

# Grace Q. Zhao

Jennifer Raymond lab  
Department of Neurobiology  
Stanford University School of Medicine  
Fairchild Building D250, 299 Campus Dr.  
Palo Alto, CA 94305-5125

Tel: (650) 736-1066  
E-mail: [ggzhao@stanford.edu](mailto:ggzhao@stanford.edu)

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## Education:

1997 - 2004 Ph.D., Molecular Pathology  
University of California, San Diego (UCSD), San Diego, CA  
1991 - 1995 B.S., Biochemistry  
University of California, Los Angeles (UCLA), Los Angeles, CA

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## Honors and Activities:

2007 Ruth L. Kirschstein National Research Service Award (NRSA F32)  
2006 NIH R21 co-investigator  
2006 Dean's fellowship  
1995 Undergraduate Fellow of Howard Hughes Medical Institute  
1993 Chemistry Department Award  
1993 Dean's Honors List  
1992 Permanent Member of Alpha Gamma Sigma Honor Society

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## Research:

2010 – present Basic Life Science Research Associate,  
Department of Neurobiology, Stanford University School of Medicine.  
Advisor: Prof. *Jennifer Raymond*  
Functional dissection of the cerebellar neural circuit.

2004 - 2010 Post Doctoral Fellow  
Dept. of Neurobiology, Stanford University School of Medicine.  
Advisor: Prof. *Jennifer Raymond* and Prof. *Greg Barsh*  
Study of the cerebellar Golgi interneurons in the adaptive timing of movement.

1997 - 2004 Graduate Student  
Dept. of Molecular Pathology, UCSD School of Medicine.  
Advisor: Prof. *Charles Zuker*  
Study of Sweet and umami taste receptors and taste coding.

1996 – 1997 Staff Research Associate I  
Division of Hematology-Oncology, UCLA School of Medicine.  
Advisor: Prof. *Jerome Zack* and Prof. *Rafael Amado*  
Developing the assay condition for a clinical trial of anti viral stem cell gene therapy for AIDS on SCID-hu mice system.

1993 – 1995 Laboratory Assistant III  
Dept. of Chemistry and Biochemistry, Molecular Biology Institute UCLA.  
Advisor: Prof. *James Bowie*

Developing cl screening, a lambda repressor involved bacterial screening system to allow both positive and negative selection for dimerization of transmembrane protein *in vivo*.

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#### Publication:

1. **Zhao GQ**, Nguyen-Vu TDB, Shin SL, Li Y, Tsien RW, Barsh GS, Raymond JL. Signal degradation in the cerebellum selectively disrupts different aspects of motor learning. (in preparation)
2. **Zhao GQ**, Dulla C, Menz M, Ste.-Marie L, Huguenard JR, Baccus SA, Raymond JL, Barsh GS. Calcium imaging in defined cell populations using a mouse line expressing Cre-inducible yellow cameleon 3.6. (in preparation)
3. **Zhao GQ**, Chen A, Bonanno L, Nguyen-Vu TB, Reichardt LF, Raymond JL. Local inhibition plays a central role in cerebellar timing. (in preparation)
4. \*Nguyen-Vu TB, \***Zhao GQ**, Lee HM, Shatz CJ, Raymond JL. A saturation model for impaired learning with enhanced plasticity. \*equal contribution (submitted to *Science*)
5. Sabolek HR, Swiercz WB, Lillis KP, Cash SS, Huberfeld G, **Zhao G**, Ste Marie L, Clemenceau S, Barsh G, Miles R, Staley KJ. A candidate mechanism underlying the variance of interictal spike propagation. *J Neurosci*. 2012 Feb 29;32(9):3009-21.
6. **Zhao GQ**, Zhang Y, Hoon MA, Chandrashekar J, Erlenbach I, Ryba NJ, Zuker CS. The receptors for mammalian sweet and umami taste. *Cell*. 2003 Oct 31;115(3):255-66.
7. Nelson G, Chandrashekar J, Hoon MA, Feng L, **Zhao G**, Ryba NJ, Zuker CS. An amino-acid taste receptor. *Nature*. 2002 Mar 14;416(6877):199-202
8. De Vries L, Lou X, **Zhao G**, Zheng B, Farquhar MG. GIPC, a PDZ domain containing protein, interacts specifically with the C terminus of RGS-GAIP. *Proc Natl Acad Sci U S A*. 1998 Oct 13;95(21):12340-5
9. Amado RG, Symonds G, Jamieson BD, **Zhao G**, Rosenblatt JD, Zack JA. Effects of megakaryocyte growth and development factor on survival and retroviral transduction of T lymphoid progenitor cells. *Hum Gene Ther*. 1998 Jan 20;9(2):173-83

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#### Scientific meeting:

1. **Zhao GQ**, Enhanced Plasticity= Improved Learning? 2012 University of California at Santa Cruz, Santa Cruz (presentation)
2. **Zhao GQ**, Nguyen-Vu TDB, Shin SL, Li Y, Tsien RW, Barsh GS, Raymond JR, Signal degradation in the cerebellum selectively disrupts different aspects of motor learning. 2012 42<sup>th</sup> Annual Meeting of Society for Neuroscience, New Orleans (poster)

3. **Zhao GQ**, Chen A, Bonanno L, Nguyen-Vu TB, Reichardt LF, Raymond JL Local inhibition plays a central role in cerebellar timing. 2012 MCCS Annual Meeting, New Orleans (poster)
4. **Zhao GQ**, Dulla C, Menz M, Ste.-Marie L, Huguenard JR, Baccus SA, Raymond JR, Barsh GS, Calcium imaging in defined cell populations using a mouse line expressing Cre-inducible yellow cameleon 3.6. 2010 40<sup>th</sup> Annual Meeting of Society for Neuroscience, Washington (poster)
5. **Zhao GQ**, Functional dissection of the cerebellar neural circuit. Yiping Chao memorial symposium, 2009 at Peking University, Beijing China (presentation)
6. Shin SL, Boyden ES, Katoh A, **Zhao GQ**, Raymond JL, Adaptive timing is impaired in mice deficient in presynaptic LTP. 2009 39<sup>th</sup> Annual Meeting of Society for Neuroscience, Chicago (poster)
7. **Zhao GQ**, Nguyen-Vu TB, Raymond JL, VOR gain and phase learning are differentially affected by inactivation of the cerebellar flocculus. 2008 38<sup>th</sup> Annual Meeting of Society for Neuroscience, Washington (poster)
8. \*Nguyen-Vu TB, \***Zhao GQ**, Mc Connell M, Huang Y, Shatz CJ, Raymond JL, Class I MHC regulation of cerebellar LTD is required for normal motor learning in the vestibulo-ocular reflex. 2008 38<sup>th</sup> Annual Meeting of Society for Neuroscience, Chicago (poster)  
\*These authors contributed equally to this work

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**Teaching:**

2012 Bio-Core Genetics, Biochemistry, and Molecular Biology (1 session), Stanford