Curriculum Vitae

Ching-Ho Chang

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Education

Doctor's Program, Ecology and Evolutionary Biology Program,

University of Rochester

Advisor: Dr. Amanda Larracuente

September 2014 - present

Master's Program, Institute of Ecology and Evolutionary Biology,

National Taiwan University

Thesis: Early-stage Evolution of the neo-Y chromosome in *Drosophila albomicans*

Advisor: Dr. Chau-Ti Ting September 2009 - July 2011

B.S., Department of Life Science,

National Taiwan University

September 2005 - August 2009

Work Experiences

Research assistant, Department of Life Science, National Taiwan University Laboratory of Dr. Chau-Ti Ting,

August 2012 – July 2014

Compulsory Military Service

Second Lieutenant

Chemical, Biological, Radiological, and Nuclear Defense Specialist

August 2011 – July 2012

Publication

* Corresponding author # Equal contribution

Paper:

2018:

<u>Chang, C.-H.*</u> and A.M. Larracuente*. Heterochromatin-enriched assemblies reveal the sequence and organization of the Drosophila melanogaster Y chromosome. Biorxiv. doi: https://doi.org/10.1101/363101 (revise in GENETICS)

<u>Chang, C.-H.</u>[#], A. Chavan[#], J. Palladino[#] et al., et al. Islands of non-LTR retroelements are major components of *Drosophila melanogaster* centromeres. (submitted).

Lo C.-W., Y. Kryvalap, T.J. Sheu, <u>C.-H. Chang</u> and Czyzyk J. Cathepsin L mediates antiserpin B13 induced replicative activity in pancreatic beta cells. (submitted)

Fallon T.R.*, S.E. Lower*, <u>C.-H. Chang</u>, et al. Firefly genomes illuminate the origin and evolution of bioluminescence (accepted in eLife). Biorxiv. doi:

https://doi.org/10.1101/237586

2017:

<u>Chang, C.-H.</u>* and A.M. Larracuente. 2017. Genomic changes following the reversal of a Y chromosome to an autosome in *Drosophila pseudoobscura*. Evolution 71(5): 1285-1296. Martinson E.O.*, Mrinalini*, Y.D. Kelkar, <u>C.-H. Chang</u> and J.H. Werren. 2017. The origin of novel venoms by co-option of single copy genes. Current Biology 27(13) 2007-2013.

Before 2017:

Chang C.-c.*, C.-T. Ting*, C.-H. Chang, S. Fang and H. Chang 2014. The Persistence of Facultative Parthenogenesis in *Drosophila albomicans*. PLoS ONE 9(11): e113275. Cheng, C.-H.*, C.-H. Chang* and H. Chang. 2011. The early stage evolution of the neo-Y chromosome in *Drosophila albomicans*. Zoological Studies 50(3): 338-349.

In preparation:

<u>Chang, C.-H.*,</u> C.D. Meiklejohn and A.M. Larracuente*. Rapid gene turnover and extensive genome rearrangements on Y chromosomes in the *Drosophila simulans* clade. Chakraborty M*, <u>C.-H. Chang</u>*, et al. Evolution of genome structure in the *Drosophila simulans* clade.

Chang, C.-H.*,.., A.M. Larracuente*. Dominant epistasis of a *Segregation distortion* suppressor in *Drosophila melanogaster*

Conference Presentations:

Comparative genomics reveals rampant gene duplication and reorganization of the Drosophila melanogaster and the simulans clade Y chromosomes, SMBE, July 2018 (Oral presentation)

<u>Chang, C.-H.</u> and A.M. Larracuente. Subfunctionalization of *SRPK*—a new Y-linked gene family in the *Drosophila simulans* clade. SMBE, July 2017 and 56th annual Drosophila conference, March 2018 (Poster presentation).

<u>Chang, C.-H.</u> and A.M. Larracuente. Genomic changes following the reversal of a Y chromosome to an autosome in *Drosophila pseudoobscura*. TAGC, July 2016 (Poster presentation) and Meeting of Evolutionary Genomics of Sex, Nov 2016 (Oral Presentation) <u>Chang, C.-H.</u>, S. Fang, C.-T. Ting and H. Chang. Degeneration of the neo-Y chromosome in *Drosophila albomicans*. SMBE, July 2013 (Poster presentation)

<u>Chang, C.-H.</u>, S. Fang, C.-T. Ting and H. Chang. Evolutionary significance of gene expression divergence of the neo-sex chromosomes in *Drosophila albomicans*. 52nd Drosophila Research Conference at San Diego CA, April 2011 (Poster presentation)

Awards and Fellowships

SMBE registration award, 2018

Government Scholarship to Study Abroad, Ministry of Education, Taiwan (USD 16000 * 2 years), 2018

Best Poster Award, Department of Biology, U of Rochester, 2017

GSA Travel Grant, AS&E Graduate Student Association, U of Rochester, 2017

Department Travel Funds, U of Rochester, 2017 and 2018

Travel Award, Meeting of Evolutionary Genomics of Sex, 2016

TAGC Travel Award, GSA, 2016

Ernst Caspari Fellowship, University of Rochester (USD \$2000 * 3 years), 2014-2017 Dean's Award, College of Life Science, National Taiwan University, Taiwan, 2011 Outstanding Students Conference Travel Grant, Foundation for the Advancement of Outstanding Scholarship, Taiwan, 2011

Travel Grant for International Conference, National Science Council, Taiwan, 2011 Reward of Excellence, NTU & NTNU Joint Symposium on Ecology and Evolutionary Biology, National Taiwan University, Taiwan, 2011

Professional Activities

2017-present Paper reviewer: G3 (2), Genetics (2) 2017-present *GENETICS* Peer Review Training Program

Teaching Experience & Selected Extracurricular Activities

President, U of Rochester Taiwanese Student Association January 2017 – June 2018 Teaching Assistant, General Biology Laboratory, U of Rochester Spring 2015 and 2016 Teaching Assistant, General Botany Laboratory, National Taiwan University Fall 2009