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### **Education and Training：**

高雄醫學大學 醫學研究所 博士

### **Experience：**

高雄醫學大學 再生醫學與細胞治療研究中心 助理研究員

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### **Research Fields**

- Stem cells (Adipose, Bone marrow)
- Regenerative medicine
- Osteoarthritis
- Wound healing
- Biomaterials
- Articular cartilage repair
- Extracellular vesicles
- Tissue engineering
- Cardiovascular research
- Translational medicine

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### **Society memberships**

1. Sigma Xi The Scientific Research Honor Society (Sigma Xi)
2. Tissue engineering and regenerative medicine society (TERMIS)
3. Taiwan society for stem cell research (TSSR)
3. Formosa Association of Regenerative Medicine (台灣再生醫學會)
4. International Society for Extracellular Vesicles (ISEV)
5. Taiwan Society for Extracellular Vesicles (TSEV) 台灣胞外體學會

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### **Peer-Review Publications**

1. Chih-Yun Lee<sup>1</sup>, Swathi Nedunchezian<sup>2</sup>, Sung-Yen Lin<sup>3</sup>, Yu-Feng Su<sup>4</sup>, Che-Wei Wu<sup>5</sup>, **Shun-Cheng Wu(吳順成)**<sup>6</sup>, Chung-Hwan Chen<sup>7</sup>, Chih-Kuang Wang<sup>8</sup> 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. DOI: 10.1186/s13036-023-00389-x) (SCI) (Impact factor in 2022: 5.6, Ranking in BIOCHEMICAL RESEARCH METHODS: 9/77, 11.68%) MOST 109–2314-B-037–135 and MOST 110–2622-B-037–002. NSTC 112–2622-B-037–001.
2. Han Lee<sup>1</sup>, Jiunn-Der Liao<sup>2\*</sup>, Tak-Wah Wong<sup>3</sup>, Che-Wei Wu<sup>4</sup>, Bo-Yao Huang<sup>5</sup>, **Shun-Cheng Wu(吳順成)**<sup>6</sup>, Pei-Lin Shao<sup>7</sup>, Yu-Han Wei<sup>8</sup>, Ming-Hsien Cheng<sup>9</sup> Detection of micro-plasma-induced exosomes secretion in a fibroblast-melanoma co-culture model (*Analytica Chimica Acta.* Volume 1281, 15 November 2023, 341910. <https://doi.org/10.1016/j.aca.2023.341910>) (SCI) (Impact factor in 2022: 6.2, Ranking in CHEMISTRY, ANALYTICAL: 8/86, 9.3%)
3. Ling-Hua Chang<sup>1</sup>, **Shun-Cheng Wu(吳順成)**<sup>2</sup>, Chung-Hwan Chen<sup>3</sup>, Jhen-Wei Chen<sup>4</sup>, Wan-Chun Huang<sup>5</sup>, Che-Wei Wu<sup>6</sup>, Yi-Shan Lin<sup>7</sup>, Yu-Ju Chen<sup>8</sup>, Je-Ken Chang<sup>9</sup>, Mei-Ling Ho<sup>10</sup> Exosomes Derived from Hypoxia-Cultured Human Adipose Stem Cells Alleviate Articular Chondrocyte Inflammation and Post-Traumatic Osteoarthritis Progression (*International Journal of Molecular Sciences.* 2023 Aug 29;24(17):13414. doi: 10.3390/ijms241713414.) (SCI) (Impact factor in 2022: 5.4, Ranking in MEDICINE, RESEARCH & EXPERIMENTAL: 43/136, 31%)
4. Tsung-Cheng Yin<sup>1</sup>, Pei-Lin Sha<sup>2</sup>, Kuan-Hung Chen<sup>3</sup>, Kun-Chen Lin<sup>4</sup>, John Y Chiang<sup>5</sup>, Pei-Hsun Sung<sup>6</sup>, **Shun-Cheng Wu(吳順成)**<sup>7</sup>, Yi-Chen Li<sup>8</sup>, Hon-Kan Yip<sup>9</sup>, Mel S Lee<sup>10</sup> Synergic Effect of Combined Therapy of Hyperbaric Oxygen and Adipose-Derived Mesenchymal Stem Cells on Improving Locomotor Recovery After Acute Traumatic Spinal Cord Injury in Rat Mainly Through Downregulating Inflammatory and Cell-Stress Signalings. (*Cell Transplant.* 2022 Jan-Dec; 31: 9636897221133821. doi: 10.1177/09636897221133821.) (SCIE) (Impact factor in 2021: 4.139, Ranking in TRANSPLANTATION: 9/25, 36%)
5. Wei-Chun Kao<sup>1</sup>, Jian-Chih Chen<sup>2</sup>, Ping-Cheng Liu<sup>3</sup>, Cheng-Chang Lu<sup>4</sup>, Sung-Yen Lin<sup>5</sup>, Shu-Chun Chuang<sup>6</sup>, **Shun-Cheng Wu(吳順成)**<sup>7</sup>, Ling-hua Chang<sup>8</sup>, Mon-Juan Lee<sup>9</sup>, Chung-Da Yang<sup>10</sup>, Tien-Ching Lee<sup>11</sup>, Ying-Chun Wang<sup>12</sup>, Jhong-You Li<sup>13</sup>, Chun-Wang Wei<sup>14\*</sup>, Chung-Hwan Chen<sup>15\*</sup> The role of autophagy in osteoarthritis. (*Biomolecules.* 2022 Sep 23;12(10):1357. doi: 10.3390/biom12101357.) (SCIE) (Impact factor in 2021: 6.064, Ranking in BIOCHEMISTRY & MOLECULAR BIOLOGY: 75/296, 25.33%)
6. Mei-Ling Ho<sup>1</sup>, Chin-Jung Hsu<sup>2</sup>, Che-Wei Wu<sup>3</sup>, Ling-Hua Chang<sup>4</sup>, Jhen-Wei Chen<sup>5</sup>, Chung-Hwan Chen<sup>6</sup>, Kui-Chou Huang<sup>7</sup>, Je-Ken Chang<sup>8</sup>, **Shun-Cheng Wu(吳順成)**<sup>9\*</sup>, Pei-Lin Shao<sup>10\*</sup> Enhancement of Osteoblast Function through Extracellular Vesicles Derived from Adipose-Derived Stem Cells (*Biomedicines.* 2022 Jul 21;10(7):1752.) (SCIE) (Impact factor in 2021: 4.757, Ranking in PHARMACOLOGY & PHARMACY: 86/279, 30.82%) (通訊作者)
7. Hao-Yu Liu<sup>1+</sup>, Chi-Fen Chang<sup>2+</sup>, Cheng-Chang Lu<sup>3+</sup>, **Shun-Cheng Wu(吳順成)**<sup>4</sup>, Bin Huang<sup>5</sup>, Tsung-Lin Cheng<sup>6</sup>, Sung-Yen Lin<sup>7</sup>, Cheng-Jung Ho<sup>8</sup>, Mon-Juan Lee<sup>9</sup>, Chung-Da Yang<sup>10</sup>, Ying-Chun Wang<sup>11</sup>, Jhong-You Li<sup>12</sup>, Ping-Cheng Liu<sup>13</sup>, Chun-Wang Wei<sup>14\*</sup>, Lin Kang<sup>15\*</sup>, Chung-

Hwan Chen<sup>16\*</sup> The Role of Mitochondrial Metabolism, AMPK-SIRT Mediated Pathway, LncRNA and MicroRNA in Osteoarthritis (*Biomedicines*. 2022 Jun 22;10(7):1477.) (SCIE) (Impact factor in 2021: 4.757, Ranking in PHARMACOLOGY & PHARMACY: 86/279, 30.82%)

8. Pei-Lin Shao<sup>1</sup>, Jiunn-Der Liao<sup>2\*</sup>, Shun-Cheng Wu(吳順成)<sup>3</sup>, Yu-Hsing, Chen<sup>4</sup>, Tak-Wah Wong<sup>5</sup> Microplasma treatment versus negative pressure therapy for promoting wound healing in diabetic mice (*International Journal of Molecular Sciences*. 2021 Sep 24;22(19):10266.) (SCI) (Impact factor in 2020: 5.932, Ranking in Biochemistry & Molecular biology: 67/297, 22.55%) doi: 10.3390/ijms221910266. 字數:-
9. Chih-Chao Yang<sup>1</sup>, Pei-Hsun Sung<sup>2</sup>, Chih-Hung Chen<sup>3</sup>, John Y. Chiang<sup>4</sup>, Pei-Lin Shao<sup>5</sup>, Shun-Cheng Wu(吳順成)<sup>6\*</sup>, Hon-Kan Yip<sup>7\*</sup> Additional benefit of induced pluripotent stem cell-derived mesenchymal stem cell therapy on sepsis syndrome-associated acute kidney injury in rat treated with antibiotic (*Stem Cell Research & Therapy*. 2021 Oct 7;12(1):526.) (SCI) (Impact factor in 2020: 6.832, Ranking in Medicine, Research & Experimental: 24/140, 17.14%) doi: 10.1186/s13287-021-02582-5. (通訊作者)-
10. Chung-Hwan Chen<sup>1</sup>, Lin Kang<sup>2</sup>, Ling-Hua Chang<sup>3</sup>, Tsung-Lin Cheng<sup>4</sup>, Sung-Yen Lin<sup>5</sup>, Shun-Cheng Wu(吳順成)<sup>6</sup>, Yi-Shan Lin<sup>7</sup>, Shu-Chun Chuang<sup>8</sup>, Tien-Ching Lee<sup>9</sup>, Je-Ken Chang<sup>10</sup>, Mei-Ling Ho<sup>11</sup> Intra-articular low-dose parathyroid hormone (1-34) improves mobility and articular cartilage quality in a preclinical age-related knee osteoarthritis model (*Bone & Joint Research*. 2021 Aug;10(8):514-525.) (SCI) (Impact factor in 2020: 5.853, Ranking in Orthopedics: 4/82, 4.87%) doi: 10.1302/2046-3758.108.BJR-2020-0165.R2.字數:7673
11. Ling-hua Chang<sup>1</sup>, Chung-Hwan Chen<sup>2</sup>, Shun-Cheng Wu(吳順成)<sup>3</sup>, Je-ken Chang<sup>4</sup>, Mei-Ling Ho<sup>5\*</sup> Cyclooxygenase-2 regulates PTHrP transcription in human articular chondrocytes and is involved in the pathophysiology of osteoarthritis in rats (*Journal of Orthopaedic Translation*. 2021 Volume 30, September 2021, Pages 16-30) (SCI) (Impact factor in 2020: 5.191, Ranking in Orthopedics: 6/82, 7.31%) doi: 10.1016/j.jot.2021.06.003. 字數:8885
12. Jiunn-Jye Sheu<sup>1+</sup>, Han-Tan Chai<sup>2+</sup>, Pei-Hsun Sung<sup>3</sup>, John Y. Chiang<sup>4</sup>, Tien-Hung Huang<sup>5</sup>, Pei-Lin Shao<sup>6</sup>, Shun-Cheng Wu(吳順成)<sup>7\*</sup>, Hon-Kan Yip<sup>8\*</sup> Double overexpression of miR-19a & miR-20a in induced pluripotent stem cell-derived mesenchymal stem cells effectively preserves the left ventricular function in dilated cardiomyopathic rat (*Stem Cell Research & Therapy*. 2021 Jun 29;12(1):371.) (SCI) (Impact factor in 2020: 6.832, Ranking in Medicine, Research & Experimental: 24/140, 17.14%) doi: 10.1186/s13287-021-02440-4. 字數:9265 (通訊作者)
13. Shun-Cheng Wu(吳順成)<sup>1</sup>, Chih-Hsiang Chang<sup>2</sup>, Ling-Hua Chang<sup>3</sup>, Che-Wei Wu<sup>4</sup>, Jhen-Wei Chen<sup>5</sup>, Chung-Hwan Chen<sup>6</sup>, Yi-Shan Lin<sup>7</sup>, Je-Ken Chang<sup>8</sup>, Mei-Ling Ho<sup>9</sup> Simvastatin Enhances the Chondrogenesis But Not the Osteogenesis of Adipose-Derived Stem Cells in a Hyaluronan Microenvironment (*Biomedicines*. 2021 May 17;9(5):559.) (SCI) (Impact factor in 2020: 6.081, Ranking in Pharmacology & Pharmacy: 32/275, 11.63%) doi: 10.3390/biomedicines9050559 字數:10157 (第一作者)
14. Swathi Nedunchezian<sup>1</sup>, Parikshit Banerjee<sup>2</sup>, Chih-Yun Lee<sup>3</sup>, Su-Shin Lee<sup>4</sup>, Che-Wei

Lin<sup>5</sup>, Che-Wei Wu<sup>6</sup>, Shun-Cheng Wu(吳順成)<sup>7</sup>, Je-Ken Chang<sup>8</sup>, Chih-Kuang Wang<sup>9</sup>  
Generating adipose stem cell-laden hyaluronic acid-based scaffolds using 3D bioprinting via the double crosslinked strategy for chondrogenesis. (**Materials Science & Engineering C-Materials for Biological Applications**. 2021 May; 124: 112072.) (SCI) (Impact factor in 2020: 7.328, Ranking in MATERIALS SCIENCES BIOMATERIALS: 7/40, 17.50%) doi: 10.1016/j.msec.2021.112072 字數:10489

15. Yin-Chia Chen<sup>1</sup>, Jiunn-Jye Sheu<sup>2</sup>, John Y Chiang<sup>3</sup>, Pei-Lin Shao<sup>4</sup>, Shun-Cheng Wu(吳順成)<sup>5</sup>, Pei-Hsun Sung<sup>6</sup>, Yi-Chen Li<sup>7</sup>, Yi-Ling Chen<sup>8</sup>, Tien-Hung Huang<sup>9</sup>, Kuan-Hung Chen<sup>10\*</sup>, Hon-Kan Yip<sup>11</sup> Circulatory Rejuvenated EPCs Derived from PAOD Patients Treated by CD34 + Cells and Hyperbaric Oxygen Therapy Salvaged the Nude Mouse Limb against Critical Ischemia. (**International Journal of Molecular Sciences**. 2020 Oct 23;21(21): E7887.) (SCI) (Impact factor in 2019: 4.556, Ranking in Chemistry Multidisciplinary: 48/177, 27.11%; Biochemistry & Molecular biology: 74/297, 24.91%) doi: 10.3390/ijms21217887. 字數:8169
16. Han-Tan Chai<sup>1\*</sup>, Jiunn-Jye Sheu<sup>2</sup>, John Y Chiang<sup>3</sup>, Pei-Lin Shao<sup>4</sup>, Shun-Cheng Wu(吳順成)<sup>5</sup>, Yi-Ling Chen<sup>6</sup>, Yi-Chen Li<sup>7</sup>, Pei-Hsun Sung<sup>8</sup>, Fan-Yen Lee<sup>9</sup>, Hon-Kan Yip<sup>10\*</sup>. Early administration of cold water and adipose derived mesenchymal stem cell derived exosome effectively protects the heart from ischemia-reperfusion injury. (**American journal of translational research**, 2019 Sep 15;11(9):5375-5389.) (SCI) (Impact factor in 2018: 3.266, Ranking in MEDICINE, RESEARCH & EXPERIMENTAL: 58/136, 42.65%)
17. Pei-Lin Shao<sup>1</sup>, Shun-Cheng Wu(吳順成)<sup>2</sup>, Zih-Yin Lin<sup>3</sup>, Mei-Ling Ho<sup>4</sup>, Je-Ken Chang<sup>6</sup>, Chau-Zen Wang<sup>6\*</sup>  $\alpha$  5 integrin mediates simvastatin-induced osteogenesis of bone marrow mesenchymal stem cells. (**International Journal of Molecular Sciences**. January 2019, Volume 20(3), Pages 506) (SCI) (Impact factor in 2018: 4.183, Ranking in Chemistry Multidisciplinary: 46/172, 26.74%; Biochemistry & Molecular biology: 78/298, 26.17%) doi: 10.3390/ijms20030506. 字數:6782
18. Shun-Cheng Wu(吳順成)<sup>1</sup>, Pei-Yi Huang<sup>2</sup>, Chung-Hwan Chen<sup>3</sup>, Benjamin Teong<sup>4</sup>, Jhen-Wei Chen<sup>5</sup>, Che-Wei Wu<sup>6</sup>, Je-Ken Chang<sup>7#</sup>, Mei-Ling Ho<sup>8#</sup> Hyaluronan microenvironment enhances cartilage regeneration of human adipose-derived stem cells in a chondral defect model (**INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES**. November 2018, Volume 119, Pages 726-740) (SCI) (Impact factor in 2017: 3.909, Ranking in Polymer Science: 10/87: 11.49%; Chemistry, Applied: 9/71: 12.67%; Biochemistry & Molecular Biology: 79/292: 27.05%) doi: 10.1016/j.ijbiomac.2018.07.054. 字數:11339 (第一作者)
19. Chau-Zen Wang<sup>1</sup>, Rajalakshmanan Eswaramoorthy<sup>2</sup>, Tzu-Hsiang Lin<sup>3</sup> Chung-Hwan Chen<sup>4</sup>, Yin-Chih Fu<sup>5</sup>, Chih-Kuang Wang<sup>6</sup>, Shun-Cheng Wu(吳順成)<sup>7</sup>, Gwo-Jaw Wang<sup>8</sup>, Je-Ken Chang<sup>9</sup> & Mei-Ling Ho<sup>10</sup> Enhancement of chondrogenesis of adipose-derived stem cells in HA-PNIPAAm-CL hydrogel for cartilage regeneration in rabbits. (**Scientific Reports**. 2018 Jul 12;8(1):10526.) (SCI) (Impact factor in 2017: 4.122, Ranking in Multidisciplinary sciences: 12/64: 18.75%) doi: 10.1038/s41598-018-28893-x. 字數:7730
20. Chung-Hwan Chen<sup>1</sup>, Ling-Hua Chang<sup>2</sup>, Lin Kang<sup>3</sup>, Yi-Shan Lin<sup>4</sup>, Sung-Yen Lin<sup>5</sup>, Shun-Cheng

Wu(吳順成)<sup>6</sup>, Je-Ken Chang<sup>7</sup>, and Mei-Ling Ho<sup>8</sup>. Parathyroid hormone (1-34) ameliorated knee osteoarthritis in rats via autophagy (**Journal of Applied Physiology (1985). 2018 May 1;124(5):1177-1185.**) (SCI) (Impact factor in 2017: 3.256) (Ranking in Sport Sciences: 11/81: 13.58%; Ranking in Physiology:23/83: 27.71%) doi: 10.1152/jappphysiol.00871.2017. 字數:4570

21. Benjamin Teong<sup>1</sup>, Shun-Cheng Wu(吳順成)<sup>2</sup>, Chien-Mei Chang<sup>3</sup>, Jhen-Wei Chen<sup>4</sup>, Hui-Ting Chen<sup>5</sup>, Chung-Hwan Chen<sup>6</sup>, Je-Ken Chang<sup>7</sup>, Mei-Ling Ho<sup>8</sup>. The stiffness of a crosslinked hyaluronan hydrogel affects its chondro-induction activity on hADSCs. (**J Biomed Mater Res B Appl Biomater. 2018 Feb;106(2):808-816.**) (SCI) (Impact factor in 2017: 3.373) (Ranking in Engineering, Biomedical: 17/78: 21.79%) doi: 10.1002/jbm.b.33881. 字數:4598
22. Shun-Cheng Wu(吳順成)<sup>1</sup>, Chung-Hwan Chen<sup>2</sup>, Jyun-Ya Wang<sup>3</sup>, Yi-Shan Lin<sup>4</sup>, Je-Ken Chang<sup>5</sup>, Mei-Ling Ho<sup>6</sup>. Hyaluronan size alters chondrogenesis of adipose-derived stem cells via the CD44/ERK/SOX-9 pathway (**Acta Biomaterialia. 2018 Jan 15; 66: 224-237.**) (SCI) (Impact factor in 2017: 6.383, Ranking in Engineering, Biomedical: 4/78: 5.12%; Materials science, Biomaterials: 3/33: 9.09%) doi: 10.1016/j.actbio.2017.11.025. 字數:11539 (第一作者)
23. Pao-Yuan Lin<sup>1</sup>, Fan-Yen Lee<sup>2</sup>, Christopher Glenn Wallace<sup>3</sup>, Kuan-Hung Chen<sup>4</sup>, Gour-Shenq Kao<sup>5</sup>, Pei-Hsun Sung<sup>6</sup>, Sarah Chua<sup>7</sup>, Sheung-Fat Ko<sup>8</sup>, Yung-Lung Chen<sup>9</sup>, Shun-Cheng Wu(吳順成)<sup>10</sup>, Hsueh-Wen Chang<sup>11</sup>, Hon-Kan Yip<sup>12</sup>, Pei-Lin Shao<sup>13</sup>. “The therapeutic effect of rosuvastatin and propylthiouracil on ameliorating high-cholesterol diet-induced rabbit aortic atherosclerosis and stiffness”, (**International Journal of Cardiology, 2017 Jan 15;227:938-949.**) (SCI) (Impact factor in 2016: 6.189, Category: CARDIAC AND CARDIOVASCULAR SYSTEMS, 16/126:12.69%) doi: 10.1016/j.ijcard.2016.09.040. 字數:8674
24. Ling-hua Chang<sup>1</sup>, Shun-Cheng Wu(吳順成)<sup>2</sup>, Chung-Hwan Chen<sup>3</sup>, Gwo-Jaw Wang<sup>4</sup>, Je-ken Chang<sup>5</sup>, Mei-Ling Ho<sup>6</sup>. Parathyroid hormone 1-34 reduces dexamethasone-induced terminal differentiation in human articular chondrocytes. (**Toxicology. 2016 Aug 10;368-369:116-128.**) (SCI) (Impact factor in 2015: 3.817) (Ranking in Toxicology: 13/90: 14%) doi: 10.1016/j.tox.2016.09.002. 字數:7474
25. Kun-Chen Lin<sup>1</sup>, Hon-Kan Yip<sup>2</sup>, Pei-Lin Shao<sup>3</sup>, Shun-Cheng Wu(吳順成)<sup>4</sup>, Kuan-Hung Chen<sup>5</sup>, Yen-Ta Chen<sup>6</sup>, Chih-Chao Yang<sup>7</sup>, Cheuk-Kwan Sun<sup>8</sup>, Gour-Shenq Kao<sup>9</sup>, Sheng-Yi Chen<sup>10</sup>, Han-Tan Chai<sup>11</sup>, Chia-Lo Chang<sup>12</sup>, Chih-Hung Chen<sup>13</sup>, Mel S. Lee<sup>14</sup>. Combination of adipose-derived mesenchymal stem cells (ADMSC) and ADMSC-derived exosomes for protecting kidney from acute ischemia-reperfusion injury. (**International Journal of Cardiology. 2016 Aug 1;216:173-85.**) (SCI) (Impact factor in 2015: 4.638) (Ranking in Cardiac & Cardiovascular systems: 20/124: 16%) doi: 10.1016/j.ijcard.2016.04.061. 字數:8315
26. Shun-Cheng Wu(吳順成)<sup>1</sup>, Hsu-Feng Hsiao<sup>2</sup>, Mei-Ling Ho<sup>3</sup>, Yung-Li Hung<sup>4</sup>, Je-Ken Chang<sup>5</sup>, Gwo-Jaw Wang<sup>6</sup>, Chau-Zen Wang<sup>7</sup>. Suppression of discoidin domain receptor 1 expression enhances the chondrogenesis of adipose-derived stem cells. (**American Journal of Physiology-Cell Physiology; 2015 May 1;308(9):C685-96.**) (SCI) (Impact factor in 2014: 3.780) (Ranking in Physiology: 19/83: 22.89%) doi: 10.1152/ajpcell.00398.2014. 字數:5786 (第一

作者)

27. Yin-Chih Fu<sup>1</sup>, Tzu-Fun Fu<sup>2</sup>, Hung-Jen Wang<sup>3</sup>, Che-Wei Lin<sup>4</sup>, Gang-Hui Lee<sup>5</sup>, **Shun-Cheng Wu(吳順成)**<sup>6</sup>, Chih Kuang Wang<sup>7\*</sup>. Aspartic acid based modified PLGA-PEG nanoparticles for bone targeting: in vitro and in vivo evaluations. (**Acta Biomaterialia**. 2014 Nov;10(11):4583-96.) (SCI) (Impact factor in 2013: 5.684) (Ranking in Engineering, Biomedical: 3/76: 3.9%) doi: 10.1016/j.actbio.2014.07.015.
28. **Shun-Cheng Wu(吳順成)**<sup>1</sup>, Chung-Hwan Chen<sup>2</sup>, Je-Ken Chang<sup>3</sup>, Yin-Chih Fu<sup>4</sup>, Chih-Kuang Wang<sup>5</sup>, Rajalakshmanan Eswaramoorthy<sup>6</sup>, Yi-Shan Lin<sup>7</sup>, Yao-Hsien Wang<sup>8</sup>, Sung-Yen Lin<sup>9</sup>, Gwo-Jaw Wang<sup>10</sup>, Mei-Ling Ho<sup>11</sup>. Hyaluronan initiates chondrogenesis mainly via CD44 in human adipose derived stem cells (**Journal of Applied Physiology (1985)**. 2013 Jun;114(11):1610-8.) (SCI) (Impact factor in 2012: 3.484) (Ranking in Sport Sciences: 7/84: 8.33%) doi: 10.1152/jappphysiol.01132.2012. (第一作者)
29. Chung-Hwan Chen<sup>1</sup>, Yi-Shan Lin<sup>2</sup>, Yin-Chih Fu<sup>3</sup>, Chih-Kuang Wang<sup>4</sup>, **Shun-Cheng Wu(吳順成)**<sup>5</sup>, Gwo-Jaw Wang<sup>6</sup>, Rajalakshmanan Eswaramoorthy<sup>7</sup>, Yan-Hsiung Wang<sup>8</sup>, Chau-Zen Wang<sup>9</sup>, Yao-Hsien Wang<sup>10</sup>, Sung-Yen Lin<sup>11</sup>, Je-Ken Chang<sup>12\*</sup> and Mei-Ling Ho<sup>13\*</sup>. Electromagnetic field stimulation enhances chondrogenesis of human adipose derived stem cells under chondrogenic microenvironment. (**Journal of Applied Physiology (1985)**. 2013 Mar 1;114(5):647-55.) (SCI) (Impact factor in 2012: 3.484) (Ranking in Sport Sciences: 7/84: 8.33%) doi: 10.1152/jappphysiol.01216.2012.
30. Rajalakshmanan Eswaramoorthy<sup>1</sup>, Chia-Chi Chang<sup>2</sup>, **Shun-Cheng Wu(吳順成)**<sup>3</sup>, Gwo-Jaw Wang<sup>4</sup>, Je-Ken Chang<sup>5</sup>, Mei-Ling Ho<sup>6</sup>. Sustained release of PTH(1-34) from PLGA microspheres suppresses osteoarthritis progression in rats. (**Acta Biomaterialia**. 2012 Jul;8(6):2254-62.) (SCI) (Impact factor in 2011: 4.865) Ranking in Materials Science, Biomaterials: 2/25: 8%) doi: 10.1016/j.actbio.2012.03.015.
31. **Shun-Cheng Wu(吳順成)**<sup>1</sup>, Je-Ken Chang<sup>2</sup>, Chih-Kuang Wang<sup>3</sup>, Gwo-Jaw Wang<sup>4</sup>, Mei-Ling Ho<sup>5</sup>. Enhancement of Chondrogenesis of Human Adipose Derived Stem Cells in a Hyaluronan-Enriched Microenvironment. (**Biomaterials**. 2010 Feb; 31(4): 631-40. Epub 2009 Oct 12.) (SCI) (Impact factor in 2009: 7.365) (Ranking in Materials Science, Biomaterials: 1/25: 4%) doi: 10.1016/j.biomaterials.2009.09.089. (第一作者)
32. Je-ken Chang<sup>1</sup>, Ling-Hwa Chang<sup>2</sup>, Shau-Hung Hung<sup>3</sup>, **Shun-Cheng Wu(吳順成)**<sup>4</sup>, Hsin-Yi Lee<sup>5</sup>, Yi-Shan Lin<sup>6</sup>, Chung-Hwan Chen<sup>7</sup>, Yin-Chih Fu<sup>8</sup>, Gwo-Jaw Wang<sup>9</sup>, Mei-Ling Ho<sup>10</sup>. Parathyroid Hormone (1-34) Inhibits Terminal Differentiation of Human Articular Chondrocytes and Osteoarthritis Progression in Rats. (**Arthritis Rheum**. 2009 Oct;60(10):3049-60.) (SCI) (Impact factor in 2008:6.787) (Ranking in Rheumatology: 2/22: 5%) doi: 10.1002/art.24843.
33. Je-Ken Chang<sup>1</sup>, Ching-Ju Li<sup>2</sup>, **Shun-Cheng Wu(吳順成)**<sup>3</sup>, Ching-Hua Yeh<sup>4</sup>, Chung-Hwan Chen<sup>5</sup>, Yin-Chih Fu<sup>6</sup>, Gwo-Jaw Wang<sup>7</sup>, Mei-Ling Ho<sup>8\*</sup> Effects of anti-inflammatory drugs on proliferation, cytotoxicity and osteogenesis in bone marrow mesenchymal stem cells. (**Biochemical Pharmacology** 2007 Nov 1;74(9):1371-82.) (SCI) (Impact factor in 2006:3.581) (Ranking in Pharmacology & Pharmacy: 45/199: 22.61%)DOI: 10.1016/j.bcp.2007.06.047

34. Je-Ken Chang<sup>1</sup>, **Shun-Cheng Wu(吳順成)**<sup>2</sup>, Gwo-Jaw Wang<sup>3</sup>, Ming-Hsuang Cho<sup>4</sup>, Mei-Ling Ho<sup>5\*</sup> Effects of non-steroidal anti-inflammatory drugs on cell proliferation and death in cultured epiphyseal-articular chondrocytes of fetal rats. (**Toxicology. 2006 Dec 7;228(2-3):111-23.**) (SCI) (Impact factor in 2005:2.584) (Ranking in Toxicology: 15/76: 19.73%) DOI: 10.1016/j.tox.2006.08.028
35. Mei-Ling Ho<sup>1</sup>, Je-Ken Chang<sup>2</sup>, **Shun-Cheng Wu(吳順成)**<sup>3</sup>, Ya-Hui Chung<sup>4</sup>, Chung-Hwan Chen<sup>5</sup>, Shao-Hung Hung<sup>6</sup>, Gwo-Jaw Wang<sup>7\*</sup> A novel terminal differentiation model of human articular chondrocytes in three-dimensional cultures mimicking chondrocytic changes in osteoarthritis. (**Cell Biology International. 2006 Mar;30(3):288-94.**) (SCI) (Impact factor in 2005:1.194) (Ranking in Cell Biology: 124/153: 81.04%) DOI: 10.1016/j.cellbi.2005.11.009

### Grants(國科會/科技部-擔任主持人或共同主持人):

1. **Co-Principle Investigator**, 探討粒線體治療對於增進前十字韌帶損傷細胞活性及肌腱植入物成熟化之成效 (第二, 三年); NSTC 112-2314-B-037 -100 -MY2; 核定經費: 3,144,000 元; 國科會(個人型)
2. **Co-Principle Investigator**, 幹細胞之細胞外囊泡應用於修復骨骼、軟骨、肌肉、皮膚之再生醫學研究--研究幹細胞之細胞外囊泡改善軟骨細胞功能減緩細胞老化以應用於關節軟骨缺損之再生(1/3) 111-2314-B-037 -107 -; 核定經費: 1,150,000元; 國科會(整合型計畫、子計畫2)
3. **Co-Principle Investigator**, 研究脂肪幹細胞釋放的細胞外囊泡對關節軟骨細胞老化發炎的影響及退化性關節炎的治療效果(2/3) 111-2314-B-037 -117 -; 核定經費: 1,250,000元; 國科會(個人型)
4. **Co-Principle Investigator**, 探討粒線體治療對於增進前十字韌帶損傷細胞活性及肌腱植入物成熟化之成效; 111-2314-B-037 -057 -; 核定經費:956,000元; 國科會(個人型)
5. **Principle Investigator**, 探討預處理脂肪幹細胞所產生之細胞外囊泡對於關節軟骨功能之影響 The study of extracellular vesicle derived from pre-conditioned adipose derived stem cells on chondrocyte functions; Period: 2021.08-2024.07; Grant Number: MOST 110-2314-B-037 -034 -MY3; 核定經費: 3,420,000元; 科技部(個人型三年期)
6. **Principle Investigator**, 探討利用脂肪幹細胞粒線體移植以改善軟骨細胞功能應用於關節軟骨再生 The study of mitochondria transfer from adipose-derived stem cell to improve chondrocyte function for articular cartilage regeneration; Period: 2020.11-2021.10; Grant Number: MOST 109-2314-B-037-144 -; 核定經費:780,000元; 科技部(個人型一年期)
7. **Co-Principle Investigator**, 研究脂肪幹細胞為基礎的退化性關節炎治療中幹細胞、分泌體及細胞外囊泡扮演的角色; Period: 2020/08/01~2021/07/31; Grant Number: MOST 109-2314-B-037-028-; 核定經費: 980,000元; 科技部(個人型一年期)