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I am currently a 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 (approximately 6 courses) and currently mentor three 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 metabolism and its relation to disease, and 2) the study of microbiomes and their contribution to the health of organisms, including 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

2021-present	Professor , Brigham Young University, Department of Microbiology and Molecular Biology
2015– 2021	Associate Professor , Brigham Young University, Department of Microbiology and Molecular Biology.
2008 – 2015	Assistant Professor , Brigham Young University, Department of Microbiology and Molecular Biology.
2006 – 2008	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 <i>Salmonella typhimurium</i> .
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

BYU College of Lifesciences Research Award (2021)
C. Joseph Rowberry Teaching and Learning Faculty Fellowship, Brigham Young University (2018)
Maesar Excellence in Teaching Award, Brigham Young University (2017)
First place award -NSF Community College Innovation Challenge, team advisor (2017)
Alcuin Fellowship, Brigham Young University (2017)
Technology Transfer Award, Brigham Young University (2016)
Faculty Women's Association Scholarship Award, Brigham Young University (2016)
Guest Speaker Travel Award, 2nd International Symposium on Fire Blight of Rosaceous Plants (2019), Traverse City, Michigan
Travel Award, Annual SEA-PHAGES Conference (2012, 2015)
Travel Award, SEA-PHAGES Advanced Genomics Workshop (2015)

Travel Award, IR-4 Biopesticide Workshop (2014, 2015, 2016, 2017, 2018)
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

Member of the Arnold and Mabel Beckman Foundation Young Investigator Executive Committee (2021-current)
Member of the Arnold and Mabel Beckman Foundation Equity Committee (2021-current)
Chair of the Scientific Advisory Board for Beekeeping-101 LLC (2021-current)
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), Member of the Indonesian Phage Group
IGEM Jamboree Judge (America's -2013, International - 2014)
Editorial Board Member, Nutrients (MDPI) (2019-current)
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 many scientific journals including but not limited to: Acta Biochimica et Biophysica Sinica, Archives of Virology, Environmental Microbiology and Environmental Microbiology Reports, FEBS Letters, FEMS IJMS, Microbiology Letters, Journal of Bioprocessing & Biotechniques, Molecules, Molecular Biology of the Cell, Nutrients, PLOS ONE and Trends in Microbiology, Viruses, Journal of Virology.

TOTAL EXTRAMURAL RESEARCH SUPPORT

Current

Phage Hunters: Discovery and Bioinformatics
Role: Principal Investigator
LDS Philanthropies Private donor
Amount: \$25,000 End date: 12/29/2021

Regulation and function of PAS kinase: PASSing glucose to control respiration, lipogenesis and cell cycle
Role: Principle Investigator
National Institutes of Health 2R15 GM100376-02
Amount: \$1,223,167 End date: 1/31/2024

Completed

Manipulating the Microbiome of Small Hive Beetles and Varroa Mites Role:
Principle Investigator
Private Investor
Amount: \$79,000 End date: 8/31/2021

Beckman Scholars Program
Role: Co-principle Investigator and Beckman Scholar Mentor The
Arnold and Mabel Beckman Foundation
Amount: \$109,200 End date: 9/2020

DNA packaging and delivery by dsDNA viruses
Role: Subcontract Principle Investigator
National Institutes of Health 5R01 GM114817
Amount (Subcontract): \$15,000 End date: 7/31/2020

Characterizing a kinase regulator of ataxin-2 as a therapeutic target for ALS

Role: Co-Principal Investigator with Aaron Gitler

Robert Packard Center for ALS Research

Amount: \$50,000 End date: 3/31/2019

Manipulation of Phage-derived Bacteriocin Production

Role: Subcontract Principal Investigator USDA

National Institute of Food and Agriculture Award

2016-67014-24850

Phage Hunters: Discovery and Bioinformatics

Role: Co-Principal Investigator

Private donor

Amount: \$200,000 End date: 7/1/2017

A Natural Treatment for Fire Blight: Pilot Test in Apple Orchards

Role: Principal Investigator

United States Department of Agriculture (USDA) USDA via UC Davis

Amount: \$5000 End date 7/1/2017

A Natural Treatment for Fire Blight: Pilot Test in Apple Orchards

Role: Principal Investigator

United States Department of Agriculture (USDA) USDA via UC Davis

Amount: \$5000 End date 7/1/2016

A Natural Treatment for Fire Blight: Pilot Test in Apple Orchards

Role: Principal Investigator

IR-4 Biopesticide Grant

United States Department of Agriculture (USDA) USDA via UC Davis

Amount: \$25000 End date 2/1/2015

INTRAMURAL RESEARCH GRANTS

Completed

PAS Kinase as a Potential Moderator of Heart Disease

Role: Co-Principal Investigator

2020 Gerontology Research Grant Award

Amount: \$8,260 End date: 11/30/2020

Impact of mutant Atypical Chemokine Receptors on Chemokines and Inflammation

Role: Co-Principal Investigator

Inflammation Research Award – BYU

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

BYU Mentoring Environment Grant

Amount: \$20,000 End date: 1/31/2017

Identifying Genetic Factors Involved in the Development of Diabetes

Role: Principal Investigator

BYU Mentoring Environment Grant

Amount: \$20,000 End date: 1/31/2016

Enhancing Learning Through Novel, Publishable Viral Research

Role: Principal Investigator

BYU Mentoring Environment Grant

Amount: \$8,400 End date: 11/31/2016

Elucidating a Precise Role for the Small Heat Shock Proteins CryAB and HspB2 in Cardiac Robustness

Role: Principal Investigator

BYU Mentoring Environment Grant

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 Teaching Enhancement Grant

Molecular Characterization of Pathways Involved PAS Kinase Regulation and Function.

Role: Principal Investigator

BYU Mentoring Environment Grant

Amount: \$20,000 End date: 1/31/2014

Characterization of PAS Kinase Regulation and Novel PAS Kinase Substrates.

Role: Principal Investigator

BYU Mentoring Environment Grant

Amount: \$20,000 End date: 1/31/2013

Regulation and Function of Yeast PAS kinase.

Role: Principal Investigator

BYU Mentoring Environment Grant

Amount: \$20,000 End date: 1/31/2012

The Function of Yeast PAS kinase.

Role: Principal Investigator

BYU Mentoring Environment Grant

Amount: \$20,000 End date: 1/31/2011

PUBLICATIONS (48 peer-reviewed publications)

48. Franson, JJ, Grose, JH, Williams, KW, Bridgewater, L. Gut microbiota regulates the interaction between diet and genetics to influence glucose tolerance. *Medicine* 2021 8(7):34.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8304968/>
47. Greene W, Chan B, Bromage E, Grose JH, Walsh C, Kortright K, Forres S, Perry G, Byrd L, Stamper MA. The use of bacteriophages and immunological monitoring for the treatment of a case of chronic systemic cutaneous ulcerate disease (SCUD) in a loggerhead sea turtle (*Caretta caretta*). *J Aquat Anim Health* 2021
<https://doi.org/10.1002/aah.10130>
46. Thurgood TL, Sharma R, Call JJ, et al. Genome Sequences of 12 Phages That Infect *Klebsiella pneumoniae*. *Microbiol Resour Announc* 2020;9. <https://doi.org/10.1128/MRA.00024-20>.
<https://www.ncbi.nlm.nih.gov/pubmed/32299868>.
45. Pape JA, Grose JH. The effects of diet and sex in amyotrophic lateral sclerosis. *Rev Neurol (Paris)* 2020;176:301-15.
<https://doi.org/10.1016/j.neurol.2019.09.008>. <https://www.ncbi.nlm.nih.gov/pubmed/32147204>.
44. Murcia JDG, Weinert A, Freitas CMT, et al. Atypical chemokine receptor ACKR2-V41A has decreased CCL2 binding, scavenging, and activation, supporting sustained inflammation and increased Alzheimer's disease risk. *Sci Rep* 2020;10:8019. <https://doi.org/10.1038/s41598-020-64755-1>.
<https://www.ncbi.nlm.nih.gov/pubmed/32415244>.

43. Thompson DW, Casjens SR, Sharma R, Grose JH. Genomic comparison of 60 completely sequenced bacteriophages that infect *Erwinia* and/or *Pantoea* bacteria. *Virology* 2019;535:59-73. <https://doi.org/10.1016/j.virol.2019.06.005>. <https://www.ncbi.nlm.nih.gov/pubmed/31276862>.
42. Sharma R, Pielstick BA, Bell KA, et al. A Novel, Highly Related Jumbo Family of Bacteriophages That Were Isolated Against *Erwinia*. *Front Microbiol* 2019;10:1533. <https://doi.org/10.3389/fmicb.2019.01533>. <https://www.ncbi.nlm.nih.gov/pubmed/31428059>.
41. Handoko YA, Wardani AK, Sutrisno A, et al. Genome Sequences of Two *Bacillus* Phages Isolated from Indonesia. *Microbiol Resour Announc* 2019;8. <https://doi.org/10.1128/MRA.01058-19>. <https://www.ncbi.nlm.nih.gov/pubmed/31831605>.
40. DeMille D, Pape JA, Bikman BT, Ghassemian M, Grose JH. The Regulation of Cbf1 by PAS Kinase Is a Pivotal Control Point for Lipogenesis vs. Respiration in *Saccharomyces cerevisiae*. *G3 (Bethesda)* 2019;9:33-46. <https://doi.org/10.1534/g3.118.200663>. <https://www.ncbi.nlm.nih.gov/pubmed/30381292>.
39. Yost DG, Chang C, LeBlanc L, et al. Complete Genome Sequences of *Paenibacillus larvae* Phages Halcyone, Heath, Scottie, and Unity from Las Vegas, Nevada. *Microbiol Resour Announc* 2018;7. <https://doi.org/10.1128/MRA.00977-18>. <https://www.ncbi.nlm.nih.gov/pubmed/30533661>.
38. Willis SD, Stieg DC, Ong KL, et al. Snf1 cooperates with the CWI MAPK pathway to mediate the degradation of Med13 following oxidative stress. *Microb Cell* 2018;5:357-70. <https://doi.org/10.15698/mic2018.08.641>. <https://www.ncbi.nlm.nih.gov/pubmed/30175106>.
37. Walker JK, Merrill BD, Berg JA, et al. Complete Genome Sequences of *Paenibacillus larvae* Phages BN12, Dragolir, Kiel007, Leyra, Likha, Pagassa, PBL1c, and Tadhana. *Genome Announc* 2018;6. <https://doi.org/10.1128/genomeA.01602-17>. <https://www.ncbi.nlm.nih.gov/pubmed/29903825>.
36. Stieg DC, Willis SD, Ganesan V, et al. A complex molecular switch directs stress-induced cyclin C nuclear release through SCF(Grr1)-mediated degradation of Med13. *Mol Biol Cell* 2018;29:363-75. <https://doi.org/10.1091/mbc.E17-08-0493>. <https://www.ncbi.nlm.nih.gov/pubmed/29212878>.
35. Stamereilers C, Fajardo CP, Walker JK, et al. Genomic Analysis of 48 *Paenibacillus larvae* Bacteriophages. *Viruses* 2018;10. <https://doi.org/10.3390/v10070377>. <https://www.ncbi.nlm.nih.gov/pubmed/30029517>.
34. Sharma R, Berg JA, Beatty NJ, et al. Genome Sequences of Nine *Erwinia amylovora* Bacteriophages. *Microbiol Resour Announc* 2018;7. <https://doi.org/10.3389/fmicb.2019.01533>. <https://www.ncbi.nlm.nih.gov/pubmed/31428059>.
33. Pape JA, Newey CR, Burrell HR, et al. Per-Arnt-Sim Kinase (PASK) Deficiency Increases Cellular Respiration on a Standard Diet and Decreases Liver Triglyceride Accumulation on a Western High-Fat High-Sugar Diet. *Nutrients* 2018;10. <https://doi.org/10.3390/nu10121990>. <https://www.ncbi.nlm.nih.gov/pubmed/30558306>.
32. Merrill BD, Fajardo CP, Hilton JA, et al. Complete Genome Sequences of 18 *Paenibacillus larvae* Phages from the Western United States. *Microbiol Resour Announc* 2018;7. <https://doi.org/10.1128/MRA.00966-18>. <https://www.ncbi.nlm.nih.gov/pubmed/30533693>.
31. Berg JA, Merrill BD, Breakwell DP, Hope S, Grose JH. A PCR-Based Method for Distinguishing between Two Common Beehive Bacteria, *Paenibacillus larvae* and *Brevibacillus laterosporus*. *Appl Environ Microbiol* 2018;84. <https://doi.org/10.1128/AEM.01886-18>. <https://www.ncbi.nlm.nih.gov/pubmed/30217838>.
30. Arens DK, Brady TS, Carter JL, et al. Characterization of two related *Erwinia* myoviruses that are distant relatives of the PhiKZ-like Jumbo phages. *PLoS One* 2018;13:e0200202. <https://doi.org/10.1371/journal.pone.0200202>. <https://www.ncbi.nlm.nih.gov/pubmed/29979759>.
29. Hanauer DI, Graham MJ, Sea P, et al. 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;114:13531-6. <https://doi.org/10.1073/pnas.1718188115>. <https://www.ncbi.nlm.nih.gov/pubmed/29208718>.
28. Esplin IND, Berg JA, Sharma R, et al. Genome Sequences of 19 Novel *Erwinia amylovora* Bacteriophages. *Genome Announc* 2017;5. <https://doi.org/10.1128/genomeA.00931-17>. <https://www.ncbi.nlm.nih.gov/pubmed/29146842>.
27. Dedrick RM, Jacobs-Sera D, Bustamante CA, et al. Prophage-mediated defence against viral attack and viral counter-defence. *Nat Microbiol* 2017;2:16251. <https://doi.org/10.1038/nmicrobiol.2016.251>. <https://www.ncbi.nlm.nih.gov/pubmed/28067906>.

26. Merrill BD, Ward AT, Grose JH, Hope S. Software-based analysis of bacteriophage genomes, physical ends, and packaging strategies. *BMC Genomics* 2016;17:679. <https://doi.org/10.1186/s12864-016-3018-2>.
<https://www.ncbi.nlm.nih.gov/pubmed/27561606>.
25. Casjens SR, Grose JH. Contributions of P2- and P22-like prophages to understanding the enormous diversity and abundance of tailed bacteriophages. *Virology* 2016;496:255-76. <https://doi.org/10.1016/j.virol.2016.05.022>.
<https://www.ncbi.nlm.nih.gov/pubmed/27372181>.
24. Berg JA, Merrill BD, Crockett JT, et al. Characterization of Five Novel *Brevibacillus* Bacteriophages and Genomic Comparison of *Brevibacillus* Phages. *PLoS One* 2016;11:e0156838. <https://doi.org/10.1371/journal.pone.0156838>.
<https://www.ncbi.nlm.nih.gov/pubmed/27304881>.
23. Shefelo MA, Gardner AV, Merrill BD, et al. Correction for Shefelo et al., Complete Genome Sequences of Five *Brevibacillus laterosporus* Bacteriophages. *Genome Announc* 2015;3. <https://doi.org/10.1128/genomeA.01113-15>.
<https://www.ncbi.nlm.nih.gov/pubmed/26430035>.
22. Pope WH, Bowman CA, Russell DA, et al. Whole genome comparison of a large collection of mycobacteriophages reveals a continuum of phage genetic diversity. *Elife* 2015;4:e06416. <https://doi.org/10.7554/eLife.06416>.
<https://www.ncbi.nlm.nih.gov/pubmed/25919952>.
21. Merrill BD, Berg JA, Graves KA, et al. Genome Sequences of Five Additional *Brevibacillus laterosporus* Bacteriophages. *Genome Announc* 2015;3. <https://doi.org/10.1128/genomeA.01146-15>.
<https://www.ncbi.nlm.nih.gov/pubmed/26494658>.
20. Grose JH, Langston K, Wang X, et al. Characterization of the Cardiac Overexpression of HSPB2 Reveals Mitochondrial and Myogenic Roles Supported by a Cardiac HspB2 Interactome. *PLoS One* 2015;10:e0133994. <https://doi.org/10.1371/journal.pone.0133994>.
<https://www.ncbi.nlm.nih.gov/pubmed/26465331>.
19. DeMille D, Badal BD, Evans JB, Mathis AD, Anderson JF, Grose JH. PAS kinase is activated by direct SNF1-dependent phosphorylation and mediates inhibition of TORC1 through the phosphorylation and activation of Pbp1. *Mol Biol Cell* 2015;26:569-82. <https://doi.org/10.1091/mbc.E14-06-1088>.
<https://www.ncbi.nlm.nih.gov/pubmed/25428989>.
18. Merrill BD, Grose JH, Breakwell DP, Burnett SH. Characterization of *Paenibacillus larvae* bacteriophages and their genomic relationships to firmicute bacteriophages. *BMC Genomics* 2014;15:745. <https://doi.org/10.1186/1471-2164-15-745>.
<https://www.ncbi.nlm.nih.gov/pubmed/25174730>.
17. Grose JH, Jensen JD, Merrill BD, Fisher JN, Burnett SH, Breakwell DP. Genome Sequences of Three Novel *Bacillus cereus* Bacteriophages. *Genome Announc* 2014;2. <https://doi.org/10.1128/genomeA.01118-13>.
<https://www.ncbi.nlm.nih.gov/pubmed/24459255>.
16. Grose JH, Jensen GL, Burnett SH, Breakwell DP. Genomic comparison of 93 *Bacillus* phages reveals 12 clusters, 14 singletons and remarkable diversity. *BMC Genomics* 2014;15:855. Correction: *BMC Genomics* 2014;15:1184. <https://doi.org/10.1186/1471-2164-15-855>.
<https://www.ncbi.nlm.nih.gov/pubmed/25280881>.
15. Grose JH, Casjens SR. Understanding the enormous diversity of bacteriophages: the tailed phages that infect the bacterial family Enterobacteriaceae. *Virology* 2014;468-470:421-43. <https://doi.org/10.1016/j.virol.2014.08.024>.
<https://www.ncbi.nlm.nih.gov/pubmed/25240328>.
14. Grose JH, Belnap DM, Jensen JD, et al. The genomes, proteomes, and structures of three novel phages that infect the *Bacillus cereus* group and carry putative virulence factors. *J Virol* 2014;88:11846-60. <https://doi.org/10.1128/JVI.01364-14>.
<https://www.ncbi.nlm.nih.gov/pubmed/25100842>.
13. DeMille D, Bikman BT, Mathis AD, et al. A comprehensive protein-protein interactome for yeast PAS kinase 1 reveals direct inhibition of respiration through the phosphorylation of Cbf1. *Mol Biol Cell* 2014;25:2199-215. <https://doi.org/10.1091/mbc.E13-10-0631>.
<https://www.ncbi.nlm.nih.gov/pubmed/24850888>.
12. Banerjee Mustafi S, Grose JH, Zhang H, et al. Aggregate-prone R120GCRYAB triggers multifaceted modifications of the thioredoxin system. *Antioxid Redox Signal* 2014;20:2891-906. <https://doi.org/10.1089/ars.2013.5340>.
<https://www.ncbi.nlm.nih.gov/pubmed/24180415>.
11. Smith KC, Castro-Nallar E, Fisher JN, Breakwell DP, Grose JH, Burnett SH. Phage cluster relationships identified through single gene analysis. *BMC Genomics* 2013;14:410. <https://doi.org/10.1186/1471-2164-14-410>.
<https://www.ncbi.nlm.nih.gov/pubmed/23777341>.
10. DeMille D, Grose JH. PAS kinase: a nutrient sensing regulator of glucose homeostasis. *IUBMB Life* 2013;65:921-9. <https://doi.org/10.1002/iub.1219>.
<https://www.ncbi.nlm.nih.gov/pubmed/24265199>.

9. Breakwell DP, Barrus EZ, Benedict AB, et al. Genome sequences of five b1 subcluster mycobacteriophages. *Genome Announc* 2013;1. <https://doi.org/10.1128/genomeA.00968-13>.
<https://www.ncbi.nlm.nih.gov/pubmed/24285667>.
8. Adebayo J, Southwick T, Chetty V, Yeung E, Yuan Y, Goncalves J, Grose J, Prince J, Stan G, Warnick S. Dynamical structure function identifiability conditions enabling signal structure reconstruction. 2012 IEEE 51st IEEE Conference on Decision and Control (CDC), 4635-4641.
<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.727.2729&rep=rep1&type=pdf>
7. Grose JH, Rutter J. The role of PAS kinase in PASSing the glucose signal. *Sensors (Basel)* 2010;10:5668-82.
<https://doi.org/10.3390/s100605668>. <https://www.ncbi.nlm.nih.gov/pubmed/22219681>.
6. Grose JH, Sundwall E, Rutter J. Regulation and function of yeast PAS kinase: a role in the maintenance of cellular integrity. *Cell Cycle* 2009;8:1824-32. <https://doi.org/10.4161/cc.8.12.8799>.
<https://www.ncbi.nlm.nih.gov/pubmed/19440050>.
5. Grose JH, Smith TL, Sabic H, Rutter J. Yeast PAS kinase coordinates glucose partitioning in response to metabolic and cell integrity signaling. *EMBO J* 2007;26:4824-30. <https://doi.org/10.1038/sj.emboj.7601914>.
<https://www.ncbi.nlm.nih.gov/pubmed/17989693>.
4. Grose JH, Joss L, Velick SF, Roth JR. Evidence that feedback inhibition of NAD kinase controls responses to oxidative stress. *Proc Natl Acad Sci U S A* 2006;103:7601-6. <https://doi.org/10.1073/pnas.0602494103>.
<https://www.ncbi.nlm.nih.gov/pubmed/16682646>.
3. Grose JH, Bergthorsson U, Xu Y, Sternecker J, Khodaverdian B, Roth JR. Assimilation of nicotinamide mononucleotide requires periplasmic AphA phosphatase in *Salmonella enterica*. *J Bacteriol* 2005;187:4521-30.
<https://doi.org/10.1128/JB.187.13.4521-4530.2005>. <https://www.ncbi.nlm.nih.gov/pubmed/15968063>.
2. Grose JH, Bergthorsson U, Roth JR. Regulation of NAD synthesis by the trifunctional NadR protein of *Salmonella enterica*. *J Bacteriol* 2005;187:2774-82. <https://doi.org/10.1128/JB.187.8.2774-2782.2005>.
<https://www.ncbi.nlm.nih.gov/pubmed/15805524>.
1. Jacobsen RB, Delacruz RG, Grose JH, McIntosh JM, Yoshikami D, Olivera BM. Critical residues influence the affinity and selectivity of alpha-conotoxin MI for nicotinic acetylcholine receptors. *Biochemistry* 1999;38:13310-5.
<https://doi.org/10.1021/bi9907476>. <https://www.ncbi.nlm.nih.gov/pubmed/10529206>.

BOOK CHAPTERS (2 Peer-reviewed)

1. Grose JH. (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.
2. Grose JH and Casjens, SR. (2019) Bacteriophage Diversity. *Encyclopedia of Virology*; 4th addition. Academic Press. Cambridge Massachusetts. ISBN-13: 978-0123739353

RATIFIED INTERNATIONAL COMMITTEE ON THE TAXONOMY OF VIRUSES (ICTV) PROPOSALS (4 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. Grose, JH, Kropinski, AM, Adriaenssens, EM, Kuhn, J, Hope, S. To create one (1) new genus, Abouovirus, including two (2) new species in the family Myoviridae.
DOI - 10.13140/RG.2.2.13252.22405
5. Klumpp 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>

TELEVISION/RADIO BROADCASTS

1. Grose, JH (May 2020) "What you should know about COVID-19 and CASH". Guest on Get Gephardt, KSL TV.
2. Grose, JH (May 2019) "Finding your Purpose". BYU Devotional Speaker, International Broadcast on BYU TV.
3. Grose, JH (December 2018) "Phage therapy and Antibiotic Resistant Bacteria". Guest on BYU Top of Mind radio

show.

4. Grose, JH (April 2016) "Save a Life: Bone Marrow Donation". Guest on BYU Top of Mind radio show.
5. Grose, JH (April 2015) "Phage therapy in agriculture". Guest on Kim Powers Show radio show

RESEARCH PRESENTATIONS (2008- present; 220 total)

National/International (83 total, 2008-present)

1. Briscoe, J, Kim, M, Pattillo, C, Soule, S, Carr, E, Whitten, M, Ayers, H, Grose, JH. (2021) "Investigating the Phage Genome Packaging Strategy of AJGECKO". 2021 SEA Symposium. Hosted Virtually by the Howard Hughes Medical Institute.
2. Andrew, J, Brandt, M, Dean, J, Gurecki, A, Heaps, C, Hernandez, A, Jones, C, Marsden, I, Ayers, H, Carr, E, Flor, S, Harris, E, Soule, C, Grose, JH (2021) "Isolation and Basic Sequence Analysis of Gordonia rubripertincta Phage AJGECKO". 2021 SEA Symposium. Hosted Virtually by the Howard Hughes Medical Institute.
3. Abbott, KL, Aldous, S, Bell, A, Folsom, P, Owen, D, Smith, A, Stewart, JB, Brown, HM, Newey, C, Eberhard, N, Grose, JH. (2021) "Isolation and Analysis of Gordonia phage SummitAcademy". 2021 SEA Symposium. 2021 SEA Symposium. Hosted Virtually by the Howard Hughes Medical Institute.
4. Brandt, M, Green, C, Rolfson, A, Parker, C, Whitten, M, Griffin, H, Carr, E, Ayers, H, Grose, JH. (2021) "Characterizing Gordonia phage AJGECKO Through Lifecycle Analysis." 2021 SEA Symposium. Hosted Virtually by the Howard Hughes Medical Institute.
5. Moulton, R, Wolthuis, S, Nagidi, SH, Shaner, C, Lee, H, Augenstein, E, Flor, S, Grose, JH. (2021) "Mass spectrometry analysis of Gordonia phage AJGECKO" 2021 SEA Symposium. Hosted Virtually by the Howard Hughes Medical Institute.
6. Carr, E, Cobbley, H, Cranston, A, Danielson, P, Eberhard, N, Gordon, B, Rallison, J, Wells, L, Wolthuis, S, Zaugg, E, Grose, JH. "Burst Size and Lifecycle Timing of Gordonia rubripertincta Bacteriophage SummitAcademy". 2021 SEA Symposium. Hosted Virtually by the Howard Hughes Medical Institute.
7. Grose, JH. (2019) PAS kinase as a putative therapeutic target for the treatment of ALS. Invited seminar speaker, Johns Hopkins University Packard Center for ALS research, Baltimore, Maryland
8. Gitler, AD and Grose, JH. (2019) New Genome-wide Approaches to define C9ORF72 function and role in ALS. Annual Robert Packard Center for ALS Research Symposium. Baltimore, Maryland
9. Newey, C, and Grose, JH. (2019) PAS kinase as a Potential Therapeutic Target for Treating Metabolic Disease. World Conference for Undergraduate Research. Germany
10. Grose JH. (2019) Microbial Biotechnology in the Face of Industrial Revolution 4.0. International Conference on Green Agroindustry and Bioeconomy. Malang, Indonesia
11. Grose JH. (2019) Phighting Fireblight with Phage. Balijestro Research Institute for Citrus and Subtropical Fruits. East Java, Indonesia
12. Grose JH. (2019) Current Virology. Three in one Program Keynote. Brawijaya University, Malang, Indonesia
13. Grose JH. (2019) Manipulating the Microbiome in Veterinary Care. Brawijaya University Veterinary School, Malang, Indonesia
14. Grose JH. (2019) Phighting Fireblight with Phage. Satya Wacana Christian University. Jojakarta, Indonesia
15. Grose, JH. (2019) Fire Quencher: a Microbiome Replacement Therapy for Apple Trees. Second International Symposium on Fire Blight in Roseaceous Plants. Traverse City, Michigan
16. Carr, E, Breakwell, DP and Grose, JH. Isolating Mycobacteriophages from Raw Sewage for Greater Clinical Significance. (2019) 11th Annual SEA-Phages Symposium, Ashburn, Virginia
17. Thompson, D, Grose JH. (2019) The toolkit utilized by bacteriophages to infect and lyse bacteria. Second International Symposium on Fire Blight in Roseaceous Plants. Traverse City, Michigan
18. Grose, JH. (2018) Uncovering a protein kinase signaling pathway for PASSing glucose. IMYA 13th International Meeting on Yeast Aging and Apoptosis, Leuven, Belgium
19. Grose, JH. (2018) Phighting Phire Blight with Phage. 9th annual International Pest Management (IPM) Symposium. Baltimore, Maryland
20. Potts, E, Thurgood, T, Thompson, D, Breakwell, DP and Grose JH. (2018) Searching for Jumbo Bacteriophages that Infect Mycobacterium. 10th Annual SEA-Phages Symposium, Ashburn, Virginia
21. Grose, JH. (2018) Exploring a protein kinases of ATAXIN-2 as a potential therapeutic target. John's Hopkins University Packard Center Investigator's Meeting, Baltimore, Maryland
22. Gitler, AD and Grose, JH. (2018) Identifying kinase regulators of Ataxin-2. 18th Annual Robert Packard Center for ALS Research Symposium. Baltimore, Maryland
23. Grose, JH. (2018) The role of PAS kinase in PASSing Glucose. (2018) Analytical Genetics Meeting, San Diego, California

24. Grose, JH. (2018) The role of PAS kinase in PASSing Respiration. Rowan University Departmental Seminar Series, Glassboro, New Jersey.
25. Pielstick BC, Arens D, Pape J and Grose JH. (2018) The Effects of PAS kinase and Cbf1 on Cellular Respiration. The Beckman Foundation Annual Symposium. San Francisco, California
26. Potts, E, Thurgood, T, Thompson, D, Breakwell, DP and Grose JH. (2018) Searching for Jumbo Bacteriophages that Infect Mycobacterium. 10th Annual SEA-Phages Symposium, Ashburn, Virginia
27. Arens, D, and Grose JH. (2018) Ecological niche plays major role in determining host specificity of two novel jumbo *Erwinia myovirus*s. Analytical Genetics Meeting, San Diego, California
28. Thompson, D, and Grose JH. (2018) Fighting FireBlight with Phages. (2018) Analytical Genetics Meeting, San Diego, California
29. Pape, J, and Grose JH. (2018) PAS kinase and Cbf1/USF1 alter cellular respiration through ATP synthase. 2018 Analytical Genetics Meeting, San Diego, California
30. Colby, BA, and Grose JH. (2018) Novel regulators of Cellular Respiration Revealed through a suppressor screen. Analytical Genetics Meeting, San Diego, California
31. Ong, K and Grose JH. (2018) Understanding AMPK-oxysterol binding protein signaling in controlling cell death and mitochondrial function using *Saccharomyces cerevisiae* model. Analytical Genetics Meeting, San Diego, California
32. Grose, JH. (2017) Phighting FireBlight with Phage. Western Region IR-4 Biopesticides Meeting. Denver, Colorado
33. Grose, JH. (2017) PAS kinase: PASSing Glucose and Cell Death. 12th International meeting on Yeast Apoptosis. Bari, Italy.
34. 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, Virginia
35. 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, Virginia
36. Azadani, DN, Pray, R, Ramirez, J, Grose, JH and Hatherill, JR. (2017) Slowing Antibiotic Resistance with EnteroSword. NSF Community College Innovation Challenge Boot Camp, Arlington, Virginia
37. Ong, KL, Rees, A, Franson, J, White, J, Hilton, A, Choksi, N, Pattison, J, Nickle, T, Laub, S, Harris, M, Dallan, B, Bikman, B, Bridgewater, L, Grose JH. (2017) PAS kinase deficient mice display increased rates of cellular respiration. Keystone Mitochondria Communication, Taos, New Mexico
38. Pattison, J, DeMille, D, Bikman, B, and Grose JH. (2017). The Role of PAS kinase in Cellular Respiration. Keystone Mitochondria Communication, Taos, New Mexico.
39. Grose, JH. (2016) PAS kinase: A key to PASSing respiration. LDS Lifescience Research Symposium. Lehi, Utah
40. Franson, J, White, J, 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
41. Pattison, J, DeMille, D, Bikman, B, and Grose JH. (2016) The Role of PAS kinase in Cellular Respiration. LDS Lifescience Research Symposium. Lehi, Utah
42. Zhao, J, Grossarth, S, Bridgewater, L, Grose JH. (2016) Phage hunting through the human gut. Phage Phield Day, Provo, Utah
43. Esplin, I, Grose, JH. (2016) Fighting Fire with Phages. Phage Phield Day, Provo, Utah
44. Allen, R, Bybee, RN, Furhman, DA, Ririe, DB, Thomson, SE, Usher, BK, Breakwell, DP, Sharma, R, Putnam, R, Grose, JH. (2016) Genomic characterization and comparison of five different families of bacteriophages infecting *Erwinia amylovora*. Phage Phield Day, Provo, Utah.
45. Kruger, J, Tatlow, PJ, Grose, JH. (2016) Isolation and Characterization of Deimos-Minion, the Largest *Erwinia amylovora* Bacteriophage. Phage Phield Day, Provo, Utah
46. 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
47. 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
48. 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, Virginia
49. 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

50. 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
51. DeMille D, Pattison, Jand Grose, JH. (2016) The Role of PAS kinase in Cellular Respiration. Analytical Genetics Meeting, Rotorua, New Zealand
52. Grose, JH. (2016) Phage Therapy for Roseaceae plants. Western region IR-4 meeting Denver, Colorado
53. Grose JH (2015) PAS kinase: PASSing glucose. Invited Departmental eminar. Washington University, Illinois
54. Grose JH. (2015) Fire Quencher: A Phage-based Treatment for Fire Blight. Podium presentation. IR-4/USDA Biopesticides Workshop. Atlanta, Georgia
55. Mathews, M8 and Grose JH (2015) FireQuencher: A phage-based therapy for fire blight. IR-4 Biopesticide Workshop, Atlanta, Georgia
56. Grose JH (2015) Investigating the Relationships of Bacteriophages with a Class Reveals Obvious Borders Between Bacterial Orders, 8th Annual SEA-Phages Symposium. HHMI Janelia Farms, Virginia
57. Berg, J, Esplin, E, Breakwell, DP, Hope, S, Grose, JH. (2015) Isolation and Characterization of *Paenibacillus larvae* and *Brevibacillus laterosporus* Bacteriophages to Understand Their Evolutionary Relationships. 7th Annual SEA-Phages Symposium, Ashburn, Virginia
58. DeMille D, Bikman B, and Grose JH (2015) The role of PAS kinase in controlling cellular respiration. Cell Symposia: Multifaceted Mitochondria, Chicago, Illinois
59. Hancock, J, Cook, M, Grose, JH., Bridgewater, L. (2015) Role of PAS kinase and metabolism on immune cells. Autumn Immunology Conference Chicago, Illinois.
60. Wiencław 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, Virginia
61. Grose JH. (2014) PASSing glucose: Balancing the Cellular Budget. Oral Presentation. Center for Microbial Sciences, SDSU, California
62. 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*
63. 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, Virginia
64. Ferguson, NC, Irons, DL, Marlow, SC, McCord, TM, Herring JA, Deus LM, Mancini 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, Virginia
65. Jensen, JD, Fisher, JNB, Grose, JH, Burnett, SH, and Breakwell, DP. (2013) Isolation and Characterization of Three Novel Bacteriophages of *Bacillus cereus*. American Society for Microbiology General Meeting, Denver, Colorado
66. 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. Analytical Genetics Meeting Alta, Utah
67. 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, Utah
68. Mackay, J, DeMille, D, and Grose JH. (2013) Uncovering Regulation and Function of the Yeast NAD Kinase Utr1. Poster presentation. Analytical Genetics Meeting, Alta, Utah
69. 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, Cambridge, Massachusetts
70. 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 Championship Jamboree*

71. 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, Stanford, California
72. 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, New Jersey
73. Chetty, V, D, Abedayo, J, 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. Foundations of Systems Biology and Engineering FOSBE), Keio University, Japan
74. 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. US HUPO: The Future of Proteomics, New Mexico
75. 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. Howard Hughes Medical Institute 4th Annual Phage Symposium, Ashburn, Virginia
76. 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, Utah
77. 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. National Conference for Undergraduate Research (NCUR), Weber State University, Utah
78. 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.. National Conference for Undergraduate Research (NCUR), Weber State University, Utah
79. 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. National Conference for Undergraduate Research (NCUR), Weber State University, Utah
80. Brighton, AK, 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. Howard Hughes Medical Institute Third Annual Phage Symposium, Ashburn, Virginia
81. Grose, JH, Breakwell, DP, and Burnett, SH. (2011) Out of the SEA: Getting Students to Crawl on Land. Howard Hughes Medical Institute Third Annual Phage Symposium, Ashburn, Virginia
82. Grose, JH. (2011) The Role of PAS Kinase in PASSing Cellular Glucose. Analytical Genetic Meeting, Carmona, Spain
83. DeMille, D, Mackay, J, Gessel, A, Lawrence, E, Hall, T, and Grose J.H. (2011) The Role of Yeast PAS kinase in Metabolic Regulation. Analytical Genetic Meeting, Carmona, Spain
84. Biggs, M, Roberts, JA, Sabin, D, Sabin, M, Merrill, M, Alley, A, Chamberlain, C, Adebayo, J, Kooyman, DL, and Grose, JH. (2011) E. colonoscopy. Podium and poster presentation. iGEM Worldchampionship Jamboree, MIT, Boston, Massachusetts
85. Biggs, M, Roberts, JA, Sabin, D, Sabin, M, Merrill, M, 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 Championship Jamboree*
86. Swenson, C, Breakwell DP and Grose, JH. (2010) Mendelian Segregation of Alleles in *Saccharomyces cerevisiae*. ASMCUE, UC San Diego, California
87. Grose, JH. (2009) PASSing Glucose- the Role of PAS Kinase in Regulating Cellular Glucose Metabolism. Analytical Genetic Meeting, Asilomar, California
88. Breakwell, DP, and Grose, JH. (2009) The NAD Cycle: Exercises for Teaching Biosynthetic Pathways. ASMCUE, Colorado State University, Colorado
89. Grose, JH, and Breakwell, DP. (2009) A Modified Ames Test to Teach Mutations and Mutagens.. ASMCUE, Fort Collins, Colorado State University, Colorado

Regional/Local (2008- present, 131 total)

1. Sirrine, M, and Grose JH. (2020) Finding the interactors of Cbf1 and its role in the regulation of respiration and lipid biosynthesis. Utah Conference for Undergraduate Research (UCUR), Weber State University, Utah
2. Barnett, L, Hoopes, W, Nielson, N, Colby, B, Farnsworth, R, Kiser K, Jarvis, J, and Grose JH. (2019) Understanding the functions of CryAB and its role in disease. Utah Conference for Undergraduate Research (UCUR), Weber State University, Utah
3. Carr, E., Grose, J.H (2019) Discovery of Geographical Gene Variants in Related *Pseudomonas aeruginosa* Bacteriophages. Utah Conference for Undergraduate Research (UCUR), Weber State University, Utah
4. Flor, S., Loertscher, E., Urrea, L., Tovar, K., Melhado, E., Sharma, R., Thurgood, T., Grose, J.H. (2019) Isolating Bacteriophages to Combat Pathogenic Bacteria. Utah Conference for Undergraduate Research (UCUR), Weber State University, Utah
5. Gaertner, R and Grose, JH. (2019) A Better Understanding of Viruses Means Furthering Medicinal Technology. Utah Conference for Undergraduate Research (UCUR), Weber State University, Utah
6. Barnett, L, Hoopes, W, Nielson, N, Colby, B, Farnsworth, R, Kiser K, Jarvis, J, and Grose JH. (2019) Understanding the functions of CryAB and its role in disease. Poster Conference for Undergraduate Research Awards (CURA), Brigham Young University, Utah
7. Arens, D and Grose JH. (2019) Characterizing novel pathways at the pivotal point for controlling the balance between respiration and lipid biosynthesis in yeast. Intermountain Branch American Society for Microbiology (ASM) Meeting. Brigham Young University, Provo, Utah
8. Newey, C, Pape, J and Grose, JH. (2019) PAS kinase as a Potential Therapeutic Target for Metabolic Diseases. Intermountain Branch American Society for Microbiology (ASM) Meeting. Brigham Young University, Provo, Utah
9. Carr, E, Carter, N, Gleave, A, Loertscher, E, Melhado, E, Hope, S, Breakwell DP, and Grose, JH. (2019) Characterization of 12 Bacteriophage Families Based on Distinct Protein Profile. 2019 Intermountain ASM Meeting, Provo, Utah
10. Carr, E, Carter, N, Gaertner, R, Gleave, A, Rodriguez, A, Loertscher, E, Melhado, E, Hope, S, Breakwell, DP, and Julianne H. Grose. (2019) Discovery of Novel but Ubiquitous Family of Serratia Siphoviridae Phages. 2019 Intermountain ASM Meeting, Provo, Utah
11. Divis, T, Elton, D, Flor, S, Hanis, T, Moe, B, Robinson, C, Stoker, T, Kruger, JL, Uricoechea, L, Thurgood, TL, Hope, S, Breakwell, DP, Grose, JH. (2019) Discovering Antibiotic-Resistant Genes in Bacteriophages. 2019 Intermountain ASM Meeting, Provo, Utah
12. Davis, R, Dotter, D, Gaertner, R, Taylor, A, Thurgood, TL, Hope, S, Breakwell, DP, Grose, JH. (2019) Characterization of Novel Serratia marcescens Bacteriophage Family: FaintSaint and Tlacuache. 2019 Intermountain ASM Meeting, Provo, Utah
13. Chamberlain JD, Ellis KJ, Abrams S, Allen C, Calder B, Carter O, Clarke T, Cluff E, Davis B, Doxey E, Eastley D, Hendricks MC, Merrill B, Miller P, O'Brien C, Ochsner R, Olsen H, Phillips H, Riddle A, Routsong J, Torgersen K, Wadsworth S, Weatherred M, Weeks S, Hope S, Grose JH, Breakwell, DP. (2019) Phages Infect, But Not All Phages Infect Absolutely. Or Something Like That. 2019 Intermountain ASM Meeting, Provo, Utah
14. Olsen H, Weatherred M, Abrams S, Allen C, Calder B, Carter O, Clarke T, Cluff E, Davies B, Doxey E, Eastley D, Hendricks MC, Merrill B, Miller P, O'Brien C, Ochsner R, Phillips H, Riddle A, Routsong J, Torgersen K, Wadsworth S, Weeks S, Chamberlain JD, Ellis KJ, Hope S, Grose JH, Breakwell, DP. (2019) The Genome of Squally, A Novel T4-like Sinorhizobium meliloti Phage. 2019 Intermountain ASM Meeting, Provo, Utah
15. Boyd, KD, Boyd, C, Hamula, J, Alger, TJ, Keshek, C, Hope, S, Grose, JH, Breakwell, DP. (2019) Novel Protein Interaction Screen with Bacteriophage. 2019 Intermountain ASM Meeting, Provo, Utah
16. Rodriguez, Carr, EL, Gaertner, R, Hope, S, Breakwell, DP, Grose, JH. (2019) Isolation and Characterization of Novel but Ubiquitous Family of Serratia Phages. 2019 Intermountain ASM Meeting, Provo, Utah
17. Gleave, A, Carr, EL, Hope, S, Breakwell, DP, Grose, JH. (2019) Characterization of 18 Bacteriophage Families Based on Distinct Protein Profile. 2019 Intermountain ASM Meeting, Provo, Utah
18. Thurgood, T, Robison, R, Grose, JH. (2019) A Case Study of Phage Therapy in Response to Multi-Antibiotic-Resistant Bacterial Infections. 2019 Intermountain ASM Meeting, Provo, Utah
19. Thompson, DW, Grose, JH. (2019) Phighting Phytopathogens with Phage. 2019 Intermountain ASM Meeting, Provo, Utah
20. Rodriguez, A, Allen, K, Hope, S, Breakwell, DP, Grose, JH. (2019) Characterization of diversity in T-4 like Bacteriophages. 2019 Intermountain ASM Meeting, Provo, Utah.
21. Brundage, B, Findley, JM, Larson, W, Hope, S, Breakwell, DP, Grose, JH. (2019) PCR analysis of widespread human fecal samples to identify common bacteriophage. 2019 Intermountain ASM Meeting, Provo, Utah
22. Pielstick, B, Pape J and Grose JH. (2018) Investigating a novel unknown controller of respiration. Utah Conference for Undergraduate Research (UCUR), Weber State University, Utah

23. Arens, D and Grose, JH. (2018) Characterizing novel pathways at the pivotal point for controlling the balance between respiration and triglyceride biosynthesis in yeast. Tri-branch ASM meeting, Durango, Colorado
24. Pape, J, and Grose JH. (2018) PAS kinase and Cbf1/USF1 alter cellular respiration through ATP synthase. Tri-branch ASM meeting, Durango, Colorado
25. Roark, B, Choksi, N, and Grose JH. (2018) Using Yeast to Uncover a Critical Pathway Involved in Neurodegenerative Disease. Tri-branch ASM meeting, Durango, Colorado
26. Pielstick, B, Arens, D, Pape, J, and Grose JH. (2018) Novel Regulators of Cellular Respiration Revealed Through a Suppressor Screen. Tri-branch ASM meeting, Durango, Colorado
27. Flake, P, Sharma, R, and Grose JH. (2018) Quantifying biological “dark matter”: novel hypothetical proteins encoded by the phages that infect the Enterobacteriaceae family. Tri-branch ASM meeting, Durango, Colorado
28. Thurgood, T, and Grose JH. (2018) Regulation of cellular apoptotic pathway through phosphorylation of apoptosis-related protein BI-1 by metabolic protein Per-Arnt-Sim Kinase (PASK). Tri-branch ASM meeting, Durango, Colorado
29. Fajardo C, Meredith S, Roll C, Griffiths JS, Hope S, Grose JH, and Breakwell DP. (2018) Proof of Concept: Determining Phage Adsorption Using Flow Cytometry. Tri-branch ASM meeting, Durango, Colorado
30. Whitlock, T, Greene, N, Creaser, I, Knowles, A, Dalton KD, Nelson, N, Barton, K, Bateman, J, Quist, N, Hendrickson, J, Ellis, K, Chamberlain, N, Jenkins, J, Fajardo, C, Fuhrman, DA, Griffiths JS, Hope S, Grose JH, and Breakwell DP. (2018) The genomes of CW76, a unique phage, and XTREME, a T4-like phage infecting *Sinorhizobium meliloti*. Tri-branch ASM meeting, Durango, Colorado
31. Jenkins, J, Whitlock, T, Greene, N, Creaser, I, Knowles, A, Dalton KD, Nelson, N, Barton, K, Bateman, J, Quist, N, Hendrickson, J, Ellis, K, Chamberlain, N, Fajardo, C, Fuhrman, DA, Griffiths JS, Hope S, Grose JH, and Breakwell DP. (2018) Host Range and Receptor Binding of 13 Newly-Isolated Phages Infecting *Sinorhizobium meliloti*. Tri-branch ASM meeting, Durango, Colorado
32. Birch, EK, Brantley, SB, Eberhard, BD, Fairholm, JD, Flindt, K, Foster, KW, Himes, SR, Ruesch, S, Uriceochea Urrea, LV, Thurgood, T, Breakwell, DP, Hope, S and Grose JH. (2018) Novel Application of Common Genetic Screening Technique Used to Characterize Phage Proteins and Assign Putative Functions. Tri-branch ASM meeting, Durango, Colorado
33. Doney, J, Hadden, R, Holmstead, J, Eardley, R, Hansen, E, Grose JH. (2018) Developing a phage therapy for Anthrax. Tri-branch ASM meeting, Durango, Colorado
34. Anderson, K, Barker, A, Carroll, M, Hogan, T, Nieman, T, Parsons, M, Simister, A, Steffensen, A, Todd, J, Breakwell, DP, Hope, S and Grose JH. (2018) Screening for antibiotic-resistance genes in a sewage phage population. Tri-branch ASM meeting, Durango, Colorado
35. Melhado, E, Chow, J, Wiley, M, Sarabia, R, Standing, S, Breakwell, DP, Hope, S and Grose JH. (2018) Isolation and Characterization of Sewage Phages. Tri-branch ASM meeting, Durango, Colorado
36. Hyer, MG, Call, JJ, Dawson, DD, Chronis, JD, Ayala, MA, Finnegan, Z, Fox, A, Hielscher, T, Yeates, EL, Breakwell, DP, Hope, S and Grose JH. (2018) Identification of promiscuous sewage phage. Tri-branch ASM meeting, Durango, Colorado
37. Potts, E, Sirrine, M, Meeks, T, Rodriguez, W, Wilkey, A, Tovar, K, Porter, M, Lambert, A, Yeates, E, Breakwell, DP, Hope, S and Grose JH. (2018) A phage-based strategy for safe and effective treatment of antibiotic-resistant bacteria. Tri-branch ASM meeting, Durango, Colorado
38. Yeates, E, Nieman, T, Sharma, R, and Grose JH. (2018) A comparison of three families of bacteriophages that infect *Erwinia amylovora*. Tri-branch ASM meeting, Durango, Colorado
39. Grose, JH. (2017) PASSing respiration: the role of PAS kinase in inhibiting respiration and the consequences in diabetes. Utah Valley University, Utah
40. Grose, JH. (2017) Phighting Phireblight with Phage. Intermountain Branch ASM meeting, Weber State University, Utah
41. 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, Utah
42. 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, UT
43. 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, Utah
44. 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, Utah
45. Colby, B, Stubbs, O, Bell, K, Rader, 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, Utah
46. Ng, CWD, Malmrose, J, Ong, KL and Grose, JH. (2017) Understanding the Functions of Oxysterol Binding Protein using Yeast Model. Intermountain Branch ASM meeting, Weber State University, Utah
 47. 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, Utah
 48. 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, Utah
 49. 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, Utah
 50. 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, Utah
 51. 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, Utah
 52. 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, Utah
 53. 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, Utah
 54. Choi, M, Ferguson, H, and Grose, JH. (2017) The Natural Bacterial Flora of a Healthy Apple Tree. Intermountain Branch ASM meeting, Weber State University, Utah
 55. Ong, KL, Christensen, M, Ng, CWD, 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, Utah
 56. 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.
 57. Sharma, R, and Grose, JH. (2017) Deimos-Minion: A Phage So Big it is Hard To See. Intermountain Branch ASM meeting, Weber State University, Utah
 58. 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, Utah
 59. 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, Utah
 60. Harris, N, Hurst, E, James, B, Pollock, S, Smith, H, Webb, C, Fajardo, C, Hilton, J, Ward, A, Grose, JH, Breakwell, DP, Hope, S. (2016) Genomic Characterization of Honeybear and Related Phage Toothless. Intermountain Branch ASM Meeting, SLC, Utah
 61. Kruger, J, Tatlow, PJ, Grose, JH. (2016) Isolation and Characterization of Deimos-Minion, the Largest Erwinia amylovora Bacteriophage. Utah Conference for Undergraduate Research, Salt Lake City, Utah
 62. White, J, 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
 63. White, J, Franson, J, Rees, A, Hilton, A, Ong, KL, Choksi, N, Resolme, J, Zhao, J, Grose JH, Bridgewater, L. (2016) PAS kinase and its Role in the Development of Diabetes and Obesity in Mice. Utah Conference for Undergraduate Research (UCUR), Weber State University, Utah
 64. Harris, K, Evans, B, Andros, T, Grose JH, (2015) Yeast PAS kinase as a Model for Cellular Control. Utah Conference for Undergraduate Research (UCUR), Weber State University, Utah
 65. Pattison, J, Grose JH, (2015) 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*. Utah Conference for Undergraduate Research (UCUR), Weber State University, Utah
 66. Barnett, D, Grose JH, (2015) Regulation of NAD kinase by PAS kinase. Utah Conference for Undergraduate Research (UCUR), Weber State University, Utah
 67. DeMille, D, Bikman, B, and Grose JH. (2015) The Role of Yeast PAS Kinase in Controlling Cellular Respiration through Cbf1. Tri-branch ASM meeting, Fort Collins, Colorado State University, Colorado
 68. Pattison, J, DeMille, D, Bikman, B, and Grose, JH. (2015) 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*. Tri-branch ASM meeting, Fort Collins, Colorado State University, Colorado
 69. 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, Colorado
70. Barnett, D, and Grose JH (2015) The Role of Yeast PAS Kinase in NAD Homeostasis. Tri-branch ASM meeting, Fort Collins, Colorado State University, C Colorado
 71. 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, Colorado
 72. Esplin, I, and Grose JH. (2015) Study of Novel E. amylovora Phages to Reveal Host Coevolution and Test Phage Therapy as a Treatment for Fire Blight. Tri-branch ASM meeting, Fort Collins, Colorado State University, Colorado
 73. Crockett, JT, Esplin KE, Hyde, JR, Grose, JH, Donald P. Breakwell, Sandra Hope. Brevibacillus Bacteriophages Xane and Jenst Reveal a DNA Motif Indicating a Gene Regulatory Sequence. (2015) Tri-branch ASM meeting, Fort Collins, Colorado State University, Colorado
 74. 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, Fort Collins, Colorado State University, Colorado
 75. 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. Tri-branch ASM meeting, Fort Collins, Colorado State University, Colorado Third place best poster presentation
 76. 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. Tri-branch ASM meeting, Fort Collins, Colorado State University, Colorado
 77. Ferguson, H, Krugar, J, Burnett, SD, Breakwell, DP, and Grose JG. Isolation and analysis of two Erwinia phages and their relationship to phages that infect the Enterobacteriaceae and Pseudomonaceae Family. (2015) Tri-branch ASM meeting, Fort Collins, Colorado State University, Colorado
 78. Rees, A, White, J, Ong, KL, Hilton, A, Choksi, N, Franson, J, Bridgewater, LB, and Grose, JH. (2015). The role of PAS kinase and the Gut Microbiome on Metabolism and Obesity Onset in Mice. Tri-branch ASM meeting, Fort Collins, Colorado State
 79. Barnett, D and Grose JH. (2014) Regulation of UTR1 by PAS kinase and the Effects on Cell Growth and Proliferation. BYU Cancer Research Center Retreat, BYU, Provo, Utah
 80. 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, Utah
 81. Anderson, J. and Grose JH. (2014) Interplay Between the Yeast Nutrient Sensing Kinases TORC1, AMPK, and PAS kinase. BYU Cancer Research Center Retreat, BYU, Provo, Utah
 82. Jarvis, T, Esplin, I, and Grose JH. (2014) Isolation and Characterization of 11 Erwinia amylovora Phages. ASM Intermountain Branch Meeting, BYU, Provo, Utah, Best oral presentation
 83. Anderson, J, and Grose JH. (2014) Interplay Between the Yeast Sensory Kinases TOR, Snf1 and PAS Kinase. ASM Intermountain Branch Meeting, BYU, Provo, Utah
 84. 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. ASM Intermountain Branch Meeting, BYU, Provo, Utah Runner up best poster presentation
 85. Hayes, WH, Langston, K, and Grose, JH. (2014) Characterization of Disease-associated HspB2 and CryAB Variants Reveals Chaperone Dysfunction. ASM Intermountain Branch Meeting, BYU, Provo, Utah
 86. Harris, KE, Crist, AC, and Grose JH. (2014) Identifying Unique Roles of PAS Kinase. ASM Intermountain Branch Meeting, BYU, Provo, Utah
 87. 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. ASM Intermountain Branch Meeting, BYU, Provo, Utah
 88. 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. ASM Intermountain Branch Meeting, BYU, Provo, Utah
 89. 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. ASM Intermountain Branch Meeting, BYU, Provo, Utah.
 90. 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. ASM Intermountain Branch Meeting, BYU, Provo, Utah
 91. 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. ASM Intermountain Branch Meeting, BYU, Provo, Utah
92. Grose JH, (2013) The Role of Sensory Protein Kinases in Cancer. BYU Cancer Research Center Summer Symposium, Provo, Utah
 93. Badal, B, and Grose JH. (2013) Snf1 Directly Phosphorylates and Activates Yeast PAS Kinase. Podium presentations. ASM Intermountain Branch Meeting, Idaho State University, Idaho
 94. 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 Colon Cancer Detection. Podium presentation, ASM Intermountain Branch Meeting, Idaho State University, Idaho
 95. 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, Idaho
 96. Bevard, K, Thornock, S, Collins, G, Ramsey, M, and Grose JH. (2013) Characterizing Yeast PAS Kinase Through Random Mutagenesis. Utah Undergraduate Conference for Research, Utah State University, Utah
 97. Grose, JH. Molecular Biology and Genetics. (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018) Oral presentation. Expanding Your Horizons, Utah Valley University, Utah
 98. DeMille, D, and Grose, JH. (2012) New Roles for PAS kinase Revealed Through Protein- protein Interaction Studies.. Intermountain Branch ASM meeting, Idaho State University, Idaho. Best Biomedical Oral Presentation
 99. 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. Intermountain Branch ASM Meeting, Idaho State University, Idaho
 100. Findley, R, Thornock, S, Bevard, K, and Grose, JH. (2012) The Regulation of PAS kinase, a Key Sensory Kinase Required for Glucose Homeostasis.. Intermountain Branch ASM Meeting, Idaho State University, Idaho
 101. Price, K, Chapman, K, Cutler, C, Hoops, W, Lee, S, Nguyen, J, and Grose, JH. (2012) Molecular Mechanisms of R120G CryAB-induced Cardiomyopathy. Intermountain Branch ASM Meeting, Idaho State University, Idaho
 102. 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, Idaho
 103. 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.. Intermountain Branch ASM Meeting, Idaho State University, Idaho
 104. Buckley, A, Cabeza Pezoa, Y, Fullwood, R, Hecht, K, Jackson, K, and Grose, JH. (2012) E. colera: A Cholera Detection and Elimination system.. Intermountain Branch ASM Meeting, Idaho State University, Idaho
 105. 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, Idaho
 106. 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, Idaho
 107. 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, Idaho
 108. 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, Idaho
 109. 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. ASM Intermountain Branch Meeting, Idaho State University, Idaho
 110. Grose, JH. (2012) E. colonoscopy: Synthetic Biology as a Platform for Learning.. Current Topics in Chemistry, Brigham Young University, Utah
 111. DeMille, D, and Grose J.H. (2012) The Role of Yeast PAS kinase in PASSing Glucose. MMBIO Graduate Student Retreat, BYU, Utah
 112. Grose, JH. Evidence for Disparate Yet Overlapping Function for the Small Heat Shock Proteins CryAB and HspB2. (2011) Protein Aggregation Disease (PAD) Interest Group, University of Utah,

113. DeMille, D, and Grose JH. (2011) The Role of Yeast PAS kinase in Metabolic Regulation. MMBIO Graduate Student Retreat, BYU, Utah
114. 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. Utah Conference for Undergraduate Research (UCUR), Weber State University, Utah
115. Biggs, M, Roberts, JA, Sabin, D, Sabin, M, Merrill, M, Alley, A, Chamberlain, C, Adebayo, J, Williams, L, Kooyman, DL and Grose, JH. (2011) Evolving a Thermoswitch Sensitive to Narrow Temperature Shifts. IBE Western Regional Student Conference, Utah State University, Utah. Best Biomedical Presentation
116. DeMille, D, and Grose JH. (2011) The Role of Yeast PAS kinase in Metabolic Regulation. (2011) ASM Intermountain Branch Meeting, Weber State University, UT.
117. Jarvis, K, Weist, K, Van De Graaff, S, Cutter, C, Chapman, K, Neubert, J, Benjamin, I and Grose, JH. (2011) Discovering Pathways Involved in alpha/B-crystalline Dependent Cardiomyopathy. ASM Intermountain Branch Meeting, Weber State University, Utah
118. Mackay, J, Sowa, S, Loeb, S, Haines, C, and Grose JH. (2011) Finding Interacting Partners for PAS kinase. ASM Intermountain Branch Meeting, Weber State University, UT.
119. 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. ASM Intermountain Branch Meeting, Weber State University, Utah
120. Barrus, EZ, Sheide, MG, Taylor, MA, Fisher, J, and Lunt, B, Burnett, SH, Grose, JH. and Breakwell, DP. (2011) Shauna1 Mycobacteriophage Holin Gene Confirms Common Ancestry of All F cluster Phage. Poster presentation. ASM Intermountain Branch Meeting, Weber State University, Utah
121. 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, Utah
122. Smith, KC, Burnett, SH, Grose, JH, and Breakwell, DP. (2011) Degenerate PCR Primers to Identify Mycobacteriophage Clusters and Sub-Clusters. ASM Intermountain Branch Meeting, Weber State University, Utah
123. 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. ASM Intermountain Branch Meeting, Weber State University, Utah
124. 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. ASM Intermountain Branch Meeting, Weber State University, Utah
125. Grose, JH. (2011) Identifying Novel Binding Partners for CryAB. Protein Aggregation Disease (PAD) Interest Group, University of Utah, Utah
126. Sowa, S, Harris, KT, and Grose JH. (2010) A Yeast Two-hybrid Screen for Novel PAS Kinase Substrates. ASM Intermountain Branch Meeting, Brigham Young University, Utah
127. Johnson, C, and Grose, JH. (2010) Redox Currency, NAD/NADP Biosynthesis and Function. Poster presentation. ASM Intermountain Branch Meeting, Brigham Young University, Utah
128. Jarvis, K, Neubert, JC, and Grose JH. (2010) Yeast as a Model for Studying R120G- CryAB Cardiomyopathy. ASM Intermountain Branch Meeting, Brigham Young University, UT.
129. Grose, JH. (2010) *Saccharomyces cerevisiae* as a Model for Studying Protein Aggregation Cardiomyopathy. Protein Aggregation Disease (PAD) Interest Group, University of Utah, UT.
130. Grose, JH. (2009) Functional Clustering: Can it Identify New Roles for an Old Molecule (NAD)? Bacterial Supergroup, Brigham Young University, Utah
131. Grose, JH. (2008) NAD(P) Metabolism; the Center of Cellular Control. Bacterial Supergroup, Brigham Young University, Utah

GENBANK GENOME PUBLICATIONS

The following are 102 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 name (bacterial host)	Accession #	Authors
2020	KaAlpha (<i>Klebsiella</i> phage)	MN013084	Anderson,K.J., Thurgood,T.L., Sharma,R., Arens,D.K., Kruger,J.L., Thompson,D.W., Casjens,S. and Grose,J.H.
2020	KaOmega (<i>Klebsiella</i> phage)	MN013077	Anderson,K.J., Thurgood,T., Sharma,R., Arens,D.K., Thompson,D.W., Kruger,J.L. and Grose,J.H.
2020	Derbicus (<i>Erwinia</i> phage)	NC_048173	Webb,C.J., Sharma,R., Berg,J.A., Payne,A.M., Fajardo,C.P. Breakwell,D.P., Hope,S. and Grose,J.H
2019	Emp27 (<i>Klebsiella</i> phage)	MN013074	Potts,E., Thurgood,T.L., Sharma,R., Handoko,Y., Kruger,J.L., Thompson,D.W., Arens,D.K. and Grose,J.H.
2019	Domnhall (<i>Klebsiella</i> phage)	MN013075	Sirrime,M.R., Thurgood,T.L., Sharma,R., Wilkey,A., Kruger,J.L., Arens,D.K., Thompson,D.W., Casjens,S. and Grose,J.H.
2019	IMGroot (<i>Klebsiella</i> phage)	MN013076	Meek,T., Sharma,R., Thurgood,T.L., Atkinson,A.D., Fairholm,J., Brown,O., Loertscher,E., Arens,D.K., Kruger,J.L., Johnson,L., Thompson,D.W., Walker,J., Casjens,S. and Grose,J.H.
2019	KingDDD (<i>Klebsiella</i> phage)	MN013078	Dawson,D.D., Sharma,R., Thurgood,T.L., Loertscher,E., Ong,K., Kruger,J.L., Arens,D.K., Thompson,D.W., Johnson,L., Walker,J., Casjens,S. and Grose,J.H.
2019	Call (<i>Klebsiella</i> phage)	MN013079	Call,J.J., Thurgood,T.L., Sharma,R., Loertscher,E., Anderson,K., Carroll,M., Flindt,K., Urrea,L., Arens,D.K., Kruger,J.L., Thompson,D.W., Walker,J., Johnson,L. and Grose,J.H.
2019	SegesCirculi (<i>Klebsiella</i> phage)	MN013080	Foster,K.K., Sharma,R., Thurgood,T.L., Loertscher,E., Barker,A., Chronis,J., Fairholm,J., Finnegan,Z., Flake,P., Hielscher,T., Melhado,E., Potts,E., Sarabia,R., Wiley,M.S., Johnson,L., Arens,D.K., Kruger,J.L., Thompson,D.W., Walker,J., Casjens,S. and Grose,J.H
2019	Potts1 (<i>Klebsiella</i> phage)	MN013081	Potts,E., Thurgood,T.L., Sharma,R., Urrea, L., Arens,D.K., Kruger, .L., Thompson,D.W. and Grose,J.H.
2019	Sibilus (<i>Klebsiella</i> phage)	MN013082	Finnegan,Z.K., Thurgood,T.L., Sharma,R., Brundage,B., Wilkey,A.,Arens,D.K., Kruger,J.L., Thompson,D.W., Casjens,S. and Grose,J.H.
2019	Alina (<i>Klebsiella</i> phage)	MN013083	Sirrime,M.R., Thurgood,T.L., Sharma,R., Arens,D.K., Kruger,J.L., Thompson,D.W. and Grose,J.H.
2019	NahiliMali (<i>Klebsiella</i> phage)	MN013085	Foster,K.K., Sharma,R., Thurgood,T.L., Kruger,J.L., Loertscher,E., Arens,D.K., Thompson,D.W., Johnson,L., Walker,J., Casjens,S. and Grose,J.H.
2019	Chronis (<i>Sinorhizobium</i> phage)	MN013086	Crockett,J.T., Hodson,T.S., Hyde,J.R., Schouten,J.T., Smith,T.A., Merrill,B.D., Crook,M.B., Griffiths,J.S., Burnett,S.H., Grose,J.H. and Breakwell,D.P.
2019	Penguinator (<i>Klebsiella</i> phage)	MN013087	Dawson,D.D., Sharma,R., Thurgood,T.L., Arens,D.K., T. Thompson, D.W.,Kruger,J.L.,Loertscher,E.,Johnson,L.,Walker,J., Casjens,S. and Grose,J.H.
2019	SplendidRed (<i>Bacillus</i> phage)	MN013088	Handoko,Y.A., Wardani,A.K., Sutrisno,A.A.,Widjanarko,S.B., Sharma,R. and Grose,J.H.
2019	MarvelLand (<i>Bacillus</i> phage)	MN013089	Handoko,Y.A., Wardani,A.K., Widjanarko,S.B., Sharma,R., Flor,S. and Grose,J.H.
2019	Petruchio (<i>Mycobacteriophage</i>)	KY213952	King,R.D., 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.
2019	Rebecca (<i>Erwinia</i> phage)	MK514281	Eardley,R., Sharma,R., Beatty,N., Choi,M.C., Duncan,S., Fajardo,C.P., Ferguson,H.P., Kruger,J.L., Webb,C.J. and Grose,J.H.
2019	TF17 (<i>Pseudomonas</i> phage)	MK514283	Carr,E.L., Loertscher,E., Flor,S., Gaertner,R.K., Melhado,E.S., Bruandage,B., Kruger,J.L., Thurgood,T.L., Breakwell,D.P. and Grose,J.H.
2018	ArcticFreeze (<i>Paenibacillus</i> phage)	MH431932	Wright,C.K., Walker,J.K., Withers,J.M., Monk,J.R., Ward,A.T., Fajardo,C.P., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Unity (<i>Paenibacillus</i> phage)	MH460824	Chang,C.E., Leblanc,L., Cassin,E., Salisbury,A., Peterman,C., Rai,P., Wong,S., Uriarte-Valle,G., Muscelli,S., Tan,R., Grose,J.H.
2018	Gryphonian (<i>Paenibacillus</i> phage)	MH431934	Usher,B.K., George,J., Ward,A.T., Fajardo,C.P., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Halcyone (<i>Paenibacillus</i> phage)	MH460827	Diane,Y.G., Leblanc,L., Cassin,E., Salisbury,A., Peterman,C., Rai,P., Torres,E.L., Wallace,C.R., Reyes,S., Ines,J.L., Grose,J.H. Strong, C., Amy, P.S., and Tsourkas,P.K.
2018	Gryphonian (<i>Paenibacillus</i> phage)	MH431934	Usher,B.K., George,J., Ward,A.T., Fajardo,C.P., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Arcticfreeze (<i>Paenibacillus</i> phage)	MH431932	Wright,C.K., Walker,J.K., Withers,J.M., Monk,J.R., Ward,A.T., Fajardo,C.P., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	DevRi (<i>Paenibacillus</i> phage)	MH431933	Ririe,D.B., Buhler,B., Salisbury,A., Pascacio,C., Stamereilers,C., Ward,A.T., Fajardo,C.P., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Scottie (<i>Paenibacillus</i> phage)	MH460825	Diane,Y.G., Leblanc,L., Cassin,E., Salisbury,A., Peterman,C., Rai,P., Barroga,N.D., Macalinao,D.S., Juste,J., Cisneros,R., Grose,J.H., Strong,C., Amy,P.S. and Philippos,T.K.
2018	Heath (<i>Paenibacillus</i> phage)	MH460826	Diane,Y.G., Leblanc,L., Cassin,E., Salisbury,A., Peterman,C., Rai,P., Barroga,N.D., Macalinao,D.S., Juste,J., Cisneros,R., Grose,J.H., Strong,C., Amy,P.S. and Philippos,T.K.
2018	Toothless (<i>Paenibacillus</i> phage)	MH454084	Heaton,K.E., Velez,K., Merrill,B.D., Ward,A.T., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Saudage (<i>Paenibacillus</i> phage)	MH454083	Duncan,S.G., Pascacio,C., Ward,A.T., Fajardo,C.P., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Genki (<i>Paenibacillus</i> phage)	MH454082	Stevenson,M.B., Imahara,C., Ward,A.T., Fajardo,C.P., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Jacopo (<i>Paenibacillus</i> phage)	MH454079	Ward,C.S., Monk,J.R., Kim,M., Walker,J.K., Fajardo,C.P., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Bloom (<i>Paenibacillus</i> phage)	MH454077	Bloomfield,T.J., Dhalai,A., Ward,A.T., Fajardo,C.P., Breakwell,D.P., Grose,J.H., Hope, S. and Tsourkas,P.K.
2018	Lucielle (<i>Paenibacillus</i> phage)	MH431937	Rogers,S.L., Monk,J.R., Ward,A.T., Fajardo,C.P., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Kawika (<i>Paenibacillus</i> phage)	MH431936	Furiman,D.A., Rai,P., Ward,A.T., Fajardo,C.P., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Kiel007 (<i>Paenibacillus</i> phage)	MG727696	Graves,K., Dhalai,A., Stamereilers,C., Merrill,B.D., Ward,A.T.,Berg,J.A., Hilton,J.A., Fajardo,C.P., Walker,J.K.,

			Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Pagassa (<i>Paenibacillus</i> phage)	MG727699	Merrill,B.D., Graves,K., Salisbury,A., Ward,A.T., Berg,J.A., Hilton,J.A., Fajardo,C.P., Walker,J.K., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Tadhana (<i>Paenibacillus</i> phage)	MG727700	Payne,A.M., Merrill,B.D., Graves,K., Velez,K., Ward,A.T., Berg,J.A., Hilton,J.A., Fajardo,C.P., Walker,J.K., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Likha (<i>Paenibacillus</i> phage)	MG727702	Hill,H.L., Walker,J.K., Mun,H., Merrill,B.D., Ward,A.T., Berg,J.A., Hilton,J.A., Fajardo,C.P., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	BN12 (<i>Paenibacillus</i> phage)	MG727695	Payne,A.M., Imahara,C., Merrill,B.D., Ward,A.T., Berg,J.A., Hilton,J.A., Fajardo,C.P., Walker,J.K., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Dragolir (<i>Paenibacillus</i> phage)	MG727697	Merrill,B.D., Monk,J., Ward,A.T., Berg,J.A., Hilton,J.A., Fajardo,C.P., Walker,J.K., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	PBL1c (<i>Paenibacillus</i> phage)	MG727698	Dingman,D., Mangohig,J., Merrill,B.D., Ward,A.T., Berg,J.A., Hilton,J.A., Fajardo,C.P., Walker,J.K., Bakhiet,N., Field,C., Stahly,D.P., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	Leyra (<i>Paenibacillus</i> phage)	MG727701	Lastname,F.X., Knabe,B.K., Walker,J.K., George,J., Merrill,B.D., Ward,A.T., Berg,J.A., Hilton,J.A., Fajardo,C.P., Breakwell,D.P., Grose,J.H., Hope,S. and Tsourkas,P.K.
2018	SunLIRen (<i>Erwinia</i> phage)	MH426725	Sharma,R., Ke,K., Breakwell,D.P., Hope,S. and Grose,J.H.
2018	Pavtok (<i>Erwinia</i> phage)	MH426726	Sharma,R., Hughes J., Breakwell D.P., Hope S., Grose,J.H.
2018	Alexandra (<i>Erwinia</i> phage)	MH248138	Cowger A.E., Thompson D.W., Sharma R, Herring JA, Hoj T.R., Killpack S., Lawrence E., Nwosu I., Roark B.J., Tueller J.A., Choi M.C., Ferguson HP, Kruger L, Hope S, Breakwell D.P., Grose J.H.
2018	Asesino (<i>Erwinia</i> phage)	NC_031107	Berg J.A., Hyde J.R., Breakwell D.P., Hope S., Grose J.H.
2018	Wellington (<i>Erwinia</i> phage)	MH426724	Sharma, R., James, B., Berg, J.A., Breakwell, D.P., Hope,S. and Grose,J.H.
2017	Bosolaphorus (<i>Erwinia</i> phage)	MG655267	Sharma, R., Galbraith, T., Beatty, N., Choi, M.C., Duncan, S., Fajardo, C.P., Ferguson, H.P., Kruger, J.L., Webb, C.J. and Grose, J.H.
2017	DesertFox (<i>Erwinia</i> phage)	MG655268	Sharma,R., Yeates,E.L., Beatty,N.J., Choi,M.C., Duncan,S., Fajardo,C.P., Ferguson,H.P., Kruger,J.L., Webb,C.J. and Grose, J.H.
2017	MadMel (<i>Erwinia</i> phage)	MG655269	Sharma,R., Wood,M.E., Beatty,N., Choi,M.C., Duncan,S., Fajardo,C.P., Ferguson,H.P., Kruger,J.L., Webb,C.J. and Grose,J.H.
2017	Apocalypse (<i>Mycobacteriophage</i>)	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 (<i>Mycobacterium</i> 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 (<i>Erwinia</i> phage)	MF459647	Bickmore, M., Vaden, K., Brady, T.S., Tateoka, O., Carter, J.L., Pape, J.A., Robinson, D.M., 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, J.H.
2017	RisingSun (<i>Erwinia</i> phage)	MF459646	Putnam, M., Sharma, R., Kruger, J.L., Berg, J.A., Payne, A.M., Fajardo, C., Hope, S., Breakwell, D.P. and Grose, J.H.
2017	Yoloswag (<i>Erwinia</i> 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.
2017	Mortimer (<i>Erwinia</i> phage)	MG655270	Sharma, R., Ferguson, H.P., Berg, J.A., Jensen, G.L., Keele, B.R., Ward, M.E.H., Breakwell, D.P., Hope, S. and Grose, J.H.
2016	Special G (<i>Erwinia</i> 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 (<i>Erwinia</i> 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 (<i>Erwinia</i> 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 (<i>Erwinia</i> 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 (<i>Erwinia</i> phage)	NC_031120	Berg, J.A., Beatty, N.J., Hyde, J.R., Tatlow, P., Breakwell, D.P., Hope, S. Grose, J.H.
2016	Phobos (<i>Erwinia</i> 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 (<i>Erwinia</i> phage)	NC_031010	Berg, J.A., Hurst, E., Tatlow, P., Breakwell, D.P., Hope, S. Grose, J.H.
2016	EarlPhillipIV (<i>Erwinia</i> 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., Fuhrman, 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., Wright, C.K., Breakwell, D.P., Hope, S. Grose, J.H.
2016	ChrisDB (<i>Erwinia</i> phage)	NC031126	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 (<i>Erwinia</i> phage)	NC_031107	Berg, J.A., Hyde, J.R., Breakwell, D.P., Hope, S. Grose, J.H.
2016	Stratton (<i>Erwinia</i> 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 (<i>Erwinia</i> 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 (<i>Erwinia</i> 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 (<i>Erwinia</i> 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 (<i>Erwinia</i> 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 (<i>Erwinia</i> 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 (<i>Erwinia</i> 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 (<i>Brevibacillus</i> 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., JacobsSera,D., Hendrix,R.W. and Hatfull,G.F.
2015	Sundance (<i>Brevibacillus</i> 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 (<i>Brevibacillus</i> 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., JacobsSera,D., Hendrix,R.W. and Hatfull,G.F.
2015	Osiris (<i>Brevibacillus</i> 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 (<i>Brevibacillus</i> 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., 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 (<i>Sinorhizobium</i> phage)	KR052480	Schouten,J.T.,Crockett,J.T., Hodson,T.S., Hyde,J.R., Smith,T.A.,Merrill,B.D., Crook,M.B., Griffiths,J.S., Burnett,S.H., Grose,J.H. and Breakwell,D.P.
2015	phiM19 (<i>Sinorhizobium</i> phage)	KR052481	Crockett,J.T., Hodson,T.S., Hyde,J.R., Schouten,J.T., Smith,T.A.,Merrill,B.D., Crook,M.B., Griffiths,J.S., Burnett,S.H., Grose,J.H. and Breakwell,D.P.
2015	phiN3 (<i>Sinorhizobium</i> phage)	KR052482	Hodson,T.S., Hyde,J.R., Schouten,J.T., Crockett,J.T., Smith,T.A.,Merrill,B.D., Crook,M.B., Griffiths,J.S., Burnett,S.H., Grose,J.H. and Breakwell,D.P.
2014	Phantastic (<i>Mycobacteriophage</i>)	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., Mancini,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 (<i>Mycobacteriophage</i>)	IX649100	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 (<i>Mycobacteriophage</i>)	IX649099	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 (<i>Mycobacteriophage</i>)	IX649098	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 (<i>Mycobacteriophage</i>)	IX649097	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 (<i>Mycobacteriophage</i>)	IX649096	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 (<i>Bacillus</i> phage)	KC595511	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 (<i>Bacillus</i> phage)	KC595512	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 (<i>Bacillus</i> 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 (<i>Brevibacillus</i> 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 (<i>Brevibacillus</i> 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 (<i>Brevibacillus</i> 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 (<i>Brevibacillus</i> phage)	KC595516	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 (<i>Brevibacillus</i> phage)	KC595518	Sheflo,M.A.,Merrill,B.D,Gardner,A.V., Grose,J.H., Breakwell,D.P. and Burnett,S.H.
2013	Anubis (<i>Mycobacteriophage</i>)	KF279418	Jackson, KR, Lunt, BL, Fisher, JN, Garner, AV, Bailey, ME, Deus, LM, Earl, AS, Gibby,PD, Hartmann, KA, Liu, JE, Mancini, AM, Nielsen, DA, Solomon, MB, Breakwell, DP, Burnett, SH, and Grose, JH.
2013	Adawi (<i>Mycobacteriophage</i>)	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 (<i>Mycobacteriophage</i>)	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 (<i>Mycobacteriophage</i>)	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 (<i>Mycobacteriophage</i>)	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 (<i>Mycobacteriophage</i>)	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 (<i>Mycobacteriophage</i>)	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 (<i>Mycobacteriophage</i>)	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 (<i>Mycobacteriophage</i>)	IQ809703	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 (<i>Mycobacteriophage</i>)	IN600672	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 (<i>Mycobacteriophage</i>)	IF704099	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 (<i>Mycobacteriophage</i>)	IQ698665	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 (<i>Mycobacteriophage</i>)	IN020141	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 (<i>Mycobacteriophage</i>)	IN400277	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 (<i>Mycobacteriophage</i>)	IN572060	Lunt,B.L., Sheflo,M.A., Fisher,J.N.B., Breakwell,D.P., Burnett,S.H. and Grose,J.H.
2011	JEBEKS (<i>Mycobacteriophage</i>)	IN572061	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.

2011	Wee (<i>Mycobacteriophage</i>)	NC014901	Fried-Petersen,H., Adair,T.L., Anders,K.R., Aley,S.B., 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.
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TEACHING

Courses taught

IAS 369R: International Internship Prep (1 credit)

Honors 220: Unexpected Connections: DNA as a Language (3 credits)

MMBIO151: Intro to Microbiology (4 credits); 3 hours lecture and 3 hours lab per week **MMBIO194A:** Phage Hunters Discovery (4 credits); 1 hour lecture plus 6 hours lab per week

MMBIO194: Phage Discovery (4 credits); 1 hour lecture plus 6 hours lab per week

MMBIO195: Phage Genomics (4 credits); 1 hour lecture plus 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 (2 credit) ; 6 hours lab per week

MMBIO390R: Readings in Molecular Biology (1 credit)

MMBIO691: Graduate seminar (1 credit): 1 hour seminar per week **MMBIO551R:** Bacteriophages (1 credit); 1 hour lecture per week

MMBIO551R: Lifesciences and the Restored Gospel of Jesus Christ (2 credits), 2 lectures per week, team taught (JHG organized and oversaw and provided 9 lectures)

MMBIO661: Molecular Biology of the Cell (3 credits); 3 hours lecture per week, team taught (JHG taught 12 lectures)

MMBIO665: Genomics, team taught (1 credit); JHG taught 7 lectures and lead a special research project

MMBIO494R: Mentored Research (1-3 credits); taught each semester

Study Abroad Programs

Study Abroad Title	Faculty involved	Brief Description	Number of Students	Associated Courses
Emerging Disease in India	Dr. Grose (Lead) Dr. Robison	4 week experience in India, studying and isolating contributions to emerging disease. Planned to run every odd year (2021, 2023, etc.)	12-15	IAS 369R MMBIO390R LFSCI399 MMBIO471
Scientific EXXcelence: Women in Science	Gr. Grose Dr. Suli Dr. Davis	5-6 week experience traveling to the UK, France Germany, Poland, Norway and Italy. Planned to run every even year (2022, 2024, etc.)	25-30	TBA

FELLOWSHIPS AWARDED TO STUDENTS IN THE GROSE LAB

Graduate Fellowships (10)

BYU Gerontology Fellowship(1)

Daniel Arens (2020) The role of Cbf1 /USF1 in cancer metabolism

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 (14)

Colleen Newey (2020) Characterizing stress granule Regulation in mammalian cells due
PAS kinase and ataxin-2 inhibition
Daniel Arens (2019) The role of Cbf1 /USF1 in cancer metabolism
Kai Li Ong (2019) The role of Osh6/Snf1 in apoptosis
Kai Li Ong (2018) The role of Osh6/Snf1 in apoptosis
Jenny Pape (2017) Characterizing the role of Cbf1 in respiration
Brooke Roark (2017) Characterizing the interaction between PAS kinase and its substrates
Kai Li Ong (2017) The role of Osh6/Snf1 in apoptosis
Kai Li Ong (2016) The role of Osh6/Snf1 in apoptosis
Nidhi Choksi (2016) Characterizing the role for PAS kinase and ataxin-2 in stress granule
formation
Kai Li Ong (2015) The role of Osh6/Snf1 in apoptosis
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 Beckman Scholar(1)

Brittany Pielstick (2017-2018)

BYU Cancer Research Center Fellowship (5)

Abigail Taylor (2020)
Daniel Barnett (2014, 2015)
Jenny Pattison (2015,2016)

BYU ORCA/CURA Grants (21)

Taylor, Abigail (2021)
Cobbley, Hunter (2021)
Harris, Evan (2021)
Carr, Emilee (2020)
Sirrine, Michael (2020)
Barnett, Laura (2019)
Ng, Denise. (2017)
Nicholes, Sam. (2017)
Jenny Pattison(2016)
Andrew Rees (2016)
Brighton, Alicia. (2016)
Brown, Amber (2015)
Jarvis, Todd. (2015)
Hall, Tacie (2015)
Mackay, Jordan. (2012)
Hoopes, Whitney. (2012)
Mackay, Jordan. (2011)
Loeb, Serena. (2011)
Neubert, Jonathan. (2011)
Sowa, Steve. (2011)
Jarvis, Kent. (2010)

CITIZENSHIP

University-wide

BYU Microscopy Committee (2019-present)
BYU Committee for Experiential Learning Summit (2019)

Faith and Learning Faculty Advisement Committee (2016-present)
Cougars vs Cancer student Association– faculty advisor (2016-present)
BYU Be the Match on Campus - faculty advisor (2016-present)

Department/College-wide

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

Other activities

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

2019-2020	Team Advisor. Timpview 9 th grade Ecybermission Team: Care4Air: State Second Place Winners
2019-2020	Team Advisor. Mountain Heights 8 th grade Ecybermission Team: Fueling Change: State First Place Winners, Regional Winners and National Finalists
2019-2020	Team Advisor. Mountain Heights 10 th -grade Lexus Science Fair Regional Finalists.
2020	Guest Speaker for Summit Academy High School. Lead two one hour discussions.
2020	Break out Discussion Leader in She's a Scientist. Brigham Young University
2019	Round Table Discussion Leader at BYU Experiential Learning Summit
2019	Guest Lecturer (5 lectures) in the 3 in 1 Biotechnology program, Brawijaya University, Indonesia
2018-2019	Team Advisor. Mountain Heights 9 th grade Ecybermission Team: Phantastic Phage Phinders. First place National Winner.
2017-2018	Organizer of the Tri-branch ASM meeting, 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.
2010-2019	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 – 2018 **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

GRADUATE STUDENT TRAINEES (15)

Desiree DeMille	Ph.D. student	2010-2015 (graduated)
Jenny Pape	Ph.D. student	2017-2019 (graduated)
Ruchira Sharma	Ph.D. student	2014-2019 (graduated)
Kai Li Ong	Ph.D. student	2014-2019 (graduated)
Daniel Arens	Ph.D. student	2017-2021 (graduated)
Daniel Thompson	Ph.D. student	2017-present
Jonathan Neubert	M.S. student	2011-2012 (graduated)
Kelsey Langston	M.S. student	2011-2013(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)
Brooke Roark	M.S. student	2017-2019 (graduated)
Elise Melhado	M.S. student	2017-2019 (graduated)
Trever Thurgood	M.S. student	2017-2019 (graduated)
Colleen Newey	M.S. student	2019-present
Spencer Elsworth	M.S. student	2021-present

MENTORED UNDERGRADUATE RESEARCH ASSISTANTS (182)

Undergraduates trained in the Grose Lab. An asterisk indicates students who have presented their research at a conference or in a publication.

Abigail Taylor*	Jordan Berg*
Adam Gardner*	Jordan Jensen*
Addison Alley*	Jordan Mackay*
Albin Taylor*	Joseph (Joe) White*
Alex Crist*	Joseph Anderson*
Alexis Polson*	Joseph White*
Alicia Brighton*	Joshua Findley*
Alistair Hilton*	Joshua Gillman
Amber Brown*	Joshua Rice*
Andrew Gessel*	Julie Roberts*
Andrew Lambert*	Julius Adebeyo*
Andrew Mathis*	Justin Doney*
Andrew Rees*	Kade Foster
Andrew Wilkey*	Karina Tovar*
Arick Christopher*	Katelyn Perry*
Ashley Tam*	Katherine Price*
Audrey Buckley*	Kayla Bevard*
Audrey Workman*	Kelsey Langston*
Aurora Rodriguez*	Kent Foster*
Austen Gleave*	Kent Jarvis*
Austen Steffensen*	Kelton Peck*
Benjamin Donnovan	Kevin Weist*
Blake Dallan*	Kimball Harley*

Bradley Knabe*
Brady Evans*
Bridger Woods
Briton Moe*
Brittany (Colby) Pielstick*
Cameron Sargent*
Casey Cuttler*
Charles (CJ) Webb*
Chetty Vasu*
Cheuk Wing Denise Ng*
Cheyanne Green
Christina Keshek*
Christina Swenson*
Christopher Bird*
Christopher Skaggs
Coby Soule
Colby Haines*
Colby Soule
Colleen Newey*
Colt Halter
Cooper Vandemerwe*
Curtis Hoffmann
Daniel Barnett*
Daniel Dawson*
David Fuhriman*
David Herbert*
Devin Sabin*
Dione King
Eliza Lawrence*
Emilee Carr*
Emily Hansen*
Emily Hurst*
Emily Potts*
Evan Harris
Evangeline Taylor
Finnegan Zach*
Foster Openshaw
Fredrick Nelsen*
Garrett Jensen*
Gillman, Joshua
Govinda Dhakai
Grace Brummer*
Haley Burrell*
Haley Mickelsen
Hannah Ferguson*
Hannah Winn
Ian Esplin*
Igor Baldow*
Jackson Call*
Jacob Fairholm*
Jared Kruger*
Jared Larkin*
Jared Resolme*
Jason Tseng*
Jeffrey Zhao*
Jenny Pattison*
Jens Jimenez*
Jeralyn Franson*

Kimberley Bell-Young*
Kristy Radar*
Kyle Smith*
Kylie Chapman*
Laura Barnett Anthony*
Laura Uricoechea Urrea*
Mackay Coffee
Mackay Merrill*
Marina Ramsay
Mark Herzog*
Mark Sabin*
Mathew Biggs*
Mathewy Hyer*
Matthew Sheppard*
Mckay Wilson
Micah Putnum*
Michael Christiansen*
Michael Fry*
Michael Scott *
Michael Sirrine *
Michael Wells*
Minsey Choi*
Mitch Harrison*
Moon He
Moroni Ayala*
Nathan Quinton
Nathaniel Eberhard
Nick Nielsen*
Nicole Phipps*
Nolan Beatty*
Paul Leavitt*
Paul Rogers
Philip (PJ) Tatlow*
Rachel Findley*
Rebecca Eardley*
Rochelle Gaertner*
Ryan Perry*
Sam Brantley*
Sam Himes*
Sam Rutter
Samantha Laub*
Samuel Flor*
Samuel Nicholes*
Samuel Pollock*
Samuel Weeks
Savannah Grossarth*
Serena Loeb*
Seth Evans
Sierra Freed
Silvia Soule
Sinjon Roush*
Spencer Thornock*
Steve Sowa*
Steve Van de Graff*
Steven Duncan*
Steven Hallam*
Steven Roundy*
Tacie Hall*

Jeremy Severe*
Jerilyn Franson*
Jill Hughes*
Joe Castillo
John Collins T
John Hancock*
Jonathan Bowan
Jonathan Neubert*
Jonathan Wood*
Jonny Malmrose*

Todd Jarvis*
Tommy Andros
Trevor Southwick*
Trevor Thurgood*
Truman Davidson
Tyler Hielscher*
Tysen Nickle*
Tyson Stoker
Weston Larson*
Whitney Hoopes*