

## **RESUME-** *Dr. Chung-Hwan CHEN*

E-mail: [hwan@kmu.edu.tw](mailto:hwan@kmu.edu.tw)



### *Education ---*

**9/2004-6/2013 Doctor of Philosophy**

Kaohsiung Medical University, Kaohsiung City, Taiwan R.O.C.

**9/1987-6/1994 Doctor of Medicine**

Kaohsiung Medical University, Kaohsiung City, Taiwan R.O.C.

### *Certification and Awards---*

**10/2018 1<sup>st</sup> Prize of Award of the best abstract**

The Acelity Surgical Wound Forum

**10/2017 1<sup>st</sup> Prize of Best Paper Award**

Taiwanese Osteoporosis Association

**10/2016 1<sup>st</sup> Prize of Best Paper Award**

Taiwanese Osteoporosis Association

**10/2015 1<sup>st</sup> Prize of Best Paper Award**

Taiwan Orthopedic Research Society

**10/2015 2<sup>nd</sup> Prize of Best Poster Award**

Taiwan Orthopedic Research Society

**8/2015 3<sup>rd</sup> Prize of Best Poster Award**

Taiwanese Osteoporosis Association

**8/2015 Outstanding Poster Award**

Taiwanese Osteoporosis Association

**05/2014 Merit Award (Best paper session)**

2<sup>nd</sup> AO Trauma Asia Pacific Scientific Congress& TK Expert's Symposium

**10/2013 1<sup>st</sup> Prize of Best Paper Award in Basic Science**

Taiwan Orthopedic Association

**10/2013 1<sup>st</sup> Prize of Best Paper Award in Clinical Science**

Taiwan Orthopedic Association

**10/2013 2<sup>nd</sup> Prize of High Impact Factor Paper Award**

Taiwan Orthopedic Research Society

**8/2013 Outstanding Poster Award**

Taiwanese Osteoporosis Association

**10/2012 1<sup>st</sup> Prize of High Impact Factor Paper Award**

Taiwan Orthopedic Research Society

**08/2012 2<sup>nd</sup> Prize of Outstanding Poster Award**

Taiwanese Osteoporosis Association

**08/2012 Outstanding Poster Award**

Taiwanese Osteoporosis Association

**12/2012 The 8th national Innovation award: Treatment of early-stage arthritis**

Institute for Biotechnology and Medicine Industry

**10/2011 Outstanding Research Award**

Kaohsiung Medical University

**10/2010 Certificate of Special Doctor in Osteoporosis**

Taiwanese Osteoporosis Association

**10/2002 2<sup>nd</sup> Prize of Best Poster Award**

Taiwan Orthopaedic Association Conference. 2002

**10/2001 Certificate of Special Doctor in Orthopaedics**

National Health Administration of Executive Yuan, Taiwan R.O.C.

**06/2001 Certificate of Distinguished Performance**

Chung Ho Memorial Hospital Affiliated With Kaohsiung Medical College

**06/1999 Prize of Excellent Residency Doctor**

Chung Ho Memorial Hospital Affiliated With Kaohsiung Medical College

**06/1995 Certificate of Doctor**

Examination Yuan, Taiwan R.O.C.

**Professional Experience ---**

**10/2023-present President**

The Taiwanese Osteoporosis Association

**8/2019-present Jointly Appointed Professor**

National Sun Yat-sen University

**8/2019-present Director**

Orthopaedic Research Center, Kaohsiung Medical University

**2/2019-present Professor**

Kaohsiung Medical University

**8/2015-present Director, Department of Orthopaedics**

Kaohsiung Municipal Ta-Tung Hospital, Kaohsiung Medical University

**8/2003-present Attending Physician**

Orthopaedic Dept., Kaohsiung Medical University Hospital

**11/2020-10/2022 President**

Taiwan Orthopedic Research Society

**10/2017-09/2019 General Secretary**

Taiwan Osteoporosis Association

**08/2017-07/2018 General Secretary**

Pacific and Asian Society of the Minimally Invasive Spine Surgery

**11/2016-10/2018 Deputy General Secretary**

Taiwan Orthopedic Association

**8/2014-7/2015 Director, Division of Adult Reconstruction, Department of Orthopaedics**

Kaohsiung Medical University Hospital

**10/2014-present Deputy Director, Orthopaedic Research Center**

Kaohsiung Medical University

**11/2012-11/2014 General Secretary**

Taiwan Orthopedic Research Society

**8/2012-01/2019 Associate Professor**

Kaohsiung Medical University

**2/2008-8/2012 Assistant Professor**

Kaohsiung Medical University

**8/1996-7/2001 Resident Doctor**

Orthopaedic Dept., Kaohsiung Medical University Hospital

***Publications ---***

**A. Paper publication**

1. Lin SY, Chen WJ, Ku CK, Chen YM, **Chen CH**\*, Chien LN. Treatment Persistence and Medication Switch Associated with Subsequent Fractures after Osteoporotic Fractures. *J Clin Endocrinol Metab.* 2023 Aug 1:dgad449.
2. Hsu CL, Wu PC, Yin CH, **Chen CH**, Lee KT, Lin CL, Shi HY. Clinical Outcomes and Cost-Effectiveness of Osteoporosis Screening With Dual-Energy X-ray Absorptiometry. *Korean J Radiol.* 2023 Dec;24(12):1249-1259.
3. Lee CY, Nedunchezian S, Lin SY, Su YF, Wu CW, Wu SC, **Chen CH**, Wang CK. Bilayer osteochondral graft in rabbit xenogeneic transplantation model comprising sintered 3D-printed bioceramic and human adipose-derived stem cells laden biohydrogel. *J Biol Eng.* 2023 Nov 27;17(1):74.
4. Nair A, Lin CY, Hsu FC, Wong TH, Chuang SC, Lin YS, **Chen CH**, Campagnola P, Lien CH, Chen SJ. Categorization of collagen type I and II blend hydrogel using multipolarization SHG imaging with ResNet regression. *Sci Rep.* 2023 Nov 9;13(1):19534
5. Hsu CH, **Chen CH**, Hsu NC. Potential Discrepancies in Sensitivity of Fracture Prediction Tools. *JAMA Intern Med.* 2023 Nov 1;183(11):1282.

6. Hsu CH, **Chen CH**, Chou PH. Potential Limitations for Assessing the Association of Whole Blood With Survival in Patients With Severe Hemorrhage. *JAMA Surg*. 2023 Nov 1;158(11):1226-1227.
7. Hsu CH, Chou PH, **Chen CH\***. Uncertain Definition of Medium Risk for Outcome Evaluation of Postoperative Overnight High-Acuity Care. *JAMA Surg*. 2023 Aug 9.
8. Fu SH, Yu PY, Li CY, Hung CC, Lee CC, Chen HY, Tai TW, Hwang JS, Yang RS, Chiang H, Lin SY, Wu CH, Liao LC, Chuang CJ, Wu CY, Chang CY, Lee MT, **Chen CH\***, Wang CY. Diagnostic accuracy of algorithms to define incident and second hip fractures: A Taiwan validation study. *J Formos Med Assoc*. 2023;122 Suppl 1:S82-S91.
9. Chang LH, Wu SC, **Chen CH**, Chen JW, Huang WC, Wu CW, Lin YS, Chen YJ, Chang JK, Ho ML. Exosomes Derived from Hypoxia-Cultured Human Adipose Stem Cells Alleviate Articular Chondrocyte Inflammation and Post-Traumatic Osteoarthritis Progression. *Int J Mol Sci*. 2023 Aug 29;24(17):13414.
10. Kang L, Yang AL, Lai CH, Chen TJ, Lin SY, Wang YH, Wang CZ, Conway EM, Wu HL, Ho ML, Chang JK, **Chen CH\***, Cheng TL. Chondrocyte Thrombomodulin Protects against Osteoarthritis. *Int J Mol Sci*. 2023 May 30;24(11):9522.
11. Lin CW<sup>#</sup>, **Chen CH<sup>#</sup>**, Wu MH, Chang FM, Kang L. Polymorphisms within the Tumor Necrosis Factor-Alpha Gene Is Associated with Preeclampsia in Taiwanese Han Populations. *Biomedicines*. 2023 Mar 11;11(3):862. #: co-first author
12. Lee TC, Chen JC, Lin SY, Ho PS, **Chen CH**, Fu YC, Chang JK, Ho ML. Statin use in patients with type 2 diabetes has lower risk of hip fractures: A Taiwan national population-based study. *Diabetes Metab Res Rev*. 2023 Mar;39(3):e3603.
13. Tai TW, Huang CF, Huang HK, Yang RS, Chen JF, Cheng TT, Chen FP, **Chen CH**, Chang YF, Hung WC, Han DS, Chan DC, Tsai CC, Chen IW, Chan WP, Chang HJ, Hwang JS, Wu CH. Clinical practice guidelines for the prevention and treatment of osteoporosis in Taiwan: 2022 update. *J Formos Med Assoc*. 2023 ;122 Suppl 1:S4-S13.
14. Huang CF, Chen JF, Reid IR, Chan WP, Ebeling PR, Langdahl B, Tu ST, Matsumoto T, Chan DC, Chung YS, Chen FP, Lewiecki EM, Tsai KS, Yang RS, Ang SB, Huang KE, Chang YF, **Chen CH**, Lee JK, Ma HI, Xia W, Mithal A, Kendler DL, Cooper C, Hwang JS, Wu CH. Asia-pacific consensus on osteoporotic fracture prevention in postmenopausal women with low bone mass or osteoporosis but no fragility fractures. *J Formos Med Assoc*. 2023 Feb ;122 Suppl 1:S14-S20.
15. Jian SY, Lin CF, Tsai TL, Wang PH, **Chen CH**, Lin SY, Tseng CC. In Vivo Degradation Behavior of Magnesium Alloy for Bone Implants with Improving

Biological Activity, Mechanical Properties, and Corrosion Resistance. *Int J Mol Sci*. 2023 Jan 13;24(2):1602.

16. Hsu CH, **Chen CH**, Hsu NC. Aspirin vs Enoxaparin and Symptomatic Venous Thromboembolism in Hip or Knee Arthroplasty. *JAMA*. 2023 Jan 10;329(2):176-177.
17. Nair AV, Chuang SC, Lin YS, **Chen CH\***, Fang TC, Chiu HC, Lien CH, Chen SJ. Characterization of collagen response to bone fracture healing using polarization-SHG. *Sci Rep*. 2022 Nov 2;12(1):18453. \*: correspondence
18. Hour TC, Vo TCT, Chuu CP, Chang HW, Su YF, **Chen CH**, YJ Chen. The Promotion of Migration and Myogenic Differentiation in Skeletal Muscle Cells by Quercetin and Underlying Mechanisms. *Nutrients* 2022 Oct 2;14(19):4106.
19. Kao WC, Chen JC, Liu PC, Lu CC, Lin SY, Chuang SC, Wu SC, Chang LH, Lee MJ, Yang CD, Lee TC, Wang YC, Li JY, Wei CW, **Chen CH\***. The Role of Autophagy in Osteoarthritic Cartilage. *Biomolecules* 2022, 12(10), 1357. \*: correspondence
20. Yeh, PY., Huang, JC, Jang, JSC, Pan CT, **Chen CH**, Lin CH. Recent Developments in Additive-Manufactured Intermetallic Compounds for Bio-Implant Applications. *J Med Biol Eng* 42, 800–815 (2022).
21. Lin CW, Lee CY, Lin SY, Kang L, Fu YC, **Chen CH**, Wang CK. Bone-Targeting Nanoparticles of a Dendritic (Aspartic acid)<sub>3</sub>-Functionalized PEG-PLGA Biopolymer Encapsulating Simvastatin for the Treatment of Osteoporosis in Rat Models. *Int J Mol Sci*. 2022 Sep 11;23(18):10530.
22. Chou HC, Lin SY, Chou LY, Ho ML, Chuang SC, Cheng TL, Kang L, Lin YS, Wang YH, Wei CW, **Chen CH\***, Wang CZ. Ablation of Discoidin Domain Receptor 1 Provokes an Osteopenic Phenotype by Regulating Osteoblast/Osteocyte Autophagy and Apoptosis. *Biomedicines*. 2022 Sep 2;10(9):2173. \*: correspondence
23. Lee TC, Chen HT, Tai IC, Kao LT, Hung MH, **Chen CH**, Fu YC, Wang YH, Kao CM, Chang JK, Ho ML. Anabolic Effects of a Novel Simvastatin Derivative on Treating Rat Bone Defects. *Biomedicines*. 2022 Aug 8;10(8):1915.
24. Wang YC, Lee CL, Chen YJ, Tien YC, Lin SY, **Chen CH**, Chou PP, Huang HT. Comparing the Efficacy of Intra-Articular Single Platelet-Rich Plasma (PRP) versus Novel Crosslinked Hyaluronic Acid for Early-Stage Knee Osteoarthritis: A Prospective, Double-Blind, Randomized Controlled Trial. *Medicina*. 2022 Aug 1;58(8):1028.
25. Ho ML, Hsu CJ, Wu CW, Chang LH, Chen JW, **Chen CH**, Huang KC, Chang JK, Wu SC, Shao PL. Enhancement of Osteoblast Function through Extracellular Vesicles Derived from Adipose-Derived Stem Cells. *Biomedicines*. 2022 Jul

21;10(7):1752.

26. Lin SY, Chen YM, Chen WJ, Li CY, Ku CK, **Chen CH\***, Chien LN. Treatment patterns of long-dose-interval medication for persistent management of osteoporosis in Taiwan. *Arch Osteoporos*. 2022 Jul 15;17(1):94. \*: correspondence
27. Chen YK, Ngoc NTM, Chang HW, Su YF, **Chen CH**, Goan YG, Chen JY, Tung CW, Hour TC. Chlorogenic Acid Inhibition of Esophageal Squamous Cell Carcinoma Metastasis via EGFR/p-Akt/Snail Signaling Pathways. *Anticancer Res*. 2022 Jul;42(7):3389-3402.
28. Liu HY, Chang CF, Lu CC, Wu SC, Huang B, Cheng TL, Lin SY, Ho CJ, Lee MJ, Yang CD, Wang YC, Li JY, Liu PC, Wei CW, Kang L, **Chen CH**.\* The Role of Mitochondrial Metabolism, AMPK-SIRT Mediated Pathway, LncRNA and MicroRNA in Osteoarthritis. *Biomedicines*. 2022 Jun 22; 10(7):1477. \*: correspondence
29. Ho CJ, Tsai CY, Zhu WH, Pao YH, Chen HW, Hu CJ, Lee YL, Huang TS, **Chen CH**, Loh JK, Hong YR, Wang C. Compound cellular stress maximizes apoptosis independently of p53 in glioblastoma. *Cell Cycle*. 2022 Jun;21(11):1153-1165.
30. Wang YC, Wang LT, Hung TI, Hong YR, **Chen CH**, Ho CJ, Wang C. Severe cellular stress drives apoptosis through a dual control mechanism independently of p53. *Cell Death Discov*. 2022 Jun 9;8(1):282.
31. Lin SY, Ho CJ, Liu WC, Chen JK, Tu HP, Lee TC, Chang JK, **Chen CH**, Lu CC. Predicting the Poor Clinical and Radiographic Outcomes after the Anatomical Reduction and Internal Fixation of Posterior Wall Acetabular Fractures: A Retrospective Analysis. *J Clin Med*. 2022 Jun 6;11(11):3244.
32. Li JY, Lee JI, Lu CC, Su YD, Chiu CT, Chen SC, Geng JH, **Chen CH**.\* Hyperuricemia and Its Association with Osteoporosis in a Large Asian Cohort. *Nutrients*. 2022 May 26;14(11):2206. \*: correspondence
33. Hsu CH, Huang HT, **Chen CH**, Fu YC, Chou PH, Hsu NC. Global Impact of the COVID-19 Pandemic on Orthopedics and the Implications of Telemedicine: A Systematic Review of the Literature. *J Clin Med*. 2022 May 25;11(11):2983
34. Nedunchezian S, Wu CW, Wu SC, **Chen CH**, Chang JK, Wang CK. Characteristic and Chondrogenic Differentiation Analysis of Hybrid Hydrogels Comprised of Hyaluronic Acid Methacryloyl (HAMA), Gelatin Methacryloyl (GelMA), and the Acrylate-Functionalized Nano-Silica Crosslinker. *Polymers* (Basel). 2022 May 13;14(10):2003.
35. Liu WC, Chang CH, **Chen CH**, Lu CK, Ma CH, Huang SI, Fan WL, Shen HH, Tsai PI, Yang KY, Fu YC. 3D-Printed Double-Helical Biodegradable Iron Suture Anchor: A Rabbit Rotator Cuff Tear Model. *Materials*. 2022 Apr 11;15(8):2801.

36. Liu WC, Lu IC, Chang CC, Chen CT, **Chen CH**, Shih CL, Fu YC, Jupiter JB. Less Fluctuation in Hemodynamics of the Wide-Awake Local Anesthesia No Tourniquet Technique Than General Anesthesia in Distal Radius Plating Surgery: A Prospective Case-Control Study. *J Clin Med*. 2022 Feb 21;11(4):1123.
37. Wu PH, Lin MY, Huang TH, Lee TC, Lin SY, **Chen CH**, Kuo MC, Chiu YW, Chang JM, Hwang SJ. Kidney Function Change and All-Cause Mortality in Denosumab Users with and without Chronic Kidney Disease. *J Pers Med*. 2022 Jan 31;12(2):185.
38. **Chen CH**, Elsalrawy AH, Ish-Shalom S, Lim SJ, AlAli NS, Cunha-Borges JL, Yang H, Casas N, Altan L, Belaya Z, Marin F, Moll T, Gurbuz S, Brnabic A, Pavo I, Florez S. The Effect of Teriparatide Treatment on the Risk of Fragility Fractures in Postmenopausal Women with Osteoporosis: Results from the Asian and Latin America Fracture Observational Study (ALAFOS). *Calcif Tissue Int*. 2022 Jan;110(1):74-86.
39. Lu YM, **Chen CH**, Lue YJ. Disability and quality of life in patients with low back pain: Focus on sex and gender: A cross-sectional study. *J Back Musculoskeletal Rehabil*. 2022;35(1):177-184.
40. Wu YZ, Huang HT, Ho CJ, Shih CL, **Chen CH**, Cheng TL, Wang YC, Lin SY. Molecular Weight of Hyaluronic Acid Has Major Influence on Its Efficacy and Safety for Viscosupplementation in Hip Osteoarthritis: A Systematic Review and Meta-Analysis. *Cartilage*. 2021 Dec;13(1\_suppl):169S-184S.
41. Cheng TL, **Chen CH**, Wu MH, Lai CH, Lee KH, Lin SH, Shiau AL, Wu CL, Kang L. Upregulation of Fibrinogen-Like 1 Expression Contributes to Reducing the Progression of Preeclampsia. *Front Cell Dev Biol*. 2021 Dec 8;9:757643.
42. Ho CJ, Ko HJ, Liao TS, Zheng XR, Chou PH, Wang LT, Lin RW, **Chen CH**, Wang C. Severe cellular stress activates apoptosis independently of p53 in osteosarcoma. *Cell Death Discov*. 2021 Oct 4;7(1):275.
43. Lin YH, Chou LY, Chou HC, **Chen CH**, Kang L, Cheng TL, Wang CZ. The Essential Role of Stathmin in Myoblast C2C12 for Vertical Vibration-Induced Myotube Formation. *Biomolecules*. 2021 Oct 26;11(11):1583.
44. Yen SH, Lu CC, Ho CJ, Huang HT, Tu HP, Chang JK, **Chen CH**, Lin SY. Impact of Wedge Effect on Outcomes of Intertrochanteric Fractures Treated with Intramedullary Proximal Femoral Nail. *J Clin Med*. 2021 Oct 30;10(21):5112.
45. **Chen CH**, Cheng TL, Chang CF, Huang HT, Lin SY, Wu MH, Kang L. Raloxifene Ameliorates Glucosamine-Induced Insulin Resistance in Ovariectomized Rats. *Biomedicines*. 2021 Aug 30;9(9):1114.
46. Chou YS, Chuang SC, **Chen CH**, Ho ML, Chang JK. G-Protein-Coupled Estrogen Receptor-1 Positively Regulates the Growth Plate Chondrocyte Proliferation in

Female Pubertal Mice. *Front Cell Dev Biol.* 2021 Aug 20;9:710664.

47. Chang LH, **Chen CH**, Wu SC, Chang JK, Ho ML. Cyclooxygenase-2 regulates PTHrP transcription in human articular chondrocytes and is involved in the pathophysiology of osteoarthritis in rats. *J Orthop Translat.* 2021 Aug 12;30:16-30.
48. Lee CC, Hung CM, **Chen CH**, Hsu YC, Huang YP, Huang TB, Lee MJ. Novel Aptamer-Based Small-Molecule Drug Screening Assay to Identify Potential Sclerostin Inhibitors against Osteoporosis. *Int J Mol Sci.* 2021 Aug 2;22(15):8320.
49. **Chen CH**, Kang L, Chang LH, Cheng TL, Lin SY, Wu SC, Lin YS, Chuang SC, Lee TC, Chang JK, Ho ML. Intra-articular low-dose parathyroid hormone (1-34) improves mobility and articular cartilage quality in a preclinical age-related knee osteoarthritis model. *Bone Joint Res.* 2021 Aug;10(8):514-525.
50. Wu SC, Chang CH, Chang LH, Wu CW, Chen JW, **Chen CH**, Lin YS, Chang JK, Ho ML. Simvastatin Enhances the Chondrogenesis But Not the Osteogenesis of Adipose-Derived Stem Cells in a Hyaluronan Microenvironment. *Biomedicines.* 2021 May 17;9(5):559.
51. Wu YZ, Huang HT, Cheng TL, Lu YM, Lin SY, Ho CJ, Lee TC, Hsu CH, Huang PJ, Huang HH, Li JY, Su YD, Chen SC, Kang L, **Chen CH\***. Application of microRNA in human osteoporosis and fragility fracture: A systemic review of literatures. *Int J Mol Sci.* 2021 May, 22(9):5232. \*: correspondence
52. **Chen CH**, Nair AV, Chuang SC, Lin YS, Cheng, MH, Lin CY, Chang CY, Chen SJ, Lien CH. Dual-LC PSHG microscopy for imaging collagen type I and type II gels with pixel-resolution analysis. *Biomed Opt Express.* 2021 May 12(5): 3050-3065.
53. Jian SY, Aktug SL, Huang HT, Ho CJ, Lin SY, **Chen CH**, Wang MW, Tseng CC. The Potential of Calcium/Phosphate Containing MAO Im-planted in Bone Tissue Regeneration and Biological Characteristics. *Int J Mol Sci.* 2021 Apr 29;22(9):4706.
54. Yang CD, Chuang SC, Cheng TL, Lee MJ, Chen HT, Lin SY, Huang HT, Ho CJ, Lin YS, Kang L, Ho ML, Chang JK, **Chen CH\***. An Intermediate Concentration of Calcium with Antioxidant Supplement in Culture Medium Enhances Proliferation and Decreases the Aging of Bone Marrow Mesenchymal Stem Cells. *Int J Mol Sci.* 2021 Feb 20;22(4):2095. \*: correspondence
55. Shih CL, Huang PJ, Huang HT, **Chen CH**, Lee TC, Hsu CH. Impact of the COVID-19 pandemic and its related psychological effect on orthopedic surgeries conducted in different types of hospitals in Taiwan. *J Orthop Surg.* 2021 Jan-Apr;29(1):2309499021996072.
56. Huang HT, Cheng TL, Yang CD, Chang CF, Ho CJ, Chuang SC, Li JY, Huang SH,



- Lin YS, Shen HY, Yu TH, Kang L, Lin SY, **Chen CH\***. Intra-Articular Injection of (-)-Epigallocatechin 3-Gallate (EGCG) Ameliorates Cartilage Degeneration in Guinea Pigs with Spontaneous Osteoarthritis. *Antioxidants*. 2021 Jan 26;10(2):178. \*: correspondence
57. Huang HT, Cheng TL, Ho CJ, Huang HH, Lu CC, Chuang SC, Li JY, Lee TC, Chen ST, Lin YS, Lee CY, Kang L, Lin SY, **Chen CH.\***. Intra-Articular Injection of (-)-Epigallocatechin 3-Gallate to Attenuate Articular Cartilage Degeneration by Enhancing Autophagy in a Post-Traumatic Osteoarthritis Rat Model. *Antioxidants*. 2021;10(1):8. \*: correspondence
58. Wu CH, Chang YF, **Chen CH**, Lewiecki EM, Wüster C, Reid I, Tsai KS, Matsumoto T, Mercado-Asis LB, Chan DC, Hwang JS, Cheung CL, Saag K, Lee JK, Tu ST, Xia W, Yu W, Chung YS, Ebeling P, Mithal A, Ferrari SL, Cooper C, Lin GT, Yang RS. Consensus Statement on the Use of Bone Turnover Markers for Short-Term Monitoring of Osteoporosis Treatment in the Asia-Pacific Region. *J Clin Densitom*. 2021 Jan-Mar;24(1):3-13.
59. Huang HT, Cheng TL, Lin SY, Ho CJ, Chyu JY, Yang RS, **Chen CH\***, Shen CL. Osteoprotective Roles of Green Tea Catechins. *Antioxidants*. 2020 Nov 16;9(11):E1136. \*: correspondence
60. Luk HY, Appell C, Chyu MC, **Chen CH**, Wang CY, Yang RS, Shen CL. Impacts of Green Tea on Joint and Skeletal Muscle Health: Prospects of Translational Nutrition. *Antioxidants* (Basel). 2020 Oct 28;9(11):E1050.
61. Wu CH, Hung WC, Chang IL, Tsai TT, Chang YF, McCloskey EV, Watts NB, McClung MR, Huang CF, **Chen CH**, Wu KL, Tsai KS, Chan DC, Chen JF, Tu ST, Hwang JS, Xia W, Matsumoto T, Chung YS, Cooper C, Kanis JA, Yang RS, Chan WP. Pharmacologic intervention for prevention of fractures in osteopenic and osteoporotic postmenopausal women: Systemic review and meta-analysis. *Bone Rep*. 2020 Oct 27;13:100729.
62. Chou LY, **Chen CH**, Chuang SC, Cheng TL, Lin YH, Chou HC, Fu YC, Wang YH, Wang CZ. Discoidin Domain Receptor 1 Regulates Runx2 during Osteogenesis of Osteoblasts and Promotes Bone Ossification via Phosphorylation of p38. *Int J Mol Sci*. 2020 Sep 29;21(19):E7210.
63. Chou HC, **Chen CH**, Chou LY, Cheng TL, Kang L, Chuang SC, Lin YS, Ho ML, Wang YH, Lin SY, Wang CZ. Discoidin Domain Receptors 1 Inhibition Alleviates Osteoarthritis via Enhancing Autophagy. *Int J Mol Sci*. 2020 Sep 23;21(19):E6991.
64. Chuang SC, **Chen CH**, Chou YS, Ho ML, Chang JK. G Protein-Coupled Estrogen Receptor Mediates Cell Proliferation through the cAMP/PKA/CREB Pathway in Murine Bone Marrow Mesenchymal Stem Cells. *Int J Mol Sci*. 2020 Sep 5;21(18):E6490.

65. **Chen CH**, Lai CH, Hong YK, Lu JM, Lin SY, Lee TC, Chang LY, Ho ML, Conway EM, Wu HL, Cheng TL. Thrombomodulin Functional Domains Support Osteoblast Differentiation and Bone Healing in Diabetes in Mice. *J Bone Miner Res.* 2020 Sep;35(9):1812-1823.
66. Chou YS, Jiang HJ, **Chen CH**, Ho PS, Lee TC. Proton pump inhibitor use and risk of hip fracture in patients with type 2 diabetes. *Sci Rep.* 2020 Aug 21;10(1):14081.
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68. Lin YH, Kang L, Feng WH, Cheng TL, Tsai WC, Huang HT, Lee HC, **Chen CH\***. Effects of Lipids and Lipoproteins on Mesenchymal Stem Cells Used in Cardiac Tissue Regeneration. *Int J Mol Sci.* 2020 Jul 5;21(13):4770. \*: correspondence
69. Liao YC, Song SM, Li TH, Li JB, Tsai PH, Jang SC, Huang CH, Huang JC, Huang YS, Lin CH, Lin YS, **Chen CH**. Synthesis and characterization of an open-pore-toxic-element-free Ti-based bulk metallic glassfoam for bio-implant application. *J Mater Res Technol.* 2020 May-June; 9(3): 4518-4526
70. **Chen CH**, Kuo SM, Tien YC, Shen PC, Kuo YW, Huang HH. Steady Augmentation of Anti-Osteoarthritic Actions of Rapamycin by Liposome-Encapsulation in Collaboration with Low-Intensity Pulsed Ultrasound. *Int J Nanomedicine.* 2020 May 28;15:3771-3790.
71. Lin SY, Kan JY, Lu CC, Huang HH, Cheng TL, Huang HT, Ho CJ, Lee TC, Chuang SC, Lin YS, Kang L, **Chen CH\***. Green Tea Catechin (-)-Epigallocatechin-3-Gallate (EGCG) Facilitates Fracture Healing. *Biomolecules.* 2020 Apr 16;10(4). pii: E620. \*: correspondence
72. Chou LY<sup>#</sup>, **Chen CH<sup>#</sup>**, Lin YH, Chuang SC, Chou HC, Lin SY, Fu YC, Chang JK, Ho ML, Wang CZ. Discoidin domain receptor 1 regulates endochondral ossification through terminal differentiation of chondrocytes. *FASEB J.* 2020 Apr;34(4):5767-5781. <sup>#</sup>: co-first author
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### *Invited Speech---*

1. 2018-10-27. Minimally invasive surgery in pelvic and acetabular fracture. Plenary lecture. 2018 Annual Meeting of Taiwanese Osteoporosis Association. Taipei, Taiwan
2. 2018-09-15. Low one year mortality rate in elder hip fracture by co-care of patients with ortho-geriatricians and subsequent Fracture Liaison Service program. 2018 Silk Road Xi'an International Orthopaedic Congress. Xi'an, China.
3. 2018-09-14. Minimally invasive surgery in pelvic and acetabular fracture. 2018 Silk Road Xi'an International Orthopaedic Congress. Xi'an, China.
4. 2015-05-23. Orthopedic surgeon role in Taiwan Beyond the Osteoporotic Fracture, supported by cases and visuals. China. Osteoporotic Scientific Exchange Forum Guangzhou, China.
5. 2015-05-16. Minimally invasive surgery in pelvic and acetabular fracture. The Eleventh International Orthopedics Forum of West China Hospital.
6. 2015-04-25. Comparison of navigation and fluoroscopy only in the application of anterior column screw in acetabular and pelvic fractures. 12th Computer-Assisted Orthopaedic Surgery – Asia Pacific Congress (CAOS-Asia Pacific) 2015.
7. 2015-04-24. Alendronate in the Prevention of Collapse of the Femoral Head in Non-Traumatic Osteonecrosis. Taiwan. 18th International Symposium on Bone Circulation-ARCO 2015.
8. 2013-11-23. Do all osteoporosis agents have the same effect on bone mircoarchitecture? BUILD Symposium Taiwan 2013. Taiwanese Osteoporosis

Association.

9. 2013-09-26. Minimally invasive surgery in Pelvic and Acetabular Fractures. Monthly Meeting in South Taiwan. Taiwan Orthopaedic Association.
10. 2013-09-14. RANK/RANKL/OPG in osteoclastogenesis: from bench to bedside. Annual Symposium. Taiwan Orthopaedic Research Society.
11. 2013-08-11. Osteoporosis treatment after hip surgery. Osteoporosis Conference in South Taiwan. Taiwanese Osteoporosis Association.
12. 2013-04-20. Recent advance in sclerostin antibody for osteogenesis. Spring Annual Meeting. Taiwan Orthopaedic Association.
13. 2012-12-22. Latest evidence update on osteoporosis treatment by RANKL inhibition. Osteoporosis Conference in South Taiwan. Taiwanese Osteoporosis Association.
14. 2012-08-07. Latest Update on The Use of Vitamin D and Alendronate in Osteoporosis Treatment. Osteoporosis Conference in South Taiwan. Taiwanese Osteoporosis Association.
15. 2011-06-04. Bisphosphonates are associated with reduced mortality after hip fracture. Osteoporosis Conference in South Taiwan. Taiwanese Osteoporosis Association.
16. 2011-03-19. An easy and safe way to apply the antegrade anterior column screw under fluoroscopy. Monthly Meeting in South Taiwan. Taiwan Orthopaedic Association.
17. 2010-03-27. Emerging drug for postmenopausal osteoporosis. Monthly Meeting in South Taiwan. Taiwan Orthopaedic Association.
18. 2009-03-28. Percutaneous screw fixation for pelvic and acetabular fracture. Monthly Meeting in South Taiwan. Taiwan Orthopaedic Association.