

CURRICULUM VITAE

I-Chun Tai (戴宜均), Ph. D.

Personal Profile

Date of Birth: February 6, 1982
Place of Birth: Taipei, Taiwan, R.O.C.
Sex: Female
Citizenship: Republic of China
Marital Status: Married
Children: 1

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Education

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Kaohsiung Medical University, Kaohsiung, Taiwan	Ph.D.	2008-2015	Physiology
Kaohsiung Medical University, Kaohsiung, Taiwan	M.S.	2007-2008	Physiology
Chung Shan Medical University, Taichung, Taiwan	B.A.	2000-2005	Nursing

Experiences

2007-2015 Research Assistant in Orthopaedic Research Center Kaohsiung Medical University, Kaohsiung, Taiwan. Instructor: Mei-Ling Ho, Ph.D., Je-Ken Change, M.D. Ph.D.

2015- Postdoctoral fellow in Orthopaedic Research Center Kaohsiung Medical University, Kaohsiung, Taiwan. Instructor: Mei-Ling Ho, Ph.D., Je-Ken Change, M.D. Ph.D.

Honors

2012 Oral presentation award, Annual Meeting of Formosa Association of Regenerative Medicine

2013 Oral presentation award, Annual Meeting of Formosa Association of Regenerative Medicine

2013 Oral presentation award, Taiwan Orthopaedic Research Society

Research Interests

Stem Cell Biology

Cell Biology

Tissue engineering

Professional Techniques

1. Flow cytometry(Surface marker, Cell cycle, TUNEL assay, Annexin V-FITC staining)
2. General cell culture technique, i.e., cell line culture, transfection, adenovirus & lentivirus infection, in vitro differentiation of mesenchymal stem cell
3. General molecular biology technique, i.e., RNA extraction, PCR, realtime PCR, primer design, adenovirus and lentivirus preparation, siRNA
4. Surgery of experimental animals (mice, rats, rabbits, pigs)
5. Immunohistochemistry, Immunocytochemistry, Immunofluorescence
6. Kinase assay (Rho Kinase)
7. Preparation of PLGA scaffold for drug delivery
8. Protein purification
9. Small GTPase (RhoA, Rac1, cdc42) activity assay (Pull down assay, G-LISA)
10. Western Blot
11. 3D hydrogel
12. High performance liquid chromatography (HPLC)

LIST OF PUBLICATIONS

Peer reviewed papers

1. **I-Chun Tai**, Yao-Hsien Wang, Chung-Hwan Chen, Shu-Chun Chuang , Je-Ken Chang, Mei-Ling Ho
Simvastatin enhances Rho/actin/cell rigidity pathway that contributing to mesenchymal stem cells osteogenic differentiation. Int J Nanomedicine. Accepted.
2. Fu-Yuan Teng, **I-Chun Tai**, Min-Wen Wang, Yue-Jun Wang, Chun-Cheng Hung, Chun-Chieh Tseng
The structures, electrochemical and cell performance of titania films formed on titanium by micro-arc oxidation. Journal of the Taiwan Institute of Chemical Engineers. Available online 30 March 2014
3. Yin-Chih Fu equal contributor, Chih-Chun Lin equal contributor, Je-Ken Chang, Chung-Hwan Chen, **I-Chun Tai**, Gwo-Jaw Wang, Mei-Ling Ho
A novel single pulsed electromagnetic field stimulates osteogenesis of bone marrow mesenchymal stem cells and bone repair. PLoSOne. 2014 Mar 14;9(3):e91581
4. **I-Chun Tai**, Yin-Chih Fu, Chih-Kuang Wang, Je-Ken Chang, Mei-Ling Ho
Local delivery of controlled-release simvastatin/PLGA/HAp microspheres enhances bone repair. Int J Nanomedicine. 2013;8:3895-904

Conference podium talks/poster presentation (past 5 years)

1. **I-Chun Tai**, Gwo-Jaw Wang, Je-Ken Chang, Rajalakshmanan E, Mei-Ling Ho.
Effect of controlled Local Delivery of Simvastatin/PLGA Carrier on Bone Healing. The 56th Orthopaedic Research Society, New Orleans, LA, 2010 (Poster presentation).
2. **I-Chun Tai**, Yao-Hsien Wang, Mei-Ling Ho. RhoA signaling contributes to statin-induced osteogenesis in bone marrow mesenchymal stem cells. The 58th Orthopaedic Research Society, San Francisco, CA, 2012 (Poster presentation)
3. **I-Chun Tai**. RhoA signaling contributes to statin-induced osteogenesis in bone marrow mesenchymal stem cells. The 8th TSSCR Annual Meeting, Kaohsiung, Taiwan, 2012 (Invited speaker)