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Education : Ph.D., Department of Chemical Engineering, National Chung Hsing University.
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Courses Taught : Calculus, Applied Mathematics, Radiological License Practice, Medical Radiation Physics, Advanced Radiochemistry.
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Research Interests : Biomedical material research and development, Tissue engineering applications, Laser Physical Stimulation Application, Application of drug preparation and delivery system.
Publications : 1. M.Y. Yang, B.S. Liu , H.Y. Huang, Y.C. Yang , K.B. Chang, P.Y. Kuo, Y.H. Deng, C.M. Tang, H.H. Hsieh, H.S. Hung*. Engineered Pullulan-Collagen-Gold Nano Composite Improves Mesenchymal Stem Cells Neural Differentiation and Inflammatory Regulation. Cells 2021; 10(12): 3276. (SCI)(TCVGHCTUST1107701)(CTU108-P-104) 2. C.C. Shen*, W.Y. Cheng, C.H. Lee, X.J. Dai, M.T. Chiao, Y.J. Liang, W.Y. Hsieh, T.F. Mao, G.S. Lin, S.R. Chen, B.S. Liu , J.P. Chen. Both p53 codon 72 Arg/Arg and pro/Arg genotypes in glioblastoma multiforme are associated with a better prognosis in bevacizumab treatment. BMC Cancer 2020;20:709. (SCI)(TCVGH-CTUST1087703) 3. C.M. Yen, C.C. Shen, Y.C. Yang, B.S. Liu , H.T. Lee, M.L. Sheu, M.H. Tsai, W.Y. Cheng*. Novel electrospun poly(ϵ -caprolactone)/type I collagen nanofiber conduits for repair of peripheral nerve injury. Neural Regen Res. 2019;14(9):1617-1625.(SCI)(TCVGH-CTUST1047701) 4. W.Y. Cheng, C.C. Shen, M.T. Chiao, Y.J. Liang, T.F. Mao, B.S. Liu , J.P. Chen. High expression of a novel splicing variant of VEGF, L-VEGF144 in glioblastoma multiforme is associated with a poorer prognosis in bevacizumab treatment. J Neurooncol. 2018;140(1):37-47. (SCI)(TCVGH-CTUST-1057701) 5. C.C. Shen, W.Y. Cheng, M.T. Chiao, Y.J. Liang, T.F. Mao, B.S. Liu . Two Novel Heparin-binding Vascular Endothelial Growth Factor Splices, L-VEGF144 and L-VEGF138 are Expressed in Human Glioblastoma Cells. Current Neurovascular Research 2016; 13(3):207-218. (SCI)(TCVGH-CTUST-1047703)(TCVGH-CTUST-1057701) 6. J.R. Chou, Y.C. Yang, B.S. Liu* . Comparison of neural regeneration in a nerve conduit across a large gap of the transected sciatic nerve in rats with early or delayed therapeutic modalities of a low-level laser

phototherapy. **Chinese Journal of Radiologic Technology** 2015;39(4): 187-196.

(MOST 104-2815-C-166-001-B)

7. T.Y. Chen, Y.C. Lin, Y.C. Yang, **B.S. Liu***. Comparison of neural regeneration in a nerve conduit across a large gap of the transected sciatic nerve in rats with different therapeutic modalities of a low-level laser phototherapy. **Chinese Journal of Radiologic Technology** 2015;39(2):78-89. **(CTU102-CM-001)**
8. T.Y. Chen, Y.C. Yang, Y.N. Sha, J.R. Chou, **B.S. Liu***. Far-Infrared Therapy Promotes Nerve Repair Following End-to-End Neuroorrhaphy in Rat Models of Sciatic Nerve Injury. **Evidence-Based Complementary and Alternative Medicine Volume 2015, Article ID 207245, 10 pages, 2015.**
(SCI)(CTU102-CM-001)(MOST 103-2221-E-166-007, 103-2815-C-166-010-B)
9. **B.S. Liu***, T.B. Huang, S.C. Chan. Roles of reinforced nerve conduits and low-level laser phototherapy for long gap peripheral nerve repair. **Neural Regen Res.** 2014;9(12):1180-1182.
(SCI)(NSC 98-2320-B-166-002-MY3)
10. **B.S. Liu***, Y.C. Yang, C.C. Shen. Regenerative effect of adipose tissue-derived stem cells transplantation with nerve guide conduit therapy on sciatic nerve injury in rats. **J. Tissue Eng. Regen. Med.** 2014;8(5):337-350. **(SCI)(TCVGH-CTUST-1007703) (NSC 98-2320-B-166-002-MY3)**
11. C.C. Shen, Y.C. Yang, M.T. Chiao, S.C. Chan, **B.S. Liu***. Low-level Laser Stimulation on Adipose-Tissue-derived Stem Cell Treatments for Focal Cerebral Ischemia in Rats. **Evidence-Based Complementary and Alternative Medicine Volume 2013, Article ID 594906, 12 pages, 2013.**
(SCI)(TCVGH-CTUST 1027701)
12. C.C. Shen, Y.C. Yang, T.B. Huang, S.C. Chan, **B.S. Liu***. Neural regeneration in a novel nerve conduit across a large gap of the transected sciatic nerve in rats with low-level laser phototherapy. **J. Biomed. Mater. Res. Part A** 2013;101(10):2763-2777. **(SCI)(TCVGH-CTUST-1017702)(CTU101-PC-001)**
13. C.C. Shen, Y.C. Yang, T.B. Huang, S.C. Chan, **B.S. Liu***. Low-Level Laser-Accelerated Peripheral Nerve Regeneration within a Reinforced Nerve Conduit across a Large Gap of the Transected Sciatic Nerve in Rats. **Evidence-Based Complementary and Alternative Medicine Volume 2013, Article ID 175629, 12 pages, 2013.** **(SCI)(TCVGH-CTUST-1017702)(CTU101-PC-001)**
14. C.C. Shen, Y.C. Yang, **B.S. Liu***. Effects of large-area irradiated laser phototherapy on peripheral nerve regeneration across a large gap in a biomaterial conduit. **J. Biomed. Mater. Res. Part A.** 2013;101(1):239-252. **(SCI)(TCVGH-CTUST-1017702)(NSC 98-2320-B-166-002-MY3)**
15. C.C. Shen, Y.C. Yang, **B.S. Liu***. Evaluation of peripheral nerve regeneration using a novel reinforced nerve conduit across a long gap of the transected sciatic nerve in rats. **J. Neurosci. Neuroeng.** 2012;1:105-117. **(TCVGH-CTUST-1017702)**
16. C.C. Shen, Y.C. Yang, **B.S. Liu***. Peripheral nerve repair of transplanted undifferentiated adipose tissue-derived stem cells in a biodegradable reinforced nerve conduit. **J. Biomed. Mater. Res. Part A** 2012;100(1):48-63. **(SCI)(TCVGH-CTUST-1007703)(NSC 98-2320-B-166-002-MY3)**