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A. Education

National Yang-Ming University (Taiwan)	Ph.D.	1996
Chung Shan Medical University	B.S.	1988

B. Present Position

2014-present	Professor	Department of Molecular Biology and Human Genetics, College of Life Science (CLS)/Tzu-Chi University TCU. Ph. D. Program, Institute of Medical Sciences, TCU.
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C. Previous Positions

2010-2014	Associate Professor	Department of Molecular Biology and Human Genetics, CLS/TCU. Ph. D. Program, Institute of Medical Sciences, TCU.
2008-2010	Assistant Professor	Department of Molecular Biology and Human Genetics, CLS/TCU. Ph. D. Program, Institute of Medical Sciences, TCU.
2002-2008	Assistant Professor	Institute of Human Genetics, CLS/TCU. Ph. D. Program, Institute of Medical Sciences, TCU.

D. Research Experiences

2001	Assistant Research Fellow	Department of Ophthalmology, Linkou Chang-Gung Memorial Hospital, Taiwan
1999-2000	Postdoctoral fellow	Section of Neurobiology, Yale University School of Medicine, USA
1997-1999	Postdoctoral fellow	Institute of Molecular and Cell Biology, Academia Sinica, Taiwan
1996-1997	Postdoctoral fellow	Institute of Microbiology and Immunology, National Yang-Ming University, Taiwan

E. Academic and Professional Honors

Excellent research and publication award, Tzu-Chi University (2004, 2007, 2008, 2013, and 2014)

F. Publications

F.1. Selected Articles (* Corresponding author)

1. Chen PK, Lin GL, Chang HH, and **Sun DS*** (2015) Megakaryocytic differentiation of mouse embryonic stem cells via coculture with immortalized OP9 stromal cells. **Exp Cell Res** 339 (1), 44-50. (Chen PK and Lin GL are co-first authors) (**Impact factor: 3.246; Ranking: 86/211**)
2. **Sun DS**, Chang YC, Lien TS, King CC, Shih YL, Huang HS, Wang TY, Li CR, Lee CC, Hsu PN, and Chang HH* (2015) Endothelial cell sensitization by death-receptor fractions of an anti-dengue-nonstructural-protein-1 antibody induced plasma leakage, coagulopathy, and mortality in mice. **J Immunology** 1500136. (Sun DS, Chang YC, and Lien TS and are co-first authors) (**Impact factor: 4.922; Ranking: 26/148**)
3. Wong MS, Chen CW, Hsieh CC, Hung SC, **Sun DS**, and Chang HH* (2015) Antibacterial property of Ag nanoparticle-impregnated N-doped titania films under visible light. **Scientific Reports** 5: 11978. (**Impact factor: 5.578; Ranking: 5/56**)
4. Wu MS, **Sun DS**, Lin YC, Cheng CL, Hung SC, Chen PK, Yang JH and Chang HH* (2015) Nanodiamonds protect skin from ultraviolet B-induced damage in mice. **Journal of Nanobiotechnology** 13 (1), 35. (**Impact factor: 4.115; Ranking: 25/162**)
5. **Sun DS**, Lee PC, Kau JH, Shih YL, Huang HH, Li CR, Lee CC, Wu YP, Chen KC and Chang HH* (2015). Acquired coagulant factor VIII deficiency induced by Bacillus anthracis lethal toxin in mice. **Virulence** 6:5, 1-10. (**Impact factor: 4.216; Ranking: 15/78**)
6. Lien TS, **Sun DS**, Chang CM, Wu CY, Dai MS, Chan H, Wu WS, Su SH, Lin YY, Chang HH* (2015) Dengue virus and antiplatelet autoantibodies synergistically induce hemorrhage through Nlrp3-inflammasome and FcγRIII. **Thrombosis Haemostasis** 113 (5), 1060-1070. (Lien TS and Sun DS are co-first authors). (**Impact factor: 5.72; Ranking: 7/68**)
7. Hu HI, Chang HH, **Sun DS*** (2015) Differential regulation of caspase-2 in MPP(+)-induced apoptosis in primary cortical neurons. **Exp Cell Res** 332:60-66. (**Impact factor: 3.246; Ranking: 86/211**)
8. Chang HH, Chiang YW, Lin TK, Lin GL, Lin YY, Kau JH, Huang HH, Hsu HL, Wang JH, **Sun DS*** (2014) Erythrocytic mobilization enhanced by the granulocyte colony-stimulating factor is associated with reduced anthrax-lethal-toxin-induced mortality in mice. **PLoS One** 9(11): e111149. (**Impact factor: 3.234; Ranking: 8/56**)
9. Chang HH, Chen PK, Lin GL, Wang CJ, Liao CH, Hsiao YC, Dong JH, **Sun DS*** (2014) Cell adhesion as a novel approach to determining the cellular binding motif on the severe acute respiratory syndrome coronavirus spike protein. **J Virol Methods** 201:1-6. (**Impact factor: 1.781; Ranking: 93/162**)
10. Chen CC, Chu SC, Lin TY, Chang HH, and **Sun DS*** (2013) Application of

flow cytometry for demonstrating normal erythropoiesis pattern in human bone marrow. **J Biomed. Lab. Sci.**25 (4), 111-119.

11. Chang HH, Wang TP, Chen PK, Lin YY, Liao CH, Lin TK, Chiang YW, Lin WB, Chiang CY, Kau JH, Huang HH, Hsu HL, Liao CY, **Sun DS*** (2013) Erythropoiesis suppression is associated with anthrax lethal toxin-mediated pathogenic progression. **PLoS One** 8(8): e71718. (**Impact factor: 3.234; Ranking: 8/56**)
12. Tseng YH, **Sun DS**, Wu WS, Chan H, Syue MS, Ho HC, Chang HH* (2013) Antibacterial performance of nanoscaled visible-light responsive platinum-containing titania photocatalyst in vitro and in vivo. **Biochimica Biophysica Acta-General Subjects**. 1830, 3787-3795. (**Impact factor: 4.381; Ranking: 14/73**)
13. Chen PK, Chang HH, Lin GL, Wang TP, Lai YL, Lin TK, Hsieh MC, Kau JH, Huang HH, Hsu HL, Liao CY, and **Sun DS*** (2013) Suppressive effects of anthrax lethal toxin on megakaryopoiesis. **PLoS One** 8 (3), e59512. (**Impact factor: 3.234; Ranking: 8/56**)
14. Kau JH, Shih YL, Lien TS, Lee CC, Huang HH, Lin HC, **Sun DS***, Chang HH* (2012) Activated protein C ameliorates Bacillus anthracis lethal toxin-induced lethal pathogenesis in rats. **J Biomed Sci**. 19(1): 98. (Sun DS and Chang HH are co-corresponding authors) (**Impact factor: 2.763; Ranking: 50/123**)
15. Chang WK, **Sun DS**, Chan H, Huang PT, Wu WS, Lin CH, Tseng YH, Cheng YH, Tseng CC and Chang HH* (2012) Visible light responsive core-shell structured In₂O₃@CaIn₂O₄ photocatalyst with superior bactericidal property and biocompatibility. **Nanomedicine** 8(5), 609-619. (Chang WK and Sun DS are co-first authors) (**Impact factor: 6.155; Ranking: 12/123**)
16. Lin YC, Tsai LW, Perevedentseva E, Chang HH, Lin CH, **Sun DS**, Lugovtsov AE, Priezhev A, Mona J, and Cheng CL* (2012) The influence of nanodiamond on the oxygenation states and micro rheological properties of human red blood cells in vitro. **Journal of Biomedical Optics** 17(10), 101512. (**Impact factor: 2.752; Ranking: 17/82**)
17. Chen YL, Chen YS, Chan H, Tseng YH, Yang SR, Tsai HY, Liu HY, **Sun DS**, and Chang HH* (2012) The use of Nanoscale Visible Light-Responsive Photocatalyst TiO₂-Pt for the Elimination of Soil-Borne Pathogens. **PLoS One** 7(2): e31212. (**Impact factor: 3.234; Ranking: 8/56**)
18. Kau JH, **Sun DS**, Huang HS, Lien TS, Huang HH, Lin HC, Chang HH* (2010) Sublethal doses of anthrax lethal toxin on the suppression of macrophage phagocytosis. **PLoS One** 5(12):e14289. (Kau JH and Sun DS are co-first authors) (**Impact factor: 3.234; Ranking: 8/56**)
19. Wong MS, **Sun DS**, Chang HH* (2010) Bactericidal performance of visible-light responsive titania photocatalyst with silver nanostructures. **PLoS One** 5(4):e10394. (Wong MS and Sun DS are co-first authors). (**Impact factor: 3.234; Ranking: 8/56**)
20. Huang HS, **Sun DS**, Lien TS, Chang HH* (2010) Dendritic cells modulate platelet activity in IVIg-mediated amelioration of ITP in mice. **Blood** 116(23):5002-9. (**Impact factor: 10.452; Ranking: 2/68**)

21. Kau JH, **Sun DS**, Huang HH, Wong MS, Lin HC and Chang HH* (2009) Role of visible light-1 activated photocatalyst on the reduction of anthrax spore-induced mortality in mice. **PLoS One** 4 (1), e4167. (Kau JH and Sun DS are co-first authors). (**Impact factor: 3.234; Ranking: 8/56**)
22. Cheng CL, **Sun DS**, Chu WC, Tseng YH, Ho HC, Wang JB, Chung PH, Chen JH, Tsai PJ, Lin NT, Yu MS, Chang HH* (2009) The effects of the bacterial interaction with visible-light responsive titania photocatalyst on the bactericidal performance. **J Biomed Sci.** 16 (1), 7. (**Impact factor: 2.763; Ranking: 50/123**)
23. Hsu CY, Chang NC, Lee MW, Lee KH, **Sun DS**, Lai C, Chang AC* (2008) LUZP deficiency affects neural tube closure during brain development. **Biochem Biophys Res Commun.** 376(3), 466-471. (**Impact factor: 2.297; Ranking: 41/73**)
24. **Sun DS**, King CC, Huang HS, Shih, YL, Lee CC, Tsai, WJ, Yu, CC and Chang HH* (2007) Anti-platelet autoantibodies elicited by dengue virus non-structural protein 1 cause thrombocytopenia and mortality in mice. **Journal of Thrombosis and Haemostasis** 5(11), 2291-2299. (**Impact factor: 5.72, Ranking: 6/60**)

F.2. Patents

1. Chang HH and **Sun DS** Methods of reducing hypoxic stress in a mammal by administering soluble P-selectin. US Patent # U 016656-3, Dec 2012.
2. Chang HH and **Sun DS** New use of soluble P-selectin and anthrax lethal toxin. China Patent # ZL03146546.3, July 2007.

G. Research Supports (during the last five years)

1. TCMMP grant: TCMMP104-06-04 (800,000 NT\$) (2015-2016)
Title: Inflammatory regulators ATF3 and Nlrp3 inflammasome in CD34⁺ progenitor cell-mediated tissue repair in inflammatory diseases.
Role in the project: PI
2. MOST grant: NSC 103-2321-B-320 -001 (1,200,000 NT\$) (2014-2015)
Title: P-selectin-mobilized stem cell therapy.
Role in the project: PI
3. MOST grant: MOST 103-2320-B-320 -006 (941,000 NT\$) (2014-2015)
Title: Potential roles of granulocyte colony-stimulating factor in erythrocytic mobilization and erythropoiesis.
Role in the project: PI
4. TCIRP grant: TCIRP 101001-03 (1,600,000 NT\$) (2012-2015)
Title: Role of dengue envelop protein and anti-dengue nonstructural protein NS1 antibody on megakaryopoiesis suppression.
Role in the project: PI
5. NSC grant: NSC 99-2311-B-320-003 (4,650,000 NT\$) (2009-2012)
Title: Mechanism study and therapeutic approach of *Bacillus anthracis* lethal toxin affects erythroid cells.
Role in the project: PI
6. TCIRP grant: TCIRP 98001-05 (1,332,000 NT\$) (2009-2012)
Title: Role of dengue virus envelop protein domain III (Den2E-D3) on the

differentiation and cellular function of the progenitor cells of platelet.

Role in the project: PI

7. NSC grant: NSC 96-2311-B-320-005 (3,602,000 NT\$) (2007-2010)

Title: Potential role of *Bacillus anthracis* lethal toxin on erythroid cells.

Role in the project: PI