

WEN-WEI LIAO

1 Bungtown Road
Cold Spring Harbor, NY 11724
wliao@cshl.edu

EDUCATION

National Tsing Hua University Hsinchu, Taiwan
M.S., Systems Neuroscience 2011
Advisor: Prof. Chung-Chuan Lo
Thesis: Analysis of neural circuit in *Drosophila* antennal lobe

National Tsing Hua University Hsinchu, Taiwan
B.S., Life Science 2009
Advisor: Prof. Ann-Shyn Chiang
Thesis: A standard three-dimensional model of *Drosophila* antennal lobe

Computer Science Subjects

Intro. to Information Engineering

Intro. to Programming

Digital Logic Design

Linear Algebra

Data Structure

Discrete Mathematics

Intro. to Computer Networks

Operation Systems

Design and Analysis of Algorithms

EXPERIENCE

Cold Spring Harbor Laboratory New York, United States
Computational Science Developer 2015 - Present
Supervisor: Prof. Molly Hammell and Prof. Joshua Dubnau
- Deciphering the control of transposable elements in TDP-43-mediated-ALS
- Pipeline development for profiling TE-associated small RNAs

Academia Sinica Taipei, Taiwan
Research Assistant 2013 - 2015
Supervisor: Prof. Pao-Yang Chen
- Maintaining computational servers
- Analyzing whole genome bisulfite sequencing and RNA sequencing data
- Development of computational algorithms for assessing DNA methylation

Packt Publishing Taipei, Taiwan
Technical Reviewer 2015
Reviewed a book titled *Mastering Matplotlib*

National Tsing Hua University Hsinchu, Taiwan
Teaching Assistant 2011
Cell and Molecular Biology III

National Health Research Institutes Miaoli, Taiwan
Summer Internship 2007
Advisor: Prof. Lih-Ann Li
Construction of inducible expression system for research on lung adenocarcinoma

PUBLICATIONS

Lisa Krug, Nabanita Chatterjee, Rebeca Borges-Monroy, Stephen Hearn, **Wen-Wei Liao**, Kathleen Morrill, Lisa Prazak, Yung-Heng Chang, Richard Keegan, Nikolay Rozhkov, Delphine Theodorou, Molly Hammell and Joshua Dubnau. Retrotransposon activation contributes to neurodegeneration in a *Drosophila* TDP-43 model of ALS. *PLOS Genetics*. (Accepted)

Wen-Wei Liao, Ming-Ren Yen, Evaline Ju, Fei-Man Hsu, Larry Lam and Pao-Yang Chen. MethGo: a comprehensive tool for analyzing whole genome bisulfite sequencing data. *BMC Genomics*, 2015.

Sofia Gkountela, Kelvin Zhang, Tiasha Shafiq, **Wen-Wei Liao**, Joseph Hargan-Calvopia, Pao-Yang Chen and Amander T Clark. DNA demethylation dynamics in the human prenatal germline. *Cell*, 2015.

Taku Sasaki, Tatsuo Kanno, Shih-Chieh Liang, Pao-Yang Chen, **Wen-Wei Liao**, Wen-Dar Lin, Antonius J.M. Matzke and Marjori Matzke. An Rtf2 domain-containing protein influences pre-mRNA splicing and is essential for embryonic development in *Arabidopsis thaliana*. *Genetics*, 2015.

Pao-Yang Chen, Barbara Montanini, **Wen-Wei Liao**, Marco Morselli, Artur Jaroszewicz, David Lopez, Simone Ottonello and Matteo Pellegrini. A comprehensive resource of genomic, epigenomic and transcriptomic sequencing data for the black truffle *Tuber melanosporum*. *GigaScience*, 2014.

Taku Sasaki, Tzuu-fen Lee, **Wen-Wei Liao**, Ulf Naumann, Jo-Ling Liao, Changho Eun, Ya-Yi Huang, Jason L. Fu, Pao-Yang Chen, Blake C. Meyers, Antonius J.M. Matzke and Marjori Matzke. Distinct and concurrent pathways of Pol II and Pol IV-dependent siRNA biogenesis at a repetitive trans-silencer locus in *Arabidopsis thaliana*. *The Plant Journal*, 2014.

TALKS

Taipei.py Taipei, Taiwan
MethGo: a comprehensive tool for analyzing whole genome bisulfite sequencing data 2015

PyCon APAC Taipei, Taiwan
A versatile Python tool to assess DNA methylation variation 2014

PyCon Taiwan Taipei, Taiwan
An epigenetics odyssey 2013

PyCon Taiwan Taipei, Taiwan
Use the Matplotlib, Luke 2012

PyHUG Hsinchu, Taiwan
Matplotlib for Python programmers 2011

POSTERS

ISMB Orlando, United States
TEsmall: a pipeline for profiling TE-associated small RNAs 2016

GIW/ISCB-Asia Tokyo, Japan
HETGEN: a tool to assess genome-wide heterogeneity of DNA methylation 2014

ISEGB Tainan, Taiwan
HETGEN: a tool to assess genome-wide heterogeneity of DNA methylation 2014

ACAEA

Improving rice regeneration efficiency through extensive comparisons of callus methylome and transcriptome

Taipei, Taiwan
2013

HONORS AND AWARDS

College Student Research Scholarship

Ministry of Science and Technology, Taiwan

2008

Outstanding Summer Research Report Award

National Health Research Institutes, Taiwan

2007

CERTIFICATION

Bioinformatics Algorithms

UCSD online course on Coursera

Earned a statement of accomplishment with distinction

2014

COMPUTER SKILLS

Python, C, R, HTML, CSS