HITOSHI TSUJIMOTO

ASSISTANT RESEARCH SCIENTIST

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SUMMARY

Experienced researcher with in-depth understanding and hands-on experience of CRISPR genome editing, including sgRNA design, biochemical validation of Cas9-sgRNA complex, in vivo knockout generation, and genotyping mutant individuals using high-resolution melt curve analysis (HRMA). Expert in plasmid construction for protein expression, eukaryotic cell transfection, and RNAseq experiment (from design to library prep and bioinformatic analysis). Meticulous record keeper (electronic) with extended experience in presenting research in internal and external meetings.

EXPERIENCE

- ASSISTANT RESEARCH SCIENTIST Texas A&M University College Station
- Designed and conducted experiments to characterize iron transporters in disease vector mosquito using molecular biology and biochemistry technologies (including CRISPR/Cas9 knockout generation, HRMA genotyping)
- Conducted RNAseq project (plan, sample collection, library prep/QC, bioinformatics analysis, and writing manuscript).

POST-DOCTORAL RESEARCHER New Mexico State University

Las Cruces, NM

- Characterized amino-acid transporters in the dengue vector mosquito using molecular biology and electrophysiology techniques.
- Performed cryosection, immunostaining, and confocal microscopy on insect antennae.

POST-DOCTORAL FELLOW Penn State University University Park, PA

• Characterized the aquaporins water channels in the malaria mosquito, the bed bug, and the tick as targets to disrupt their water homeostasis to reduce population. December 2016 - Present

- Trained undergrads, graduate students, and postdocs on molecular biology, biochemistry, cell biology, microscopy techniques, and bioinformatics.
- Published 5 peer-reviewed papers (1 more in prep).

November 2013 - October 2016

- Conducted RNAseq study of the mosquito in response to dengue virus infection.
- Published 4 peer-reviewed papers.

November 2011 - October 2013

Published 7 peer-reviewed papers.

EDUCATION

DOCTOR OF PHILOSOPHY (PH.D.) IN ENTOMOLOGY (MOLECULAR BIOLOGY, BIOCHEMISTRY)

University Of Georgia, Athens, GA

BACHELOR OF SCIENCE (B.S.) IN BIOLOGY Utah State University, Logan, UT

Awards & Honors

Magna cum laude

ADDITIONAL SKILLS

- Seeker of improvement for greater efficiency
- Statistical analysis with R, GraphPad, and Excel
- Mammalian primary culture (spleen, bone marrow), and cell line
- Python coding for big data manipulation and statistics

July 2010

GPA 3.9 May 2004