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 Assitant, 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, **ComBEE** (Computational Biology, Ecology, and Evolution) 2018 - Present

Organized monthly speaker series and coding working and learning groups.

R Study Group Leader, **ComBEE** Spring 2018

Led a coding study group to teach the R programming language.

The Stowers Institute for Medical Research

Organizer/Founder, **UO Data Working Group** 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, **UW-Madison Science Expeditions** 2018; 2019

Organizer and Activity Leader, **Wisconsin Science Festival** 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 **Talk**	2020
Mycological Society of America **Poster**	2020
Laboratory of Genetics Graduate Seminar Series **Talk**	2020
Beneficial Microbes**	2020
Kenneth B. Raper Symposium, Department of Bacteriogy **Poster**	2019

The Stowers Institute for Medical Research

Designing an RNA-seq Pipeline for Non-Model Organisms **Talk**	2014

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)

Reference

John Pool jpool@wisc.edu

**denotes events cancelled due to COVID19