

# Ze TANG

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## Professional Experience

- **Siemens Healthcare Diagnostics (2014.1 – 2016.2)**
  - **National Technical Application Specialist**
  - L2 application support for Clinical Chemistry System
    - Application support for Greater China
    - Performance Verification (ISO 15189)
    - (ADVIA/Dimension Clinical Chemistry System)*
  - Trainer and course developer
    - 5 day Field Application training, 2-3/mth (Solo)
    - 3 day custom training, 1-2/mth (Solo)
    - (ADVIA/Dimension Clinical Chemistry System and BN II/ProSpec Nephelometric System)*
  - **Biochemist**
  - Scientist for Chemiluminescence Immunoassay (TNI)
    - Troubleshooting and complex problem solving
    - Resultant data statistical analysis
    - 2 month trainee in Walpole, Boston
    - (Centaur XP/CP Chemiluminescence Immunoassay System)*



## Education

- **PhD in Biochemistry, Molecular and Cell Biology (2007.9–2013.8)**
  - Institute of Health Sciences, Shanghai Institutes for Biological Sciences (SIBS), Chinese Academy of Sciences (CAS) / Shanghai Jiao Tong University School of Medicine
  - Advisor: Prof. Kerong Dai
- **MS in Immunology (2005.9–2007.7)**
  - Norman Bethune College of Medicine, Jilin University
- **BS in Clinical Medicine (1999.9–2004.7)**
  - Norman Bethune College of Medicine, Jilin University

## Technical Experiences

- **Clinical Laboratory Automation (IVD)**

*Trainer and L2 application support for Chemistry System*

*Scientist for Chemiluminescence Immunoassay system*

Aptio (Inpeco FlexLab) Automation System; CentraLink Data Management System (Middleware); Lab Automation workflow; ADVIA/Dimension Clinical Chemistry System; Centaur XP/CP Chemiluminescence Immunoassay System; BN II/ProSpec Nephelometric System; Roche Lightcycler 480 Real-Time PCR System; ABI 7900HT/7500 Fast Real-Time PCR System; ADVIA 2120i Hematology System; BD Aria & Calibur flow cytometry; Performance Verification (ISO 15189)

- **Biochemistry, Molecular and Cell Biology**

DNA/RNA isolation; Co-IP; Western blot; In cell western; Real-time PCR; MSC (Mesenchymal stem cell) isolation and culture; MSC multilineage induction on biomaterials; Tumor migration / invasion with Transwell and Matrigel (Basement Membrane Matrix); SNP genotyping (High Resolution Melt); qPCR; DNA/RNA extraction

- **Histological Analysis**

Immunohistochemistry(IHC); Immunofluorescence(IF); Hard tissue section; Frozen section; Oil red O staining; Alizarin red staining; ALP staining; Histomorphometry with Bioquant/Imagej (Fiji); Carl Zeiss / Leica Confocal microscopy

- **Medical Implant Model**

Femoral condyle implant model with rabbits; Laboratory animal handling; Micro-CT analysis with Siemens Inveon Research Workplace (IRW); Double fluorescence labeling *in vivo*; XRD (X-ray diffraction) analysis with MDI Jade

- **Programming**

Python; Java (w/ SCJP Cert); C; Javascript; Linux Shell (awk/sed/grep)

- **Statistical Analytics**

Python (Panda, matplotlib, Seaborn, Bokeh); R (Bioconductor, ggplot2); JMP; SPSS; SAS

## Publications

- **Ze Tang**, Youtao Xie, Fei Yang, Yan Huang, Chuandong Wang, Kerong Dai, Xuebin Zheng, Xiaoling Zhang, Porous Tantalum coatings prepared by vacuum plasma spraying enhance BMSCs osteogenic differentiation and bone regeneration in vitro and in vivo. PLoS ONE, 8(6): e66263. [doi: 10.1371/journal.pone.0066263](https://doi.org/10.1371/journal.pone.0066263)
- Bing Tu, Lin Du, Qi-Ming Fan, **Ze Tang**, Ting-Ting Tang, STAT3 activation by IL-6 from mesenchymal stem cells promotes the proliferation and metastasis of osteosarcoma. Cancer Lett, 2012. 325(1): p. 80-8. [doi: 10.1016/j.canlet.2012.06.006](https://doi.org/10.1016/j.canlet.2012.06.006)
- Chunxi Yang, Guangyin Yuan, Jia Zhang, **Ze Tang**, Xiaoling Zhang, Kerong Dai, Effects of magnesium

alloys extracts on adult human bone marrow-derived stromal cell viability and osteogenic differentiation. Biomed Mater, 2010. 5(4): p. 045005. [doi: 10.1088/1748-6041/5/4/045005](https://doi.org/10.1088/1748-6041/5/4/045005)

## Patents

- Xiaoling Zhang, Youtao Xie, **Ze Tang**, Kerong Dai. 2014. Medical composite material with improved osseointegration performance. P.R.China Patent Application CN 201310163527, May 3, 2013, Publication CN104127913 A, Nov 5, 2014. Patent Pending.

## Referees

- **Kerong Dai, Fellow of the Chinese Academy of Engineering**

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