



**Songlin WANG, D.D.S., Ph.D.**

#### **Appointments**

- Professor and Chief, Salivary Gland Disease Center and Beijing Key Laboratory for Tooth Regeneration and Tissue Reconstruction, Capital Medical University School of Stomatology
- Scientific Director, Beijing Institute of Dental Research
- Vice President, Capital Medical University, Beijing, China

Dr. Songlin Wang joined Capital Medical University School of Stomatology on September of 1989 after getting DDS, PhD from Peking University. Dr. Wang worked in Tokyo Medical and Dental University in 1991-1992 as visiting scholar, and worked in National Institute of Dental and Craniofacial Research of NIH as visiting scientist during 1996-1998. Dr. Wang established Salivary Gland Disease Center in 1993 and Molecular Laboratory for Gene Therapy and Tooth Regeneration in 1998. In 1999, he was named as full professor, Scientific Director of Beijing Institute of Dental Research, Vice Dean of School of Stomatology. As a leader of dental institute and dental school, Dr. Wang has the responsibility to develop a dental-related research program in the broad areas of developmental biology, epithelial biology and tissue regeneration.

Songlin Wang's research experience includes clinical, biological and gene therapy studies in salivary glands; tooth development and regeneration. Dr. Wang was honored by AADR/IADR 2007 William J. Gies Award for Biological Research and 2007 Cover of the Year Award. He also received National best 100 doctoral theses award in 2006 as supervisor; Two National Science and Technology Advancement Awards of China (second class) as first principle investigator in 2003 and 2010; National Outstanding Young Scientist Award Grant in 2001. Now he is President of Chinese Dental Education Association; President of Chinese Society of Oral Biomedicine; President of Chinese Salivary Gland Society, Chinese Stomatological

Association; editorial board member of *Oral Diseases*, *Triple O*, *Dental Abstract* and *Journal of Oral Rehabilitation*; Editor-in-Chief for Oral Biomedicine; Associate Editor-in-Chief for *Chinese Journal Of Dental Research (in English)*, *Chinese Journal of Stomatology*, *International Journal of Stomatology*, *Chinese Journal of Oral Maxillofacial Surgery*, *Beijing Journal of Stomatology*. He has authored more than 168 peer reviewed articles (76 in English) and 16 review articles (5 in English), 6 edited books and 8 book chapters. He has 6 national grants to support his research including National Key Basic Research Program of China (973), National High Technology Research Program of China (863), key grant of National Nature Science Foundation of China. As a supervisor, he has taught 36 PhD students, 18 Master degree students and 10 post-docs.

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### **Selected research articles:**

1. **Wang SL**, Zou ZJ, Yu SF, Zhu JR. Recurrent swelling of parotid gland and Sjogren's syndrome. *International Journal of Oral Maxillofacial Surgery* 1993; 22:362-265.
2. **Wang SL**, Zhao ZT, Li J, Zhu XZ, Dong H, Zhang YG. Investigation of clinical value of total saliva flow rate. *Arch Oral Biol* 1998; 43:39-43.
3. **Wang SL**, Baum BJ, Yamano S, Mankani MH, Sun D, Jonsson M, Graham FL , Gauldie J, Atkinson JC. Adenoviral-mediated gene transfer to mouse submandibular glands. *J Dent Res* 2000; 79:701-708.
4. Xia DS, Deng DJ, **Wang SL**. Destruction of parotids affects nitrate and nitrite metabolism. *J Dent Res* 2003; 82:101-105.
5. Li J, Zheng CY, Zhang X, Liu XY, Zhang CM, Goldsmith CM, Baum BJ, **Wang SL**. Developing a convenient large animal model for gene transfer to salivary glands in vivo. *J Gene Med* 2004; 6:55-63.
6. Li J, Shan ZC, Ou GF, Liu XY, Zhang CM, Baum BJ, **Wang SL**. Structural and functional characteristics of irradiation damage to parotid glands in the miniature pig. *Int J Radio Oncol Biol Phys* 2005; 52: 1510-1516.
7. Shan Z, Li J, Zheng C, Liu X, Fan Z, Zhang C, Goldsmith CM, Wellner RB, Baum BJ, **Wang SL**. Increased fluid secretion after adenoviral-mediated transfer of the human aquaporin-1 cDNA to irradiated miniature pig parotid gland. *Molecular Therapy* 2005; 11:444-451.
8. Hu B, Unda F, Kuchler-Bopp S, Jimenez L, Wang XJ, Häikel Y, **Wang SL**, Lesot H. Bone marrow cells can give rise to ameloblast-like cells. *J Dent Res* 2006; 85: 416-421.
9. Yan ZM, Fan ZP, Hua H, Shen Y, Xu YY, **Wang SL**. A novel mutation screen in ALK-1 caused hereditary hemorrhagic telangiectasia type 2. *J Dent Res* 2006; 85:705-710.
10. Sonoyama W, Liu Y, Fang DJ, Yamaza T, Seo BM, Zhang CM, He L, Gronthos S, Wang CY, **Wang SL**, Shi ST. Mesenchymal stem cell-mediated functional tooth

- regeneration in swine. *PLoS ONE* 2006; 1:e79:1-8.
11. Fang DJ, Seo BM, Liu Y, Sonoyama W, Yamaza T, Zhang CM, **Wang SL**, and Shi ST. Transplantation of mesenchymal stem cells is an optimal approach for plastic surgery. *Stem Cells* 2007; 25:1021-1028.
  12. Liu Y, Fang DJ, Ding G, Zhang CM, Li JY, Shi ST, **Wang SL**. Periodontal ligament stem cells-mediated treatment for periodontitis in swine. *Stem Cells* 2008; 26: 1065-1073.
  13. Fan ZP, Li JY, Du J, Shen Y, Wang CY, **Wang SL**. A missense mutation in PTCH2 underlies dominantly inherited NBCCS in a Chinese family. *J Med Genetics* 2008; 45: 303-308
  14. Hai B, Yan X, Voutetakis A, Zheng CY, Cotrim AP, Shan ZC, Ding G, Zhang CM, Xu JJ, Goldsmith CM, Afione S, Chiorini JA, Baum BJ, **Wang SL**. Long-term transduction of miniature pig parotid glands using serotype 2 adeno-associated viral vectors. *J Gene Med* 2009; 11:506-514.
  15. Zheng Y, Liu Y, Zhang CM, Li WH, Shi S, Le AD, **Wang SL**. Stem cells from deciduous tooth repair mandibular defect in swine. *J Dent Res* 2009; 88: 249-254.
  16. Gao YR, Weng TJ, Yang G, Du J, Wang XJ, Zhou J, **Wang SL**, Yang X. Disruption of Smad4 in odontoblasts causes multiple keratocystic odontogenic tumors and tooth malformation in mice. *Molecular Cellular Biology* 2009, 29: 5941-5951.
  17. Fan ZP, Yamaza T, Lee JS, Yu JH, **Wang SL**, Fan GP, Shi ST, Wang CY. BCOR regulates mesenchymal stem cell function by epigenetic mechanisms. *Nature Cell Biology* 2009; 11:1002-1009
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  19. Ding G, Liu Y, Wang W, Wei FL, Liu DY, Fan ZP, An YQ, Zhang CM, **Wang SL**. Allogeneic periodontal ligament stem cell therapy for periodontitis. *Stem Cells*, 2010, 28: 1829-1838.
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  22. Li JY, Huang XF, Xu X, Mayo J, Bringas P, Jiang RL, **Wang SL**, Chai Y. SMAD4-mediated WNT signaling controls the fate of cranial neural crest cells during tooth morphogenesis. *Development* 2011; 138, 1977-1989.
  23. Xu JJ, Zheng ZM, Fang DJ, Gao RT, Liu Y, Fan ZP, Zhang CM, Shi ST, **Wang SL**. Mesenchymal stromal cell-based treatment of jaw osteoradionecrosis in swine. *Cell Transplantation* 2012 on-line
  24. Zheng Y, Wang XY, Wang YM, Liu XY, Zhang CM, Hou BX, **Wang SL**.

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25. Qi LZ, Liu XB, Sun QF, Fan ZP, Xia DS, Ding G, Ong HL, Adams D, Gahl W, Zheng CY, Qi SR, Jin LY, Zhang CM, Gu LK, He JQ, Deng DJ, Ambudkar IS, **Wang SL**. Sialin (*SLC17A5*) functions as a nitrate transporter in the plasma membrane. *The Proceedings of the National Academy of Sciences USA (PNAS)* 2012 on-line
26. Du J, Ma YS, Ma P, **Wang SL**, Fan ZP. Histone demethylase FBXL11 associated with BCOR and inhibited osteo/dentinogenic differentiation of MSCs by repressed epidermal growth factor, Epiregulin. *Stem Cells* 2012;

**Selected review articles:**

1. **Wang SL**, Marchal F, Zou ZJ, Zhou J, Qi SR. Classification and management of chronic sialadenitis of parotid gland. *Journal of Oral Rehabilitation* 2009; 36:2-8
2. **Wang SL**, Liu Y, Fang DJ, Shi ST. Miniature pig: A useful large animal model for dental and orofacial research. *Oral Diseases* 2007; 13: 530-537.
3. Kagimi H, **Wang SL**, Hai B. Restoring the function of salivary glands. *Oral Diseases* 2008; 14:15-24