

James Angus Chandler

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Positions and Education

Postdoctoral Research Associate, Department of Microbiology, June 2013 to present

California Academy of Sciences, San Francisco, California
Research Adviser: Shannon Bennett

Ph.D. in Population Biology, June 2013

University of California, Davis
Dissertation committee: Artyom Kopp (Chair), Michael Turelli, and Angela Douglas

B.S. in Genetics and Biochemistry, December 2005

University of Wisconsin, Madison
Research Advisers: Jenny Boughman and Andrew Bent

Publications

*undergraduate coauthor

Chandler JA, Thongsripong P, Green A, Kittayapong P, Wilcox BA, Schroth G, Kapan DD, and Bennett SN. 2014 Metagenomic shotgun sequencing of a Bunyavirus in wild-caught *Aedes aegypti* from Thailand informs the evolutionary and genomic history of the Phleboviruses. *Virology*. doi: 10.1016/j.virol.2014.06.036

-Selected by the Editors to be Highlighted in the September 2014 issue of *Virology*

Chandler JA and Turelli MT. 2014. Comment on “The hologenomic basis of speciation: Gut bacteria cause hybrid lethality in the genus *Nasonia*”. *Science*. doi: 10.1126/science.1251997

Chandler JA, James PM*, Jospin G, and Lang JM. 2014 Bacterial communities of *Drosophila suzukii* collected from live cherries. *PeerJ*. 2:e474. doi: 10.7717/peerj.474

Dunitz MI*, James PM*, Jospin G, Eisen JA, Coil DA, and **Chandler JA**. 2014. Draft genome sequence of *Tatumella sp.* strain UCD-D_suzukii, isolated from *Drosophila suzukii* larvae. *ASM Genome Announcements*. doi: 10.1128/genomeA.00349-14

Chandler JA and James, PM*. 2013. Discovery of trypanosomatid parasites in globally distributed *Drosophila* species. *PLoS ONE*. 8(4):e61937. doi: 10.1371/journal.pone.0061937

Chandler JA, Eisen JA, and Kopp A. 2012. Yeast communities of diverse *Drosophila* species: Comparison of two symbiont groups within the same hosts. *Applied and Environmental Microbiology*. vol. 78. no. 20. 7327-7337. doi: 10.1128/AEM.01741-12

Chandler JA, Lang JM, Bhatnagar S, Eisen JA, and Kopp A. 2011. Bacterial communities of diverse *Drosophila* species: Ecological context of a host-microbe model system. *PLoS Genetics*. 7(9): e1002272. doi: 10.1371/journal.pgen.1002272

-Paper recommended by the Faculty of 1000

Manuscripts In Prep†high school coauthor *undergraduate coauthor

Chandler JA, Lang JM, Jospin G, and Eisen JA. (In prep) Shotgun metagenomic analysis of *Drosophila melanogaster* feces: A novel method for investigating the insect microbiota.

Chandler, JA, Liu RM[†], and Bennett, SN. (In prep) RNA shotgun metagenomics of northern Californian (USA) mosquitoes identifies bacteria, fungi, and viruses.

Hoang DQ*, Kopp A., and **Chandler JA**. (In prep) Comparison of yeasts naturally associated with *Drosophila* to *Saccharomyces cerevisiae*: Is baker's yeast a good model for studying fly-yeast interactions?

Thongsripong P, **Chandler JA**, Green A, Kittayapong P, Wilcox BA, Kapan DD, and Bennett SN (In prep) Microbial diversity of mosquitoes across a habitat gradient in central Thailand.

Awards and Fellowships

Research Excellence Award; California Academy of Sciences internal research grant; 2014-2015
Project title: "Removal of host ribosomal RNA for improved characterization of the mosquito microbiota"; Total Award: \$6,282

Dean's Prize for Best Oral Presentation in Biological Sciences, Interdisciplinary Graduate and Professional Symposium, UC Davis, 4/5/2013; \$1,000 cash award

Dean's Mentorship Award, College of Biological Sciences, UC Davis, 2011-2012
Awarded for excellence in undergraduate mentorship; \$2,500 cash award, \$2,500 to support ongoing undergraduate research

Chancellor's Achievement Award for Diversity and Community, UC Davis, 2011
Presented by Chancellor Linda Katehi for excellence in public service; \$500 cash award

National Science Foundation East Asia and Pacific Summer Institute Fellowship, 2011
~\$10,000 covering stipend, travel, and research expenses for work on Taiwanese *Drosophila*

Summer Program for Undergraduate Research, University of Oregon, 2005
~\$8,000 covering stipend, travel costs, and living expenses

Other Awards:

Community Service Award, 2012-2013 Silver Recipient, UC Davis Community Service Resource Center
Travel Award, UC Davis Office of Graduate Studies, 2012-2013, \$500

Various research and travel grants, Center for Population Biology, UC Davis, 2007-2011, Totaling \$4,900

Teaching Experience

(A) Invited Lectures

- “Why should you love your germs? The human microbiome and your health”. Applications of Evolutionary Biology to Human Health Freshman Seminar, UC Davis, 2/18/2014
- “The scientific peer review process”, Research Scholars in Insect Biology Undergraduate Seminar Series, UC Davis, 2/12/2013
- “Why should you care about this little fly? (or) How can the skills you learn in BIS2B help you design and execute real experiments?”, Biology Undergraduate Scholars Program, UC Davis, 8/22/2012
- “*Drosophila* as an emerging model to study animal-microbe interactions”, Biology Undergraduate Scholars Program, UC Davis, 7/30/2010

(B) Training

- Scientific Teaching, Microbiology 296, UC Davis, Fall 2012
- Associate Instructor Development Series, UC Davis Center for Excellence in Teaching and Learning, Summer 2012
- Teach Your Own Course: From the Basic to the Advanced, UC Davis Center for Excellence in Teaching and Learning, Winter 2012
- Course Design: Evolution for non-majors, Population Biology 298, Winter 2011

(C) Teaching Assistant Positions

- Total quarters as a Teaching Assistant: 12 (All at UC Davis).
- Introduction to Ecology and Evolution-BIS2B. Spring 2013, Winter 2013, Spring 2011, Spring 2009, Fall 2009
- Introduction to Molecular, Cellular, and Developmental Biology-BIS2A. Fall 2012
- Introduction to Evolution-EVE100 (Upper Division Course). Spring 2012, Fall 2011, Fall 2010, Fall 2008, Fall 2007
- Introduction to Animal Diversity-BIS1B. Winter 2007

Other Teaching Experience:

- Academic Coach and Tutor (paid position), Trio Student Support Services, University of Wisconsin, Madison, February 2005-May 2006
 - Tutor for biochemistry and genetics; TRIO is an organization dedicated to assisting 1st generation college students, students from disadvantaged backgrounds, and students with disabilities
- Microbiology Tutor, Undergraduate Microbiology Club, University of Wisconsin, Madison, Winter 2004-Summer 2005
- Chemistry Tutor, Greater University Tutoring Services, University of Wisconsin, Madison, Winter-Spring 2004

Service

- The Big Read: Open Access Science. Department of Evolution and Ecology Science Book Project in collaboration with Yolo County Library. <http://scienovels.wordpress.com/> (This group recently became the Davis Science Collective <http://davissciencecollective.wordpress.com/>)
 - Adviser, 2012-2013
 - Founder, 2011-2012

Evolution Demystified. Public open house to promote integration of UC Davis and surrounding community. Community attendance: 500-1000 per year.

Co-Chair, Spring 2010

Chair, Spring 2009

Founder, Winter/Spring 2008

Darwin Day in Davis 2009. Organized off-campus lectures in celebration of the 150th anniversary of the publication of *On the Origin of Species*. Community attendance: 350. Co-Chair, Winter 2009'

Other Service:

Peer Reviewer: *Frontiers in Microbiology*, *Applied and Environmental Microbiology*, *PLoS Pathogens*, *PLoS One* (3 times), *Ecology Letters*, *Nature Communications*, *Genetica*

“Discover your own oral microbes”, Part of the Science Neat series at El Rio Tavern and Community Center, San Francisco, Ca, 6/17/2014

Connect with a Scientist Discussion Series, California Academy of Sciences, 4/6/2014 and 10/26/2013

City Arts and Lectures conversation with Nathan Wolfe “Pandemic: A Plan for the Planet”. San Francisco, Ca, March 11th 2014 – Conceived and organized a CAS Department of Microbiology table to supplement primary event

“Discover your own oral microbes”, NightLife at the Academy, California Academy of Sciences, 11/21/2013

Chancellor’s Achievement Award for Community and Diversity Search Committee, UC Davis, Fall 2012

Post-Doctoral Associate Search Committee (Graduate Student Representative), UC Davis Center for Population Biology, Winter 2010

Breakthrough Sacramento, Summer Science Liaison-Led tours of campus laboratories to ethnically diverse students from under-resourced Sacramento schools, Summer 2009

Select Presentations (2012 – Present)

Metagenomic shotgun sequencing of an arthropod-specific virus in wild-caught *Aedes aegypti* from Thailand informs the evolutionary and genomic history of the Phleboviruses”. Bay Area Microbial Pathogenesis Symposium XVII. University of California, San Francisco. (Poster Presentation). 3/29/2014

“Characterization of the *Aedes aegypti* microbiota using RNA shotgun metagenomics”. Keystone Symposium: Mechanisms and Consequences of Invertebrate-Microbe Interactions. Tahoe City, California. (Oral Presentation). 1/27/2014

“Discovery of *Trypanosomatid* parasites as common associates of *Drosophila* (or) How basic research in a tiny fly can help solve big problems”. Interdisciplinary Graduate and Professional Student Symposium. University of California, Davis. (Oral Presentation). 4/5/2013

“Composition and assembly of the *Drosophila* microbiome”. ASM Beneficial Microbes Conference. San Antonio, Texas. (Poster Presentation). 10/25/2012

“Yeast communities of diverse *Drosophila* species: Comparison of two symbiont groups in the same hosts”. Yosemite Symbiosis Workshop. Sierra Nevada Research Institute, Wawona, California. (Oral Presentation). 5/19/2012