Sheng Wang

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EDUCATION

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
Psychiatry — Visitor graduate scholar, 2016-present

CHINA AGRICULTURAL UNIVERSITY & NATIONAL INSTITUTE OF BIOLOGICAL SCIENCES, BEIJING, CHINA
Biochemistry and Molecular Biology — PhD candidate, 2013 - present

CHINA AGRICULTURAL UNIVERSITY
Biological Science — BA, 2009-2013

RESEARCH EXPERIENCE

VISITOR GRADUATE SCHOLAR, UCSF, SAN FRANCISCO, CA 2016-PRESENT
Genetic study on Tourette syndrome (TD) and autistic spectrum disorder (ASD). Researches mainly focused on *de novo* variants detection, including *de novo* SNVs/INDELs and *de novo* CNVs, from whole-exome sequencing data and genotyping data. Following with systematic biological analysis to investigate the functional contribution of the *de novo* events. By integrating suitable bioinformatic tools to study the genetic risks underlying ASD and TD. Routine work also contained the confirmation of variants by wet-lab work.

PHD CANDIDATE, NIBS 2014-2016
Research focused on mosaicism in multiple tissues from heathy individuals. By unitizing single-cell whole-genome sequencing and bulk whole-genome sequencing, we expected to detect mosaic mutations in different tissues which could be arise at varies stages of development. We were looking forward to explain the origin of different somatic mutations and also offer a clue to the establishment of varies somatic mutation signatures in distinct cancer samples.

PHD CANDIDATE ROTATION, NIBS 2013-2014
Epigenetic markers, including DNA methylation and histone modification etc., function together to regulate the genes expression. To study the interaction of DNA methylation and histone modification, a stable cell carrying a hypermethylated EGFP marker was established and followed with high-throughout screening which involved more than one hundred thousands of small chemicals. Through the screening, we sought to find chemicals that could affect gene expression without change the state of DNA methylation which could be a candidate drug in the treatment of DNA methylation related disease.

RESEARCH ASSISTANT 2011-2012
Learn protein related skills and protein design.

RESEARCH ASSISTANT 2010-2011
Collage funded program to study the function of flap structure-specific endonuclease1(*fen1*) in *Neurospora crassa*.

OTHER EXPERIENCE

Volunteer in Star&Rain institute, Beijing 2014-2016

SKILLS

Molecular biological related skills; Next-generation sequencing related skills; Python programing; R programing

PUBLICATION

Huang AY, Xu X, Ye AY, Wu Q, Yan L, Zhao B, Yang X, He Y, **Wang S**, et al. (2014) Postzygotic single-nucleotide mosaicism in whole-genome sequences of clinically unremarkable individuals. Cell Res, 24:1311-1327

Dou Y, Yang X, Li Z, **Wang S**, et al. (2017) Postzygotic single-nucleotide mosaicisms contribute to the etiology of autism spectrum disorder and autistic traits and the origin of mutations. Hum Mutat, 2017