Scott Allen Funkhouser

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

Home Address
1943 Wood St #7
Lansing, MI 48912

EDUCATION

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

RESEARCH POSITIONS

May 2014 - **Graduate Research Assistant,** 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 **Research Scientist I,** 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 **Undergraduate Research Assistant,** Mentor Chris Hague PhD, Univ. of Washington Pharmacology Dept.
Studied novel binding partners to pertinent G-Protein coupled receptors.

2009 **Undergraduate Research Assistant,** Mentor Nigel Bamford MD, Univ. of Washington Neurology Dept.
Used a behavioral approach to understanding gestational cocaine exposure with mouse models.

AWARDS

Fred and Lucille Stamper Academic College Scholarship 2007 - 2011
$16,256.00 over 4 years

MEMBERSHIPS

ASAS PhD Student Member 2015 – Present

Genetics Student Organization
2nd Year Representative 2014 - 2015
3rd Year Representative and Social Chair 2015 - Present

SELECTED GRADUATE COURSEWORK

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

SKILLS

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

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

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

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 54th 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