

# Yi Jin LIEW

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## EDUCATION

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- PhD    **Trinity Hall, University of Cambridge, UK (Oct 2008–Dec 2012)**  
PI: Dr. Gos Micklem, Department of Genetics  
Small RNA studies in *Drosophila melanogaster*, *Stylophora pistillata* and *Symbiodinium* sp.
- BA    **Magdalene College, University of Cambridge, UK (Oct 2005–Jun 2008)**  
First-Class Honours in Genetics

## WORK EXPERIENCE

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- 2013 – **Postdoc in Aranda Lab, King Abdullah University of Science and Technology (KAUST), Saudi Arabia**  
– 4+ years
- Investigated the role of epigenetics in corals as a mechanism to keep pace with climate change
  - Involved in five marine genome projects
  - Created and maintained an online data portal for reef organisms, <http://reefgenomics.org>
  - Reviewed five papers
  - Provided academic guidance for five PhD students
  - Co-chair of organising committee for RSRC Open Science Conference
  - Designed and taught two mini-courses (programming basics)
- 2009–  
2011    **Lab demonstrator, University of Cambridge, UK**  
– various stints
- Demonstrated general lab skills to first- to third-year undergraduates, and graded lab reports
- 2005    **Relief teacher, The Chinese High School, Singapore**  
– 5 months
- Taught Chemistry to students aged 13–15
  - Designed course materials and exams, graded student work

## PUBLICATIONS (REVERSE CHRONOLOGY)

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Li Y, Liew YJ, Cui G, Cziekielski MJ, Zahran N, et al. DNA methylation regulates transcriptional homeostasis of algal endosymbiosis in the coral model *Aiptasia*. *Nat Commun*, in review. (preprint copy: <https://nature-research-under-consideration.nature.com/users/37265-nature-communications/posts/22334-dna->

[methylation-regulates-transcriptional-homeostasis-of-algal-endosymbiosis-in-the-coral-model-\*Aiptasia\*](#)

**Liew YJ**, Zoccola D, Li Y, Tambutté E, Venn AA, et al. Epigenome-associated phenotypic acclimatization to ocean acidification in a reef-building coral. *PNAS*, submitted. (preprint copy: <https://www.biorxiv.org/content/early/2017/09/13/188227>)

Voolstra CR, Li Y, **Liew YJ**, Baumgarten S, Zoccola D, et al. Comparative analysis of the genomes of *Stylophora pistillata* and *Acropora digitifera* provides evidence for extensive differences between species of corals. *Sci Rep*, in review. (preprint copy: <https://www.biorxiv.org/content/early/2017/10/03/197830>)

Chen JE, Cui G, Wang X, **Liew YJ**, Aranda M. Recent expansion of heat-activated retrotransposons in the coral symbiont *Symbiodinium microadriaticum*. *ISME*, published online 20 Oct 2017, doi:10.1038/ismej.2017.179.

Brüwer JD, Agrawal S, **Liew YJ**, Aranda M, Voolstra CR. Association of coral algal symbionts with a diverse viral community responsive to heat shock. *BMC Microbiol.* 2017; **17**(1):174.

Wang X, **Liew YJ**, Li Y, Zoccola D, Tambutte S, et al. Draft genomes of the corallimorpharians *Amplexidiscus fenestrafer* and *Discosoma* sp. *Mol Ecol Resour.* 2017; **00**:1–9.

Voolstra CR, **GIGA Community of Scientists**, Wörheide G, Lopez JV. Advancing Genomics through the Global Invertebrate Genomics Alliance (GIGA). *Invertebr Syst.* 2017; **31**:1–7.

**Liew YJ**, Li Y, Baumgarten S, Voolstra CR, Aranda M. Condition-specific RNA editing in the coral symbiont *Symbiodinium microadriaticum*. *PLOS Genet.* 2017; **13**(2):e1006619.

**Liew YJ**, Aranda M, Voolstra CR. Reefgenomics.Org - a repository for marine genomics data. *Database.* 2016; **2016**:baw152.

Aranda M, Li Y, **Liew YJ**, Baumgarten S, Simakov O, et al. Genomes of coral dinoflagellate symbionts highlight evolutionary adaptations conducive to a symbiotic lifestyle. *Sci Rep.* 2016; **6**:39734.

Bhattacharya D, ..., **Liew YJ**, et al. Comparative genomics explains the evolutionary success of reef-forming corals. *eLife.* 2016; **5**:e13288.

**Liew YJ**, Ryu T, Aranda M, Ravasi T. miRNA Repertoires of Demosponges *Stylissa carteri* and *Xestospongia testudinaria*. *PLOS ONE.* 2016; **11**(2):e0149080.

Ryu T, Seridi L, Moitinho-Silva L, Oates M, **Liew YJ**, et al. Hologenome analysis of two marine sponges with different microbiomes. *BMC Genomics.* 2016; **17**(1):1.

Baumgarten S, Simakov O, Esherick LY, **Liew YJ**, Lehnert EM, et al. The genome of *Aiptasia*, a sea anemone model for coral symbiosis. *PNAS*. 2015; **112(38)**:11893-11898.

**Liew YJ**, Aranda M. Epigenetic adaptation of corals: A new hope? *Nature Middle East*. 2015; doi:10.1038/nmiddleeast.2015.194

**Liew YJ**, Aranda M, Carr A, Baumgarten S, Zoccola D, et al. Identification of microRNAs in the coral *Stylophora pistillata*. *PLOS ONE*. 2014; **9(3)**:e91101.

Baumgarten S, Bayer T, Aranda M, **Liew YJ**, Carr A, et al. Integrating microRNA and mRNA expression profiling in *Symbiodinium microadriaticum*, a dinoflagellate symbiont of reef-building corals. *BMC Genomics*. 2013; **14**:704

## ORAL PRESENTATIONS AT CONFERENCES

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- 2017 RSRC Open Science Conference, Thuwal, KSA  
KAUST Research Conference: Environmental Epigenetics, Thuwal, KSA
  
- 2016 KAUST Research Conference: International Conference on the Marine Environment of the Red Sea, Thuwal, KSA  
13<sup>th</sup> International Coral Reef Symposium, Honolulu, Hawaii, USA
  
- 2014 3<sup>rd</sup> Asia-Pacific Coral Reef Symposium, Kenting, Taiwan
  
- 2012 12<sup>th</sup> International Coral Reef Symposium, Cairns, Australia

## LANGUAGE AND COMPUTING SKILLS

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|-----------|---|
| Languages | Fluent in English and Mandarin<br>Proficient in Malay and Cantonese   |
| Computing | Extremely familiar with Windows and UNIX environments<br>Expert in Python, Bash<br>Competent in Perl, R, Visual Basic, HTML and CSS |