibit TNF- α -induced matrix metalloproteinase 13 production via the antagonism of NF- κ B activation in human synovial fibroblasts. **Lin TH**, Tang CH, Wu K, Fong YC, Yang RS, Fu WM. *J Cell Physiol.* 2011, 3242-3250
5. Involvement of 15-lipoxygenase in the inflammatory arthritis. Wu MY, **Lin TH**, Chiu YC, Liou HC, Yang RS, Fu WM. *J Cell Biochem.* 2012, 2279-89
6. Enhancement of placenta growth factor expression by oncostatin M in human rheumatoid arthritis synovial fibroblasts. Tu HJ, **Lin TH**, Chiu YC, Tang CH, Yang RS, Fu WM. *J Cell Physiol.* 2013, 983-990
7. EGb761 inhibits inflammatory responses in human chondrocytes and shows chondroprotection in osteoarthritic rat knee. Chen YJ, Tsai KS, Chiu CY, Yang TH, **Lin TH**, Fu WM, Chen CF, Yang RS, Liu SH. *J Orthop Res.* 2013, 1032-1038
8. Dextromethorphan inhibits osteoclast differentiation by suppressing RANKL-induced nuclear factor- κ B activation. Wu K, **Lin TH (equal first author)**, Liou HC, Lu DH, Chen YR, Fu WM, Yang RS. *Osteoporos Int.* 2013, 2201-14
9. 5-Lipoxygenase Inhibitors Attenuate TNF- α -Induced Inflammation in Human Synovial Fibroblasts. Lin HC, **Lin TH**, Wu MY, Chiu YC, Tang CH, Hour MJ, Liou HC, Yang RS, Fu WM. *PLoS ONE*, 2014, e107890
10. Ethanol Extracts of Fresh *Davallia formosana* (WL1101) Inhibit Osteoclast Differentiation by Suppressing RANKL-Induced Nuclear Factor- κ B Activation. **Lin TH**, Yang RS, Wang KC, Lu DH, Liou HC, Ma Y, Fu WM. *Evidence-Based Complementary and Alternative Medicine*. In press
11. Short-time focused ultrasound hyperthermia enhances liposomal doxorubicin delivery and antitumor efficacy for brain metastasis of breast cancer. Wu SK, Chiang CF, Hsu YH, **Lin TH**, Liou HC, Fu WM, Lin WL. *Int J Nanomedicine.* 2014, 19, 4485-4494
12. Role of Spinal CXCL1 (GRO α) in Opioid Tolerance: A Human-to-rodent Translational Study. Lin CP, Kang KH, **Lin TH**, Wu MY, Liou HC, Chuang WJ, Sun WZ, Fu WM. *Anesthesiology.* 2015 Mar;122(3):666-76.
13. Novel Pyrazole Derivatives Effectively Inhibit Osteoclastogenesis, a Potential Target for Treating Osteoporosis. Kuo TH, **Lin TH**, Yang RS, Kuo SC, Fu WM, Hung HY. *J. Med. Chem.*, 2015, 58 (12), 4954–4963
14. GuiLu extracts inhibit bone loss in ovariectomized rat via inhibition of osteoclast formation and induction of osteoblast mineralization. **Lin TH**, Yang RS, Wang KC, Lu DH, Ma Y, Chang SH, Fu WM. *Chin J Integr Med.* In Press

15. Inhibition of Osteoporosis by the $\alpha v\beta 3$ Integrin Antagonist of Rhodostomin Variants. **Lin TH**, Yang RS, Tu HJ, Liou HC, Lin YM, Chuang WJ, Fu WM. Eur J Pharmacol. 2017, 804, 94-101
16. CXCL12/CXCR4 Signaling Contributes to the Pathogenesis of Opioid Tolerance: A Translational Study. Lin CP, Kang KH, Tu HJ, Wu MY, **Lin TH**, Liou HC, Sun WZ, Fu WM. Anesth Analg. 2017; 124(3):972-979.
17. Improvement of bone-tendon fixation by porous titanium interference screw: A rabbit animal model. Tsai PI, Chen CY, Huang SW, Yang KY, **Lin TH**, Chen SY, Sun JS. J Orthop Res 2018; 36(10):2633-2640
18. Isosteviol Derivative Inhibits Osteoclast Differentiation and Ameliorates Ovariectomy-Induced Osteoporosis. Tzeng HE, Huang PH, Tsai CH, Tsay GJ, Lee YJ, Huang TJ, **Lin TH**, Chiu YM & Wu YY. Sci Rep. 2018; 25;8(1):11190.
19. Fibroblast-enriched endoplasmic reticulum protein TXNDC5 promotes pulmonary fibrosis by augmenting TGF β signaling through TGFBR1 stabilization. Lee TH, Yeh CF, Lee YT, Shih YC, Chen YT, Hung CT, You MY, Wu PC, Shentu TP, Huang RT, Lin YS, Wu YF, Lin SJ, Lu FL, Tsao PN, **Lin TH**, Lo SC, Tseng YS, Wu WL, Chen CN, Wu CC, Lin SL, Sperling AI, Guzy RD, Fang Y & Yang KC. Nature Communications. 2020; 11; 4254