

Curriculum Vitae

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Chang gung university

Assistant professor

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Focus of Interest :

Cardiac & Cardiovascular System, Critical Care Medicine, Cancer Research, Molecular Biology, Molecular & Cell Biology, Molecular Biology, Oncology, Stem cell, Urology & Nephrology

Employment Records :

- I. 2010/09~present: **Assistant Professor:** Study the role of thrombomodulin in mesenchymal stem cells (MSCs). (Graduate Institute of Clinical Medical Sciences, Chiayi branch, Chang Gung University, Tainan, Taiwan)
- II. **2008/10~2010/06: Researcher:** Development of the therapeutic monoclonal antibody, phage display platform and pharmacokinetic transgenic animal model. (AbGenomics International Inc., Taipei, Taiwan)
- III. **2007/10 ~ 2008/10: Project-Appointed Assistant Professor:** Characterization of human thrombomodulin lectin-like domain in sepsis. (work as a researcher in Cardiovascular Research Center and Department of Biochemistry and Molecular Biology, National Cheng Kung University, Tainan, Taiwan)
- IV. **2006/02 ~ 2007/09: Postdoctoral Fellow:** Characterization of human thrombomodulin domains in atherosclerosis and acute inflammation. (work as Postdoctoral researcher in Prof. Hua-Lin Wu's Lab, Department of Biochemistry and Molecular Biology, National Cheng Kung University, Tainan, Taiwan)

Education :

- I. **2002/09 ~ 2006/01: Ph.D.** Institute of Basic Medical Sciences, College of Medicine, National Cheng Kung University, Tainan, Taiwan. Thesis Advisor: Guey-Yueh Shi, Ph.D.
- II. **1996/09 ~ 1998/06: Master of Science.** Department of Biochemistry and Molecular Biology, College of Medicine, National Cheng Kung University, Tainan, Taiwan. Thesis Advisor: Hua-Lin Wu, Ph.D.
- III. **1994/09 ~ 1996/06: Bachelor of Science.** Department of Microbiology, SooChow University, Taipei, Taiwan.

12.Honor and Awards :

1. The Third Fall Camp of Taiwan Society for Biochemistry and Molecular Biology, Tainan, Poster Competition Award (2003).
2. College of Medicine, National Cheng Kung University Outstanding Research Award (2005).
3. The Taiwan Society for Biochemistry and Molecular Biology Poster Competition Award (2005).
4. Professor Jung-Yaw Lin Academy Foundation Thesis Award (2005).
5. National Science Council Outstanding Technology Transfer Contribution Prize (2005).

Selected Main Publications (up to 5) :

1. **Shi CS**, Shi GY, Chang YS, Han HS, Kuo CH, Liu C, Huang HC, Chang YJ, Chen PS, Wu HL. Evidence of human thrombomodulin domain as a novel angiogenic factor. *Circulation*. 2005 Apr 5; 111(13): 1627-36.
2. **Shi CS**, Huang HC, Wu HL, Kuo CH, Chang BI, Shiao MS, Shi GY. Salvianolic acid B modulates hemostasis properties of human umbilical vein endothelial cells. *Thromb Res*. 2007; 119 (6): 769-775.
3. **Shi CS**, Shi GY, Hsiao SM, Kao YC, Kuo KL, Ma CY, Kuo CH, Chang BI, Chang CF, Lin CH, Wong CH, Wu HL. Lectin-like domain of thrombomodulin binds to its specific ligand Lewis Y antigen and neutralizes lipopolysaccharide-induced inflammatory response. *Blood*. 2008 Nov

1;112(9):3661-70.

4. Ho IL, Kuo KL, Liu SH, Chang HC, Hsieh JT, Wu JT, Chiang CK, Lin WC, Tsai YC, Chou CT, Hsu CH, Pu YS, **Shi CS* (equal correspondence)**, and Huang KH*. 2015. MLN4924 Synergistically Enhances Cisplatin-induced Cytotoxicity via JNK and Bcl-xL Pathways in Human Urothelial Carcinoma. *Scientific Reports*, 5, Article number: 16948.
5. Chin CC, Li JM, Lee KF, Huang YC, Wang KC, Lai HC, Cheng CC, Kuo YH, **Shi CS***. 2016. Selective beta2-AR Blockage Suppresses Colorectal Cancer Growth Through Regulation of EGFR-Akt/ERK1/2 Signaling, G1-Phase Arrest, and Apoptosis. *J Cell Physiol* 231:459-472.

Ongoing Projects :

1. CMRPD6F0012 NEDD8 修飾途徑於骨質疏之角色及治療潛力探討(2/3)
2017/5/1 2018/4/30
2. CMRPD6F0032 Cyclin-dependent Kinase 7 於血管新生之角色及治療潛力
探討(2/3) 2017/12/1 2018/11/30
3. NMRPD1G1071 106-2320-B-182-034 凝血酶調節素表現於間質幹細胞
而調控腫瘤生長過程中活性間質微環境建立之角色及治療潛力探討
2017/8/1 2018/7/31

All Publications :

1. Huang HC, Shi GY, Jiang SJ, Shi CS, Wu CM, Yang HY and Wu HL. Thrombomodulin-mediated cell adhesion: involvement of its lectin-like domain. *The Journal of biological chemistry*. 2003;278:46750-9.
2. Shi CS, Shi GY, Chang YS, Han HS, Kuo CH, Liu C, Huang HC, Chang YJ, Chen PS and Wu HL. Evidence of human thrombomodulin domain as a novel angiogenic factor. *Circulation*. 2005;111:1627-36.
3. Shi CS, Huang HC, Wu HL, Kuo CH, Chang BI, Shiao MS and Shi GY. Salvianolic acid B modulates hemostasis properties of human umbilical vein endothelial cells. *Thrombosis research*. 2007;119:769-75.
4. Shi CS, Shi GY, Hsiao HM, Kao YC, Kuo KL, Ma CY, Kuo CH, Chang BI, Chang CF, Lin CH, Wong CH and Wu HL. Lectin-like domain of thrombomodulin binds to its specific ligand Lewis Y antigen and neutralizes lipopolysaccharide-induced inflammatory response. *Blood*. 2008;112:3661-70.

5. Kao YC, Wu LW, Shi CS, Chu CH, Huang CW, Kuo CP, Sheu HM, Shi GY and Wu HL. Downregulation of thrombomodulin, a novel target of Snail, induces tumorigenesis through epithelial-mesenchymal transition. *Molecular and cellular biology*. 2010;30:4767-85.
6. Shen CH, Wu JD, Jou YC, Cheng MC, Lin CT, Chen PC, Tseng YS, Shi CS, Chen SY, Chang DC and Lee YR. The correlation between TWIST, E-cadherin, and beta-catenin in human bladder cancer. *Journal of BUON : official journal of the Balkan Union of Oncology*. 2011;16:733-7.
7. Huang WS, Chin CC, Chen CN, Kuo YH, Chen TC, Yu HR, Tung SY, Shen CH, Hsieh YY, Guo SE, Shi CS, Liu TJ and Kuo HC. Stromal cell-derived factor-1/CXC receptor 4 and beta1 integrin interaction regulates urokinase-type plasminogen activator expression in human colorectal cancer cells. *Journal of cellular physiology*. 2012;227:1114-22.
8. Kuo CH, Chen PK, Chang BI, Sung MC, Shi CS, Lee JS, Chang CF, Shi GY and Wu HL. The recombinant lectin-like domain of thrombomodulin inhibits angiogenesis through interaction with Lewis Y antigen. *Blood*. 2012;119:1302-13.
9. Ma CY, Shi GY, Shi CS, Kao YC, Lin SW and Wu HL. Monocytic thrombomodulin triggers LPS- and gram-negative bacteria-induced inflammatory response. *Journal of immunology*. 2012;188:6328-37.
10. Kuo KL, Lin WC, Ho IL, Chang HC, Lee PY, Chung YT, Hsieh JT, Pu YS, Shi CS and Huang KH. 2-methoxyestradiol induces mitotic arrest, apoptosis, and synergistic cytotoxicity with arsenic trioxide in human urothelial carcinoma cells. *PloS one*. 2013;8:e68703.
11. Lin WL, Chang CF, Shi CS, Shi GY and Wu HL. Recombinant lectin-like domain of thrombomodulin suppresses vascular inflammation by reducing leukocyte recruitment via interacting with Lewis Y on endothelial cells. *Arteriosclerosis, thrombosis, and vascular biology*. 2013;33:2366-73.
12. Yeh CC, Chang SF, Huang TY, Chang HI, Kuo HC, Wu YC, Hsieh CH, Shi CS and Chen CN. Shear stress modulates macrophage-induced urokinase plasminogen activator expression in human chondrocytes. *Arthritis research & therapy*. 2013;15:R53.
13. Kuo CH, Lu YC, Tseng YS, Shi CS, Chen SH, Chen PT, Wu FL, Chang YP and Lee YR. Reversine induces cell cycle arrest, polyploidy, and apoptosis in human breast cancer

cells. *Breast cancer*. 2014;21:358-69.

14. Chen CH, Chang CC, Shih TH, Aljuffali IA, Yeh TS and Fang JY.

Self-nanoemulsifying drug delivery systems ameliorate the oral delivery of silymarin in rats with Roux-en-Y gastric bypass surgery. *International journal of nanomedicine*. 2015;10:2403-16.

15. Chin CC, Chen CN, Kuo HC, Shi CS, Hsieh MC, Kuo YH, Tung SY, Lee KF and Huang WS. Interleukin-17 induces CC chemokine receptor 6 expression and cell migration in colorectal cancer cells. *Journal of cellular physiology*. 2015;230:1430-7.

16. Ho IL, Kuo KL, Liu SH, Chang HC, Hsieh JT, Wu JT, Chiang CK, Lin WC, Tsai YC, Chou CT, Hsu CH, Pu YS, Shi CS and Huang KH. MLN4924 Synergistically Enhances Cisplatin-induced Cytotoxicity via JNK and Bcl-xL Pathways in Human Urothelial Carcinoma. *Sci Rep*. 2015;5:16948.

17. Huang YC, Chen MF, Shi CS, Shindel AW, Huang CE, Pang ST, Chuang CK, Chen CS, Chang YH, Lin WY, Ho DR, Chin CC, Kuo YH and Wu CF. The Efficacy of Postoperative Adjuvant Chemotherapy for Patients with pT3N0M0 Upper Tract Urothelial Carcinoma. *The Journal of urology*. 2015;194:323-9.

18. Huang YC, Chin CC, Chen CS, Shindel AW, Ho DR, Lin CS and Shi CS. Chronic Cigarette Smoking Impairs Erectile Function through Increased Oxidative Stress and Apoptosis, Decreased nNOS, Endothelial and Smooth Muscle Contents in a Rat Model. *PloS one*. 2015;10:e0140728.

19. Kuan FC, Kuo LT, Chen MC, Yang CT, Shi CS, Teng D and Lee KD. Overall survival benefits of first-line EGFR tyrosine kinase inhibitors in EGFR-mutated non-small-cell lung cancers: a systematic review and meta-analysis. *British journal of cancer*. 2015.

20. Kuo KL, Ho IL, Shi CS, Wu JT, Lin WC, Tsai YC, Chang HC, Chou CT, Hsu CH, Hsieh JT, Chang SC, Pu YS and Huang KH. MLN4924, a novel protein neddylation inhibitor, suppresses proliferation and migration of human urothelial carcinoma: In vitro and in vivo studies. *Cancer letters*. 2015;363:127-36.

21. Yeh CC, Su YH, Lin YJ, Chen PJ, Shi CS, Chen CN and Chang HI. Evaluation of the protective effects of curcuminoid (curcumin and bisdemethoxycurcumin)-loaded liposomes against bone turnover in a cell-based model of osteoarthritis. *Drug design, development and therapy*. 2015;9:2285-300.

22. Chen SY, Liu GH, Chao WY, Shi CS, Lin CY, Lim YP, Lu CH, Lai PY, Chen HR and Lee YR. Piperlongumine Suppresses Proliferation of Human Oral Squamous Cell

Carcinoma through Cell Cycle Arrest, Apoptosis and Senescence. *Int J Mol Sci*.

2016;17.

23. Chin CC, Li JM, Lee KF, Huang YC, Wang KC, Lai HC, Cheng CC, Kuo YH and Shi CS. Selective beta2-AR Blockage Suppresses Colorectal Cancer Growth Through Regulation of EGFR-Akt/ERK1/2 Signaling, G1-Phase Arrest, and Apoptosis. *Journal of cellular physiology*. 2016;231:459-72.

24. Hsieh JT, Kuo KL, Liu SH, Shi CS, Chang HC, Lin WC, Chou CT, Hsu CH, Liao SM, Wang ZH, Li CC and Huang KH. Epigallocatechin Gallate Attenuates Partial Bladder Outlet Obstruction-induced Bladder Injury via Suppression of Endoplasmic Reticulum Stress-related Apoptosis-In Vivo Study. *Urology*. 2016;91:242 e1-9.

25. Huang YC, Huang YK, Chen CS, Shindel AW, Wu CF, Lin JH, Chiu KH, Yang TH and Shi CS. Phimosis with Preputial Fissures as a Predictor of Undiagnosed Type 2 Diabetes in Adults. *Acta dermato-venereologica*. 2016;96:377-80.

26. Huang YC, Kuo YH, Huang YH, Chen CS, Ho DR and Shi CS. The Effects of Adipose-Derived Stem Cells in a Rat Model of Tobacco-Associated Erectile Dysfunction. *PloS one*. 2016;11:e0156725.

27. Shi CS, Huang TH, Lin CK, Li JM, Chen MH, Tsai ML and Chang CC. VEGF Production by Ly6C+high Monocytes Contributes to Ventilator-Induced Lung Injury. *PloS one*. 2016;11:e0165317.

28. Shi CS, Li JM, Chin CC, Kuo YH, Lee YR and Huang YC. Evodiamine Induces Cell Growth Arrest, Apoptosis and Suppresses Tumorigenesis in Human Urothelial Cell Carcinoma Cells. *Anticancer Res*. 2017;37:1149-1159.

29. Wu MH, Dubey NK, Lee CY, Li YY, Cheng CC, Shi CS and Huang TJ. Application of Intraoperative CT-Guided Navigation in Simultaneous Minimally Invasive Anterior and Posterior Surgery for Infectious Spondylitis. *Biomed Res Int*. 2017;2017:2302395.

30. Wu MH, Dubey NK, Li YY, Lee CY, Cheng CC, Shi CS and Huang TJ. Comparison of minimally invasive spine surgery using intraoperative computed tomography integrated navigation, fluoroscopy, and conventional open surgery for lumbar spondylolisthesis: a prospective registry-based cohort study. *Spine J*. 2017;17:1082-1090.

31. Wu MH, Shih MH, Hsu WB, Dubey NK, Lee WF, Lin TY, Hsieh MY, Chen CF, Peng KT, Huang TJ, Shi CS, Guo RS, Cai CJ, Chung CY and Wong CH. Evaluation of a novel biodegradable thermosensitive keto-hydrogel for improving postoperative pain in a

rat model. *PloS one*. 2017;12:e0186784.