

# Kirsten Gotting

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## Education

M.S. Genetics, University of Wisconsin Madison, Laboratory of Genetics 2019  
M.S. Biology, University of Oregon, Department of Biology 2014  
B.A. Biology, University of Oregon, Department of Biology 2013

## Research Experience

Graduate Researcher, Currie Lab, University of Wisconsin Madison 2018 - Present  
Sequenced, assembled and annotated 18 genomes of *Escovopsis* for comparative genomics.  
Performed field work to obtain increased sampling of *Escovopsis*  
Bioinformatics Intern, Sánchez Lab, Stowers Institute for Medical Research 2014  
Developed a self-documenting RNA-seq analysis pipeline for transcriptomics from non-model organisms.  
Created interactive data analysis applications.  
Undergraduate Research Assistant, Selker Lab, University of Oregon 2012  
Created *Neurospora crassa* mutants as part of a forward genetics screen selecting for defects in methylation.

## Employment

Bioinformaticist, Sánchez Lab, Stowers Institute for Medical Research 2014 – 2017  
Collaborated with scientists to analyze and interpret next generation sequencing data.  
Line/Lab Assistant, Zebrafish International Resource Center 2010 - 2013  
Worked to maintain and propagate zebrafish lines for shipping to research labs.

## Publications

Francoeur, C. B., Khadempour, L., Moreira-Soto, R.D., **Gotting, K.**, Book, A.J., Pinto-Tomás, A.A., Keefover-Ring, K., and Currie, C.R. "Bacteria contribute to plant secondary compound degradation in a generalist herbivore system." *mBio* (2020): 865212. In Review  
Klocko, A.D., Summers, C.A., Glover, M.L., Parrish, R., Storck, W.K., McNaught, K.J., Moss, N., **Gotting, K.**, Stewart, A., Marrison, A.M., Payne, L., Hatakeyama, S., Selker, E.U.

(2020) "Selection and characterization of mutants defective in DNA methylation in *Neurospora crassa*." *Genetics*.

Wang, W., Hu, C., Zeng, A., Gibbon, D., Hu, D., **Gotting, K.**, Granillo Ortega, A., Wang, Y., Robb, S., Schnittker, R., Zhang, S., Alegre, D., Li, H., Ross, E., Zhang, N., Brunet, A., Sánchez Alvarado A. (2020) "Changes in injury-responsive enhancers shape regenerative capacities in vertebrates." *Science* 369, no. 6508.

Zhang S., Guo L., Guerrero-Hernández C., Ross E.J., **Gotting, K.**, McKinney S.A., Wang W., Xiang Y., Hawley S.R., and Sánchez Alvarado A. (2018) "A nuclear hormone receptor and lipid metabolism axis are required for the maintenance and regeneration of reproductive organs." *bioRxiv*: 279364.

Davies, E.L., Lei K., Seidel C.W., Kroesen A.E., McKinney S.A., Guo L., Robb S.M.C., Ross E.J., **Gotting, K.**, and Sánchez Alvarado A. (2017) "Embryonic origin of adult stem cells required for tissue homeostasis and regeneration." *eLife* 6: e21052.

Luttrell, S.M., **Gotting, K.**, Ross E.J., Sánchez Alvarado A., and Swalla B.J. (2016) "Head Regeneration in Hemichordates Is Not a Strict Recapitulation of Development." *Developmental Dynamics*.

Lei, K., Vu H.T., Mohan R.D., McKinney S.A., Seidel C.W., Alexander R., **Gotting, K.**, Workman J.L., and Sánchez Alvarado, A. (2016) "Egf Signaling Directs Neoblast Repopulation by Regulating Asymmetric Cell Division in Planarians." *Developmental Cell* 38, no. 4: 413-429.

Robb, S., **Gotting, K.**, Ross, E.J., and Sánchez Alvarado, A. (2015) "SmedGD 2.0: The *Schmidtea mediterranea* genome database." *genesis* 53, no. 8: 535-546.

## Mentoring

*University of Wisconsin Madison*

Hezekiah Gilles

Fall 2019 - Present

Soleil Young

Spring 2019 - Present

## Teaching Experience

*University of Wisconsin - Madison*

Teaching Assistant, **General Genetics 2**

Spring 2019

*Cold Spring Harbor Laboratory*

Teaching Assistant, **Programming for Biology**

2018, 2019, 2020\*\*

*University of Oregon*

Graduate Teaching Fellow, **Cells**

Fall 2013

Undergraduate Teaching Assistant, **Evolution, Diversity & Ecology** Spring 2013

## Departmental Service

Genetics Diversity Committee	2020 - present
J.F. Crow Institute Evolution Coordinating Committee	2020 - present
-Diversity Committee Co-Chair	
Genetics Admissions Committee	2019
Genetics Graduate Student Committee	2018 - 2019
Genetics Retreat Committee	2018 - 2019

## Leadership

### *University of Wisconsin*

Co-chair, <b>ComBEE</b> (Computational Biology, Ecology, and Evolution)	2018 - Present
Organized monthly speaker series and coding working and learning groups.	
R Study Group Leader, <b>ComBEE</b>	Spring 2018
Led a coding study group to teach the R programming language.	

### *The Stowers Institute for Medical Research*

Organizer/Founder, <b>UO Data Working Group</b>	2014 - 2017
Organized and led a learning and working group for junior bioinformaticists.	

## Workshops and Courses

### *University of Wisconsin Madison Delta Program on Integrating Research, Teaching and Learning*

Fundamentals of Online Learning and Teaching	2020
Teaching college students on the autism spectrum	2018

## Outreach

### *Currie Lab Leaf-Cutter Ant Display Colony*

Organizer; Activity Leader, <b>UW-Madison Science Expeditions</b>	2018; 2019
Organizer and Activity Leader, <b>Wisconsin Science Festival</b>	2018

## Conferences Attended

Mycological Society of America	2019, 2020
Beneficial Microbe	2018
Madison Microbiome Meeting	2018
useR!	2016
North American Planarian Meeting	2015

## Presentations

### *The University of Wisconsin Madison*

Genomic diversification of the parasite *Escovopsis* across the evolutionary history of the fungus-growing ant-microbe symbiosis

UW-Madison Evolution Seminar Series <b>Talk</b>	2020
Mycological Society of America <b>Poster</b>	2020
Laboratory of Genetics Graduate Seminar Series <b>Talk</b>	2020
Beneficial Microbes**	2020
Kenneth B. Raper Symposium, Department of Bacteriology <b>Poster</b>	2019

### *The Stowers Institute for Medical Research*

Designing an RNA-seq Pipeline for Non-Model Organisms <b>Talk</b>	2014
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## Skills

### *Computational*

Linux/Unix  
Parallel Computing  
Git  
MySQL

### *Programming Languages*

R  
Python  
Bash

## *Data Analytics*

Phylogenomics  
Comparative Genomics  
RNA-seq  
Genome Annotation  
Differential Isoform  
Gene Ontology Enrichment  
Motif Finding  
MudPIT Proteomics  
Bioconductor  
RShiny

## **Languages**

English (native)  
Spanish (conversational)

\*\*denotes events cancelled due to COVID19