

**Jia Shi**  
Dept. of Integrative Physiology  
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## PROFESSIONAL EXPERIENCE AND ACCOMPLISHMENTS

- Aug. 2014- Present**     **University of Colorado at Boulder**  
Teaching Assistant Professor to Teaching Associate Professor (2022)  
Department of Integrative Physiology  
Human Physiology Lab Coordinator and Internship coordinator (since 2018)  
Teach Pathophysiology of Disease and Immunology (in summer)
- May 2011–July 2014**     **University of Colorado at Boulder**  
Academic Advisor and Lecturer  
Department of Integrative Physiology  
Advise ~540 students yearly  
Courses taught: Endocrinology, Pathophysiology (proposed and designed the course), and Molecules, Plagues and People (a honor's class).
- 2006 - 2011**                 **University of Colorado at Boulder**  
Research Associate - Science Teaching Fellow  
Department of Molecular, Cellular, and Developmental Biology and Science Education Initiative  
Developed learning goals, assessment and interactive learning activities for Cell Biology lab course and Introduction to Cell and Molecular Biology lecture course. Created and implemented a new co-seminar course to accompany the introductory biology course.
- 2003 - 2006**                 **WH BioSystems, Inc. San Mateo, CA**  
Chief Scientific Officer  
Research and development of DNA hybridization equipment
- 2003 -2005**                 **Skyline College, San Bruno, CA**  
**De Anza College, Cupertino, CA Cañada**  
**College, Redwood City, CA College of San**  
**Mateo, San Mateo, CA**  
Adjunct Biology Instructor  
Courses taught: General Biology, Human Biology, Biology of Women, Health Science, Human Anatomy, and Microbiology.
- 2002**                         **Kaim Associates Inc. Weston, CT**  
Consultant  
Identified and indexed biological literature to build a monoclonal antibody database
- 1999 - 2001**                 **Ingenuity Systems, Inc. Alviso, CA**  
Content Scientist  
Prepared materials and agendas for meetings and recorded minutes  
Developed a process for document control  
Trained and managed over 30 scientists  
Interfaced with engineering department to build a knowledge acquisition tool to extract biomedical information from articles

**1993 - 1999**                    **University of California at San Francisco, San Francisco, CA**  
Research Immunologist (1997-1999)  
Post-doctoral Fellow (1993-1997)

**1983 - 1985**                    **Guangxi Medical University, Guangxi, China.**  
Instructor and fellow in the department of Pathophysiology

## **HORNORS AND AWARDS**

**2005 - 2007**                    Received a Small Business Innovative Research (SBIR I) grant from the National Institutes of Health

**1997 - 1999**                    Awarded a \$250,000 research grant from the American Arthritis Foundation

## **OTHER PROFESSIONAL EXPERIENCE**

**1990 – 2009**                    Reviewer for: applications for using human subjects; grant proposals involving human subjects and scientific journal articles

**2003 – 2006**                    Reviewer for: Elaine Marieb's *Human Anatomy and Physiology Lab Manual* (Eighth Edition, 2004 by Benjamin Cummings) for the editors. Sylvia Mader's *Human Biology* (10<sup>th</sup> edition), and Black's *Microbiology: Principle and Explorations*. I have also contributed to a new companion website for Elaine Marieb's *Human Anatomy and Physiology Laboratory Manuals*.

**2002 – 2004**                    Member of the “Expanding Your Horizon” program planning committee. This program promotes education as a means of expanding young women’s options. Skyline College, San Bruno, CA.

## **SKILLS /TECHNIQUES:**

### **Laboratory techniques:**

Molecular Biology: DNA transfection using chemical and electroporation methods, gene expression (reporter gene) studies, PCR and site directed mutagenesis, Nucleic acid sequencing, RNase protection, Northern and Southern blot analysis, and DNA ligation and subcloning

Protein Chemistry/Immunology: SDS-PAGE and Western-blot, Immunoprecipitation, *In vitro* immunocomplex kinase assays, O'Farrel 2- dimensional protein gel analysis, ELISA, Immunofluorescence, and flow cytometry

### **Management skills:**

Management style is based on the principle of total quality management

### **Communication skills:**

Through management of cross-functional teams, customer support and teaching

**Recruitment and training new personnel:**

Conducted more than 100 phone and in-person interviews

Established training protocols for new personnel and teaching assistants

**EDUCATION:**

**M.D., Guangxi Medical University, China, 1983.**

**MA in Biology, Brandies University, MA, 1988.**

**Ph.D. in Pathology, Boston University School of Medicine, Boston, MA, 1993.**

**PUBLICATIONS**

**Shi, J.**, J. M. Power, and M. W. Klymkowsky. 2011. Revealing Student Thinking about Experimental Design and the Roles of Control Experiments. *IJ- SoTL*. 5(2): 1-16.

**Shi, J.**, W. B. Wood, J. M. Martin, N.A. Guild, Q. Vicens, and J. K. Knight. 2010. A Diagnostic Assessment for Introductory Molecular and Cell Biology. *CBE- Life Sciences Education*. 9: 453-461.

Sadra, A., T. Cinek, J.L. Arellano, **J. Shi**, K.E. Truitt, and J.B. Imboden. 1999. Identification of tyrosine phosphorylation sites in CD28 cytoplasmic domain and their role in the costimulation of Jurkat cells. *J. of Immunol*. 162:1966-1973.

**Shi, J.** and J. B. Imboden. 1996. Wortmannin, a PI-3 kinase inhibitor, blocks antigen-mediated, but not CD3 monoclonal antibody-induced, activation of murine CD4<sup>+</sup> T cells. *J. of Immunol*. 158: 4688-4695.

Truitt, E. K., **J. Shi**, S. Gibson, L. G. Segal, G. B. Mills, and J. B. Imboden. 1995. CD28 delivers costimulatory signals independently of its association with phosphatidylinositol 3-kinase. *J. of Immunol*. 155: 4702- 4710.

Miller, R.A., S. Li, H. Patel, **J. Shi**, and J.M. Witkowski. 1994. Alterations in T cell heterogeneity and responsiveness in aging mice. *Aging, Immunity and Infection*. 82-94. D.C. Powers, J.E. Morley, and R.M. Coe. Editors, New York: Springer Pub.Co.

**Shi, J.**, and R. Miller. 1993. Differential tyrosine-specific protein phosphorylation in mouse T lymphocyte subsets: effect of age. *J. of Immunol*. 151:730-739.

**Shi, J.**, and R. Miller. 1992. Tyrosine-specific protein phosphorylation in response to anti-CD3 is diminished in old mice. *J. of Geront*. 47: B147-153.

**Shi, J.**, and R. Miller. 1992. Tyrosine phosphorylation and receptor-triggered T cell activation. *J. of Cellular Biochemistry* 16B.