

# Scott Allen Funkhouser

*Updated June 15, 2016*

## Work Address

474 S. Shaw Lane, Room 1205  
East Lansing, MI 48824

## Home Address

1943 Wood St #7  
Lansing, MI 48912

## EDUCATION

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2013 - Present	<b>Michigan State University</b> , Genetics and Quantitative Biology	PhD in progress
2007 - 2011	<b>University of Washington</b> , Major: Biochemistry	BS 2011
2005 - 2007	<b>Graham-Kapowsin HS</b> , Valedictorian	Graduated 2007

## RESEARCH POSITIONS

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May 2014 -	<b>Graduate Research Assistant</b> , Mentor Catherine Ernst PhD, Michigan St Univ. Animal Sci. Dept. Investigating the role of A-to-I RNA editing in mammalian genomes and developing methods for the genomic prediction of complex phenotypes.
Jan. 2012 - Aug. 2013	<b>Research Scientist I</b> , Mentor Mary Philip MD PhD, University of Washington Hematology Dept. Investigated the role of a heme exporter, FLVCR, in the development of T lymphocytes.
2010-2011	<b>Undergraduate Research Assistant</b> , Mentor Chris Hague PhD, Univ. of Washington Pharmacology Dept. Studied novel binding partners to pertinent G-Protein coupled receptors.
2009	<b>Undergraduate Research Assistant</b> , Mentor Nigel Bamford MD, Univ. of Washington Neurology Dept. Used a behavioral approach to understanding gestational cocaine exposure with mouse models.

## AWARDS

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<b>Fred and Lucille Stamper Academic College Scholarship</b> \$16,256.00 over 4 years	2007 - 2011
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## MEMBERSHIPS

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<b>ASAS PhD Student Member</b>	2015 - Present
<b>Genetics Student Organization</b>	
2 <sup>nd</sup> Year Representative	2014 - 2015
3 <sup>rd</sup> Year Representative and Social Chair	2015 - Present

## SELECTED GRADUATE COURSEWORK

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Molecular Biology (BMB 801)	Eukaryotic Molecular Genetics (MMG 835)
R Programming for Quantitative Genetics (ANS 824)	Advanced Statistics for Biologists (STT 814)
Intro to Statistical Genetics (STT 855)	Bayesian Inference using MCMC (FW 849)

## SKILLS

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**Computing:** The R language, C++, Bash, Python and Java, in order from most skilled to least skilled. Familiar with others for web development including HTML, CSS, Javascript and Markdown.

**Bioinformatics:** Bowtie, Tophat, Picard, SAMTools, bcftools, Variant Effect Predictor, UCSC Genome Browser

**Software development tools:** Git, R Studio, R development packages: devtools, roxygen, testthat, literate programming using knitr

**Molecular Biology:** Flow cytometry, immunostaining, qPCR, PCR, molecular cloning and techniques therein, cell culture

## PUBLICATIONS

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1. M. Philip, **S.A. Funkhouser**, E.Y. Chiu, S.R. Phelps, J.J. Delrow, J. Cox, P.J. Fink and J.L. Abkowitz. (2015) Heme Exporter FLVCR Is Required for T Cell Development and Peripheral Survival. *The Journal of Immunology*. jimmunol.1402172

## PENDING PUBLICATIONS

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2. **S.A. Funkhouser**, J.P. Steibel, R.O. Bates, N.E. Raney and C.W. Ernst. Evidence for substantial RNA editing transcriptome-wide among *Sus scrofa* PRE-1 SINE elements. *Intended for the RNA Journal*.
3. P.D. Reeb, **S.A. Funkhouser**, C.W. Ernst and J.P. Steibel. Assessing genotype call accuracy from RNA sequencing data.
4. D. Zhao, J. Hamilton, M. Hardigan, D. Yin, T. He, B. Vaillancourt, M. Reynoso, **S. Funkhouser**, Y. Cui, J. Bailey-Serres, J. Jiang, C.R. Buell, and N. Jiang. Analysis of translating mRNAs in rice reveals the importance of transcript size and GC content in translation. *Intended for Genetics*.

## PRESENTATIONS AND POSTERS

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**S. A. Funkhouser**, J.P. Steibel, R.O. Bates, N.E. Raney, C.W. Ernst. (2015) Evidence of RNA editing in pig longissimus dorsi muscle. Oral presentation given at the American Dairy Science / American Society of Animal Science Midwest Conference.

C.W. Ernst, **S. A. Funkhouser**, J.P. Steibel, R.O. Bates, N.E. Raney. (2015) Evidence of RNA editing in pig longissimus dorsi muscle. Oral presentation given at the Plant and Animal Genome XXIII Conference.

M. Philip, **S.A. Funkhouser**, J.J. Delrow, E.Y. Chiu, and J.L. Abkowitz. (2012) FLVCR, a Heme Exporter, Is Required for Peripheral T Cell Survival. Poster presented at the 54<sup>th</sup> Annual American Society of Hematology Meeting and Exposition.

M. Philip, **S.A. Funkhouser**, J.J. Delrow, and J.L. Abkowitz. (2012) FLVCR, a Heme Export Protein, is Required for T Cell Development and Survival. Poster presented at the Keystone Symposium on Molecular and Cellular Biology