# Jeffrey P. Vedanayagam

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http://www.anti-sense.org

#### Education

Ph.D., Biology, University of Rochester, USA, 2015.

Dissertation: Evolutionary Genomics of piRNA Mediated Transposon Silencing in Drosophila.

Committee: Drs. Daniel Garrigan (advisor), Daven Presgraves, Thomas Eickbush and Justin Blumenstiel

M.S., Biology, University of Rochester, USA, 2011.

M.Sc., Genomics, Madurai Kamaraj University, India, 2007.

Thesis: Evolutionary Trails of Two Ancient Dravidian Populations in Southern India: Insights from the Non-recombining Y Chromosome and Human Leukocyte Antigen Diversity

B.Sc., Biology & Biotechnology, Loyola College, University of Madras, India, 2005.

### Research Experience

Postdoctoral Reserach Fellow, Sloan-Kettering Institute, 2016-till date.

Mentor: Eric C. Lai, Ph.D.

Research Assistant, Centre for DNA Fingerprinting & Diagnostics, India 2007-2009.

## Grants, Honors, & Awards

Doctoral Dissertation Improvement Grant, National Science Foundation, 2012–2015

Travel Award, Department of Biology, University of Rochester, 2015.

Graduate Student Association Travel Award, University of Rochester, 2015.

Graduate Student Teaching Award, University of Rochester, 2014.

Travel Award, Cold Spring Harbor Laboratory, 2013 & 2014.

Ernst Caspari Fellowship, University of Rochester, 2009.

Summer Research Fellowship, University of Madras, 2005.

#### **Publications**

Manuscripts in preparation/review

**Vedanayagam J.P.**, Charkraborty M., Khost D.E., Chang C., Emerson J.J., Garrigan D. Single-molecule Sequencing Reveals the Structural Complexity of *flamenco* in Closely Related *Drosophila* species.

**Vedanayagam J.P.**, and Garrigan D. Dynamic Turnover of Transposable Elements in *Drosophila*.

Kingan S.B., Geneva A.J., **Vedanayagam J.P.**, Garrigan D. Genome Divergence and Introgression between *Drosophila simulans* and *Drosophila mauritiana*. *Genome Res* (in review)

Peer-reviewed publications

**Vedanayagam J.P.**, and Garrigan D. 2015. The Effects of Natural Selection Across Molecular Pathways in *Drosophila melanogaster BMC Evol Biol* 15:203.

Garrigan D., Kingan S.B., Geneva A.J., **Vedanayagam J.P.**, and Presgraves D.C. 2014. Genome Diversity and Divergence in *Drosophila mauritiana*: Multiple Signatures of Faster X Evolution. *Genome Biol Evol* 6(9): 2444–2458.

Nandineni M.R., and **Vedanayagam J.P.**. 2009. Selective Enrichment of Human DNA from non-Human DNA for DNA Typing of Decomposed Skeletal Remains. *Forensic Sci Int Gene Suppl* 2(1): 520–521.

### Seminars/ Talks

RNA Therapeutics Institute, University of Massachusetts Medical School, July 2015.

Department of Molecular Biology & Genetics, Cornell University, June 2015.

Memorial Sloan-Kettering Cancer Center, April 2015.

New York Genome Center, January 2015.

Department of Biology, University of Rochester, January 2014.

Wellcome Trust Centre for Human Genetics, University of Oxford, April 2008.

# Conference

(P)-Poster /(T)-Platform

Presentations

56<sup>th</sup> Annual *Drosophila* Research Conference, Chicago, March 2015 (P).

New York Area Population Genomics Workshop, New York, January 2015 (T). Regulatory and non-coding RNA meeting, CSHL, New York, August 2014 (P). Regional Meeting on Mobile Genetic Elements, CSHL, New York, October 2013 (P). 54<sup>th</sup> Annual *Drosophila* Research Conference, Washington D.C., April 2013 (P). Society for Molecular Biology and Evolution Meeting, Dublin, June 2012 (T).

#### **Teaching**

Teaching Assistant, Department of Biology, University of Rochester

BIO111P, Introductory Biology Lab: Spring: 2010, 2013, and 2014.

BIO113P, Advanced Biology Lab: Spring: 2011.

Guest lecturer for BIO472: Genomic Conflict and Selfish Genetic Elements, University of Rochester, March 2014

Two lectures for the Advanced Ecology & Evolutionary Biology course taught by Prof. Thomas Eickbush.

Instructor, Rochester Scholars Program, University of Rochester, July–August, 2013

Developed and taught a course for high school students titled, "Genes and Genomes: Why is DNA the secret molecule of life?".

Upward bound tutor for high school students, David T. Kearns center for Leadership and Diversity, University of Rochester, January 2012–May 2012.

Service Journal Referee: PLoS Genetics; Evolutionary Bioinformatics.

Grant Referee: Sigma Delta Epsilon graduate women in science fellowship.

Other: Member, Library Advisory Committee, University of Rochester 2014–2015.

Research National Science Foundation (DEB-1209536), April 2012–May 2015

Funding PI: Garrigan D. (co-PI: Vedanayagam J.P).

Title: Evolutionary Genomics of piRNA Mediated Transposon Silencing in Drosophila.

Professional Society for Molecualar Biology and Evolution 2011–Present

Memberships Genetics Society of America 2012-Present

The RNA Society 2011-Present

The New York Academy of Sciences 2011-Present

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