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### **Professional Preparation**

Michigan State University Cornell University

Mathematics

B.S.

2011 - 2015

Computational Biology

Ph.D.

2015 -

## **Appointments**

2016 -**PhD Candidate, Clark Lab** 

> Department of Computational Biology Projects (\* denotes dissertation projects):

> > Sexual Conflict through Mother's Curse and Father's Curse\*

Mitochondrial-Y Chromosome Epistasis in Drosophila melanogaster\*

Invasion Conditions for Sexually Antagonistic Mitochondrial-Nuclear Interactions

Transcriptional Analysis of Dominant Suppressors of Male Fertility in Drosophila melanogaster males

### **Publications - Peer Reviewed**

- \* denotes equal contribution
- Agren JA\*, Manisha Munasinghe\*, and Andrew G. Clark. 2019. "Sexual Conflict through Mother's Curse and Father's Curse." Theoretical Population Biology, 129 (10): 9-17. https://doi.org/10.1016/j.tpb.2018.12.007.
- Agren JA\*, Manisha Munasinghe\*, and Andrew G. Clark. "Mitochondrial-Y Chromosome Epistasis in *Drosophila* melanogaster" *Proceedings B* (Submitted)
- Holman AR\*, Manisha Munasinghe, Nancy M. Boninin, and Andrew G. Clark. "Second-site Modifiers of the Drosophila C9orf72 Model for ALS" (In Preparation).

## **Posters and Academic Presentations**

| 2019 | Oral Presentation: Consequences of Sexually Asymmetric Genetic Transmission. Computational Biology Graduate Student Recruitment Research Presentation, Cornell University - Ithaca NY, USA   |
|------|--|
| 2018 | Oral Presentation: Computational Analysis of the Consequences of Sexually Asymmetric Genetic Transmission. Computational Biology Field Seminar, Cornell University - Ithaca NY, USA  |
| 2018 | <u>Guest Lecture</u> : Personalized Genomics and Direct-to-Consumer Testing. BIOMG 4870: Human Genomics, Cornell University - Ithaca NY, USA   |
| 2018 | Poster Presentation: Mother's Curse and Father's Curse as Manifestations of Sexual Conflict. Co-authors: JA Ågren, AG Clark. Population, Evolutionary, and Quantitative Genetics Meeting 2018 (PEQG 2018) - Madison WI, USA                          |
| 2018 | Oral Presentation: Computational and experimental analysis of the consequences of sexually asymmetric transmission with mitochondrial-nuclear interactions. Special Committee, Cornell University - Ithaca NY, USA                                   |
| 2017 | <u>Poster Presentation</u> : <i>Mitochondrial-Y Interactions Influence Gene-Expression Profiles in Drosophila melanogaster males</i> . Co-authors: JA Ågren, AG Clark. Society for Molecular Biology and Evolution 2017 (SMBE 2017) - Austin TX, USA |

# **Teaching Experience**

| 2019 | Cornell Center for Teaching Innovation GET SET Workshops: - Understanding How Your Students Learn |
|------|---|
|      | - Using Active Learning Strategies In Your Teaching   |
|      | - Grading Effectively   |
|      | - The Role of TAs In Cultivating an Inclusive Classroom   |
|      | - How Do I Know My Students Are Learning Before the Semester                                      |
|      | Ends  |
| 2019 | Cornell Center for Teaching Innovation Active Learning Institute                                  |
|      | Participant   |
| 2018 | Teaching Assistant - Cornell University, BIOMG 4870: Human  |
|      | Genomics  |
| 2018 | Teaching Assistant - Cornell University, BTRY 4830: Quantitative                                  |

|             | Genetics and Genomics  |
|-------------|--|
| 2017        | Teaching Assistant - Cornell University, BIOMG 4870: Human           |
|             | Genomics   |
| 2013,2015   | Teaching Assistant - Michigan State University, LB 220: Calculus III |
| 2014,2015   | Teaching Assistant - Michigan State University, LB 119: Calculus II  |
| 2013,2014   | Teaching Assistant - Michigan State University, LB 118: Calculus I   |
| 2012 - 2014 | Participant, Creating Inclusive Learning Environments Workshop,      |
|             | Michigan State University, LB 220: Calculus III                      |

## **Leadership Activities & Service**

| 2019 -      | Cornell University Internal Mental Health Review Committee  |
|-------------|---|
| 2019        | Cornell University Expanding Your Horizons Demo Lead: Flying into the Gene Pool   |
| 2018        | Cornell University Graduate and Professional Student-Elected Trustee  |
| 2018 -      | Institute for Healthcare Improvement (IHI) 'Pursuing the Triple Aim: A Learning and Action Collaborative' Cornell University Delegate |
| 2018 -      | Cornell University's Coalition on Mental Health Graduate Student Representative   |
| 2018        | 2018 Ivy+ Graduate and Professional Student Summit Organizing Committee Co-Chair  |
| 2017 - 2018 | Cornell University's Graduate and Professional Student Assembly<br>Executive Vice-President   |
| 2016 - 2018 | President of Cornell University's Computational Biology Graduate Student Association  |
| 2016 - 2018 | Cornell University's Graduate and Professional Student Assembly<br>Computational Biology Field Representative                         |
| 2016 - 2017 | Cornell University's Graduate and Professional Student Assembly Vice-President for Communications                                     |
| 2016 - 2017 | Cornell University's University Assembly Graduate and Professional Student Representative   |

# **Professional Development**

| 2019 | Cornell University's NextGen Professor's Program 2019 - 2020 Cohort      |
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| 2019 | Cornell University's Future Professors Institute: Advancing Diversity in |
|      | the Academy  |

| 2019      | Computational Biology Graduate Student Invited Seminar Speaker<br>Event Organizer          |
|-----------|--|
| 2018      | Cornell University Intergroup Dialogue Project   |
| 2018      | American Association for the Advancement of Science (AAAS)                                 |
|           | Catalyzing Advocacy in Science and Engineering (CASE) Workshop Cornell University Delegate |
| 2016,2017 | Ivy+ Graduate and Professional Student Summit Cornell University Delegate                  |
| 2017      | Colman Leadership Program for PhD Students, Diversity Programs in                          |
|           | Engineering, Cornell University  |

## **Awards**

2018-2019 Joe and Rita Calvo Teaching Award

## **Associations**

| 2020 | Edward A. Bouchet Graduate Honor Society - <i>Member</i>    |
|------|---|
| 2018 | Genetics Society of America (GSA) - Member                  |
| 2017 | Society for Molecular Biology and Evolution (SMBE) - Member |