Julianne H. Grose, Ph.D.

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I am an Associate Professor in the Department of Microbiology and Molecular Biology at Brigham Young University. My university position consists of 45% effort for teaching, 45% effort for mentoring/research and 10% effort for citizenship. I teach approximately 12 credit hours of undergraduate courses per year and currently mentor four graduate students and 15 undergraduates in my research lab. My teaching is dedicated to bringing novel research experiences into the classroom through an international program, Phage Hunters (HHMI SEA-PHAGES program). Research in my laboratory is dedicated to two main projects: 1) the study of glucose allocation, and 2) the study of bacteriophages that infect the *Enterobacteriaceae* family of bacteria. The latter is a continuation of the Phage Hunters course/program. My long-term goal is to mentor students in the classroom and lab through high quality research experiences as well as to contribute novel scientific findings to our fields of study.

EDUCATION AND TRAINING

Education

2003 Ph.D. Biology, University of Utah
1996 B.S. Chemistry, Math minor, University of Utah

Research Positions

9/2016 – Present	**Associate Professor**, Brigham Young University, Department of Microbiology and Molecular Biology.
9/2008 – 2015	**Assistant Professor**, Brigham Young University, Department of Microbiology and Molecular Biology.
2006 – 2008	**Postdoctoral Research Associate**, BioEnergenix (Pharmaceutical company), Department of Biochemistry, University of Utah. PAS kinase inhibitors in the treatment of diabetes and hyperlipidemia.
2004 – 2008	**Postdoctoral Scholar**, Lab of Dr. Jared Rutter, Department of Biochemistry, University of Utah. Molecular characterization of PAS kinase.
1996-2003	**Ph.D. Student** ,Lab of Dr. John Roth, Department of Biology,University of Utah. Regulation of NAD(P) metabolism in *Salmonella typhimurium*.
1994-1995	**Undergraduate Research Assistant**, Lab of Dr. Marion Woods MD.
1992-1993	**ACCESS Program** for Women in Mathematics and Science

PROFESSIONAL HONORS AND FELLOWSHIPS

Maesar Excellence in Teaching Award, Brigham Young University (2017)
First place award -NSF Community College Innovation Challenge (2017)
Alcuin Fellowship, Brigham Young University (2017)
Technology Transfer Award, Brigham Young University (2016)
Faculty Women's Association Scholarship Award, Brigham Young University **(**2016)
Travel Award, Annual SEA-PHAGES Conference (2012, 2015)
Travel Award, SEA-PHAGES Advanced Genomics Workshop (2015)
Travel Award, IR-4 Biopesticide Workshop (2014, 2015)
Teaching Award, Highest Student Ratings in a 100-level Course (2013)
Travel Award, ASM Early-career Faculty Travel Award (2009)
Postdoctoral Fellowship, Multidisciplinary Cancer Research Training Grant (2004-2006)
Postdoctoral Fellowship, Ruth L. Kirschstein National Research Service Award (2006, gratefully declined)

PROFESSIONAL ACTIVITIES

President of the Intermountain Branch of the American Society for Microbiology (ASM) (2017-2018)

Member of the Science Education Alliance (SEA), American Heart Association (AHA), American Society for Microbiology (ASM), American Society for Cell Biology (ASCB), Genetics Society of America (GSA)

iGEM Jamboree Judge (America's -2013, International - 2014)

Ad-hoc Reviewer for Pilot Research Projects Southwest Environmental Health Sciences Center (2012), the National Science Foundation Graduate Research Fellowship Program (NSF GRFP), and the Human Frontier Science Program Career Development Award (HFSF CDA), and for the following journals: Acta Biochimica et Biophysica Sinica, Archives of Virology, Environmental Microbiology and Environmental Microbiology Reports, FEBS Letters, FEMS Microbiology Letters, Journal of Bioprocessing & Biotechniques, Molecules, Nutrients, PLOS ONE and Trends in Microbiology

TOTAL RESEARCH SUPPORT ($1,185,556*)

EXTRAMURAL RESEARCH SUPPORT

Current

Characterizing a kinase regulator of ataxin-2 as a therapeutic target for ALS
Principle Investigator: Julianne H. Grose
Robert Packard Center for ALS Research
Amount: $50,000 End date: 8/31/2018

Regulation and function of PAS kinase: PASsing glucose to control respiration, lipogenesis and cell cycle
Principle Investigator: Julianne H. Grose
National Institutes of Health 2R15 GM100376-02
Amount: $712,412 End date: 1/31/2019

Beckman Scholars Program
Role: Co-principle Investigator and Beckman Scholar Mentor
The Arnold and Mabel Beckman Foundation
Person months: 0
Amount: $109,200 End date: 2020

LDS Philanthropies Private donor
Phage Hunters: Discovery and Bioinformatics
Role: Principal Investigator
Amount: $8,000 End date: 7/1/2017

USDA National Institute of Food and Agriculture Award 2016-67014-24850
Manipulation of Phage-derived Bacteriocin Production as a Novel Antimicrobial Treatment for Bacterial Phytopathogens
Role: Subcontract Principal Investigator
Amount (subcontract): $20,000 End date: 01/31/2019

IR-4/USDA – NIFA via Rutgers
A Natural Treatment for Fire Blight: *Erwina* Phage Project
Role: Principal Investigator
Amount: $5,000 End date: 1/1/2017

Completed

LDS Philanthropies Private donor
Phage Hunters: Discovery and Bioinformatics

Role: Co-Principal Investigator
Amount: $200,000 End date: 8/1/2016

IR-4/EPA Biopesticide Grant
A Natural Treatment for Fire Blight: Pilot Tests in Apple Orchards
Role: Principal Investigator
Amount: $25,000 End date: 1/1/2016

NIH prime award 1DP1 OD006438-01
Subcontract Role: Principal Investigator
Amount (Subcontract): $30,000 End date: 7/31/2012

INTRAMURAL RESEARCH GRANTS

Current

Inflammation Research Award – BYU
Impact of mutant Atypical Chemokine Receptors on Chemokines and Inflammation
Role: Co-Principle Investigator
Amount: $6,254 End date: 1/31/2018

BYU Mentoring Environment Grant
Balancing the cellular budget: Dissecting PAS kinase-dependent glucose partitioning
Role: Principal Investigator
Amount: $20,000 End date: 1/31/2017

BYU Mentoring Environment Grant
Identifying Genetic Factors Involved in the Development of Diabetes
Role: Principal Investigator
Amount: $20,000 End date: 1/31/2016

Enhancing Learning Through Novel, Publishable Viral Research
Role: Principal Investigator
Amount: $8,400 End date: 11/31/2016

Completed

BYU Mentoring Environment Grant
Elucidating a Precise Role for the Small Heat Shock Proteins CryAB and HspB2 in Cardiac Robustness
Role: Principal Investigator
Amount: $20,000 End date: 3/31/2015

A Phage-Based Treatment for Fire Blight and American Foulbrood
Role: co-Principal Investigator
BYU Technology Transfer Bridging Fund
Amount: $15,000 End date: 12/13/2014
BYU Teaching Enhancement Grant
Teaching Enhancement Through a Mentored Research-based Course
Role: Principal Investigator
Award: $8,500
BYU Mentoring Environment Grant
Molecular Characterization of Pathways Involved PAS Kinase Regulation and Function.
Role: Principal Investigator
Amount: $20,000 End date: 1/31/2014

BYU Mentoring Environment Grant
Characterization of PAS Kinase Regulation and Novel PAS Kinase Substrates.
Role: Principal Investigator
Amount: $20,000 End date: 1/31/2013

BYU Mentoring Environment Grant
Regulation and Function of Yeast PAS kinase.
Role: Principal Investigator
Amount: $20,000 End date: 1/31/2012

BYU Mentoring Environment Grant
The Function of Yeast PAS kinase.
Role: Principal Investigator
Amount: $20,000 End date: 1/31/2011

PUBLICATIONS (31 peer-reviewed publications)

BYU undergraduate/graduate student authors are in italics
An asterisks indicates the corresponding author.

1. Stieg DC, Willis SD, Ganesan V, *Ong KL*, Scurozo J, Song M, **Grose J,** Strich R, Cooper KF. A complex molecular switch directs stress-induced cyclin C nuclear release through SCFGrr1 mediated degradation of Med13. Mol Biol Cell. 2017. pii: mbc.E17-08-0493.
2. Hanauer DI, Graham MJ; SEA-PHAGES, Betancur L, Bobrownicki A, Cresawn SG, Garlena RA, Jacobs-Sera D, Kaufmann N, Pope WH, Russell DA, Jacobs WR Jr, Sivanathan V, Asai DJ, Hatfull GF. An inclusive Research Education Community (iREC): Impact of the SEA-PHAGES program on research outcomes and student learning. Proc Natl Acad Sci U S A. 2017 Dec 19;114(51):13531-13536
3. *Esplin, ND* et al. Genome Sequences of 19 Novel *Erwinia amylovora* Bacteriophages. Genome Announc. 2017 Nov 16;5(46). pii: e00931-17. doi: 10.1128/genomeA.00931-17.
4. Dedrick et al., Prophage-mediated defence against viral attack and viral counter-defense. (2017) 2:16251.
5. *Bryan Merrill, Andrew Ward,* **Julianne H. Grose** and Sandra Hope. Software-based analysis of bacteriophage genomes, physical ends, and packaging strategies. (2016) BMC Genomics. 17;679.
6. Sherwood Casjens and **Julianne H. Grose**. Contributions of P2- and P22-like prophages to understanding the enormous diversity and abundance of tailed bacteriophages. (2016) Virology. 496:255-76.
7. *Jordan A. Berg, Bryan D. Merrill, Justin T. Crockett, Kyle P. Esplin, Marlee R. Evans, Karli E. Heaton, Jared A. Hilton, Jonathan R. Hyde, Morgan S. McBride, Jordan T. Schouten, Austin R. Simister, Trever L. Thurgood, Andrew T. Ward*, Donald P. Breakwell, Sandra Hope, and **Julianne H. Grose**. Characterization of Five Novel Brevibacillus Bacteriophages and Genomic Comparison of Brevibacillus Phages. (2016) PLoS One 11(6):e0156838.
8. *Bryan Merrill, Jordan Berg, Kyle Graves, Andrew Ward, Jared Hilton, Bradon Wake*, **Julianne H. Grose**, Don P. Breakwell, Sandra H. Burnett. (2015) Genome Sequences of Five Additional *Brevibacillus laterosporus* Bacteriophages. Genome Announc. 3(5)e01146-15.
9. **Julianne H. Grose,** *Kelsey Langston*, et al., (2015) Characterization of the Cardiac Overexpression of HSPB2 Reveals Mitochondrial and Myogenic Roles Supported by a Cardiac HspB2 Interactome. PLOS ONE. 10(1):e0133994
10. Pope, Welkin H., et al. (2015) Whole genome comparison of a large collection of mycobacteriophages reveals a continuum of phage genetic diversity**.** Elife 4:e06416.
11. *Desiree DeMille, Bryan D. Badal, J. Brady Evans, Joseph F. Anderson* and **Julianne H. Grose***. (2015) PAS kinase is activated by direct SNF1-dependent phosphorylation and mediates inhibition of TORC1 through the phosphorylation and activation of Pbp1. Mol Biol Cell. 26(3):569-82.
12. **Julianne H. Grose***, *Garrett L. Jensen*, Sandra H. Burnett and Donald P. Breakwell. (2014) Genomic Comparison of 93 Bacillus Phages Reveals 12 Clusters, 13 Singletons and Remarkable Diversity. BMC Genomics 15:855.
13. **Julianne H. Grose*** and Sherwood R. Casjens. (2014) Understanding the Enormous Diversity of Tailed Phages: the Tailed Phages that Infect the Bacterial Family *Enterobacteriaceae***.** Virology 468-470, 421-443.
14. *Bryan D. Merrill*, **Julianne H. Grose**, Donald P. Breakwell and Sandra H. Burnett. (2014) Characterization of *Paenibacillus larvae* bacteriophages and their genomic relationships to Firmicute bacteriophages. BMC Genomics. 15(1), 745.
15. **Julianne H. Grose***, David M. Belnap, *Jordan D. Jensen, Andrew D. Mathis*, John T. Prince,

Sandra H. Burnett and Donald P. Breakwell. (2014) The Genomes, Proteomes and Structure of Three Novel Phages that Infect the Bacillus cereus Group and Carry Putative Virulence Factors. Journal of Virology. 80(20): 11846.

16. *Desiree DeMille*, Benjamin Bikman, *Andrew D. Mathis, Jordan T. Mackay, Steven W. Sowa, Tacie D. Hall,* John T. Prince and **Julianne H. Grose***. (2014) A Comprehensive Protein-protein Interactome for Yeast PAS Kinase 1 Reveals Direct Regulation of Respiration Through the Phosphorylation of Cbf1. Mol Biol Cell. 25(14), 2199-215.
17. Soumyajit Banerjee Mustafi, **Julianne H. Grose**, Huali Zhang, Gregory W. Pratt, Junichi Sadoshima, Elisabeth S. Christians and Ivor J. Benjamin. (2014) Aggregate-prone R120GCRYAB triggers multifaceted modifications of the Thioredoxin System. Antioxidants and Redox Signaling: 20(18), 2891-906.
18. **Julianne H. Grose***, *Jordan D. Jensen, Bryan D. Merrill*, Sandra H. Burnett, and Donald P. Breakwell. (2013) Genome Sequences of Three Novel *Bacillus cereus* Bacteriophages. Genome Announcements 2(1).
19. Donald P. Breakwell, *E. Zane Barrus, Alex B. Benedict, Alicia K. Brighton, Joshua N. B. Fisher, Adam V. Gardner, Brittany J. Kartchner, Kara C. Ladle, Bryce L. Lunt, Bryan D. Merrill, John D. Morrell,* Sandra H. Burnett, and **Julianne H. Grose**. (2013) Genome Sequences of Five Cluster B1 Mycobacteriophages. Genome Announcements 1(6).
20. *Michael A. Sheflo, Adam V. Gardner, Bryan D. Merrill, Joshua N. B. Fisher, Bryce L. Lunt*, Donald P. Breakwell, **Julianne H. Grose**, and Sandra H. Burnett. (2013) Complete Genome Sequences of Five *Paenibacillus larvae* Bacteriophages. Genome Announcements 1(6).
21. *Desiree DeMille* and **Julianne H. Grose**. PAS kinase: A Nutrient Sensing Regulator of Glucose Homeostasis. (2013) IUBMB Life 65(11): 921-9.
22. *Kyle C. Smith, Eduardo Castro-Nallor*, Donald P. Breakwell, **Julianne H. Grose** and Sandra Burnett. (2013) Phage Cluster Relationships Identified Through Single Gene Analysis. BMC Genomics 19; 14, 410.
23. J*ulius Adebayo, Taylor Southwick, Chetty Vasu, Enoch Yeung, Ye Yuan, Jorge Gonclaves*, **Julianne H. Grose**, John T. Prince, Gyu-Bart Stan, Sean C. Warnick. (2012) Dynamical Structure Function Identifiability Conditions Enabling Signal Structure Reconstruction. Proceedings of the Conference on Decision and Control. December.
24. Graham Hatfull, et al., (2012) Complete genome sequences of 138 mycobacteriophages. Journal of Virology 86(4), 2382-2384.
25. **Julianne H. Grose*** and Jared R. Rutter. (2010) The role of PAS kinase in PASsing the glucose signal. Sensors 10(6), 5668-5682.
26. **Julianne H. Grose*,** *Eleanor Sundwall* and Jared R. Rutter. (2009) Regulation and function of yeast PAS kinase. Cell Cycle 8:12, 1824-1832.
27. **Julianne H. Grose,** Tammy L. Smith, Hanna Sabic and Jared R. Rutter. (2007) Yeast PAS kinase coordinates glucose partitioning in response to metabolic and cell integrity signaling. EMBO 26:4824-30.
28. **Julianne H. Grose,** Lisa Joss, Sid Velick, and John R. Roth. (2006) Evidence that feedback inhibition of NAD kinase controls responses to oxidative stress. PNAS 103:7601-7606.
29. **Julianne H. Grose,** Ulfar Bergthorsson, Yaping Xu, Jared Sterneckert, Bassad Khodaverdian, and John R. Roth. (2005) Assimilation of nicotinamide mononucleotide requires periplasmic AphA phosphatase in *Salmonella enterica*. J. Bacteriol. 187, 4521-4530.
30. **Julianne H. Grose**, Ulfar Bergthorsson and John R. Roth. (2005) Regulation of NAD synthesis by the trifunctional NadR protein of *Salmonella enterica*. J. Bacteriol. 187, 2774-2782.
31. Richard G. DelaCruz, **Julianne H. Grose**, Michael J. McIntosh, Yoshikami, and Baldomera M. Olivera. (1999) Critical residues influence the affinity and selectivity of alpha-conotoxin MI for nicotinic acetylcholine receptors. Biochemistry. 38(40): 13310-5.

BOOK CHAPTERS (Peer-reviewed)

Julianne H. Grose. (2010), Ch. 15, The Lure of Bacterial Genetics: a Tribute to John Roth. Eds. Maloy, S., Hughes, K.T., and Casadesus, J, ASM Press, Washington, DC, 9-22.

Ratified ICTV Taxonomy Proposals (peer-reviewed)

1. Svircev, AM, Yagubi, AI, Kropinski, AM, Adriaenssens EM, Grose, JH. To create one (1) new genus, Agricans257virus, including five (5) new species in the family Myoviridae. https://talk.ictvonline.org/ICTV/proposals/2016.066a-dB.A.v1.Agrican357virus.pdf
2. Wittmann J, Grose JH, Yagubi, AI, Svircev, AM and Kropinski, AM. To create a new genus, EA92virus, including 2 (two) new species within the family Prodoviridae. https://talk.ictvonline.org/ICTV/proposals/2016.078a-dB.A.v1.Ea92virus.pdf
3. Klumpp J, Barylski J, Kropinski A, Grose JH, Adriaenssens EM (2015). ICTV taxonomic proposal 2015.036a-dD.A.v2.Cp51virus. Create genus Cp51virus including 3 new species within the family Myoviridae. http://www.ictvonline.org/proposals-15/2015.036a-dD.A.v2.Cp51virus.pdf

GENBANK PUBLICATIONS

The following are 63 GenBank publications of complete phage genomes. All genomes include full genomes (not genome fragments) with complete annotation of all genes and tRNAs. Genomes were peer reviewed by GenBank prior to acceptance and publication.

Year	Phage	Accession #	Authors
2017	Apocalypse (Mycobacterium phage)	NC_024148	Loney,R.E., Wentworth,H.A., Hanna,I.R., Delesalle,V.A., Grose,J.,Hope,S., Breakwell,D., Garlena,R.A., Russell,D.A., Pope,W.H. Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F.
2017	Smairt (Mycobacterium phage)	MF668283	Tso,M.S., Paredes,A., Zierold,M.E., Delesalle,V.A., Grose,J., Hope,S., Breakwell,D., Delesalle,V.A., Garlena,R.A., Russell,D.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F.
2017	Joad (*Erwinia* phage)	MF459647	Bickmore, M., Vaden, K., Brady, T.S., Tateoka, O., Carter, JL, Pape, JA, Robinson, DM, Russel, K.A., Staley, L.A., Stettler, J.M., Townsend, M.H., Wienclaw, T., Williamson, T.L., Kruger, J.L Berg ,J.A., Sharma, R., Payne, A.M., Fajardo, C, Hope, S.., Breakwell,D.P. and Grose, JH.
2017	Rising Sun (*Erwinia* phage)	MF459646	Putnam, M, Sharma, R., Kruger, J.L., Berg, J.A., Payne, A.M., Fajardo, C, Hope, S.., Breakwell,D.P. and Grose, JH.
2017	Yoloswag (*Erwinia* phage)	KY448244	Pollock,S.V., Berg,J.A., Esplin,I.N.D., Hurst,E., Kruger,J.L., Sharma,R., Grose,J.H., Breakwell,D.P. and Hope,S
2016	Special G (*Erwinia* phage)	KU886222	Sharma,R., Grossarth,S.E., Foy,B., Harbaugh,K., Ingersoll,K. Berg,J.A., Jarvis,T.M., Esplin,I.N.D., Merrill,B.D., Schoenhals,J., Breakwell,D.P., Hope,S. Grose,J.H.
2016	Ray (*Erwinia* phage)	KU886224	Sharma,R., Esplin,I.N.D., Berg,J.A., Jensen,G.L., Keele,B.R., Ward,M.E.H., Breakwell,D.P., Hope,S Grose ,J.H.
2016	Simmy50 (*Erwinia* phage)	KU886223	Sharma,R., Simister,A.R., Berg,J.A., Jensen,G.L., Keele,B.R. Ward,M.E.H., Breakwell,D.P., Hope,S. Grose,J.H.
2016	Huxley (*Erwinia* phage)	NC_031127	Berg,J.A., Grossarth,S.E., Jarvis,T.M., Merrill,B.D., Breakwell,D.P., Hope,S. Grose,J.H.
2016	Caitlin (*Erwinia* phage)	NC_031120	Berg,J.A., Beatty,N.J., Hyde,J.R., Tatlow,P., Breakwell,D.P., Hope,S.Grose,J.H.
2016	Phobos (*Erwinia* phage)	NC_031043	Berg,J.A., Kruger,J.L., Esplin,I.N.D., Merrill,B.D., Sharma,R., Breakwell,D.P., Hope,S.Grose,J.H.
2016	Kwan (*Erwinia* phage)	NC_031010	Berg,J.A., Hurst,E., Tatlow,P., Breakwell,D.P., Hope,S. Grose,J.H.
2016	EarlPhillipIV (*Erwinia* phage)	NC_031007	Berg,J.A., Buchanan,A.L., Choi,M.C., Sharma,R., Tatlow,P.J, Allen,R.C., Bloomfield,T.J., Buhler,B., Bybee,R.N., Duncan,S. Fuhriman,D.A., Harris,N., Hilton,J.A., Hurst,E., James,B.D., Knabe,B.K., Pollock,S.V., Ririe,D.B., Rogers,S.L., Stephenson,M.B. Thompson,S.E., Usher,B.K., Ward,A.T., Webb,C.J., Wells,M.J. Wright,C.K., Breakwell,D.P., Hope,S. Grose,J.H.

2016	ChrisDB (*Erwinia* phage)	NC_031126	Berg,J.A., Jaen,D., Shurtleff,C.A., Esplin,I.N.D., Merrill,B.D., Breakwell,D.P., Hope,S. Grose,J.H.
2016	Asesino (*Erwinia* phage)	NC_031107	Berg,J.A., Hyde,J.R., Breakwell,D.P., Hope,S. Grose,J.H.
2016	Stratton (*Erwinia* phage)	KX397373	Berg,J.A., Stratton,M.L., Esplin,I.D., Jensen,G.L., Merrill,B.D., Breakwell,D.P., Hope,S. Grose,J.H.
2016	Parshik (*Erwinia* phage)	KX397371	Berg,J.A., Ashcroft,C.R., Bairett,S.R., Esplin,I.N.D., Gibby,P.D., Grossarth,S.E., Harbaugh,K., Ingersoll,K., Jean,D., Jensen,G.L., Kruger,J.L., Merrill,B.D., Ransom,E.K., Schoenhals,J., Taylor,A.S., Breakwell,D.P., Hope,S. Grose,J.H.
2016	Machina (*Erwinia* phage)	KX397370	Berg,J.A., Smith,H.G., Hyde,J.R., Merrill,B.D., Sharma,R., Breakwell,D.P., Hope,S. Grose,J.H.
2016	Gutmeister (*Erwinia* phage)	KX098391	Esplin,I.N.D., Berg,J.A., Thurgood,T.A., Jensen,G.L., Sharma,R. Hope,S., Breakwell,D.P. Grose,J.H.
2016	Rexella (*Erwinia* phage)	KX098390	Peck,M.D., Kruger,J.L., Bairett,S.R., Ingersoll,K.Q., Grossarth,S.E., Ransom,E.K., Berg,J.A., Harbaugh,K.Q., Jensen,G.L., Wienclaw,T.M., Ashcroft,C.R., Taylor,A.S., Schoenhals,J.E. Esplin,I.N.D., Merrill,B.D., Breakwell,D.P., Burnett,S.H Grose,J.H.
2016	Deimos-Minion (*Erwinia* phage)	KU886225	Sharma,R., Jensen,G.L., Kruger,J.L., Esplin,I.N.D., Jarvis,T.M. Merrill,B.D., Schoenhals,J., Breakwell,D.P., Hope,S. Grose,J.H.
2016	Frozen (*Erwinia* phage)	KX098389	Berg,J.A., Peck,M.D., Grossarth,S.E., Jarvis,T.M., Merrill,B.D., Breakwell,D.P., Burnett,S.H., Grose,J.H.
2015	Powder (*Brevibacillus* phage)	KT151958	Wienclaw,T.M., Kruger,J.L., Bairett,S.R., Ingersoll,K.,Grossarth,S.E., Ransom,E.K., Berg,J.A., Harbaugh,K., Jensen,G.L., Ashcroft,C.R., Taylor,A.S., Graves,K.A., Schoenhals,J.E., Esplin,I.D., Merrill,B.D., Breakwell,D.P., Grose,J.H.,Burnett,S.H., Bradley,K.W., Clarke,D.Q., Lewis,M.F., Barker,L.P.,Bailey,C.P., Asai,D.J., Garber,M.B., Bowman,C.A., Russell,D.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F.
2015	Sundance (*Brevibacillus* phage)	KT151959	Wienclaw,T.M., Kruger,J.L., Bairett,S.R., Ingersoll,K.,Grossarth,S.E., Ransom,E.K., Berg,J.A., Harbaugh,K., Jensen,G.L., Ashcroft,C.R., Taylor,A.S., Graves,K.A., Schoenhals,J.E., Esplin,I.D., Merrill,B.D., Breakwell,D.P., Grose,J.H.,Burnett,S.H., Bradley,K.W., Clarke,D.Q., Lewis,M.F., Barker,L.P.,Bailey,C.P., Asai,D.J., Garber,M.B., Bowman,C.A., Russell,D.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F.
2015	SecTim467 (*Brevibacillus* phage)	KT151957	Wienclaw,T.M., Kruger,J.L., Bairett,S.R., Ingersoll,K.,Grossarth,S.E., Ransom,E.K., Berg,J.A., Harbaugh,K., Jensen,G.L., Ashcroft,C.R., Taylor,A.S., Graves,K.A., Schoenhals,J.E., Esplin,I.D., Merrill,B.D., Breakwell,D.P., Grose,J.H.,Burnett,S.H., Bradley,K.W., Clarke,D.Q., Lewis,M.F., Barker,L.P.,Bailey,C.P., Asai,D.J., Garber,M.B., Bowman,C.A., Russell,D.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F.
2015	Osiris (*Brevibacillus* phage)	KT151956	Wienclaw,T.M., Kruger,J.L., Bairett,S.R., Ingersoll,K.,Grossarth,S.E., Ransom,E.K., Berg,J.A., Harbaugh,K., Jensen,G.L., Ashcroft,C.R., Taylor,A.S., Graves,K.A., Schoenhals,J.E., Esplin,I.D., Merrill,B.D., Breakwell,D.P., Grose,J.H.,Burnett,S.H., Bradley,K.W., Clarke,D.Q., Lewis,M.F., Barker,L.P.,Bailey,C.P., Asai,D.J., Garber,M.B., Bowman,C.A., Russell,D.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F.
2015	Jenst (*Brevibacillus* phage)	KT151955	Wienclaw,T.M., Kruger,J.L., Bairett,S.R., Ingersoll,K.,Grossarth,S.E., Ransom,E.K., Berg,J.A., Harbaugh,K., Jensen,G.L., Ashcroft,C.R., Taylor,A.S., Graves,K.A., Schoenhals,J.E., Esplin,I.D., Merrill,B.D., Breakwell,D.P., Grose,J.H.,Burnett,S.H., Bradley,K.W., Clarke,D.Q., Lewis,M.F., Barker,L.P.,Bailey,C.P., Asai,D.J., Garber,M.B., Bowman,C.A., Russell,D.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F.
2015	phiM7 (*Sinorhizobium* phage)	KR052480	Schouten,J.T.,Crockett,J.T., Hodson,T.S., Hyde,J.R., Smith,T.A., Merrill,B.D., Crook,M.B., Griffitts,J.S., Burnett,S.H., Grose,J.H. and Breakwell,D.P.
2015	phiM19 (*Sinorhizobium*	KR052481	Crockett,J.T., Hodson,T.S., Hyde,J.R., Schouten,J.T., Smith,T.A., Merrill,B.D., Crook,M.B., Griffitts,J.S., Burnett,S.H., Grose,J.H.

	phage)		and Breakwell,D.P.
2015	phiN3 (*Sinorhizobium* phage)	KR052482	Hodson,T.S., Hyde,J.R., Schouten,J.T., Crockett,J.T., Smith,T.A., Merrill,B.D., Crook,M.B., Griffitts,J.S., Burnett,S.H., Grose,J.H. and Breakwell,D.P.
2014	Phantastic (Mycobacterio-phage)	KJ510415	Meadows,H.N., Fisher,J.N.B., Gardner,A.V., Merrill,B.D., Hartmann,K.A., Bailey,M.E.,Beckstead,A.P., Deus,L.M., Earl,A.S., Easter,R.A., Gibby,P.D., Graves,K.A., Ayer,P.A.,Heiner,M.E., Herring,J.A., Jaen,A.D., Liu,J.E., Manci,A.M., Nielsen,D.A., Paz,H.C.,Sabin,N.R., Solomon,M.B., Sutter,R.A., Wake,B.N., Willyerd,H.J., Zimmerman,L.J.,Breakwell,D.P., Burnett,S.H., Grose,J.H., Bradley,K.W., Clarke,D.Q., Lewis,M.F.,Barker,L.P., Bailey,C., Asai,D.J., Garber,M.L., Bowman,C.A., Russell,D.A., Pope,W.H.,Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F.
2013	Alex (Mycobacterio-phage)	JX649100	Benedict, A.B., Fisher,J.N.B., Gardner,A.V., Lunt,B.L., Payne,D.E., Burnett,S.H., Breakwell,D.P. and Grose,J.H.
2013	Gyarad (Mycobacterio-phage)	JX649099	Ladle,K.C., Fisher,J.N.B., Gardner,A.V., Lunt,B.L., Breakwell,D.P., Grose,J.H. and Burnett,S.H.
2013	Nacho (Mycobacterio-phage)	JX649098	Kartchner,B.J., Fisher,J.N.B., Gardner,A.V., Lunt,B.L., Grose,J.H., Burnett,S.H. and Breakwell,D.P.
2013	Piglet (Mycobacterio-phage)	JX649097	Barrus,E.Z., Adawi,E.C., Kennedy,A.K., Poe,D.E., Williams,K.R., Fisher,J.N.B., Gardner,A.V., Merrill,B.D., Grose,J.H., Burnett,S.H. and Breakwell,D.P.
2013	Serpentine (Mycobacterio-phage)	JX649096	Brighton,A.K., Fisher,J.N.B., Gardner,A.V., Lunt,B.L., Breakwell,D.P., Burnett,S.H. and Grose,J.H.
2013	Basilisk (B. cereus phage)	KC595511.1	Jensen,J.D., Fisher,J.N.B., Gardner,A.V., Irons,D.L., Lloyd,J., Pettersson,S.M., Smith,C., Sullivan,S., Brighton,A.K., Sheflo,M.A., Burnett,S.H., Breakwell,D.P. and Grose,J.H
2013	JL (B. cereus phage)	KC595512.1	Lloyd,J., Fisher,J.N.B., Gardner,A.V., Hallam,S.J., Jensen,J.D., Pettersson,S.M., Smith,C., Sullivan,S., Brighton,A.K., Sheflo,M.A., Burnett,S.H., Breakwell,D.P. and Grose,J.H.
2013	Shanette (B. cereus phage)	KC595513	Pettersson,S.M., Fisher,J.N.B., Gardner,A.V., Hallam,S.J., Jensen,J.D., Lloyd,J., Smith,C., Sullivan,S., Brighton,A.K., Sheflo,M.A., Burnett,S.H., Breakwell,D.P. and Grose,J.H.
2013	Jimmer1 (*Brevibacilus* phage)	KC595515	Merrill,B.D., Sheflo,M.A., Gardner,A.V., Merrill,C.A., Williams,K.R., Lunt,B.L., Ayer,P.A., Grose,J.H., Breakwell,D.P. and Burnett,S.H
2013	Jimmer2 (*Brevibacilus* phage)	KC595514	Sheflo,M.A., Gardner,A.V., Kennedy,A.K., Beckstead,A.P., Russell,R.C., Merrill,B.D., Merrill,C.M., Zimmerman,L.J., Lunt,B.L., Grose,J.H., Breakwell,D.P. and Burnett,S.H.
2013	Abuou (*Brevibacilus* phage)	KC595517	Sheflo,M.A., Gardner,A.V., Kennedy,A.K., Beckstead,A.P., Russell,R.C., Merrill,B.D., Merrill,C.M., Zimmerman,L.J., Lunt,B.L., Grose,J.H., Breakwell,D.P. and Burnett,S.H.
2013	Emery (*Brevibacilus* phage)	KC595516.1	Sheflo,M.A., Gardner,A.V., Kennedy,A.K., Beckstead,A.P., Russell,R.C., Merrill,B.D., Merrill,C.M., Zimmerman,L.J., Lunt,B.L., Grose,J.H., Breakwell,D.P. and Burnett,S.H.
2013	Davies (*Brevibacilus* phage)	KC595518	Sheflo,M.A., Merrill,B.D., Gardner,A.V., Grose,J.H., Breakwell,D.P. and Burnett,S.H.
2013	Anubis (Mycobacteriopha ge)	KF279418	Jackson, KR, Lunt, BL, Fisher, JN, Garner, AV, Bailey, ME, Deus, LM, Earl, AS, Gibby,PD, Hartmann, KA, Liu, JE, Manci, AM, Nielsen, DA, Solomon, MB, Breakwell, DP, Burnett, SH, and Grose, JH.
2013	Adawi (Mycobacteriopha ge)	KF279411	Adawi,E.C., Merrill,C.A., Sargent,C.J., Fisher,J.N., Gardner,A.V., Lunt,B.L., Merrill,B.D.,Breakwell,D.P., Burnett,S.H. and Grose,J.H.
2013	Bane1 (Mycobacteriopha ge)	KF279412	Marlow,S., Merrill,C.A., Sargent,C.J., Fisher,J.N., Gardner,A.V., Lunt,B.L., Merrill,B.D.,Burnett,S.H., Grose,J.H. and Breakwell,D.P.

2013	Bane2 (Mycobacteriophage)	KF279413	Gardner,A.V., Merrill,C.A., Sargent,C.J., Fisher,J.N., Lunt,B.L., Merrill,B.D., Burnett,S.H., Grose,J.H. and Breakwell,D.P.
2013	Fredward (Mycobacteriophage)	KF279414	Ladle,K.C., Fisher,J.N.B., Gardner,A.V., Lunt,B.L., Breakwell,D.P., Grose,J.H. and Burnett,S.H.
2013	Quink (Mycobacteriophage)	KF279417	Vance,K.S., Kiser,C.D., Earl,A.S., Hansen,A.W., Merrill,C.A., Sargent,C.J., Fisher,J.N.,Gardner,A.V., Lunt,B.L., Merrill,B.D., Breakwell,D.P., Burnett,S.H. and Grose,J.H.
2013	PhrostyMug (Mycobacteriophage)	KF279415	Hansen,A.W., Irons,D.L., Sargent,C.J., Fisher,J.N., Gardner,A.V., Lunt,B.L., Merrill,B.D.,Payne,I.D.A.V.I.D., Breakwell,D.P., Grose,J.H. and Burnett,S.H.
2013	SargentShorty9 (Mycobacteriophage	KF279416	Sargent,C.J., Merrill,C.A., Fisher,J.N., Gardner,A.V., Lunt,B.L., Merrill,B.D., Payne,I.D., Breakwell,D.P., Grose,J.H. and Burnett,S.H.
2012	Aeneas (Mycobacterio-phage)	JQ809703	Morrell,J.D., Brighton,A.K., Fisher,J.N.B., Sheflo,M.A., Adawi,E.C., Christiansen,M.R., Ferguson,N.C., Gardner,A.V., Irons,D.L., Jensen,J.D., Kennedy,A.K., Lloyd,J.S., Marlow,S.C., Mason,S.J., McCord,T.M., Merrill,B.D., Nelson,E.P., Norton,C.S., Pettersson,S.M., Poe,D.E., Russell,R.C., Smith,T.C., Sullivan,S., Williams,K.R., Breakwell,D.P., Grose,J.H., Burnett,S.H., Wang,X., Crowell,R., Bostrom,M.A., Burke,M., Wright,G.M., Gregory,S.G.,Colman,S.D., Bradley,K.W., Khaja,R., Lewis,M.F., Barker,L.P., Asai,D.J., Bowman,C.A., Russell,D.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F.
2012	Fezzik (Mycobacterio-phage)	JN600672	Woodward,T.J., Daetwyler,M.E., Fisher,J.N.B., Lunt,B.L., Sheflo,M.A., Payne,D.E. II, Breakwell,D.P., Burnett,S.H. and Grose,J.H.
2012	KLucky39 (Mycobacterio-phage)	JF704099	Haskell,K.J., Giri,I., Issac,T.F., Liechty,Z.S., Daetwyler,M.E., Bull,L.A., Payne,D.E. II, Lunt,B.L., Argueta,L.B., Bajgain,P., Benedict,A.B., Earley,B.J., Engle,J.M., Fisher,J.N., Greenhalgh,E., Hansen,A.W., Ladle,K.C., Petersen,S.K., Sabin,D.S., Sargent,C.J., Severson,M.C., Smith,K.C., Taylor,M.A., Woodward,T.J., Wright,B.A., Burnett,S.H., Breakwell,D.P., Zhang,X., Meincke,L.J., Goodwin,L.A., Detter,J.C., Han,S., Green,L.D., Bradley,K.W., Khaja,R., Lewis,M.F., Barker,L.P., Jordan,T.C., Russell,D.A., Leuba,K.D., Fritz,M.J., Bowman,C.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F.
2012	Nepal (Mycobacterio-phage)	JQ698665	Bajgain,P., Fisher,J.N.B., Lunt,B.L., Sheflo,M.A., Brighton,A.K., Adawi,E.C., Christiansen,M.R., Ferguson,N.C., Gardner,A.V., Irons,D.L., Jensen,J., Kennedy,A., Lloyd,J.S., Marlow,S., Mason,S.J., McCord,T.M., Merrill,B.D., Nelson,E.P., Norton,C.S., Pettersson,S.M., Poe,D.E., Russell,R.C., Smith,T.C., Sullivan,S., Williams,K.R., Burnett,S.H., Breakwell,D.P. and Grose,J.H.
2012	Shauna1 (Mycobacterio-phage)	JN020141	Sheide,M.G., Fisher,J.N., Lunt,B.L., Smith,K.C., Taylor,M.A., Baker,B., Barrus,E.Z., Brighton,A.K., Chapman,K.M., Drake,E.A., Jackson,K.R., Kartchner,B.J., Kiser,C.D., Kiser,J.T., Kitchen,J.C., McDaniel,S.W., Ormsby,W.R., Parker,M., Steck,R.P., Vance,K.S., Breakwell,D.P., Burnett,S.H., Grose,J.H., Wang,X., Crowell,R., Burke,M., Wright,G.M., Gregory,S.G., Colman,S.D., Bradley,K.W., Khaja,R., Lewis,M.F., Barker,L.P., Jordan,T.C., Russell,D.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F.
2012	TA17A (Mycobacterio-phage)	JN400277	Lunt,B.L., Payne,D.E., Fisher,J.N.B., Smith,K.C.B., Taylor,M.R., Baker,B., Barrus,E.Z., Brighton,A.K., Chapman,K.M., Drake,E.A., Jackson,K.R., Kartchner,B.J., Kiser,C.D., Kiser,J.T., Kitchen,J.C.B., Mcdaniel,S.W., Ormsby,W.R., Parker,M., Sheide,M.G., Steck,R.P., Vance,K.S., Breakwell,D.P., Burnett,S.H. and Grose,J.H.
2011	AnnaL29 (Mycobacterio-phage)	JN572060	Lunt,B.L., Sheflo,M.A., Fisher,J.N.B., Breakwell,D.P., Burnett,S.H. and Grose,J.H.
2011	JEBEKS (Mycobacterio-phage)	JN572061	Earley,B.J., Engle,J.M., Smith,K.C., Lunt,B.L., Fisher,J.N.B., Payne,D.E. II, Breakwell,D.P., Burnett,S.H. and Grose,J.H.
2012	Wee	NC014901	Fried-Petersen,H., Adair,T.L., Anders,K.R., Aley,S.B.,

	(Mycobacterio-phage)		Bratsch,S.A., Clase,K.L., Coleman,J.M., Debro,L.H., Dellis,S., Fang,Y., Findeis,S., Gibbon,B.C., Golebiewska,U.P., Grillo,W.H., Grose,J.H., Hester,A., Hollowell,G.P., Kearney,S., Kelly,J., Klyczek,K., Kuleck,G., Londono,J.A., Mogen,K., Monti,D.L., Murdock,C., Ovalle,R., Pfeif,S., Pizzorno,M.C., Poxleitner,M., Reyes,D., Rickus,J.L., Rosas-Acosta,G., Schneider,P., Stowe-Evans,E., Stukey,J., Taylor,M.A., Tollis,M., Wong,C.K., Wu,H., Zimmerman,A.M., Cresawn,S.G., Lee,E., Shaffer,C.D., Barker,L.P., Bradley,K.W., Khaja,R., Lewis,M.F., Jordan,T.C., Russell,D.A., Pope,W.H., Jacobs-Sera,D., Hendrix,R.W. and Hatfull,G.F.

RESEARCH PRESENTATIONS (2008- present; 107 total)

National/International (63 total, 2008-present)

Grose, JH. (2018) The role of PAS kinase inPASsing Glucose. 2018 Analytical Genetics Meeting, San Diego, CA.

Arens, D, and **Grose JH**. (2018) Ecological niche plays major role in determining host specificity of two novel jumbo *Erwinia* myoviruses. 2018 Analytical Genetics Meeting, San Diego, CA.

Thompson, D. and **Grose JH.** (2018) Fighting FiireBlight with Phages. 2018 Analytical Genetics Meeting, San Diego, CA.

Pape, J. and **Grose JH.** (2018) PAS kinase and Cbf1/USF1 alter cellular respiration through ATP synthase. 2018 Analytical Genetics Meeting, San Diego, CA.

Colby, B. and **Grose JH.** (2018) Novel regulators of Cellular Respiration Revealed through a suppressor screen. 2018 Analytical Genetics Meeting, San Diego, CA.

Ong, K and **Grose JH.** (2018) Understanding AMPK-oxysterol binding protein signaling in controlling cell death and mitochondrial function using Saccharomyces cerevisiae model. 2018 Analytical Genetics Meeting, San Diego, CA.

Grose, JH. (2018) The role of PAS kinase in PASsing Respiration. Rowan University Departmental Seminar Series, Glassboro, New Jersey.

Grose, JH. (2017) Phighting FireBlight with Phage. Western Region IR-4 Biopesticides Meeting. Denver, Colorado.

Colby, BA, Ballard, TP, Fajardo, CP, Kruger, J, Duncan, S, Webb, CJ, Sharma, R, Breakwell, DP, Hope, S, and **Grose JH. (2017)** The Bee's and the Tree's: Phage Hunting at BYU 2016-2017. 9th Annual SEA-Phages Symposium, Ashburn, VA

Duncan, S., Farjardo, C, and **Grose JH**. (2017) Weekly Exercises Aimed at Improved Understanding of Key Concepts for the Phage Hunters Classroom. 9th Annual SEA-Phages Symposium, Ashburn, VA

Azadani, DN, Pray, R, Ramirez, J, **Grose, JH** and Hatherill, JR. (2017) Slowing Antibiotic Resistance with EnteroSword. NSF Community College Innovation Challenge Boot Camp, Arington, VA.

Grose, JH. (2017) PAS kinase: PASsing Glucose and Cell Death. 12th International meeting on Yeast Apoptosis. Bari, Italy.

Grose, JH. (2017) Phighting Fire Blight with Phage. Western region IR-4 meeting. Denver, Colorado.

Ong, KL, Rees, A, Franson,J, White, Joe, Hilton, A Choksi, N, Pattison, J, Nickle, T, Laub,S, Harris, M, Dallon, B, Bikman, B, Bridgewater,L,**Grose JH**.(2017) PAS kinase deficient mice display increased rates of cellular respiration. Keystone Mitochondria Communication, Taos, New Mexico.

Pattison, J, DeMille, D, Bikman, B, and **Grose JH**. **(**2017). The Role of PAS kinase in Cellular Respiration. Keystone Mitochondria Communication, Taos, New Mexico.

Grose, JH. (2016) PAS kinase:: A key to PASsing respiration. LDS Lifescience Research Symposium. Lehi, Utah,

Franson,J, White, Joe, Ong, KL, Choksi, N, Hilton, A, Rees, A, Resolme, J., Zhao, J, Sevey, R., Olsen, KB, **Grose JH,** Bridgewater,L.(2016) Effect of Diet, Genes, and Microbiota on Glucose Tolerance in a Mouse Model with a Genetically Increased Metabolic Rate. LDS Lifescience Research Symposium. Lehi, Utah,

Pattison, J, DeMille, D, Bikman, B, and **Grose JH**. **(**2016) The Role of PAS kinase in Cellular Respiration. LDS Lifescience Research Symposium. Lehi, Utah.

Zhao, J., Grossarth, S., Bridgewater, L, **Grose JH.** (2016) Phage hunting through the human gut. (2016) Phage Phield Day, Provo, Utah.

Esplin, I, **Grose, JH**. Fighting Fire with Phages. (2016) Phage Phield Day, Provo, Utah.

Allen, R, Bybee, RN, Furhiman, DA, Ririe, DB, Thomson, SE, Usher, BK. Breakwell, DP, **Grose, JH,** Hope, S. Genome Analysis of Lycanus and DevRi. (2016) Phage Phield Day, Provo, Utah.

Sharma, R, Putnam, R, **Grose, JH**. Genomic characterization and comparison of five different families of bacteriophages infecting *Erwinia amylovora*. (2016) Phage Phield Day, Provo, Utah.

Kruger, J, Tatlow, PJ, **Grose, JH**. Isolation and Characterization of Deimos-Minion, the Largest *Erwinia amylovora* Bacteriophage. (2016) Phage Pheild Day, Provo, Utah.

Harris, N, Hurst, E, James, B, Pollock, S, Smith, H, Webb, CJ, Breakwell, DP, **Grose, JH**, Hope, S. (2016) Phage Honeybear and Related Phage Toothless. Phage Phield Day, Provo, Utah.

Bloomfield, T., Buhler, B, Duncan, S., Knabe, B, Stephensen, M, Wells, M, Wright, C, Breakwell, DP, Hope, S, **Grose, JH**. (2016) Genomic Analysis and Characterization of PBL1C: The First Discovered *Paenibacillus Larvae* Phage. Phage Phield Day, Provo, Utah.

Duncan S, Hurst E, Berg J, Ward A, Hilton J, Breakwell D, **Grose JH**, Hope S. (2016) Paenibacillus Larvae Phages Contain Regions of Conserved Synteny Despite Large Genomic Differences. Poster presentation. 8th Annual SEA-Phages Symposium, Ashburn, VA.

Harris N, Hurst E, James B, Pollock SV, Smith H, Webb CJ, Berg J, Fajardo C, Hilton J, Ward A, Breakwell D, **Grose JH**, Hope S. (2016) Genomic Characterization of Honeybear and Related Phage Toothless. ASM Intermountain Branch Meeting, University of Utah, Salt Lake City, UT.

Hancock, J, Cook, M, **Grose, JH**, Bridgewater, L, Weber, KS. (2016) Role of PAS kinase and metabolism on immune cells. Autumn Immunology Conference 44th Annual Meeting. Chicago, Illinois.

Grose, JH, Buckley, A., and Casjens, S. (2016) Understanding the enormous diversity of tailed bacteriophages: Investigating the Relationships of Bacteriophages within a Class Reveals Obvious Borders Between Bacterial Orders. Analytical Genetics Meeting, Rotorua, New Zealand

DeMille D., Pattison, J and **Grose, JH**. (2016) The Role of PAS kinase in Cellular Respiration. Analytical Genetics Meeting, Rotorua, New Zealand

DeMille D., Bikman B, and **Grose JH (**2015) The role of PAS kinase in controlling cellular respiration. Cell Symposia: Multifacited Mitochondria, Chicago, Illinois

Hancock, J., Cook, M., **Grose, J**H., Bridgewater, L. (2015) Role of PAS kinase and metabolism on immune cells. Autumn Immunology ConferenceChicago, Illinois.

Mathews, M and **Grose JH (2015)** FireQuencher: A phage-based therapy for fire blight. IR-r Biopesticide Workshop, Atlanta, Georgia.

Grose JH. (2015) Fire Quencher: A Phage-based Treatment for Fire Blight. Podium presentation. IR-4/USDA Biopesticides Workshop. Atlanta, GA.

Grose, JH and Casjens, S. Investigating the Relationships of Bacteriophages with a Class Reveals Obvious Boarders Between Bacterial Orders. (2015) 7th Annual HHMI SEA-PHAGES Symposium, Janelia Farms, Virginia.

Wienclaw TM, Taylor AS, Bairett SR, Ashcroft CR, Merrill BD, Schoenhals JE, Esplin ID, Breakwell DP, **Grose JH**, and Burnett SH (2014) Phage Jenst provides a unique genome with gene products new to Paenibacillus larvae phages.. 6th Annual HHMI SEA-Phages Symposium, Ashburn, VA.

Grose JH. (2014) PASsing glucose: Balancing the Cellular Budget. Oral Presentation. Center for Microbia Sciences, SDSU, CA

Jensen, JL, Berg, JA, Esplin, ID, Foy, BM, Grossarth, SE, Harbaugh, K, Ingersoll, K, Kruger, JL, Peck, MD, Ransom, EK, Smith, HG, Stratton, JL, Breakwell, DP, Burnett, SH, and **Grose JH**. (2013) Isolation and Characterization of Eleven Phages that Infect Erwinia amylovora. Oral presentation. 6th Annual HHMI SEA-PHAGES Symposium, Janelia Farms, Virginia. Honorable mention

Merrill BD, Sheflo MA, Ayer PA, Beckstead AP, Fajardo CP, Ferguson NC, Fisher JNB, Gardner AV, Graves KA, Hartmann KA, Kennedy AK, Liu JE, Lunt BL, Merrill CA, Russell RC, Wake BN, WilliamsKR, Zimmerman LJ, **Grose JH**, Breakwell DP, Burnett SH. (2013) Discovery and Characterization of Novel Paenibacillus larvae Bacteriophages. 5th Annual SEA-Phages Symposium, Ashburn, VA.

Ferguson, NC, Irons, DL, Marlow, SC, McCord, TM, Herring JA, Deus LM, Manci AM, Meadows HN, Heiner ME, Willyerd HJ, Gardner AV, Fisher JNB, SmithK, **Grose JH**, Breakwell DP, Burnett SH (2013) Phage cluster and subcluster identification using Tape Measure Protein primers in a PCR reaction. 5th Annual SEA-Phages Symposium, Ashburn, VA.

Jensen, JD, (2013), J.N.B. Fisher, **J.H. Grose**, S.H. Burnett, and D.P. Breakwell. Isolation and Characterization of Three Novel Bacteriophages of Bacillus cereus. American Society for Microbiology General Meeting, Denver, CO.

DeMille, D, and **Grose JH**. (2013) A Comprehensive Interactome for Yeast PAS Kinase Reveals Direct Regulation of Respiration Through the Phosphorylation of Cbf1. Podium presentation. Analytical Genetics Meeting, Alta, UT.

Mackay, J, DeMille, D, and **Grose JH**. (2013) Uncovering Regulation and Function of the Yeast NAD Kinase Utr1. Poster presentation. Analytical Genetics Meeting, Alta, UT.

Badal, B, DeMille, D, Mackay, J**, Grose JH.** Interplay between the yeast nutrient sensing kinases Snf1, TORC1 and PAS kinase. (2013) Poster presentation. Analytical Genetic Meeting. Hayes, W, Langston, KT, Neubert, J, Benjamin, IJ, and Grose, JH. Characterizing the Role of HSPB2 and CRYAB in Cardiac Metabolism and Muscle Structure. Poster presentation. Analytical Genetics Meeting Alta, UT.

Brown, A, Christopher, A, Harrison, C, Kiser, K, Lasko, D, Li, X, Merrill, B, Peck, K, Perry, LJ, Sabin, N, Schellhous, M, Smith, K, Koooyman, D,Price, P, and **Grose JH.** (2013) Phage Pharming. Podium and poster presentations. iGEM Worldchampionship Jamboree, MIT.

Brown, A, Christopher, A, Harrison, C, Kiser, K, Lasko, D, Li, X, Merrill, B, Peck, K, Perry, LJ, Sabin, N, Schellhous, M, Smith, K, Koooyman, D, and **Grose JH. (**2013) Phage Pharming. Podium and poster presentations. iGEM Regional Jamboree, Toronto, Canada. ***Gold Medal Awarded and Invitation to the iGEM Word Champsionship Jamboree***

Anderson, J, Buckley, A, Cabeza Pezoa, Y, Emery, H, Fullwood, R, Hecht, K, Jackson, K, Jones, E, Mackay, J, Meek, J, Nordgren, K, Rees, J, Ritchie, D, Shumway, J, Yates, J, Kooyman, D, and **Grose, JH**. (2012) E. colin: A Two-circuit System for Colin Cancer Detection. Podium and poster presentations. iGEM Regional Jamboree, Standford, CA.

DeMille, D, Mackay, J, Sowa, S, Hall, T, Lawrence, E, and **Grose, JH**. (2012) The Role of Yeast PAS kinase in Passing Glucose. Poster presentation. Yeast Molecular Biology and Genetics Meeting, Princeton University, NJ.

Chetty, V, D, Abedayo, Mathis, A, DeMille, D, Morley, S, Anthonymuthu, T, Yuan, Y, Goncalves, J**, Grose, JH**, Prince, Guy-Bart, S, and Warnick, S. (2012) In-Silico Robust Reconstruction of the Per-Arnt-Sim Kinase Pathway Using Dynamical Structure Functions. Poster presentation. Foundations of Systems Biology and Engineering FOSBE), Keio University, Japan.

Mathis, A, Morley, S, Southwick, T, DeMille, D, Abedayo, J, Warnick, S, **Grose JH**, and Prince, J. (2012) Definitive Network Reconstruction of the Yeast PAS Kinase Network via Mass Spectrometry Proteomics and Phosphoproteomics. Poster presentation. US HUPO: The Future of Proteomics, NM.

Gardner,AV, Adawi, EC, Christiansen, MR, Ferguson, NC, Irons, DL, Jensen, J, Kennedy, A, Lloyd, JS, Marlow, S, Mason, S, McCord, TM, Merrill, BD, Nelson, EP, Norton, CS, Pettersson, SM, Poe, DE, , RC, Smith, TC, Sullivan, S, Williams, KR, Morrell, JD, Brighton, AK, Fisher, JNB, Sheflo, MA, Breakwell, DP, Burnett, SH, **Grose, JH.** (2012) Proposal for A1 Subcluster Division and Evidence of Evolutionary Events in B1 and B4 Subcluster Phage. Poster presentation. Howard Hughes Medical Institute 4th Annual Phage Symposium, Ashburn, VA.

Rice, J, Neubert, J, Langson, K, Nelson, F, Wood, J, and **Grose, JH**. (2012) Characterizing the Role of HspB2 in Cardiac Mitochondrial Function. Poster presentation. National Conference for Undergraduate Research (NCUR), Weber State University, UT.

Price, K, Chapman, K, Cutler, C, Hoops, W, Lee, S, Louis, K , Nguyen J, and **Grose, JH**. (2012) Molecular Mechanisms of R120G CryAB-induced Cardiomyopathy. Poster presentation. National Conference for Undergraduate Research (NCUR), Weber State University, UT.

Mackay, J, DeMille, D, Gessel A, Lawrence, E, Hall, T, and **Grose, JH.** (2012) A Yeast Two-hybrid Screen Reveals Novel Roles for Yeast PAS kinase. Poster presentation. National Conference for Undergraduate Research (NCUR), Weber State University, UT.

Findlay, R, Teng, J, Bevard, K, Thornock, S, and **Grose, JH** (2012) The Regulation of PAS Kinase, a Key Sensory Kinase Required for Glucose Homeostasis. Poster presentation. National Conference for Undergraduate Research (NCUR), Weber State University, UT.

Brighton, AK, Joshua N. B. Fisher, JNB, Lunt, BL, Taylor, MA, Smith, KC, Baker, B, Barrus, EZ, Chapman, KM, Drake, EA, Jackson, KR, Kartchner, BJ, Kiser, CD, Kiser, JT, Kitchen,

JCB, McDaniel, SW, Ormsby, WR, Parker, M, Sheide, MG, Steck, RP, Vance, KS, Breakwell, DP, Burnett, SH, and **Grose, JH.** (2011) Additional Evidence for Frameshifts in A2 and Gene Mosaicism in F Mycobacteriophage. Poster presentation. Howard Hughes Medical Institute Third Annual Phage Symposium, Ashburn, VA.

Grose, JH, Breakwell, DP, and Burnett, SH. (2011) Out of the SEA: Getting Students to Crawl on Land. Poster presentation. Howard Hughes Medical Institute Third Annual Phage Symposium, Ashburn, VA.

Grose, JH. (2011) The Role of PAS Kinase in PASsing Cellular Glucose. Podium presentation Analytical Genetic Meeting, Carmona, Spain.

DeMille, D, Mackay, J, Gessel, A, Lawrence, E, Hall, T, and **Grose J.H**. (2011) The Role of Yeast PAS kinase in Metabolic Regulation. Poster presentation. Analytical Genetic Meeting, Carmona, Spain.

Biggs, M, Roberts, JA, Sabin, D, Sabin, M, Merrill, M, Allley, A, Chamberlain, C, Adebayo, J, Kooyman, DL, and **Grose, JH**. (2011) E. colonoscopy. Podium and poster presentation. iGEM Worldchampsionship Jamboree, MIT, Boston, MA.

Biggs, M. Roberts, JA, Sabin, D, Sabin, M, Merrill, Alley, A, Chamberlain, C, Adebayo, J, Kooyman, DL, and **Grose, JH**. (2011) E. colonoscopy. Podium and poster presentation. IGEM Regional Jamboree, Indianapolis, MN. ***Gold Medal Awarded and Invitation to the iGEM Word Champsionship Jamboree***

Swenson, C, Breakwell DP and **Grose, JH.** (2010) Mendelian Segregation of Alleles in *Saccaharomyces cerevisiae*. Poster presentation. ASMCUE, UC San Diego.

Grose, JH. (2009) PASsing Glucose- the Role of PAS Kinase in Regulating Cellular Glucose Metabolism. Podium presentation. Analytical Genetic Meeting, Asilomar, CA.

Breakwell, DP, and **Grose, JH.** (2009) The NAD Cycle: Exercises for Teaching Biosynthetic Pathways. Podium presentation. ASMCUE, Colorado State University, CO.

Grose, JH, and Breakwell, DP. (2009) A Modified Ames Test to Teach Mutations and Mutagens. Podium presentation. ASMCUE, Fort Collins, Colorado State University, CO.

DeMille, D., Bikman, B., and **Grose, JH**. (2015) The role of PAS kinase in controlling cellular respiration. Multifaceted Mitochondria Meeting, Chicago Illinois.

Grose JH (2015) PAS kinase: PASsing glucose**.** Invited Departmental Seminar. Washington University, Illinois.

Grose JH (2015) Investigating the Relationships of Bacteriophages with a Class Reveals Obvious Boarders Between Bacterial Orders, 8th Annual SEA-Phages Symposium. HHMI Janelia Farms, Virginia

<u>Regional/Local (2008- present, 81 total)</u>

Grose, JH. (2017) PASsing respiration: the role of PAS kinase in inhibiting respiration and the consequences in diabetes. Utah Valley University, Utah

Grose, JH. (2017) Phighting Phireblight with Phage. Intermountain Branch ASM meeting, Weber State University.

Cardinal, J, Gille,J, Fe, K, Salazar, EG, Sharma, R, Breakwell, D, Hope, S, and **Grose, JH**. (2017) Discovery of Likely Transcriptional Regulons and Hypothesized Protein Function in Phage RAY of the Deimos-Minion Family through Motif Analysis. Intermountain Branch ASM meeting, Weber State University.

Freestone, C, Hughes, J, Loertscher,E, Sharma, R, Duncan, S, Breakwell, D, Hope, S, and **Grose, JH**. (2017) Genome Comparison of Five Erwinia amylovora Bacteriophages. Intermountain Branch ASM meeting, Weber State University.

McColley, A, Leavitt, P, Fajardo, C, Kruger,J, Webb, CJ, and **Grose, JH**. (2017) A Host Range Analysis of the Yoloswag Bacteriophage Family. Intermountain Branch ASM meeting, Weber State University.

Judge, L, Harley, K, Sharma, R, Duncan,S, Breakwell, D, and Hope, S, and **Grose, JH**. (2017) Comparative Genomics of Four *Erwinia* Bacteriophages and N4, a Pathogenic Driving Force in *E. coli.* Intermountain Branch ASM meeting, Weber State University.

Colby, B, Stubbs,O, Bell, K, Radar, K, Sharma, R, Duncan, S, Breakwell, D, Hope, S, and **Grose, JH**. (2017) Analysis of Interesting Proteins in Deimos-Minion Bacteriophage Family. Intermountain Branch ASM meeting, Weber State University.

Cheuk Wing Denise Ng, Jonny Malmrose, Kai Li Ong, and **Grose, JH**. (2017) Understanding the Functions of Oxysterol Binding Protein using Yeast Model. Intermountain Branch ASM meeting, Weber State University.

Walton, D, Judd, J, Jensen, H, Fajardo, C, Kruger, J, Webb, CJ, and **Grose, JH**. (2017) The Host Range of Bacteriophage Phamilies "Cobes" and "Kyle". Intermountain Branch ASM meeting, Weber State University.

Kruger, J, Esplin, I, Hurst,E, , Knabe,B, Pollock,S, Severe,J, Webb, CJ and **Grose, JH**. (2017) Quenching Fireblight: A Search for Stable Phage Therapy. Intermountain Branch ASM meeting, Weber State University.

Ward, C, Walker, J, Johnson, L, Fajardo,C, Kruger, J, Webb, CJ and **Grose, JH**. (2017) Frozen Phage Family Not as Specific as We Once Thought: A Host Range Study. Intermountain Branch ASM meeting, Weber State University.

Luke, L Bodhaine, C, Sharma, R, Duncan, S, Breakwell, D, Hope, S, and **Grose, JH**. (2017) Interesting Proteins within Phages Found within the "Frozen" Phage Family. Intermountain Branch ASM meeting, Weber State University.

Hansen, E, Eardley, R, Melville, M, Kruger, J, Webb, CJ, Fajardo, C, and **Grose, JH**. (2017) Host Range of the Rising Sun Phage Family. Intermountain Branch ASM meeting, Weber State University.

Ballard, T, Withers, J, Duncan, S, Breakwell, D, Hope, S, and **Grose, JH**. (2017) Dots, Dots, Lines: A Dot Plot Comparison of the *Erwinia* Phage Frozen. Intermountain Branch ASM meeting, Weber State University.

Nieman, T, Yeates, E, Hovenden, T, Sharma, R, Duncan, S, and **Grose, JH**. (2017) Phinding Phamily for Phage Deimos-Minion: A Phylogenetics Study. Intermountain Branch ASM meeting, Weber State University.

Choi, M, Ferguson, H, and **Grose, JH**. (2017) The Natural Bacterial Flora of a Healthy Apple Tree. Intermountain Branch ASM meeting, Weber State University.

Ong, KL, Christensen, M, Ng, CW, Malmrose, J, Badal, B, and **Grose, JH**. (2017) Understanding AMPK-Oxysterol Binding Protein Signaling in Controlling Cell Death and Mitochondrial Function using *Saccharomyces cerevisiae* Model. Intermountain Branch ASM meeting, Weber State University.

Roundy, S, Scott,M, Jiminez, J, Workman, A, and **Grose, JH**. (2017) PAS Kinase and its Effects in Cellular Respiration. Intermountain Branch ASM meeting, Weber State University.

Sharma, R, and **Grose, JH**. (2017) Deimos-Minion: A Phage So Big it is Hard To See. Intermountain Branch ASM meeting, Weber State University.

Arens, D, Pattison,J, DeMille, D, and **Grose, JH**. (2017) Using Yeast to Understand the Regulation of Cellular Respiration by PAS Kinase Dependent Pathways. Intermountain Branch ASM meeting, Weber State University.

Pattison, J, DeMille, D, Bikman, B, and **Grose JH**. **(**2016) The Role of PAS kinase in Cellular Respiration. Utah Conference for Undergraduate Research. University of Utah**.**

Kruger, J, Tatlow, PJ, **Grose, JH**. Isolation and Characterization of Deimos-Minion, the Largest *Erwinia amylovora* Bacteriophage. (2016) Utah Conference for Undergraduate Research, Salt Lake City, Utah.

White, Joe, Franson,J, Rees, A, Hilton, A., Ong, KL, Choksi, N, Resolme, J., Zhao, J, **Grose JH**, Bridgewater,L.(2016) Effect of Diet, Genes, and Microbiota on Glucose Tolerance in a Mouse Model with a Genetically Increased Metabolic Rate. LDS Lifescience Research Symposium. Lehi, Utah.

DeMille, D, Bikman, B, and **Grose JH**. **(**2015). The Role of Yeast PAS Kinase in Controlling Cellular Respiration through Cbf1Tri-branch ASM meeting, Fort Collins, Colorado State University, CO.

Pattison, J, DeMille, D., Bikman, B, and **Grose, JH**. The transcription factor centromere binding factor 1 (Cbf1) as a central point of control to upregulate mitochondrial activity and decrease lipid biogenesis in the yeast Saccharomyces cerevisiae. (2015) Tri-branch ASM meeting, Fort Collins, Colorado State University, CO.

Sharma, R, and **Grose JH**. **(**2015). Understanding the Relationship between Bacteriophages of the Enterobacteriaceae and Pseudomonaceae Family. Tri-branch ASM meeting, Fort Collins, Colorado State University, CO.

Barnett, D., and Grose JH (2015) The Role of Yeast PAS Kinase in NAD Homeostasis. Tri-branch ASM meeting, Fort Collins, Colorado State University, CO.

Berg, J., and **Grose JH**. **(**2015). Characterization and Analysis of Six Novel Erwinia Phages Reveals Relationship to Enterobacteriaceae Family Members. Tri-branch ASM meeting, Fort Collins, Colorado State University, CO.

Esplin, I, and **Grose JH**. **(**2015). Oral presentation. Tri-branch ASM meeting, Fort Collins, Colorado State University, CO.

Simister, A, Thurgood, T, Heaton, K, Berg, J, Merrill, B, Burnett, SD, Breakwell, DP, and **Grose JH. (**2015) The Mosaic Nature and Evolution of Three *Brevibacillus* Phages and Their Impact on *Brevibacillus laterosporus* and Other Bacteria. Tri-branch ASM meeting. Poster presentation, Fort Collins, Colorado State University, CO.

McBride, M, Evans, MR, Brundage, BM, Berg, J, Merrill, B, Burnett, SD, Breakwell, DP, and **Grose JH. (**2015) Comparing Protein Structures of a Transcriptional Regulator Repeated in *Brevibacillus* Phages. Poster presentation. Tri-branch ASM meeting, Fort Collins, Colorado State University, CO. ***Third place best poster presentation***

Hilton, JA, Schouten, JT, Berg, J, Merrill, B, Burnett, SD, Breakwell, DP, and **Grose JG. (**2015) Discovery of Two Novel Phage Clusters in *Brevibacillus laterosporus* Using Comparative Genomics. Poster presentation. Tri-branch ASM meeting, Fort Collins, Colorado State University, CO.

Ferguson, H, Krugar, J, Burnett, SD, Breakwell, DP, and **Grose JG. (**2015) Poster presentation. Tri-branch ASM meeting, Fort Collins, Colorado State University, CO.

Rees, A, White, J, Ong, KL, Hilton, A, Choksi, Nidhi, Franson, J, Bridgewater, LB, and **Grose, JH. (**2015). The role of PAS kinase and the Gut Microbiome on Metabolism and Obesity Onset in Mice. Poster presentation. Tri-branch ASM meeting, Fort Collins, Colorado State University, CO.

Grose JH, (2014) PAS kinase: Balancing the Cellular Budget. Oral presentation. BYU Cancer Research Center Summer Symposium, Provo, UT.

Crockett, JT, Esplin, KP, Hyde, JR, Berg, J, Merrill, B, Burnett, SD, Breakwell, DP, and **Grose JH. (**2015) *Brevibacillus* Bacteriophages Xane and Jenst Reveal a DNA Motif Indicating a Gene Regulatory Sequence. Poster presentation. Tri-branch ASM meeting., Fort Collins, Colorado State University, CO.

DeMille, DM and **Grose JH**. (2014) PAS Kinase: A Key Regulator of Respiration and Lipid Biosynthesis. Podium presentation. MMBIO graduate retreat, BYU, Provo, UT. ***Best oral presentation***

Anderson, J. and **Grose JH**. (2014) Interplay Between the Yeast Nutrient Sensing Kinases TORC1, Snf1, and PAS kinase. Podium presentation. MMBIO graduate retreat, BYU, Provo, UT.

Hayes, W. and **Grose JH**. (2014) A CryAB Interactome Reveals Client Specificity and Dysfunction of Mutants Associated with Human Disease. Podium presentation. MMBIO graduate retreat, BYU, Provo, UT.

Barnett, D and **Grose JH**. (2014) Regulation of UTR1 by PAS kinase and the Effects on Cell Growth and Proliferation. Podium presentation BYU Cancer Research Center Retreat, BYU, Provo, UT.

Hayes, W. and **Grose JH**. (2014) Characterization of Disease-associated HSPB2 and CRYAB Variants Reveals Chaperone Dysfunction. Podium presentation. BYU Cancer Research Center Retreat, BYU, Provo, UT.

Anderson, J. and **Grose JH**. (2014) Interplay Between the Yeast Nutrient Sensing Kinases TORC1, AMPK, and PAS kinase. Podium presentation. BYU Cancer Research Center Retreat, BYU, Provo, UT.

Jarvis, T, Esplin, I, and **Grose JH**. (2014) Isolation and Characterization of 11 *Erwina amyovora* Phages. Oral presentation. ASM Intermountain Branch Meeting, BYU, Provo, UT. ***Best oral presentation***

Anderson, J, and **Grose JH**. (2014) Interplay Between the Yeast Sensory Kinases TOR, Snf1 and PAS Kinase. Podium presentation. ASM Intermountain Branch Meeting, BYU, Provo, UT.

Barnett, DM, Pattison, JA, DeMille, D, Mackay, JT, Mathis, AD, Hall, TD, Sowa, SW, Prince, JT, and **Grose JH**. (2014) Large-scale Screening Uncovers PAS Kinase Interactome. Poster presentation. ASM Intermountain Branch Meeting, BYU, Provo, UT. ***Runner up best poster presentation***

Hayes, WH, Langston, K, and **Grose, JH**. (2014) Characterization of Disease-associated HspB2 and CryAB Variants Reveals Chaperone Dysfunction. Poster presentation. ASM Intermountain Branch Meeting, BYU, Provo, UT.

Harris, KE, Crist, AC, and **Grose JH**. (2014) Identifying Unique Roles of PAS Kinase. Poster presentation. ASM Intermountain Branch Meeting, BYU, Provo, UT.

Taylor, AS, Bairett, SR, Wienclaw, TM, Ashcroft, CR, Esplin, ID, Schoenhals, JE, Merrill, BD, Breakwell, DP, **Grose, JH,** and Burnett SH. (2014) Isolation and Characterization of *Paenibacillus larvae* Bacteriophage Jenst. Poster presentation. ASM Intermountain Branch Meeting, BYU, Provo, UT.

Ransom, E, Berg, J, Grossarth, S, Smith, H, Anieves, D, Esplin, ID, Merrill, BD, Schoenhals, JE, Breakwell, DP, Burnett, SH, and **Grose JH**. (2014) Comparative Genome Analysis of Seven Novel *Erwinia* Phages Reveals Orthologous Proteins and Allows for Formation of a Cluster with Three Known Enterobacteriaceae Phages. Poster presentation. ASM Intermountain Branch Meeting, BYU, Provo, UT.

Stratton, M, Harbaugh, K, Foy, B, Anieves, D, Paz, H, Shurtleff, C, Kruger J, Peck, M, Jensen, G, Esplin, ID, Merrill, BD, Schoenhals, JE, Breakwell, DP, Burnett, SH, and **Grose JH.** (2014) Discovery and Genomic Analysis of an N4-like *Erwinia amylovora* Phage. Poster presentation. ASM Intermountain Branch Meeting, BYU, Provo, UT.

Ingersoll, K, Jensen, G, Kruger, J, Foy, B, Grossarth, S, Harbaugh, K, Paz, H, Esplin, ID, Schoenhals, JE, Merrill, BD, Burnett, SH, Breakwell, DP, and **Grose JH**. (2014) Isolation and Characterization of Deimos-Minion, the Largest *Erwinia amylovora* Bacteriophage. Poster presentation. ASM Intermountain Branch Meeting, BYU, Provo, UT.

Schoenhals, JE, Merrill, BD, Graves, KA, **Grose, JH**, Burnett, SH, and Breakwell DP. (2014) DNA Packaging Strategies for Bacteriophages Identified Using Phylogenetic Analysis of Large Terminase Proteins. Poster presentation. ASM Intermountain Branch Meeting, BYU, Provo, UT.

Grose JH, (2013) The Role of Sensory Protein Kinases in Cancer. Oral Presentation. BYU Cancer Research Center Summer Symposium, Provo, UT

Badal, B, and **Grose JH**. (2013) Snf1 Directly Phosphorylates and Activates Yeast PAS Kinase. Podium presentations. ASM Intermountain Branch Meeting, Idaho State University, ID.

Anderson, J, Roark, B, Buckley, A, Cabeza, Pezoa Y, Emery, H, Fullwood, R, Hecht, K, Jackson, K, Jones, E, Mackay, J, Meek, J, Nordgren, K, Rees, J, Ritchie, D, Shumway, J, Yates, J, Kooyman, D, and **Grose JH**. (2013) E. colin: A Two-circuit System for Colin Cancer Detection. Podium presentation, ASM Intermountain Branch Meeting, Idaho State University, ID.

Merrill BD, Sheflo MA, Ayer PA, Beckstead AP, Fajardo CP, Ferguson NC, Fisher JNB, Gardner AV, Graves KA, Hartmann KA, Kennedy AK, Liu JE, Lunt BL, Merrill CA, Russell RC, Wake BN, WilliamsKR, Zimmerman LJ, Grose JH, Breakwell DP, Burnett SH. (2013) Discovery and Characterization of Novel Paenibacillus larvae Bacteriophages. ASM Intermountain Branch Meeting, Idaho State University, Pocatello, ID.

Bevard, K, Thornock, S, Collins, G, Ramsey, M, and **Grose JH**. (2013) Characterizing Yeast PAS Kinase Through Random Mutagenesis. Poster Presentation. Utah Undergraduate Conference for Research, Utah State University, UT.

Grose, JH. Molecular Biology and Genetics. (2010, 2011, 2012, 2013, 2014, 2015, 2016) Oral presentation. Expanding Your Horizons, Utah Valley University, UT.

DeMille, D, and **Grose, JH**. (2012) New Roles for PAS kinase Revealed Through Protein-protein Interaction Studies. Podium presentation. Intermountain Branch ASM meeting, Idaho State University, ID. ***Best Biomedical Oral Presentation***

DeMille, D, Mackay, J, Sowa, S, Hall, T, Gessel, A, Lawrence, E, and **Grose, JH**. (2012) The Role of Yeast PAS kinase in Glucose Partitioning. Poster presentation. Intermountain Branch ASM Meeting, Idaho State University, ID.

Findley, R, Thornock, S, Bevard, K, and **Grose, JH**. (2012) The Regulation of PAS kinase, a Key Sensory Kinase Required for Glucose Homeostasis. Poster presentation. Intermountain Branch ASM Meeting, Idaho State University, ID.

Price, K, Chapman, K, Cutler, C, Hoops,W, Lee, S, Nguyen, J, and **Grose, JH**. (2012) Molecular Mechanisms of R120G CryAB-induced Cardiomyopathy. Poster presentation. Intermountain Branch ASM Meeting, Idaho State University, ID.

Anderson, J, Meek, J, Dean, R, Roark, B, and **Grose, JH**. (2012) A Novel Method for Malaria Detection. Podium presentation. Intermountain Branch ASM Meeting, Idaho State

University, ID.

Roberts, J, Emery, H, Jones, E, Nordgren, K, Reese, J, Shumway, J, Yates, J, and **Grose, JH**. (2012) A Dual AND Gate for Sensing ROS and Heat. Poster presentation. Intermountain Branch ASM Meeting, Idaho State University, ID.

Buckley, A, Cabeza Pezoa, Y, Fullwood, R, Hecht, K, Jackson, K, and **Grose, JH**. (2012) E. colera: A Cholera Detection and Elimination system. Podium presentation. Intermountain Branch ASM Meeting, Idaho State University, ID.

Ferguson, NC, Irons, DL, Marlow, SC, McCord, TM, Brighton, AK, Fisher, JNB, Sheflo, MA, Breakwell, DP, **Grose, JH,** Burnett, SH (2012) Division of the Mycobacteriophage A1 Subcluster Based on Phylogenetic Comparison. Poster presentation. ASM Intermountain Branch Meeting, Idaho State University, ID.

Mason, SJ, Gardner, AV, Nelson, EP, Christiansen, MR, Brighton, AK. Fisher, JNB, Sheflo, MA, Breakwell, DP, **Grose, JH**, Burnett, SH (2012) Mislabeling of the Second Tape Measure Protein. Poster presentation. ASM Intermountain Branch Meeting, Idaho State University, ID.

Jensen, JD, Merrill, BD, Russell, RC, Smith, TC, Brighton, AK, Fisher, JNB, Sheflo, MA, Breakwell, DP, Burnett, SH, **Grose, JH.** (2012) Phylogenetic Origin of Glutaredoxin Gene Shared by Mycobacteriophage A1 Sub-cluster, Distantly Related Bacteria, and other bacteriophages. Poster presentation. ASM Intermountain Branch Meeting, Idaho State University, ID.

Lloyd, JS, Norton, CS, Sullivan, S, Pettersson, SM, Brighton, AK, Fisher, JNB, Sheflo, MA, Breakwell, DP, Erickson, D, Burnett, SH, and **Grose, JH**. (2012) Lack of Correlation between Phage Clusters and Ecoregions in the United States. Poster presentation. ASM Intermountain Branch Meeting, Idaho State University, ID.

Williams, KR, Adawi, EC, Kennedy, AK, Poe, DE, Brighton, AK, Fisher, JNB, Sheflo, MA, Breakwell, DP, Burnett, SH, **Grose, JH.** (2012) Divergent Evolution of a RuvC Holliday Junction Resolvase in the B1 Subcluster. Poster presentation. ASM Intermountain Branch Meeting, Idaho State University, ID.

Gardner, AV, Brighton, AK, Fisher, JNB, Sheflo, MA, Breakwell, DP, **Grose, JH**, and Burnett, SH. (2012) Environmental Effect on Phage Genomes: Analysis of the B4 Subcluster. Poster presentation. ASM Intermountain Branch Meeting, Idaho State University, ID.

Grose, JH. (2012) E. colonoscopy: Synthetic Biology as a Platform for Learning**.** Podium presentation. Current Topics in Chemistry, Brigham Young University, UT.

DeMille, D, and **Grose J.H**. (2012) The Role of Yeast PAS kinase in PASsing Glucose. Podium presentation. MMBIO Graduate Student Retreat, BYU, UT.

Grose, JH. Evidence for Disparate Yet Overlapping Function for the Small Heat Shock Proteins CryAB and HspB2. (2011) Podium presentation. Protein Aggregation Disease (PAD) Interest Group, University of Utah, UT.

DeMille, D, and **Grose JH**. (2011) The Role of Yeast PAS kinase in Metabolic Regulation. Podium presentation. MMBIO Graduate Student Retreat, BYU, UT.

Jarvis, K, Cutter, C, Van De Graaff, S, Chapman, K, Weist, KB, Benjamin, I, and **Grose, JH**. (2011) Discovering Pathways Involved in Alpha/B-crystalline Dependent Cardiomyopathy. Poster presentation. Utah Conference for Undergraduate Research (UCUR), Weber State University, UT.

Biggs, M, Roberts, JA, Sabin, D, Sabin, M, Merrill, M , Allley, A, Chamberlain, C, Adebayo, J, Williams, L, Kooyman, DL and **Grose, JH**. (2011) Evolving a Thermoswitch Sensitive to Narrow Temperature Shifts. Podium presentation. IBE Western Regional Student Conference, Utah State University, UT. ***Best Biomedical Presention***

Biggs, M, Roberts, JA, Sabin, D, Sabin, M, Merrill, M, Allley, A, Chamberlain, C, Adebayo, J, Kooyman, DL, and **Grose, JH**. (2011) A Dual Input Reporter System in E. coli as a Potential Colon Cancer Diagnostic. Poster presentation. ASM Intermountain Branch Meeting, Weber State University, uT.

DeMille, D, and **Grose JH**. (2011) The Role of Yeast PAS kinase in Metabolic Regulation. (2011) Poster presentation. ASM Intermountain Branch Meeting, Weber State University, UT.

Jarvis, K , Weist, K, Van De Graaff, S, Cutter, C, Chapman, K, Neubert, J, Benjamin, I and **Grose, JH**, Discovering Pathways Involved in alpha/β-crystalline Dependent Cardiomyopathy. (2011) Poster presentation. ASM Intermountain Branch Meeting, Weber State University, UT.

Mackay, J, Sowa, S, Loeb, S, Haines, C, and **Grose JH**. (2011) Finding Interacting Partners for PAS kinase. Poster presentation. ASM Intermountain Branch Meeting, Weber State University, UT.

Brighton, AK, Kaitlyn, SV, Parker, M, Jackson, KL, Steck, RP, Ormsby, WR, Taylor, MA, Fisher, J, and Lunt, B, Burnett, S.H., **Grose, JH.** and Breakwell, DP. (2011) Gene Mosaicism Demonstrated in Mycobacteriophage Shauna1. Poster presentation. ASM Intermountain Branch Meeting, Weber State University, UT.

Barrus, EZ, Sheide, MG, Taylor, MA, Fisher, J, and Lunt, B, Burnett, SH, **Grose, JH.** and Breakwell, DP. (2011) Shauna1 Mycobacteriaphage Holin Gene Confirms Common Ancestry of All F cluster Phage. Poster presentation. ASM Intermountain Branch Meeting, Weber State University, UT.

Kartchner, BJ, Kiser, JT, Kiser, CD, McDaniel, SW, Taylor, MA, Fisher, J, Lunt, B, Burnett, SH, **Grose, JH,** and Breakwell, DP. (2011) Clustering of Mycobacteriophage in the Utah Landscape. ASM Intermountain Branch Meeting, Weber State University, UT.

Smith, KC, Burnett, SH, **Grose, JH,** and Breakwell, DP. (2011) Degenerate PCR Primers to Identify Mycobacteriophage Clusters and Sub-Clusters**.** Poster presentation. ASM Intermountain Branch Meeting, Weber State University, UT.

Chapman, KM, Baker, B, Drake, EA, Kitchen, JCB, Taylor, MA, Fisher, J, and Lunt, B, Burnett, SH, **Grose, JH,** and Breakwell, DP. (2011) TA17A: A Unique Member of the Mycobacteriophage Sub-Cluster A2. Poster presentation. ASM Intermountain Branch Meeting, Weber State University, UT.

Kitchen, JCB, Brighton, AK, Chapman, KM, Baker, B, Taylor, MA, Fisher, J, and Lunt, B, Burnett, SH, **Grose, JH,** and Breakwell, DP. (2011) Morphological Traits of Mycobacteriophage Clusters and Sub-Clusters. Poster presentation. ASM Intermountain Branch Meeting, Weber State University, UT.

Grose, JH. (2011) Identifying Novel Binding Partners for CryAB. Podium presentation. Protein Aggregation Disease (PAD) Interest Group, University of Utah, UT

Sowa, S, Harris, KT, and **Grose JH.** (2010) A Yeast Two-hybrid Screen for Novel PAS Kinase Substrates. Poster presentation. ASM Intermountain Branch Meeting, Brigham Young University, UT.

Johnson, C, and **Grose, JH.** (2010) Redox Currency, NAD/NADP Biosynthesis and Function. Poster presentation. ASM Intermountain Branch Meeting, Brigham Young University, UT.

Jarvis, K, Neubert, JC, and **Grose JH.** (2010) Yeast as a Model for Studying R120G-CryAB Cardiomyopathy. Poster presentation. ASM Intermountain Branch Meeting, Brigham Young University, UT.

Grose, JH. (2010) *Saccaharomyces cerevisiae* as a Model for Studying Protein Aggregation Cardiomyopathy. Podium presentation. Protein Aggregation Disease (PAD) Interest Group, University of Utah, UT.

Grose, JH. (2009) Functional Clustering: Can it Identify New Roles for an Old Molecule (NAD)? Oral presentation. Bacterial Supergroup, Brigham Young University, UT.

Grose, JH. (2008) NAD(P) Metabolism; the Center of Cellular Control. Oral presentation. Bacterial Supergroup, Brigham Young University, UT.

GRADUATE STUDENT TRAINEES (11)

Desiree DeMille	Ph.D. student	2010-2015 (graduated)
Ruchira Sharma	Ph.D. student	2014-present
Kai Li Ong	Ph.D. student	2014-present
Daniel Arens	Ph.D. student	2017-present
Jonathan Neubert	M.S. student	2010-2012 (graduated)
Kelsey Langston	M.S. student	2012-2013 (graduated)
Bryan Badal	M.S. student	2012-2014 (graduated)
Whitney Hayes	M.S. student	2013-2016 (graduated)
Nidhi Choksi	M.S. student	2014-2016 (graduated)
Jenny Pattison	M.S. student	2016-present
Daniel Thomson	M.S. student	2017-present

MENTORED UNDERGRADUATE RESEARCH ASSISTANTS (102)

An asterisks indicates students who have presented their research at a conference or in a publication.

Jared Anderson
Joe Anderson*
Julius Adebeyo*
Addison Alley*
Ilse Daniella Jaen Anieves*
Tommy Andros
Bryan Badal*
Daniel Barnett*
Igor Baldow*
Nolan Beatty
Emily Bennion*
Kayla Bevard*
Jordan Berg*
Mathew Biggs*
Christopher Bird*
Jonathan Bowan
David Boyer*
Alicia Brighton*
Amber Brown*
Grace Brummer*
Alisa Buchanan
Audrey Buckley*
Joe Castillo
Kylie Chapman*
Minsey Choi*
Arick Christopher*
Michael Christiansen
Mackay Coffee
Brittany Colby*
John Collins*
Alex Crist*
Casey Cuttler*
Benjamin Donovan
Govinda Dhakai
Alysha Doan
Steven Duncan
Ian Esplin*
Brady Evans*
Lauren Facer*
Rebecca Eardley*
Rachel Findley*
Joshua Fischer*
Jerilyn Franson*
Michael Fry*
Hannah Ferguson*
Adam Gardner*
Joshua Gillman
Savannah Grossarth*
Andrew Gessel*
Garrett Jensen*
Jordan Jensen*
Kent Jarvis*
Todd Jarvis*
Jens Jimenez
Kendall Kiser*
Colby Haines*
Tacie Hall*
Steven Hallam
Kimball Harley*
Katie Harris*
David Herbert*
Mark Herzog*
Whitney Hoopes*
Emily Hansen*
Jill Hughes*
Emily Hurst
Moon He I
Kendall Kiser*
Dione King
Bradley Knabe*
Jared Kruger*
Kelsey Langston*
Paul Leavitt*
Eliza Lawrence*
Serena Loeb*
Jordan MacKay*
Jonny Malmrose
Bryan Merrill*
Mackay Merrill*
Fredrick Nelsen*
Jonathan Neubert*
Samual (Sam) Nicholes*
Nicholas (Nick) Nielsen*
Denise Ng*
Foster Openshaw
Jenny Pattison*
Alexis Poulson*
Kelton Peck*
Lindsey (LJ) Perry*
Nicole Phipps*
Samuel Pollock
Alexis Polson*
Katherine Price*
Micah Putnum*
Kristy Rader*
Marina Ramsay
Andrew Rees*
Joshua Rice*
Brooke Roark*
Julie Roberts*
Paul Rogers
Steven Roundy
Devin Sabin*
Mark Sabin*
Michael Scott
Jeremy Severe
Matthew Sheppard
Kyle Smith*
Christina Swenson*
Steve Sowa*
Ashley Tam*
Philip (PJ) Tatlow*
Evangeline Taylor
Trevor Taylor

Spencer Thornock*
Trevor Thurgood*
Jason Tseng*
Steve Van de Graff*
Charles (CJ) Webb*
Kevin Weist*
Joseph (Joe) White*
Jonathan Wood
Lee Workman*

TEACHING

Courses taught

MMBIO151: Intro to Microbiology (4 credits); 3 hours lecture and 3 hours lab per week
MMBIO194A: Phage Hunters Discovery (2 credits); 6 hours lab per week
MMBIO194B: Phage Hunters Genomics (2 credits); 6 hours lab per week
MMBIO221: General Microbiology (3 credits) ; 3 hour lecture per week
MMBIO395: Readings in Molecular Biology (1 credit); 1 hour lecture per week
MMBIO470: Synthetic Biology (1 credit) ; 6 hours lab per week
MMBIO691: Graduate seminar (1 credit): 1 hour seminar per week
MMBIO551R: Bacteriophages (1 credit); 1 hour lecture per week
MMBIO661: Molecular Biology of the Cell (3 credits); 3 hours lecture per week, team taught (JHG taught 12 lectures)
MMBIO665: Genomics, team taught (JHG taught 7 lectures and lead a special research project)
MMBIO494R: Mentored Research (1-3 credits); taught each semester

FELLOWSHIPS AWARDED TO STUDENTS IN THE GROSE LAB

Graduate Fellowships (9)

BYU Graduate Studies Fellowship (2)

Ruchira Sharma (2015) Characterization of Bacteriophages that Infect *Erwinia amylovora*
Whitney Hayes. (2014) Characterization of disease-associated HSPB2 and CRYAB variants reveals chaperone dysfunction.

BYU Cancer Research Center Fellowships (7)

Kai Li Ong (2017) The role of Osh6/Snf1 in apoptosis
Kai Li Ong (2016) The role of Osh6/Snf1 in apoptosis
Jenny Pattison (2016) Characterizing the role of Cbf1 in respiration
Desiree DeMille (2015) The effects of PAS kinase on Cell Cycle
Joe Anderson. (2014) Interplay between the yeast nutrient sensing kinases TORC1, AMPK, and PAS kinase
Whitney Hayes. (2014) Characterization of disease-associated HSPB2 and CRYAB variants reveals chaperone dysfunction
Bryan Badal. (2013) Activation of PAS kinase by the metformin target AMPK/Snf1.

Undergraduate Fellowships

BYU Cancer Research Center Fellowship (3)

Daniel Barnett (2014, 2015) The regulation of NAD(P) by PAS kinase
Jenny Pattison (2015) Isolation and characterization of novel proteins that regulate respiration

BYU ORCA Grants

Ng, Denise. (2017)
Nicholes, Sam. (2017)
Brown, Amber. Using Phage for Detection and Destruction
Jarvis, Todd. Fire Blight Treatment With Lytic Bacteriophage
Hall, Tacie. Identifying Proteins That Interact with Human PAS Kinase
Gessel, Andrew. PAS Kinase Interactors and Their Role in Metabolic Disease
Brighton, Alicia. Genomic and Proteomic Analysis of an *Erwinia amylovora* Phage
Mackay, Jordan. (2012) Characterizing Proteins That Interact With PAS Kinase
Hoopes, Whitney. (2012) Characterizing the Role of HspB2
Mackay, Jordan. (2011) PAS Kinase: A Target for Metabolic Disease
Loeb, Serena. (2011) PAS Kinase Interactions
Neubert, Jonathan. (2011) Real-time, in vivo, NAD Biosensors
Sowa, Steve. (2011) PAS Kinase Interactions
Jarvis, Kent. (2010) Discovering Protein Interactions of CryAB

CITIZENSHIP

University-wide

Faith and Learning Faculty Advisement Committee (2016-present)

Faculty Advisor for the Cougars vs Cancer student Association (2016-present)
BYU Be the Match on Campus - faculty advisor (2016)

Department/College-wide

Deans Advisory Committee (Chair, 2015-present)
Graduate Committee (2013-present)
Undergraduate Committee (2008 -2012)
Ad-hoc Committees:
BYU Cancer Research Center grant reviewer
Mentoring Environment Grant (MEG) reviewer
ORCA reviewer (undergraduate research fellowships)

Other activities

My citizenship efforts outside of my department are focused on encouraging women in science and expanding contacts within my field of study.

2017-2018	**Organizer** of the TriBranch ASM meeing, Durango, Colorado. Initiated and organized a conference that will include seven states and three branches of the ASM
2016	**Organizer** of the Phage Phield Day, Provo, Utah. Organized the entire conference including choice of venue, invited guests, schedule, abstracts accepted for oral and poster presentation, and guest speaker (Stanley Malloy). Approximately 40 students in attendance from Brigham Young University and Gettysburg University.
2010-2017	**Instructor**, Expanding Your Horizons, Utah Valley University. Designed and presented two, 1-hour Molecular Biology clinics each year for young women ages 11-18 for this international program designed to encourage women in science.
2013-2015	**Instructor**, ACCESS program for women in science, University of Utah. Designed and implemented a yearly, four-day, 8 hour/day lecture and lab molecular biology clinic for 42 incoming female freshman.
2010-2014	**Co-organizer and Instructor**, Women in Science Club advisor. Designed and implemented yearly microbiology activities for outreach to local elementary schools in conjunction with students from the women in science club.
2013	**Co-organizer** of the international Analytical Genetics Meeting, Alta, Utah. Organized the entire conference including choice of venue, invited guests, schedule, abstracts accepted for oral and poster presentation, etc. Approximately 94 scientists in attendance from throughout the world.
2010 - 2015	**Founder** and **Organizer** of the BYU Metabolism Interest Group. Organized monthly meetings to present and discuss research with faculty from multiple departments.
2010 - 2017	**Founder** and **Organizer** of the annual Microbiology and Molecular Biology Career Symposium. Organization includes choice of venue, invitation to 20+ companies, advertising, etc. Between 100-200 students attend each year