

## Rodney A. King

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Last updated August 13, 2016

### EDUCATION:

- Ph.D. 1993     Department of Microbiology and Immunology. Medical College of Virginia/Virginia Commonwealth University. Richmond, VA.  
Research Advisor: Dr. Gail Christie  
Dissertation: Probing structure-function relationships in a prokaryotic zinc-binding transcriptional activator.
- B.S. 1988     Virginia Tech. Blacksburg, VA. Graduated *Cum Laude*. Major: Biology.  
Minor: Chemistry

### PROFESSIONAL EXPERIENCE:

- 2013-            **Professor**, Western Kentucky University, Department of Biology
- 2012            Department of Biological Sciences, University of Pittsburgh, Pittsburgh, PA.  
**Sabbatical**; mycobacteriophage genome engineering (recombineering) in Dr. Graham Hatful's lab (March, 2012).
- 2008-2013     **Associate Professor**, Western Kentucky University, Department of Biology
- 2002-2008     **Assistant Professor**, Western Kentucky University, Department of Biology
- 1999-2002     **Staff Scientist, National Institutes of Health**, Bethesda, MD.  
Laboratory of Molecular Genetics, National Institute of Child Health and Human Development. Research on the control of transcription elongation and termination.
- 1993-1999.    **Postdoctoral Fellow and Staff Fellow, National Institutes of Health**, Bethesda, MD. in the laboratory of Dr. Robert A. Weisberg. Studied the control of early gene expression in bacteriophage HK022.

- 1988-1993. **Ph.D. candidate** in the laboratory of Dr. Gail Christie. Medical College of Virginia, Virginia Commonwealth University, Richmond, VA.
- 1988 **Department of Microbiology and Immunology, Medical College of Virginia.** Graduate student rotation projects studying 1) Trypanosome chromosomes 2) Antibody titers in mice injected with Salmonella antigen (Xu et al, 1993, *Vaccine* 11:725-729).
- 1987 **Virginia Tech.** Undergraduate research in the lab of Dr. Robert Benoit. Studied growth characteristics of psychrophilic bacteria.

#### TEACHING EXPERIENCE:

- 2013- Professor. Advanced Microbiology (Biol 568), Graduate Seminar (Biol 598), Genome Discovery and Exploration/HHMI NGRI course (Biol212), General Microbiology (Biol 207), Microbial Biology and Diversity with Lab (Biol226/227), Pathogenic Microbiology, 475/475G, Contemporary Research (Biol 503), Molecular and Cell Biology Lab (Biol 221), General Biology Lab (Biol 121), Virology (407, 407G). Hon. Hist and Science of Beer and Brewing (Biol 475), Investigative Biotechnology (Biol 150), Independent Research (Biol 399), Biotech Certification.
- 2008-2013 Associate Professor, Biology Department, Western Kentucky University  
2007 Western Kentucky University's Center for Gifted Studies Super Saturdays  
Instructor. Course title: Microcosmos. The course was an exploration of microbiology for children in grades 6-7. February, 2007.
- 2006 Conducted a workshop on Grantsmanship: INBRE External Advisory Committee Meeting, Eastern Kentucky University, Nov. 30<sup>th</sup>- Dec. 1<sup>st</sup>, 2006.
- 2006 Western Kentucky University's Center for Gifted Studies Super Saturdays  
Instructor. Course title: Microcosmos. The course was an exploration of microbiology for children in grades 6-7. February, 2006.
- 2002-2008 Assistant Professor. Biology Department, Western Kentucky University.  
1997 Adjunct Faculty. Marymount University, Arlington, VA. Cell Biology Lab  
Instructor.
- 1993-2000 Lectures given in the Laboratory of Molecular Genetics on a variety of topics.  
1994-2001 Seminars given at the "Lambda lunch" interest group at the NIH.  
1993-2001 Supervised student projects in the lab of Dr. Robert A. Weisberg.  
1995-1996 Supervised a post-doctoral research associate in the lab of Dr. Robert A. Weisberg
- 1992-1993 Supervised graduate student research projects in the lab of Dr. Gail Christie.  
1992 Volunteer guide for the Mini -Med School Program at the Medical College of Virginia (MCV). This program "opened the doors" of the research community to the general public through an informative seminar series given by faculty and guided tours of research labs at MCV.
- 1991 Teaching Assistant. Molecular Genetics and Gene Expression, Department of Microbiology and Immunology, Virginia Commonwealth University, Richmond,

- 1990 VA. This course is taken primarily by graduate students in the Dept. of Microbiology and Immunology and the Dept. of Biochemistry.  
Teaching Assistant. Infection and Immunity Lab, Department of Microbiology and Immunology, Virginia Commonwealth University, Richmond, VA.  
A laboratory taken by Dentistry students.

#### AWARDS AND HONORS:

- 2015 WKU Million Dollar Club; Over \$1 million in awarded grants (external sources) during WKU career
- 2015 Nominated for WKU Teaching Award (Feb. 2015)
- 2014 Recipient of Kentucky Academy of Science Distinguished College or University Teacher Award (November 15, 2014)
- 2014 Invited speaker at the Branch Officers Meeting, 114<sup>th</sup> General Meeting of the American Society for Microbiology, Boston, MA, May 17-20, 2014
- 2014 Invited speaker at American Society for Microbiology Workshop titled "Getting Started as a Microbiologist at a PUI". 114<sup>th</sup> General Meeting of the American Society for Microbiology, Boston, MA, May 17-20, 2014
- 2014 Nominated for WKU Research and Creativity Award (Feb. 2014)
- 2013 Elected Treasurer of the Kentucky Academy of Science
- 2013 **Promotion to Professor** (August, 2013)
- 2013 Elected Chair of WKU Biotechnology Center Executive Committee (July 2013)
- 2012 Elected Councilor of Kentucky-Tennessee branch of the American Society for Microbiology
- 2012 Nominated for WKU Research and Creativity Award (Dec. 2012)
- 2012 Appointed Chair, Institutional Biosafety Committee (July 31, 2012)
- 2012 Invited moderator of session entitled "The Cluster A Monstrosity; New Members, New Genes". 4<sup>th</sup> Annual SEA-Phages Symposium. HHMI Janelia Farms Research Campus, June 8-10, 2012
- 2012 Recipient of Ogden College Public Service Award
- 2012 Sabbatical, spring semester 2012; University of Pittsburgh
- 2011-12 Councilor of Division M of the American Society for Microbiology
- 2011 Nominated for WKU Research and Creativity Award (Nov, 2011)
- 2011 Nominated for WKU Public Service Award (Nov, 2011)
- 2011 Invited speaker, Morehead University (March 15, 2011)
- 2010 Awarded RCAP grant from WKU (\$17,750)
- 2010 Research featured in WKU Scholar (Vol 11, Nov 1, Fall 2010)
- 2010-11 Chair of Division M of the American Society for Microbiology
- 2010 Co-PI on a National Science Foundation Research Experience for Undergraduates (REU) grant. 3 year award (\$300,000)
- 2009-11 Chair, WKU Student Research Council
- 2009 Chosen to participate in HHMI National Genomics Research Initiative
- 2009 Voted Chair-Elect of Division M of the American Society for Microbiology
- 2009 Re-elected Councilor for the Kentucky-Tennessee branch of the American Society for Microbiology
- 2008 Invited speaker. National Institutes of Health. September 26, 2008

2008	<b>Promotion to Associate Professor with tenure (Aug. 2008).</b>
2008	President of WKU chapter of Sigma Xi
2008	Re-elected Councilor for the Kentucky-Tennessee branch of the American Society for Microbiology.
2007-09	Director of the WKU Biotechnology Center
2007	Awarded NIH R-15 AREA grant (\$204,750)
2006-07	Re-elected Councilor for the Kentucky-Tennessee branch of the American Society for Microbiology
2006	Elected Co-Director of the WKU Biotechnology Center, May 1, 2006.
2006	Invited speaker. James Madison University, Harrisonburg, VA. RNA mediated antitermination. January 30-31, 2006
2005	Elected sectional officer (Secretary) of Cellular and Molecular Biology section of the Kentucky Academy of Science
2005-06	Re-elected Councilor for the Kentucky-Tennessee branch of the American Society for Microbiology
2005	Invited speaker. Virginia Commonwealth University, Richmond, VA. Title: RNA-mediated control of transcription elongation. Feb. 22, 2005
2005	Nominated for the Western Kentucky University Research/Creativity Award.
2004-05	Councilor for the Kentucky-Tennessee branch of the American Society for Microbiology
2004	Invited speaker at the Kentucky-Biomedical Research Infrastructure Network (BRIN) External Advisory Committee Meeting. Title: Using microarray technology to determine the effects of mutations in the conserved zinc-finger domain of <i>Escherichia coli</i> RNA polymerase. May 20-21, 2004
2003-04	President of the Kentucky-Tennessee branch of the American Society for Microbiology
2000	Chaired session on Antitermination at the 10 <sup>th</sup> Biennial meeting on Post-Transcriptional Activities of RNA polymerase. Mountain Lake, VA.
1998	Invited speaker for the 98 <sup>th</sup> General Meeting of the American Society for Microbiology, Atlanta, GA. Seminar Title: <u>Antitermination of Transcription Mediated by a Cis-Acting RNA Site</u>
1997	National Institutes of Health (NIH) Fellows Award For Research Excellence; an award established by the NIH Fellows Committee in 1995 to provide recognition of excellent scientific research for post-doctoral and clinical fellows at the NIH.
1996	Invited speaker for the 96 <sup>th</sup> General Meeting of the American Society for Microbiology, New Orleans, LA. Seminar Title: <u>Factor Independent Antitermination</u>
1996	National Institutes of Health Intramural Research Training Award (IRTA); an award designed to provide advanced training and practical research experience to physicians and Ph.D. level investigators, granted by the National Institutes of Health
1993-1996	National Research Council (NRC) Research Associate Award; this program provides postdoctoral scientists of exceptional promise and ability opportunities for research on problems largely of their own choice. Awardees are chosen by the Research Council in a national competition
1989-1993	Virginia Commonwealth University School of Graduate Studies Fellowships

- 1993 Finalist in the John C. Forbes Graduate Student Honors Colloquium, Research in Progress Competition, Virginia Commonwealth University. Project title: Probing structure/function relationships in a zinc-binding transcriptional activator.
- 1985-1988 Academic Dean's List, Virginia Polytechnic Institute and State University
- 1988 Phi Beta Kappa Honor Society
- 1987 Gamma Beta Phi Honor Society
- 1985 Phi Theta Kappa Honor Society
- 1983 National Honor Society

**Selected outstanding accomplishments of mentored students:**

- 2016 Courtney Hamilton, Honors Thesis Defense (4/20/2016)
- 2016 Sherafghan Khan, Louisville Regional Science and Engineering Fair, Isolation and Characterization of Novel Bacteriophage Flare16 (March 5, 2016). 1st Place in Microbiology.
- 2015 Amanda White, Louisville Regional Science and Engineering Fair, A Newly Discovered Mycobacteriophage: Adnama. 2<sup>nd</sup> Place in Microbiology.
- 2014 Justin M. Bunch, Erin E. Burba, Louisville Regional Science and Engineering Fair (LRSEF) 1<sup>st</sup> place in microbiology, 2<sup>nd</sup> place overall. This performance earned Justin and Erin the opportunity travel to the Intel International Science and Engineering Fair in Los Angeles. May 11-16, 2014
- 2014 Gretchen Walch, Barry M. Goldwater Scholarship Honorable Mention
- 2014 Sarah Schrader, accepted into MD/PhD program at Cornell
- 2014 Sarah Schrader, National Defense Science & Engineering Graduate Fellowship
- 2014 Sarah Schrader, National Science Foundation (NSF) Graduate Research Fellowship
- 2014 Sarah Schrader, Critical Language Scholarship (Korean)
- 2014 Sarah Schrader, Marshall Scholarship, Rhodes Scholarship, Gates Scholarship Finalist
- 2014 Charles Coomer, NIH Oxford-Cambridge Scholarship recipient
- 2014 Charles Coomer, Fulbright Scholarship to the United Kingdom
- 2014 Charles Coomer, Outstanding Biology Student
- 2014 Sarah Schrader, Outstanding Biology Student
- 2014 Kimberly Baugh, Honors Thesis Defense (5/2/2014)
- 2014 Charles Coomer, Honors Thesis Defense (5/2/2014)
- 2014 Sarah Schrader, Honors Thesis Defense (4/29/2014)
- 2013 Samantha Hawtrey, Honors Thesis Defense (11/25/2013)
- 2013 Charles Coomer, Dan Skean award for Outstanding Microbiology Student
- 2013 Charles Coomer, Outstanding Biotechnology Student Award
- 2013 Amanda Seaton (Graduate student), Outstanding Poster Award, 113<sup>th</sup> General Meeting of the American Society for Microbiology, Denver, CO.
- 2013 Amanda Seaton (Graduate student), recipient of Gisela Mosig travel award sponsored by New England Biolabs
- 2013 Amanda Seaton (Graduate Student), Outstanding Biology Teaching Assistant
- 2012 Sarah Schrader, undergraduate student researcher in my lab, won the Dan Skean Award for Outstanding student in Microbiology.

- 2012 Sarah Schrader, undergraduate student researcher in my lab, won the Gleason Award for excellence in undergraduate research.
- 2012 Charles Coomer, undergraduate student researcher in my lab, was awarded a Goldwater Scholarship (March 28, 2012).
- 2012 Meaghan Dunn, undergraduate student researcher in my lab, won the senior division of the Southern Kentucky Regional Science fair. (March 17, 2012).
- 2012 Undergraduate student researcher's abstract was chosen for Posters at the Capitol (Sherry Helm; Feb.2012)
- 2011 Undergraduate student researchers Samantha Hawtrey and Lori Lovell were recognized as semifinalist in the national Siemens Research Competition
- 2011 Sarah Schrader, undergraduate student researcher in my lab, was awarded a Goldwater Scholarship (March 30, 2011)
- 2011 Sarah Schrader, undergraduate student researcher in my lab, was recognized as a semifinalist in the Intel Science Talent search (Feb. 2011)
- 2011 Undergraduate student researcher's abstract was chosen for Posters at the Capitol (Sarah Schrader; Feb. 10, 2011)
- 2010 Ali Wright, graduate student researcher in my lab, won the Biology Department's Outstanding Graduate Student award.

**FUNDING:**

**INTERNAL:**

*Funded:*

- 2016 WKU FUSE (Award #: 16-SP217; \$4,500) to support Millicent Ronkainen's Honors thesis research
- 2015 WKU FUSE (Award #: 15-SP240, \$4,500) to support Courtney Hamilton's Honors thesis research in my lab
- 2013 WKU FUSE grant (Award #: 13-FA103, \$5000) to support Kim Baugh's Honors research in my lab.
- 2013 Gatton Academy of Mathematics and Science Research Internship Grant for Connor VanMeter. Awarded \$3,000. Funds used to support Connor's summer research efforts in my lab.
- 2012 Gatton Academy of Mathematics and Science Research Internship Grant for Meaghan Dunn. Awarded \$3,000. Funds used to support Meaghan's summer research efforts in my lab.
- 2012 WKU FUSE grant. Awarded \$4,500. Funds used to support Charles Coomer's research efforts in my lab.
- 2010-2012 WKU RCAP grant. Awarded \$17,750.
- 2010-11 WKU Faculty Scholarship. Awarded \$3,000. Using Bacteriophage Genomics for Discovery Based Learning
- 2002-2003 Junior Faculty Fellowship, Western Kentucky University: \$4,000

*Applications not funded:*

WKU Applied Research and Technology Program, Collaborative Research Proposal. Next Generation Sequencing Equipment for Next Generation Research: \$75,270

**EXTERNAL:**

*Funded:*

2015	Howard Hughes Medical Institute. Awarded \$10,000 to support Genome Discovery and Exploration course
2014	Howard Hughes Medical Institute. Awarded \$10,000 to support Genome Discovery and Exploration course
2014	INBRE sub-award \$158,830/year (approx. >\$790,000 over <b>5 years</b> ) Small Genome Discovery Program
2013	NSF Grant: MRI: Acquisition of an Analytical Transmission Electron Microscope with Cryogenic Imaging Capabilities for Research and Teaching at a PUI. Awarded \$479,270. Co-PI.
2013	INBRE-AREA grant. Awarded \$26,000. Start date May 1, 2013.
2012	INBRE-AREA grant. Awarded \$26,000. Start date May 1, 2012.
2010-12	NSF REU program site at WKU: Summer Research Experience in Investigative Biotechnology. Awarded \$300,000, Co-PI.
2009	Howard Hughes Medical Institute (HHMI) Science Education Alliance (SEA). All research/classroom materials for Genome Discovery and Exploration course supplied for 3 year period. All travel to annual research symposium (2 faculty and 1 student) also supplied by the HHMI.
2009-11	INBRE grant renewed (\$57,805 (09-10), \$47,089 (10-11)) .
2008-11	NIH R-15 AREA grant (\$204,750). Start date Jan. 2007.
2004-09	INBRE (Kentucky-IdeA Networks of Biomedical Research Excellence) Subcontract award from UL: 5 year NIH grant (P20RR16481): \$107,863/yr.
2003	USDA subcontract award: Poultry waste management strategies: \$8,511.
2003-2004	KBRIN (Kentucky Biomedical Research Infrastructure Network) Faculty Fellowship: "Identification of cellular genes affected by mutations in the conserved zinc-finger domain of <i>Escherichia coli</i> RNA polymerase": \$11,000
2002-2004	Research startup funds from EPScOR (Experimental Program to Stimulate Competitive Research): \$75,000

*Applications not funded:*

2016	NSF REU Site: Summer Research Experience in Investigative Biotechnology, (\$359,724), PI. Resubmission, August 26, 2015.
2015	NSF REU Site: Summer Research Experience in Investigative Biotechnology, (\$405,230), PI. Submitted August 27, 2014.
2012	NIH R15 (AREA) grant resubmission (\$248,500). PI. Submitted June 25, 2012.

2012 NSF (TUES) consortium grant. Subaward (\$108,279). Submitted Jan 2012.  
2011 NSF (TUES) consortium grant. Subaward (\$227,294). Submitted Jan. 2011.

## MEMBERSHIP IN PROFESSIONAL SOCIETIES:

Sigma Xi (since 2007). President of WKU chapter (2008-2009)  
American Society for Microbiology (since 1987)  
Kentucky-Tennessee branch of the American Society for Microbiology (since 2002)  
Kentucky Academy of Science (since 2002)

## PUBLICATIONS:

21. Welkin H Pope, Charles A Bowman, Daniel A Russell, Deborah Jacobs-Sera, David J Asai, Steven G Cresawn, William R Jacobs Jr, Roger W Hendrix, Jeffrey G Lawrence, Graham F Hatfull, Science Education Alliance Phage Hunters Advancing Genomics and Evolutionary Science, **Phage Hunters Integrating Research and Education**, Mycobacterial Genetics Course. Whole genome comparison of a large collection of mycobacteriophages reveals a continuum of phage genetic diversity. *eLife* April, 2015;4:e06416. DOI: 10.7554/eLife.06416.  
**39 WKU Student Co-authors are included on this paper.**

20. Steven G. Cresawn, Welkin H. Pope, Deborah Jacobs-Sera, Charles A. Bowman, Daniel A. Russell, Rebekah M. Dedrick, Tamarah Adair, Kirk R. Anders, Sarah Ball, David Bollivar, Caroline Breitenberger, Sandra H. Burnett, Kristen Butela, Deanna Byrnes, Sarah Carzo, Kathleen A. Cornely, Trevor Cross, Richard L. Daniels, David Dunbar, Ann M. Findley, Chris R. Gissendanner, Urszula P. Golebiewska, Grant A. Hartzog, J. Robert Hatherill, Lee E. Hughes, Chernoh S. Jalloh, Carla De Los Santos, Kevin Ekanem, Sphindile L. Khambule, **Rodney A. King**, Christina King-Smith, Karen Klyczek, Greg P. Krukonis, Christian Laing, Jonathan S. Lapin, A. Javier Lopez, Sipho M. Mkhwanazi, Sally D. Molloy, Deborah Moran, Vanisha Munsamy, Eddie Pacey, Ruth Plymale, Marianne Poxleitner, Nathan Reyna, Joel F. Schildbach, Joseph Stuke, Sarah E. Taylor, Vassie C. Ware, Amanda L. Wellmann, Daniel Westholm, Donna Wodarski, Michelle Zajko, Thabiso S. Zikalala, Roger W. Hendrix, Graham F. Hatfull. Comparative Genomics of Cluster O Mycobacteriophages. March 5, 2015 PLoS ONE 10(3): e0118725.

19. Tuajuanda C. Jordan, Sandra H. Burnett, Susan Carson, Steven Caruso, Kari Clase, Randall J. DeJong, John J. Dennehy, Dee Denver, David Dunbar, Sarah R. Elgin, Ann Findley, Chris R. Gissendanner, Urszula P. Golebiewska, Nancy Guild, Grant Hartzog, Wendy H. Grillo, Gail P. Hollowell, Lee E. Hughes, Allison Johnson, **Rodney A. King**, Lynn O. Lewis, Wei Li, Frank Rosenzweig, Michael R. Rubin, Margaret S. Saha, James Sandoz, Christopher D. Shaffer, Barbara Taylor, Louise Temple, Edwin Vazquez, Vassie Ware, Lucia P. Barker, Kevin W. Bradley, Deborah Jacobs-Sera, Welkin H. Pope, Daniel A. Russell, Steven G. Cresawn, David Lopatto, Cheryl P. Bailey<sup>2</sup>, Graham F. Hatfull. A broadly implementable research course for first-year undergraduate students. Published Feb 4, 2014, *mBio* Journal.



18. Graham F. Hatfull<sup>1\*</sup>, **Science Education Alliance Phage Hunters Advancing Genomics and Evolutionary Science (SEA-PHAGES) program**<sup>2</sup>, KwaZulu-Natal Research Institute for Tuberculosis and HIV (K-RITH) Mycobacterial Genetics Course<sup>1,3,4</sup>, Phage Hunters Integrating Research and Education (PHIRE) program<sup>1</sup>. The complete genome sequences of 138 mycobacteriophages. 2012. *Journal of Virology*, 2012, 86(4):2382-2384.

<sup>1</sup>Pittsburgh Bacteriophage Institute and Department of Biological Sciences, University of Pittsburgh, Pittsburgh, PA, <sup>2</sup>**Howard Hughes Medical Institute, Chevy Chase, MD**, <sup>3</sup>Suite Z310 Doris Duke Building, Durban, South Africa, <sup>4</sup>Department of Microbiology and Immunology Albert Einstein College of Medicine, New York.

**As part of the SEA-PHAGES program, WKU students contributed 3 annotated phage genomes (Backyardigan, BarrelRoll, and Tirotheta9) to the work described in this manuscript.**

17. **King, R.A.**, Alice Wright\*, Courtney Miles\*, Christopher S. Pendleton\*, Andrew Ebelhar\* Stephanie Lane\* and Prasanna Tamarapu Parthasarathy\*. (2011). Newly Discovered Antiterminator RNAs in Bacteriophage. *Journal of Bacteriology* 193: 5784–5792. **\*Denotes WKU student authors**

16. Hawtrey, S.\* , Lovell, L.\* and **King, R.A.** (2011) Isolation, Characterization and Annotation: The search for novel bacteriophage genomes. *The Journal for Experimental Secondary Science*. **\*Denotes WKU student authors.** October 2011 issue. <http://www.jes2s.com/index.html>. **Sammi and Lori's article was featured on the cover.**

15. Natalia Komissarova, Tatiana Velikodvorskaya, Ranjan Sen, **Rodney A. King**, Sarbani Banik\_Maiti and Robert A. Weisberg (2008). Inhibition of a Transcriptional Pause by RNA Anchoring to RNA polymerase. *Molecular Cell* 31:683-694. **Featured in Cell Magazine's Molecular Biology Select: Cell 135, October 3, 2008.**

14. McLaughlin, M.R. and **King R. A.** (2008) Characterization of Salmonella bacteriophages isolated from swine lagoon effluent. *Current Microbiology* 56:208-213.

13. Sloan, Sieghild, Rutkai, E., **King, R.A.**, Velikodvorskaya, T. and Weisberg R.A. (2007). Protection of antiterminator RNA by the transcript elongation complex. *Molecular Microbiology* 63: 1197-1208.

12. M.R. McLaughlin, M.F. Balaa, J. Sims\*, J. Andersland, and **R. King.** (2006). Isolation of *Salmonella* Bacteriophages from Swine Effluent Lagoons. *Journal of Environmental Quality*. 35:522-528. **\*Denotes WKU student author.**

11. **King, R.A.**, Markov, D., Sen, R., Severinov, K. and Weisberg, R.A. (2004). A Conserved Zinc Binding Domain in the Largest Subunit of DNA-dependent RNA Polymerase Modulates Intrinsic Transcription Termination and Antitermination but does not Stabilize the Elongation Complex. *Journal of Molecular Biology*. 342:1143-1154.

10. **King, R.A.**, Sen, R. and Weisberg, R.A. (2003). Using a Lac Repressor Roadblock to Analyze the *E. coli* Transcription Elongation Complex. *Methods of Enzymology* 371:207-218.

9. **King, R.A.** and Weisberg, R.A. (2003). Suppression of Rho-dependent and Nun-dependent Terminators by RNA-mediated Antitermination. *Journal of Bacteriology* 185:7085-7091.
8. Sen, R., **King, R.A.**, Mzhavia, N., Madsen, P.L. and Weisberg, R.A. (2002). Sequence Specific Interaction of Nascent Antiterminator RNA with the Zinc-Finger Motif of *Escherichia coli* RNA Polymerase. *Molecular Microbiology*, 46:215-222.
7. Sen, R., **King, R.A.** and Weisberg R.A. (2001). Modification of the Properties of Elongating RNA Polymerase by Persistent Association with Nascent Antiterminator RNA. *Molecular Cell*, 7:993-1001.
6. **King, R.A.**, Madsen, P.L. and Weisberg, R.A. (1999). Constitutive Expression of a Transcription Termination Factor from a Repressed Prophage: Promoters for the Expression of the HK022 *nun* Gene. *J. Bacteriology*, 182:456-462.
5. Banik-Maiti, S., **King, R.A.** and Weisberg, R.A. (1997). The Antiterminator RNA of Phage HK022. *Journal of Molecular Biology* 272:677-687.
4. **King, R.A.**, Banik-Maiti, S., Jin, D.J. and Weisberg, R.A. (1996). Transcripts That Increase the Processivity and Elongation Rate of RNA Polymerase. *Cell*. 87:893-903.
3. Gebhardt, K., **King, R.A.**, Christie, G.E. and Lindqvist, B.H. (1993). Mutational Analysis of the Bacteriophage P2 Ogr protein: Truncation of the Carboxy Terminus. *J. Bacteriology* 175:7724-7726.
2. Xu, H.R., Hsu, H.S., Moncure, C.W. and **King, R.A.** (1993). Correlation of Antibody Titres Induced by Vaccination with Protection in Mouse Typhoid. *Vaccine* 11:725-729.
1. **King, R.A.**, Anders, D.L. and Christie, G.E. (1992). Site-directed Mutagenesis of an Amino Acid Residue in the Bacteriophage P2 Ogr Protein Implicated in Interaction with *E. coli* RNA Polymerase. *Molecular Microbiology* 6:3313-3320.

#### MANUSCRIPTS IN PREPARATION:

3. Baugh, K., Hamilton, C. and **King R.A.** Characterization of a phage mutation that restores growth on a host that blocks RNA-mediated antitermination
2. **King, R.A.** The complete sequence of an HK022-Lambda hybrid bacteriophage.
1. **King, R.A.**, Poppy, D, Philips, T.K., Jones, C. and Sanchez, S. The discovery of the insect endosymbiont Wolbachia and its associated bacteriophage in spider beetles. **Collaboration with Dr. Keith Philips (Biology Department).**

**ABSTRACTS (\*denotes oral presentation):**

**2016:**

171. Taylor E Senay\*, Kathrine A Gaiko\*, Tithe Ahmed, Katie L Alexander, Colin M Baker, James M Biddle, Xavier K Brickeen, Matthew R Broadbent, Amber N Carroll, Jacob M Coty, Noah M Crews, Makenzie K Daniels, Davis L Elliott, Sherafghan Khan, Jacob K McDavid, Hannah E Miller, Jenna R Rowlett, Michael C Squire, Jodi E Thomas, Kristin K Stockdale, MarthaAnn L Stockler, Ja Vonte A Turner, Olivia Urso, Hannah A Watkins, Bobby L Gaffney, **Rodney A King**, Naomi S Rowland, Claire A Rinehart, Lonji Li. Features for Eight Mycobacteriophage Genomes: AlleyCat (K5), Baehexic (A2), Flare16 (A2), Gruunaga (A6), Jeckyll (K1), LilTurb (A2), Mutante (B1), and NearlyHeadless (A8). 8th Annual SEA-PHAGES (Science Education Alliance – Phage Hunters Advancing Genomics and Evolutionary Science) scientific symposium, sponsored by the Howard Hughes Medical Institute. Janelia Farm Research campus, June 10-14, 2016.

170. Tithe Ahmed, Makenzie Daniels, **Rodney A. King** and Claire A. Rinehart, Comparison of Bacteriophages Nearlyheadless and Hemsworth, 46<sup>th</sup> Annual WKU Student Research Conference, April 2, 2016

169. Sherafghan Khan, Matthew James Biddle and **Rodney A. King**, Isolation, Characterization, and Comparison of Two Novel Bacteriophages, 46<sup>th</sup> Annual WKU Student Research Conference, April 2, 2016. **Session Winner**

168. Courtney Hamilton and **Rodney A. King**, Contribution of a Putative Up Element DNA Sequence to the Activity of a Newly Identified Phage Promoter, 46<sup>th</sup> Annual WKU Student Research Conference, April 2, 2016

167. Taylor Senay, **Rodney A. King**, and Claire A. Rinehart, Spontaneous Mutations in a Viral Population Increase Genetic Diversity, 46<sup>th</sup> Annual WKU Student Research Conference, April 2, 2016. **Session Winner**

166. Amber Carroll, Xavier Brickeen, **Rodney A. King** and Claire A. Rinehart Isolation and Characterization of Novel Mycobacteriophages Baehexic and Ruin, 46<sup>th</sup> Annual WKU Student Research Conference, April 2, 2016

165. Olivia Urso, Katie Alexander and **Rodney A. King**, Discovery and Comparison of Novel Mycobacteriophages Schadenfreude and Widewale, 46<sup>th</sup> Annual WKU Student Research Conference, April 2, 2016. **Session Winner**

**2015:**

164. Millicent M. Ronkainen, Whitney N. Heard, Austin C. Beaver, Nolan S. Calhoun, Melissa Y. Camargo, Lincoln T. Chasteen, Maritza V. Chavez, Maycon A. DeCesare, Rohan R. Deshpande, Jenna N. Ellis, Linyue Fan, Olivia M. Gearner, Sarah E. Herricks, Dustie L. Hoffman, Stevie C. Hoyng, Esther C. Huggins, Kimberly Ibisate, Emily L. Keeter, Malia L. Latimer, Maria D. Long, Kayla M. McKnight, Craig A. Meers, Emily M. Noel, Eric D. Parker, Leslie A. Pike, Nathaniel A. Powers, Kayleigh M. Profumo, Elizabeth A. Pulsifer, Eura E. Shin, Eayvon G. Smith, Stefan M. Stryker, James M. Styers, Jeremiah L. Wayne, Amanda J. White, Landon E. Wolford, **Rodney A. King**, Naomi Rowland, Claire A. Rinehart. Isolation and Characterization of Novel Mycobacteriophages Badger and TheloniousMonk Reveals Diversity and Evidence of Mosaicism. 7th Annual SEA-PHAGES (Science Education Alliance – Phage Hunters Advancing Genomics and Evolutionary Science) scientific symposium, sponsored by the Howard Hughes Medical Institute. Janelia Farm Research campus, June 12-14, 2015.

163. Nolan Calhoun, Elizabeth Pulsifer, **Rodney A. King**, Claire A. Rinehart and Naomi Rowland. Discovery and comparison of two novel bacteriophages, Enola and Leviathan, through genomic exploration and bioinformatics analysis. 45th Annual WKU Student Research Conference, March 28, 2015.

162. Courtney M. Hamilton and **Rodney A. King**. Contribution of a Putative UP Element DNA Sequence to the Activity of a Newly Identified Phage Promoter. 45th Annual WKU Student Research Conference, March 28, 2015.

161. Rohan Deshpande, James Styers, **Rodney A. King** and Claire A. Rinehart. An analysis of *M. smegmatis* bacteriophages Comets and Deshpanda. 45th Annual WKU Student Research Conference, March 28, 2015. **Session Winner**

160. Joy Fan, Jeremiah Wayne, **Rodney A. King**, Claire A. Rinehart and Naomi Rowland. Exploring Biodiversity through Isolation and Characterization of Bacteriophages Bilbo and Fanfare. 45th Annual WKU Student Research Conference, March 28, 2015.

**2014:**

159. Kelly C. Lynch, Joshua D. Stewart, Katherine G. Allen, Connor B. Brown, Justin M. Bunch, Erin E. Burba, Lydia M. Buzzard, Rachel C. Cook, Milan M. Doan, Leah B. Dublin, Michael A. Goedde, Charles T. Gregory, Bradford T. Hull, Peter A. Kaminski, Sejla Kazaferovi, Elizaveta M. Khenner, Allyson R. King, **Rodney A. King**, Paige D. Kington, Christopher M. McDaniel, John D. Meyers III, Cory L. Montgomery, Melissa B. Murphy, Elizabeth A. Oates, Nakeya L. Owens, Justin T. Paisley, Vir D. Patel, Kathryn R. Price, Claire A. Rinehart, Ananya Sharma, Erika N. Stairs, Allison R. Thompson, Kaitlyn E. Wathen. Isolation, Characterization and Genomic Analysis of Mycobacteriophages Larenn, Gansey, Sparxx and Wiggen and Arthrobacter phages Ezio and Mudcat. 6th Annual SEA-PHAGES (Science Education Alliance – Phage Hunters Advancing Genomics and Evolutionary Science) scientific symposium,

sponsored by the Howard Hughes Medical Institute. Janelia Farm Research campus, June 13-15, 2014

158. **Rodney A. King**. Sequence analysis of a hybrid HK022/Lambda bacteriophage and the precise identification of the Lambda b515 and b519 deletion endpoints. 114th General Meeting of the American Society for Microbiology. Boston, MA, May 17-20, 2014

157. Justin M. Bunch, Erin E. Burba, Rodney A. King, and Claire A. Rinehart. Discovery and Genomic Comparison of Bacteriophages BustinJunch and Kimya. Intel Science and Engineering Fair. Los Angeles, CA. May 14, 2014.

156. Allyson R. King, **Rodney A. King**, Claire A. Rinehart Discovery and Characterization of Bacteriophage Larenn. National Conference for Undergraduate Research (NCUR), University of Kentucky, April 3-5, 2014

155. Connor VanMeter and **Rodney A. King**. Functional Characterization of Newly Identified Antiterminator RNAs. National Conference for Undergraduate Research (NCUR), University of Kentucky, April 3-5, 2014

154. Allyson R. King, **Rodney A. King**, Claire A. Rinehart. Discovery and Characterization of Bacteriophage Larenn. 44th Annual WKU Student Research Conference, March 22, 2014.

153. Ananya Sharma, Elizaveta Khenner, **Rodney A. King** and Claire A. Rinehart. Discovery and Genomic Comparison of Bacteriophage DesiGirl and Peeza. 44th Annual WKU Student Research Conference, March 22, 2014.

152. Kimberly Baugh and **Rodney A. King**. Characterization of a Mutant Phage that Overcomes an Antitermination Defect in E. coli RNA Polymerase. 44th Annual WKU Student Research Conference, March 22, 2014.

151. Rachel Cook, NaKeya Owens, **Rodney A. King** and Claire A. Rinehart. Discovery and Analysis of Mycobacteriophages Cookland and Enyo. 44th Annual WKU Student Research Conference, March 22, 2014.

150. Josh Stewart, **Rodney A. King**, and Claire A. Rinehart. Isolation and Characterization of Bacteriophage Sparxx, a New A4 Subcluster Mycobacteriophage. 44th Annual WKU Student Research Conference, March 22, 2014.

149. Kathryn Price, **Rodney A. King** and Claire A. Rinehart. Exploring the World of Bacteriophages Through Isolating a Novel Mycobacteriophage. 44th Annual WKU Student Research Conference, March 22, 2014.

148. Kelly C. Lynch, **Rodney A. King**, and Claire A. Rinehart. Discovery, Isolation, and Analysis of Arthrobacter Bacteriophage Ezio. 44th Annual WKU Student Research Conference, March 22, 2014.

147. Justin M. Bunch, Erin E. Burba, **Rodney A. King**, and Claire A. Rinehart. Discovery and Genomic Comparison of Bacteriophages BustinJunch and Kimya. 44th Annual WKU Student Research Conference, March 22, 2014.

146. Justin M. Bunch, Erin E. Burba, **Rodney A. King**, and Claire A. Rinehart. Discovery and Genomic Comparison of Bacteriophages BustinJunch and Kimya. Louisville Regional Science Fair (LRSEF) 1<sup>st</sup> in microbiology, 2<sup>nd</sup> place overall. March 7-8, 2014.

### 2013:

145. Gretchen Walch, Corbin M. Allender, Grace E. Babbs, Barry C. Blair, Bradley C. Blankenship, Carolyn M. Clark, Joseph E. Crafton, Ajit R. Deshpande, Samantha M. Dinga, Hannah N. Graff, Jeremy A. Hall, Alex W. Kearns, **Rodney A. King**, Azlin L. Lewis, Mary-Grace E. Luscher, Patrick G. Osterhaus, Lindsey R. Porter, David G. Riggan, Claire A. Rinehart, Lindsey M. Shain. Dominique C. Thayer, Vishnuteja Tirumala, Connor M. VanMeter, Jarad M. Williams. Discovery and Bioinformatic Analysis of Mycobacteriophages Achebe, MooMoo, Simpliphy and Updawg, 2013 Southeast Regional IDeA meeting, Little Rock, AR., Nov 15-17, 2013.

144. Sarah Schrader and **Rodney A. King**. Bioinformatic Analysis of Mycobacteriophage TiroTheta9. 2013 Southeast Regional IDeA meeting, Little Rock, AR., Nov 15-17, 2013.

143. Charles Coomer and **Rodney A. King**. Identification of Bacterial Contaminates and Evidence for Temperate Phages in Beerwell Samples from a Bioethanol Production Facility. 99<sup>th</sup> Annual KAS meeting, Nov. 8-9, 2013, Morehead, KY

142. Charles Coomer and **Rodney A. King**. Identification of Bacterial Contaminates and Evidence for Temperate Phages in Beerwell Samples from a Bioethanol Production Facility. Annual Meeting of the Kentucky-Tennessee branch of the American Society for Microbiology Oct 25-26, 2013.

141. Connor VanMeter and **Rodney A. King**. Functional Characterization of Newly Identified Antiterminator RNAs. Annual Meeting of the Kentucky-Tennessee branch of the American Society for Microbiology Oct 25-26, 2013.

140. Gretchen Walch, Corbin M. Allender, Grace E. Babbs, Barry C. Blair, Bradley C. Blankenship, Carolyn M. Clark, Joseph E. Crafton, Ajit R. Deshpande, Samantha M. Dinga, Hannah N. Graff, Jeremy A. Hall, Alex W. Kearns, **Rodney A. King**, Azlin L. Lewis, Mary-Grace E. Luscher, Patrick G. Osterhaus, Lindsey R. Porter, David G. Riggan, Claire A. Rinehart, Lindsey M. Shain. Dominique C. Thayer, Vishnuteja Tirumala, Connor M. VanMeter, Jarad M. Williams. Discovery and Bioinformatic Analysis of Mycobacteriophages Achebe, MooMoo, Simpliphy and Updawg, Annual Meeting of the Kentucky-Tennessee branch of the American Society for Microbiology Oct 25-26, 2013.

139. Hannah Graff. Discovery and Analysis of Mycobacteriophage CapnHook. National Consortium for Specialized Secondary Schools of Math, Science, and Technology (NCSSSMST)

Student Research Conference, Grinnell College, Grinnell, IA. June 9-12, 2013. Mentors:  
**Rodney A. King** and Claire A. Rinehart

138. Lindsey Porter. The Isolation and Characterization of Mycobacteriophage Pigpen. National Consortium for Specialized Secondary Schools of Math, Science, and Technology (NCSSSMST) Student Research Conference, Grinnell College, Grinnell, IA. June 9-12, 2013. Mentors:  
**Rodney A. King** and Claire A. Rinehart

137. Connor VanMeter. MyOTP, a Newly Discovered Mycobacteriophage from Bowling Green, Kentucky. National Consortium for Specialized Secondary Schools of Math, Science, and Technology (NCSSSMST) Student Research Conference, Grinnell College, Grinnell, IA. June 9-12, 2013. Mentors: **Rodney A. King** and Claire A. Rinehart

136. Gretchen A. Walch, Corbin M. Allender, Grace E. Babbs, Barry C. Blair, Carolyn M. Clark, Joseph E. Crafton, Ajit R. Deshpande, Samantha M. Dinga, Hannah N. Graff, Jeremy A. Hall, Alex W. Kerns, **Rodney A. King**, Azlin L. Lewis, Mary-Grace E. Luscher, Patrick G. Osterhaus, Lindsey R. Porter, David G. Riggin, Claire A. Rinehart, Lindsey M. Shain, Dominique C. Thayer, Vishnuteja Tirumala, Connor M. VanMeter, Jarad M. Williams. Isolation, Characterization and Genomic Analysis of Mycobacteriophages Achebe, MooMoo, Simpliphy and Updawg. 5<sup>th</sup> Annual SEA-PHAGES Symposium. HHMI Janelia Farms Research Campus, June 7-9, 2013.  
**Honorable Mention Award.**

135. Amanda L. Seaton and **Rodney A. King**. Defining the requirements for HK639 early gene expression. 113<sup>th</sup> General Meeting of the American Society for Microbiology. Denver, CO, May 18-21, 2013. **Amanda won the Gisila Mosig travel award, an Outstanding Poster award and she gave a talk at the Division M business meeting.**

134. **Rodney A. King**, Sherry R. Helm, Divina R. Allan and Sarah M. Schrader. Analysis of RNA mediated antitermination in the Erwinia tasmaniensis bacteriophage  $\phi$ Et88. 113<sup>th</sup> General Meeting of the American Society for Microbiology. Denver, CO, May 18-21, 2013

133. Amanda Seaton\*, **Rodney A. King**. The Left Operon of Bacteriophage HK639 Is Essential for Viral Growth. 43<sup>rd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 23, 2013. **Best Graduate Paper in the Natural Sciences: Session 8**

132. Gretchen Walch, **Rodney A. King** and Claire A. Rinehart. A Newly Discovered Cluster E Mycobacteriophage Identified Through Genomic Analysis. 43<sup>rd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 23, 2013. **Best Undergraduate Poster in the Natural Sciences, Session 13.**

131. Connor VanMeter, **Rodney A. King** and Claire A. Rinehart. MyOTP, a Newly Discovered Mycobacteriophage From Bowling Green, Kentucky. 43<sup>rd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 23, 2013. **Best Undergraduate Poster in the Natural Sciences, Session 6.**

130. Corbin Allender, Grace Babbs, **Rodney A. King** and Claire A. Rinehart

Exploring Genetic Diversity By Isolating and Comparing Novel Bacteriophages. 43rd Annual WKU Student Research Conference. Western Kentucky University, March 23, 2013. **Best Undergraduate Poster in the Natural Sciences, Session 7.**

129. Charles Coomer and **Rodney A. King** Identification of Bacterial Contaminates and Evidence for Temperate Phages in Beerwell Samples From a Bioethanol Production. 43<sup>rd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 23, 2013. **Best Undergraduate Poster in the Natural Sciences: Session 5**

128. Vishnu Tirumala,; Alex Kearns, **Rodney A. King** and Claire A. Rinehart. A Comparison of Two Newly Discovered Mycobacteriophages Isolated From Different Geographical Regions in Kentucky. 43<sup>rd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 23, 2013.

127. Lindsey Porter, **Rodney A. King** and Claire A. Rinehart. The Isolation and Characterization of Mycobacteriophage Pigpen. 43<sup>rd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 23, 2013

126. Patrick Osterhaus, Ajit Deshpande, **Rodney A. King** and Claire A. Rinehart. Discovery and Genomic Comparison of Bacteriophages Updawg and Pandakarenina. 43<sup>rd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 23, 2013

125. Hannah Graff, **Rodney A. King** and Claire A. Rinehart. Discovery and Analysis of Mycobacteriophage Capnhook. 43<sup>rd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 23, 2013.

124. Jarad Williams, **Rodney A. King**. Potential Antiterminator RNA Discovered in Enterobacter aerogenes Strain KCTC2190. 43<sup>rd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 23, 2013.

## **2012:**

123. Charels A. Coomer\* and **Rodney A. King**. Rapid Classification of Newly Discovered Mycobacteriophages using Polymerase Chain Reaction. Annual Meeting of the Kentucky-Tennessee Branch of the American Society for Microbiology, Maryville College, Maryville, TN., October 26-27, 2012.

122. Amanda L. Seaton and **Rodney A. King**. Defining the Requirements for Bacteriophage HK639 Early Gene Expression. Annual Meeting of the Kentucky-Tennessee Branch of the American Society for Microbiology, Maryville College, Maryville, TN., October 26-27, 2012.

121. Donna Williams, Sebastian Sanchez, T. Keith Philips and **Rodney A. King**. Evidence for an Association Between an Arthropod, an Endosymbiont and a Bacteriophage. Annual Meeting of the Kentucky-Tennessee Branch of the American Society for Microbiology, Maryville College, Maryville, TN., October 26-27, 2012.



120. Amanda L. Seaton\* and **Rodney A. King**. Using Recombineering to Define the Requirements for Bacteriophage HK639 Early Gene Expression. 98<sup>th</sup> Annual Meeting of the Kentucky Academy of Science, Richmond, KY. October 19-20, 2012
119. Charles A. Coomer\* and **Rodney A. King**. Classification of Bacteriophages using Polymerase Chain Reaction: An Alternative to Complete Genome Sequencing. 98<sup>th</sup> Annual Meeting of the Kentucky Academy of Science, Richmond, KY. October 19-20, 2012. **3<sup>rd</sup> place award, Cellular and Molecular Biology Undergraduate Division, oral presentation.**
118. Donna Williams, Sebastian Sanchez, **Rodney King** and Keith Philips. A Tripartite Association Between an Insect, an Endosymbiont and a Parasite. 98<sup>th</sup> Annual Meeting of the Kentucky Academy of Science, Richmond, KY. October 19-20, 2012. **1<sup>st</sup> place award, Microbiology Undergraduate Division, poster presentation.**
117. Meaghan C. Dunn<sup>1\*</sup>, Barry C. Blair<sup>1</sup>, Jessica N. Carter<sup>2</sup>, Karlee B. Driver<sup>2</sup>, **Rodney A. King<sup>2</sup>**, Amanda E. Links<sup>3</sup>, Rahul J. Rasam<sup>2</sup>, Claire A. Rinehart<sup>2</sup>, Jeong H. Shin<sup>2</sup>, Alexandra P. Sunnenberg<sup>1</sup>. Discovery and Genomic Characterization of Bacteriophage *KyKar*. 2012 National Consortium for Specialized Secondary Schools of Mathematics, Science , and Technology (NCSSSMST) conference. Chicago, Ill. June 20-23, 2012. <sup>1</sup>The Gatton Academy of Mathematics and Science, <sup>2</sup>Western Kentucky University and <sup>3</sup>Calvin College. **Meaghan presented a poster and gave an oral presentation.**
116. Natascha K. Richardson<sup>1\*</sup>, Jonathan K. Bailey<sup>1</sup>, Lindsey M. Burke<sup>1</sup>, Mamie E. Caldwell<sup>1</sup>, Katherine N. Corcoran<sup>1</sup>, Eileen A. Doan<sup>1</sup>, Eli G. Estes<sup>2</sup>, **Rodney A. King<sup>2</sup>** and Claire A. Rinehart<sup>2</sup>, Brent A. Webb<sup>2</sup>. *MadamMonkfish*, a Novel Mycobacteriophage Isolated From Ravenna, Kentucky. 2012 National Consortium for Specialized Secondary Schools of Mathematics, Science , and Technology (NCSSSMST) conference. Chicago, Ill. June 20-23, 2012. <sup>1</sup>The Gatton Academy of Mathematics and Science, <sup>2</sup>Western Kentucky University. **Natascha presented a poster and gave an oral presentation.**
115. Meredith A. Doughty<sup>1\*</sup>, Alonna D. Ballinger<sup>1</sup>, Andrew R. Cardwell<sup>2</sup>, Aaron D. Gingerich<sup>2</sup>, **Rodney A. King<sup>2</sup>**, Jordan R. Olberding<sup>2</sup>, Miranda L. Parrish<sup>1</sup>, Claire A. Rinehart<sup>2</sup>. Physical and Molecular Characterization of Bacteriophage *TinaFeyge*. 2012 National Consortium for Specialized Secondary Schools of Mathematics, Science , and Technology (NCSSSMST) conference. Chicago, Ill. June 20-23, 2012. <sup>1</sup>The Gatton Academy of Mathematics and Science, <sup>2</sup>Western Kentucky University. **Meredith presented a poster and gave an oral presentation.**
114. Jonathan K. Bailey, Alonna D. Ballinger, Barry C. Blair, Lindsey M. Burke, Mamie E. Caldwell, Andrew R. Cardwell, Jessica N. Carter, Katherine N. Corcoran, Scotty W. Davis, Eileen A. Doan, Meredith A. Doughty, Karlee B. Driver, Meaghan C. Dunn, Eli G. Estes, Elizabeth E. Gatten, Aaron D. Gingerich, Chiraag D. Kapadia, **Rodney A. King**, Yuto Kobayashi, Amanda E. Links<sup>1</sup>, Jordan R. Olberding, Miranda L. Parrish, Rahul J. Rasam, Natascha K. Richardson, Claire A. Rinehart, Sarah M. Schrader, Jeong H. Shin, Alexandra P. Sunnenberg, Brent A. Webb, and Donna F. Williams. Department of Biology, Western Kentucky University, Bowling Green, KY and the <sup>1</sup>Department of Biology, Calvin College, Grand Rapids, MI. Isolation, Characterization and Genomic Analysis of Mycobacteriophages

*KyKar, MadamMonkfish, Morpher26 and TinaFeyge*. 4<sup>th</sup> Annual SEA-Phages Symposium. HHMI Janelia Farms Research Campus, June 8-10, 2012.

113. Meaghan Dunn, **Rodney A. King** and Claire A. Rinehart. The Discovery of AngeDeLaMort, a Novel Mycobacteriophage. Intel International Science and Engineering Fair, Pittsburgh, PA. May 13-18, 2012

112. Amanda Seaton and **Rodney King**. Defining the Essential Components of Bacteriophage HK639 Early Gene Expression. 42<sup>nd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 24, 2012. **Best Graduate Poster in the Natural Sciences, Session 1.**

111. Meaghan Dunn and **Rodney King**. The Discovery of AngeDeLaMorte, a Novel Mycobacteriophage. 42<sup>nd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 24, 2012.

110. Elizabeth Gatten and **Rodney King**. Isolation and Characterization of Bacteriophage Magnolia. 42<sup>nd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 24, 2012. **Best Undergraduate Poster in the Natural Sciences, Session 6.**

109. Meredith Doughty, **Rodney King**, and Claire Rinehart. Isolation and Characterization of the Mycobacteriophage Ambition. 42<sup>nd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 24, 2012.

108. Sherry Helm, Divinia Allan, and **Rodney King**. Analysis of RNA Mediated Antitermination in *Erwinia tasmaniensis* Bacteriophage phiEt88. 42<sup>nd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 24, 2012.

107. Alexandra Sunnenberg, **Rodney King**, and Claire Rinehart. The Isolation and Purification of the Bacteriophage Intrinity. 42<sup>nd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 24, 2012.

106. Lindsey Burke, **Rodney King**, and Claire Rinehart. Isolation and Characterization of Bacteriophage Lacuna. 42<sup>nd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 24, 2012.

105. Charles Coomer and **Rodney King**. Bacteriophage Classification Via PCR Analysis: An Alternative to Complete Genome Sequencing. 42<sup>nd</sup> Annual WKU Student Research Conference. Western Kentucky University, March 24, 2012. **Best Undergraduate Poster in the Natural Sciences, Session 10.**

104. Meaghan Dunn, Rodney A. King and Claire A. Rinehart. The Discovery of AngeDeLaMort, a Novel Mycobacteriophage. Southern KY Regional Science Fair, March 17, 2012. **Meaghan won the senior division and this made her eligible to present at the 2012 Intel Science and Engineering Fair.**

103. Meredith Doughty, **Rodney A. King** and Claire A. Rinehart. Isolation and Characterization of mycobacteriophage Ambition. The Third Annual University of Kentucky STEM Symposium. February 3, 2012.

102. Sherry Helm, Divinia Allan, and **Rodney King**. Analysis of RNA Mediated Antitermination in *Erwinia tasmaniensis* Bacteriophage phiEt88. **Posters at the Capitol**. January 26<sup>th</sup>, 2012.

**2011:**

101. Links, A. **Rodney A. King**, and Claire Rinehart. Genome Annotation of Two New Mycobacteriophages. West Michigan Regional Undergraduate Science Research Conference, November, 2011.

100. Schrader, S.\*, and **Rodney A. King**. Comparative Analysis of Seven Mycobacteriophage Genomes. Annual Meeting of the Kentucky-Tennessee Branch of the American Society for Microbiology, Volunteer State Community College, Nashville, TN., October 21-22, 2011.  
**Sarah was awarded 2<sup>nd</sup> place for her talk (\$50 prize)**

99. Helm, S., Divina Allen, Sarah Schrader and **Rodney A. King**. Evidence for RNA-Mediated Antitermination in the *Erwinia* Bacteriophage  $\phi$ Et088. Annual Meeting of the Kentucky-Tennessee Branch of the American Society for Microbiology, Volunteer State Community College, Nashville, TN., October 21-22, 2011

98. Links, A. **Rodney A. King**, and Claire Rinehart. Genome Annotation of Two New Mycobacteriophages. Conference of Research Experiences for Undergraduates Student Scholarship. Sponsored by the Council on Undergraduate Education. Washington, D.C., October 16-17, 2011.

97. Hawtrey, S.\*, Akhila Bethi, Lee E. Calvert, Charles A. Coomer, Andrea N. Eastes, Erin E. Eaton, Jonathan D. Faughn, Alex Gutierrez, Anthony Gutierrez, George M. Jones, Mackenzie L. Jones, **Rodney A. King**, Zimple D. Kurlawala, Taylor A. Leet, Lori J. Lovell, Prasanna Tamarapu Parthasarathy, Kaysi E. Phillips, Benjamin G. Rice, Claire A. Rinehart, Lori E. Shoup, Aaron C. Stolze, Ryan L. Sturgill, Erin M. Walch, Eric W. Westermant, Makka A. Wheeler, Spencer K. Wright. Isolation, Characterization and Genomic Analysis of Mycobacteriophages BarrelRoll and Gemini. 3<sup>rd</sup> Annual SEA symposium. HHMI's Janelia Farm Research Campus, Ashburn, VA. June 10-12, 2011.

96. Schrader, S\*. and **Rodney A. King**. Genomic Analysis of TT9, a Novel Mycobacteriophage. 41<sup>st</sup> Annual WKU Student Research Conference. Western Kentucky University, March 26, 2011. **Best in Conference Award**.

95. Hawtrey, S., **Rodney A. King**, and Claire Rinehart. The Isolation and Characterization of Luke117, a Novel Mycobacteriophage Isolated from Union, Kentucky. 41<sup>st</sup> Annual WKU Student Research Conference. Western Kentucky University, March 26, 2011.

94. Lovell, L., **Rodney A. King**, and Claire Rinehart Isolation of Novus, a Novel Bacteriophage Isolated from Florence, Kentucky. 41<sup>st</sup> Annual WKU Student Research Conference. Western Kentucky University, March 26, 2011.

93. Gutierrez, A., **Rodney A. King**, and Claire Rinehart Genome Discovery and Exploration. 41<sup>st</sup> Annual WKU Student Research Conference. Western Kentucky University, March 26, 2011.

92. Coomer, C., Claire Rinehart, and **Rodney A. King**. A Novel Bacterial Virus Isolated from Middletown, Kentucky. 41<sup>st</sup> Annual WKU Student Research Conference. Western Kentucky University, March 26, 2011.

91. Gutierrez, A., **Rodney A. King**, and Claire Rinehart The Journey of a Bacteriophage, Pestilence. 41<sup>st</sup> Annual WKU Student Research Conference. Western Kentucky University, March 26, 2011.

90. Eastes, A., **Rodney A. King**, and Claire Rinehart Isolation of the Bacteriophage Liberi. 41<sup>st</sup> Annual WKU Student Research Conference. Western Kentucky University, March 26, 2011.

89. Schrader, S.M. and **Rodney A. King**. Genomic Characterization of Mycobacteriophage TiroTheta9. **Posters at the Capitol**. Feb. 10, 2011

#### **2010:**

88. Schrader, S.M.\* and **Rodney A. King**. Genomic Characterization of Mycobacteriophage TiroTheta9. KY-TN ASM and Kentucky Academy of Science Joint Meeting. Western Kentucky University, Bowling Green, KY 42101. Nov. 12-13, 2010.

87. **King, R.A.**, Rinehart, C. and Parthasarathy, P.T. The Howard Hughes Medical Institute's National Genomics Research Initiative at Western Kentucky University. KY-TN ASM and Kentucky Academy of Science joint meeting. Western Kentucky University, Bowling Green, KY. 42101. Nov. 12-13, 2010.

86. Schrader, S.M. and **Rodney A. King**. Genomic Characterization of Mycobacteriophage TiroTheta9. 4<sup>th</sup> Annual Biology Summer Undergraduate Research Experience Symposium. September 10, 2010.

85. Howard, C., Ejike Anyanwu, Kaitlyn Cole, Karlee Driver, Elizabeth Farnsworth, Benjamin Howard, Brittney Howard, **Rodney A. King**, Jordan Olberding, Mackenzie Perkins, Claire Rinehart, Heidi Sayre, Tyler Scaff, Sarah Schrader, Prasanna Tamarapu Parthasarathy and Cynthia Tope. 007: A Lysin to Kill in My Backyardigan. 2<sup>nd</sup> Annual SEA symposium. HHMI's Janelia Farm Research Campus, Ashburn, VA. June 11-13, 2010

84. Scaff, Tyler, King, R.A. Rinehart, C. and Parthasarathy, P.T. The Phage and I: Isolating and Purifying a Bacteriophage and Annotating its Genome. National Consortium for Specialized

Secondary Schools of Math, Science, and Technology (NCSSSMST) Research Symposium.  
Stevens Institute of Technology in Hoboken, NJ. June 6-9, 2010

83. **King, R.A.**, Rinehart, C. and Parthasarathy, P.T. Genome Discovery and Exploration at Western Kentucky University. 2<sup>nd</sup> Annual SEA symposium. HHMI's Janelia Farm Research Campus, Ashburn, VA. June 11-13, 2010

82. **King, R.A.**, Wright, A.A., Cresawn, S., Jordan, J., Wheet, N. and Farrooque, R. The Complete Sequence of Bacteriophage HK75 and Its Relationship to Lambdoid Phage HK022. 110<sup>th</sup> Annual Meeting of the American Society for Microbiology, San Diego, CA., May 22-27, 2010.

81. Wright A.A., Christie, G.E. and **King, R.A.** The Complete Sequence and Annotation of Bacteriophage HK239. 110<sup>th</sup> Annual Meeting of the American Society for Microbiology, San Diego, CA., May 22-27, 2010.

80. Anyanwu, E., Cole, K., Driver, K., Falcone, A., Farnsworth, E., Howard, B., Howard, B., Howard, C., **King, R.A.**, Olberding, J., Perkins, M., Rinehart, C.A., Sayre, H., Scaff, T., Schrader, S., Parthasarathy, P.T., and Tope, C. Sequence and Annotation of the Wizard007 Mycobacteriophage Genome. UT-ORNL-KBRIN Bioinformatics Summit. Lake Barkley, Cadiz, KY. March 19-21, 2010

79. **King, R.A.**, Rinehart, C. and Parthasarathy, P.T. The HHMI National Genomics Research Initiative at Western Kentucky University. UT-ORNL-KBRIN Bioinformatics Summit. Lake Barkley, Cadiz, KY. March 19-21, 2010

78. Kunapuli, P.C\*. and **King R.A.** Is Transcription of the Bacteriophage HK639 Right Operon Antiterminated? 40<sup>th</sup> Annual WKU Student Research Conference. Western Kentucky University, February 27, 2010

77. Wright, A.A. and **King, R.A.** Sequence of Bacteriophage HK239 and Comparative Genomics Analysis. 40<sup>th</sup> Annual WKU Student Research Conference. Western Kentucky University, February 27, 2010

76. Howard, B., **King, R.A.** and Rinehart, C. Discovering New genomes in the Soil. 40<sup>th</sup> Annual WKU Student Research Conference. Western Kentucky University, February 27, 2010

75. Farnsworth, E., **King, R.A.** and Rinehart, C. Luo Khaos, a New Bacterial Virus Isolated from the WKU Campus. 40<sup>th</sup> Annual WKU Student Research Conference. Western Kentucky University, February 27, 2010

74. Olberding, J., **King, R.A.** and Rinehart, C. Mycobacteriophage Luci Isolated from WKU Soil. 40<sup>th</sup> Annual WKU Student Research Conference. Western Kentucky University, February 27, 2010

73. Scaff, T., **King, R.A.**, and Rinehart, C. The Phage and I. 40<sup>th</sup> Annual WKU Student Research Conference. Western Kentucky University, February 27, 2010
72. Mackenzie, P., **King, R.A.**, and Rinehart, C. Isolation and Characterization of Wizard007, a Novel Bacteriophage. 40<sup>th</sup> Annual WKU Student Research Conference. Western Kentucky University, February 27, 2010
71. Tope, C., **King, R.A.**, and Rinehart, C. Agkelos, an Angelic Phage on Earth. 40<sup>th</sup> Annual WKU Student Research Conference. Western Kentucky University, February 27, 2010
70. Schrader, S., **King, R.A.**, and Rinehart C. TiroTheta9, a Novel Mycobacteriophage Isolated from the Soil. 40<sup>th</sup> Annual WKU Student Research Conference. Western Kentucky University, February 27, 2010
69. Howard, C., **King, R.A.**, and Rinehart, C. Backyardigan, an Novel Bacterial Virus Isolated from Radcliff, Kentucky. 40<sup>th</sup> Annual WKU Student Research Conference. Western Kentucky University, February 27, 2010
- 2009:**
68. **King, R.A.\***, Rinehart, C. and Parthasarathy, P.T. WKU's First Semester Experience in the SEA. HHMI/NGRI In Silico Workshop II, Ashburn, VA. December 14-18, 2009
67. Wright, A.A\*. and **King, R.A.** Sequencing and Annotation of the Bacteriophage HK239 genome. Kentucky Academy of Science, Northern Kentucky University, November 12-14, 2009. **Ali earned 1<sup>st</sup> place for graduate student presentations.**
66. Kunapuli, P.C\*. and **King R.A.** Is transcription of the bacteriophage HK639 right operon antiterminated? Kentucky Academy of Science, Northern Kentucky University, November 12-14, 2009
65. Wright, A.A\*. and **King, R.A.** Sequencing and Annotation of the Bacteriophage HK239 genome. Southeast IDeA Regional meeting, Charleston, S.C. November 9-11, 2009. **Ali earned an Exceptional Presentation Award.**
64. Wright, A.A\*. and **King, R.A.** Sequencing and Annotation of the Bacteriophage HK239 genome. Annual Meeting of the Kentucky-Tennessee Branch of the American Society for Microbiology, University of Tennessee, Knoxville, TN. October 16-17, 2009. **Ali earned 2<sup>nd</sup> place for her graduate student presentation. She also won a \$500 travel award.**
63. Kunapuli, P.C\*. and **King R.A.** Is transcription of the bacteriophage HK639 right operon antiterminated? Annual Meeting of the Kentucky-Tennessee Branch of the American Society for Microbiology, University of Tennessee, Knoxville, TN. October 16-17, 2009

62. Jonnalagadda, M. and **King, R.A.** Identification of the Bacteriophage HK639 Integration Site by Recombineering and Plasmid Rescue. 109<sup>th</sup> Annual Meeting of the American Society for Microbiology, Philadelphia, PA., May 16-21, 2009

61. Ahmed, M. and **King, R.A.** Identification of the Integration Site of Bacteriophage HK639 in *E.coli* Strain MG1655. 3<sup>rd</sup> Annual BSURE symposium. Western Kentucky University, Bowling Green, KY, Sept 11, 2009.

60. Lawrence, M, Wright, A.A., and King, R.A. Identifying Bacterial Contaminants in Industrial Cooling Fluid. 3<sup>rd</sup> Annual BSURE symposium. Western Kentucky University, Bowling Green, KY, Sept 11, 2009

59 Evidence for Cohesive DNA Ends in a Bacteriophage Genome. Jessica Jordan and **Rodney A. King.** 39<sup>th</sup> Annual WKU Student Research Conference. Western Kentucky University. February 21, 2009

58. Constructing Phage Mutants by Recombineering. Stephanie Lane and **Rodney A. King** 39<sup>th</sup> Annual WKU Student Research Conference. Western Kentucky University. February 21, 2009.

#### **2008:**

57. Evidence for Cohesive DNA Ends in a Bacteriophage Genome. Jessica Jordan and **Rodney A. King.** Annual Meeting of the Kentucky-Tennessee Branch of the American Society for Microbiology. Freed Hardeman University, Henderson, TN. October 3-4, 2008

56. Evidence for Cohesive DNA Ends in a Bacteriophage Genome. Jessica Jordan and **Rodney A. King** (Sept. 2008) 2<sup>nd</sup> Annual Biology Summer Undergraduate Research Symposium. Western Kentucky University.

55. Constructing Phage Mutants by Recombineering. Stephanie Lane and **Rodney A. King** (Sept. 2008) 2<sup>nd</sup> Annual Biology Summer Undergraduate Research Symposium. Western Kentucky University

#### **2007:**

54. Constructing Single-Copy Antitermination Reporter Gene Constructs by Recombineering. Andrew Ebelhar\* and **Rodney A. King** Annual Meeting of the Kentucky-Tennessee branch of the American Society for Microbiology. Cumberland Falls State Park, Oct 5-6, 2007.

53. An amino acid substitution of a conserved cysteine residue in the Beta prime subunit of *Escherichia coli* RNA polymerase causes temperature sensitivity. Niles Sahi and **Rodney A. King.** Annual Meeting of the Kentucky-Tennessee branch of the American Society for Microbiology. Cumberland Falls State Park, Oct 5-6, 2007.

52. Mutagenesis of bacteriophage HK639 and identification of its integration site. Madhuri Jonnalagadda\* and **Rodney A. King**. Annual Meeting of the Kentucky-Tennessee branch of the American Society for Microbiology. Cumberland Falls State Park, Oct 5-6, 2007.

51. Site-directed mutagenesis of a highly conserved cysteine residue in the Beta-prime subunit of *E. coli* RNA polymerase. Christopher Pendleton\* and **Rodney A. King** (2007). 37<sup>th</sup> Annual Student Research (Sigma Xi) Conference. Western Kentucky University.

50. Constructing Single-Copy Antitermination Reporter Gene Constructs by Recombineering. Andrew Ebelhar and **Rodney A. King** (2007). 37<sup>th</sup> Annual Student Research (Sigma Xi) Conference. Western Kentucky University.

#### **2006:**

49. Site-directed mutagenesis of a highly conserved cysteine residue in the Beta prime subunit of *E. coli* RNA polymerase. Christopher Pendleton and **Rodney A. King** (2006). Kentucky Academy of Science Meeting. Nov. 9-11, 2006, Morehead, KY.

48. A single amino acid substitution in the Beta Prime subunit of *E. coli* RNA polymerase alters the expression of specific cellular genes. Jon Faughn and **Rodney A. King** (2006). Kentucky Academy of Science Meeting. Nov. 9-11, 2006, Morehead, KY.

47. Protection of Antiterminator RNA by the Transcription Elongation Complex. Sigi Sloan, Edit Rutkai, **Rodney A. King**, Tanya Velikodvorskaya and Robert A. Weisberg. 13th Biennial Meeting on the Post-Initiation Activities of RNA polymerases held at Mountain Lake, VA. November 2-5, 2006

46. Mutations in the zinc-binding domain of *Escherichia coli* RNA polymerase affect the expression of specific cellular genes. **Rodney King**\* and Bridget Sutton, Annual meeting of the Kentucky-Tennessee branch of the American Society for Microbiology. Sept 30-Oct 1, 2006, Nashville, TN.

45. A double agar overlay method to identify bacteriophages that are sensitive to mutations in *Escherichia coli* RNA polymerase. Christopher Pendleton\* and **Rodney King**, Annual meeting of the Kentucky-Tennessee branch of the American Society for Microbiology. Sept 30-Oct 1, 2006, Nashville, TN.

44. Sequence analysis of Bacteriophage HK239 Ali Wright\* and **Rodney A. King**. 36<sup>th</sup> Annual Sigma Xi Conference, Western Kentucky University, April 8, 2006.

43. Sequence annotation of the bacteriophage HK639 genome and the identification of the phage integration site in the *Escherichia coli* chromosome. Courtney Miles\* and **Rodney A. King**. 36<sup>th</sup> Annual Sigma Xi Conference, Western Kentucky University, April 8, 2006.



42. A double agar overlay method to identify bacteriophages that are sensitive to mutations in *Escherichia coli* RNA polymerase. Christopher Pendleton\* and **Rodney A. King**. 36<sup>th</sup> Annual Sigma Xi Conference, Western Kentucky University, April 8, 2006.

41. First evidence for *Wolbachia* in a superfamily of beetles. Daniel Poppy\*, Keith Phillips and **Rodney A. King**. 36<sup>th</sup> Annual Sigma Xi Conference, Western Kentucky University, April 8, 2006.

40. Using Bioinformatics to understand the clear plaque phenotype of Bacteriophage HK75. Nick Wheat\* and **Rodney A. King**. 36<sup>th</sup> Annual Sigma Xi Conference, Western Kentucky University, April 8, 2006.

39. Courtney Miles' poster was chosen for Posters at the Capitol. The immunity region of bacteriophage HK639 encodes an antiterminator RNA. Courtney Miles\* and Rodney A. King. Frankfort, KY, February 2, 2006.

#### **2005:**

38. RNA-mediated Transcription Antitermination. **Rodney A. King\***. Western Kentucky University. Kentucky Academy of Science (KAS) meeting, Richmond, KY. November 10-12, 2005.

37. Superinfection exclusion by bacteriophage HK239 is mediated by more than one gene product. Ali Wright\* and **Rodney A. King**. Western Kentucky University. Kentucky Academy of Science (KAS) meeting, Richmond, KY. November 10-12, 2005.

36. The immunity region of bacteriophage HK639 encodes an antiterminator RNA. Courtney Miles\* and **Rodney A. King**. Kentucky Academy of Science (KAS) meeting, Richmond, KY. November 10-12, 2005.

35. RNA-mediated transcription antitermination. **Rodney King\***. Annual meeting of the Kentucky-Tennessee branch of the American Society for Microbiology. Sept 30-Oct 1, 2005, Nashville, TN.

34. The Immunity Region of Bacteriophage HK639 Encodes an Antiterminator RNA. Courtney Miles and **Rodney A. King**. Annual meeting of the Kentucky-Tennessee branch of the American Society for Microbiology. Sept 30-Oct 1, 2005, Nashville, TN.

33. Superinfection Exclusion by Bacteriophage HK239 is Mediated by More than One Gene Product. Ali Wright, **Rodney A. King**. Annual meeting of the Kentucky-Tennessee branch of the American Society for Microbiology. Sept 30-Oct 1, 2005, Nashville, TN.

32. Miles, C\*. and **King R.A.** Sequence analysis of the immunity region of bacteriophage HK639. 35<sup>th</sup> Annual Sigma Xi Conference. April 9, 2005. Western Kentucky University.

#### **2004:**

31. Wright, A. and **King R.A.** Bacteriophage HK239 encodes a cor gene homolog that blocks the growth of phage HK022. 90<sup>th</sup> Annual Kentucky Academy of Science Conference, Murray State, KY. Nov. 4-6, 2004.

30. Sims, J.<sup>1</sup>, McLaughlin, M.R.<sup>2</sup>, Bala, F.<sup>2</sup>, Andersland, J.<sup>1</sup> and **King R.A.**<sup>1</sup> Physical characterization of Salmonella specific bacteriophage from swine manure lagoons. <sup>1</sup>Western Kentucky University, Bowling Green KY, <sup>2</sup>USDA-ARS Mississippi State, MS. 90<sup>th</sup> Annual Kentucky Academy of Science Conference, Murray State, KY. Nov. 4-6, 2004.

29. Rutkai, E., Sloan, S., **King, R.A.** and Weisberg R.A. Persistence of RNA-mediated antitermination. ASM Conference on the New Phage Biology, August 1 -5, 2004, in Key Biscayne, Florida.

28. M. R. McLaughlin<sup>1</sup>, F. Bal'a<sup>1</sup>, J. Sims<sup>2</sup>, J. Andersland<sup>2</sup>, **R. King**<sup>2</sup>; <sup>1</sup>USDA-ARS, Mississippi State, MS, <sup>2</sup>Western Kentucky University, Bowling Green, KY. Salmonella Phages from Swine Manure Lagoons. ASM Conference on the New Phage Biology, August 1 -5, 2004, in Key Biscayne, Florida.

27. **\*King, R.A.**, Other examples of RNA-mediated transcription antitermination. Bacteriophage Interest Group at the National Institutes of Health. June 7, 2004.

26. Wright, A. and **King, R.A.** Identification of a Superinfection Exclusion Gene of Bacteriophage HK239. 104<sup>th</sup> Annual meeting of the American Society for Microbiology. May 23-27, 2004.

25. Wright, A and **King, R.A.** Identification of a superinfection exclusion gene of bacteriophage HK239. Western Kentucky University Student Research Conference sponsored by the WKU chapter of Sigma Xi and the University Honors Program. April 3, 2004.

### **2003:**

24. **King, R.A.** Using microarrays to assess the effects of mutations in the conserved zinc-finger domain of Escherichia coli RNA polymerase. Annual meeting of the Kentucky Academy of Science. November 6-8, 2003.

23. Wright, A and **King, R.A.** A search for the superinfection exclusion activity of bacteriophage HK239. Western Kentucky University Student Research Conference sponsored by the WKU chapter of Sigma Xi and the University Honors Program. April 5, 2003.

22. Sen, R., **King, R.A.**, Velikodvorsky, T. and Weisberg, R.A. (2003) FASEB meeting. Saxton Rivers, VT. July 2003.

21. **King, R.A.** and Farooque, R.: Antiterminator RNAs in Lambdoid Bacteriophage. 103<sup>rd</sup> Annual meeting of the American Society for Microbiology. May 18-23, 2003. Washington, D.C.

20. McLaughlin, M.R., Bal'a, M.F., Rowe, D.E., Doerner, K.C., **King, R.A.**, and Andersland, J. Isolation of Lytic Bacteriophage. International Poultry Science Forum, January 2003.

**2002:**

19. **\*King, R.A.**, Markov, D. Severinov, K. and Weisberg, R.A.: Possible *put*-mediated antitermination in the absence of the  $\beta'$  subunit zinc-finger. Meeting on the Post-initiation activities of RNA polymerase. Mountain Lake, VA. 2002

18. Sen, R., **King, R.A.**, and Weisberg, R.A.: How does put antiterminate? Meeting on the Post-Initiation activities of RNA polymerase. Mountain Lake, VA. 2002.

17. Sloan, S., Banik-Maiti, S., **King, R.A.**, and Weisberg, R.A.: Structure-Function analysis of Phage HK022 antiterminator RNA. The American Society for Microbiology General Meeting. Salt Lake City Utah. 2002.

**2001:**

16. **\*King, R.A.**, Sen, R. Mzhavia, N., Madsen, P.L. and Weisberg, R.A.: Mutations in a conserved zinc finger domain of RNA polymerase that suppress transcription termination. Meeting on the Molecular Genetics of Bacteria and Phage, University of Wisconsin, Madison, Wisconsin 2001.

**2000:**

15. **\*King, R.A.**, Sen, R., Madsen, P.L., Mzhavia, N. and Weisberg, R.A.: Mutations in the conserved metal binding motif of E. coli RNA polymerase affect cell viability and suppress put-dependent antitermination. Meeting on the Molecular Genetics of Bacteria and Phage, Cold Spring Harbor, New York. 2000.

14. Sen, R.A., **King, R.A.** and Weisberg, R.A.: Specific in-cis interaction of an antiterminator RNA with RNA polymerase. Meeting on the molecular genetics of bacteria and phage, Cold Spring Harbor, New York. 2000.

**1999:**

13. Sen, R. **King, R.A.**, and Weisberg, R.A.: Interaction of an antiterminator RNA with the transcription elongation complex. FASEB, 1999.

**1998:**

12. **\*King, R.A.**, Weisberg, R.A.: RNA-mediated antitermination. Post-Initiation Activities of RNA Polymerases. Mountain Lake, VA, 1998.

**1997:**

11. \***King, R.A.**, Banik-Maiti, S., Weisberg, R.A.: The antiterminator RNA of phage HK022. Meeting on the molecular genetics of bacteria and phage. Madison, Wisconsin. 1997.

10. **King, R.A.**, Banik-Maiti, S., Jin, D.J. and Weisberg, R.A.: Early transcripts of bacteriophage HK022 accelerate RNA polymerase elongation and suppress transcription termination. The American Society for Microbiology General Meeting, Miami Beach, FL. 1997.

**1996:**

9. **King, R.A.**, Banik-Maiti, S., Jin, D.J. and Weisberg, R.A.: RNA-dependent transcription antitermination in phage HK022. Meeting on the Post-Initiation Activities of RNA Polymerase. Mountain Lake, VA, 1996.

8. Banik-Maiti, S., **King, R.A.** and Weisberg, R.A.: The antiterminator RNA of phage HK022. Meeting on the Post-Initiation Activities of RNA Polymerase. Mountain Lake, VA, 1996.

**1995:**

7. **King, R.A.**, Banik-Maiti, S., and Weisberg, R.A.: Evidence that a phage HK022 antitermination site acts in the form of a structured RNA molecule. Meeting on the Molecular Genetics of Bacteria and Phages. Cold Spring Harbor, New York. 1995.

6. \***King, R.A.** and Weisberg, R.A.: Factor-independent processive antitermination promoted by the phage HK022 *nutL* site. Meeting on the Molecular Genetics of Bacteria and Phages. Cold Spring Harbor, New York. 1995.

**1994:**

5. \***King, R.A.** and Weisberg, R.A.: Functional analysis of an antitermination site of phage HK022. Meeting on the Post-Initiation Activities of RNA Polymerase. Mountain Lake, VA., 1994.

4. **King, R.A.** and Weisberg, R.A.: Mutational analysis of an antitermination site in HK022. Meeting on the Molecular Genetics of Bacteria and Phages. Madison, Wisconsin, 1994.

3. **King, R.A.**, Ayers, D., Winslow, R., Sunshine, M., Six, E., and Christie, G.E.: Genetic analysis of the interaction between Ogr and RNA polymerase. Fourth International Meeting on P4, P2 and Related Bacteriophages. Oslo, Norway, 1994.

**1991:**

2. \***King, R.A.** and Christie, G.E.: Probing interactions between RNA polymerase and a phage-encoded transcriptional activator using site-directed mutagenesis. Virginia Journal of Science 42: 250, 1991.

**1990:**

1. **\*King, R.A.** and Christie, G.E.: Probing Ogr-RNA polymerase interactions by site-directed mutagenesis. Third International Meeting on P4, P2 and Related Bacteriophages. Gargnano, Italy, 1990.

**PUBLISHED ABSTRACTS:**

2. **King, R.A.**, Rinehart, C. and Parthasarathy, P.T. (2010) The HHMI National Genomics Research Initiative at Western Kentucky University. UT-ORNL-KBRIN Bioinformatics Summit. Lake Barkley, Cadiz, KY. Abstract published in BioMed Central-Bioinformatics.

**\*Denotes WKU student author.**

1. Anyanwu, E., Cole, K.\*, Driver, K.\*, Falcone\*, A., Farnsworth, E.\*, Howard, B.\*, Howard, B.\*, Howard, C.\*, **King, R.A.**, Olberding, J.\*, Perkins, M.\*, Rinehart, C.A., Sayre, H.\*, Scaff, T.\*, Schrader, S.\*, Parthasarathy, P.T.\*, and Tope, C\*. (2010) Sequence and Annotation of the Wizard007 Mycobacteriophage Genome. UT-ORNL-KBRIN Bioinformatics Summit. Lake Barkley, Cadiz, KY. Abstract published in BioMed Central-Bioinformatics. **\*Denotes WKU student author.**

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10. Oates, E.A.\*, Brown, C.B.\*, McDaniel, C.M.\*, Wathen, K.E.\*, Thompson, A.R.\*, Goedde, M.A.\*, Gaffney, B., Rinehart, C.A., King, R.A., Bowman, C.A., Russell, D.A., Pope, W.H., Jacobs-Sera, D., Hendrix, R.W. and Hatfull, G.F. Arthrobacter phage Mudcat, complete genome; accession KU647628. March 5, 2016. **\*Denotes WKU student author.**

9. Lynch, K.C.\*, Doan, M.\*, Paisley, J.T.\*, Allen, K.G.\*, Gaffney, B.L., Rinehart, C.A., **King, R.A.**, Staples, A., Bowman, C.A., Russell, D.A., Pope, W.H., Jacobs-Sera, D., Hendrix, R.W. and Hatfull, G.F. Arthrobacter phage Kellezio, complete genome; accession KU647626, March 5, 2016. **\*Denotes WKU student author.**

8. Heard, W.N.\*, de Cesare, M.A.\*, Fan, L.\*, Herricks, S.E.\*, Hoffman, D.L.\*, Huggins, E.C.\*, Keeter, E.L.\*, **King, R.A.**, McKellar, J.S.\*, Noel, E.M.\*, Pike, L.A.\*, Powers, N.A.\*, Profumo, K.M.\*, Pulsifer, E.A.\*, Rinehart, C.A., Rowland, N.S., White, A.J.\*, Wolford, L.E.\*, Ball, S.L.\*, Bradley, K.W., Asai, D.J., Bowman, C.A., Russell, D.A., Pope, W.H., Jacobs-Sera, D., Hendrix, R.W. and Hatfull, G.F. Mycobacterium phage TheloniousMonk, complete genome; accession NC\_028828, Jan. 5, 2016. **\*Denotes WKU student author.**

7. King, A.R.\*, Cook, R.C.\*, Khenner, E.M.\*, Owens, N.L.\*, Sharma, A.\*, Stairs, E.N.\*, **King, R.A.**, Rinehart, C.A., Serrano, M.G., Buck, G., Lee, V., Wang, Y., Carvalho, R., Voegtly, L., Shi, R., Duckworth, R., Johnson, A., Loviza, R., Walstead, R., Shah, Z., Kifilezghi, M., Wade, K., Anders, K.R., Braun, M.A., Delesalle, V.A., Hughes, L.E., Ware, V.C., Bradley, K.W., 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. Mycobacterium phage Larenn, complete genome. Nov 8, 2014. **\*Denotes WKU student author.**

6. Jacobs-Sera, D., Zellars, M., Wells, M.E., Webb, J.L., Ware, V.C., Vazquez, E., TamarapuParthasarathy, P.\*, Smith, I.A., Simon, S.E., Shaffer, C.D., Rubin, M.R., Rosenzweig, R.F., Rinehart, C.A., Qin, H., Pillay, I., Payne, D.E. II, Padolina, J.M., Novick, P.A., Miller, E.S., Mayer, E.S., Marzillier, J.Y., Mageeney, C.M., MacGibeny, M.A., Li, W., Lee, J.Y., Kinnersley, M.A., King-Smith, C., **King, R.A.**, Kenna, M.A., Kearse, M.G., Johnson, B.K., Johnson, A.A., Johnson, C.M., Hughes, L.E., Harrison, M., Guild, N.A., Gilbert, J.L., Fillman, C.L., Felton, C.M., Dunbar, D.A., Dennehy, J.J., DeJong, R.J., Carson, S., Burnett, S.H., Breakwell, D.P., Berrios, J.E., Benjamin, R.C., Anderson, J.J., Bradley, K.W., Khaja, R., Lee, E., Barker, L.P., Lewis, M.F., Jordan, T.C., Cresawn, S.G., Grace, M.A., Pope, W.H., Ko, C., Russell, D.A., Peebles, C.L., Lawrence, J.L., Hendrix, R.W. and Hatfull, G.F.

“Mycobacteriophage RedRock, complete genome.” Feb. 1, 2010. GenBank: GU339467.1.

**\*Denotes WKU student author.**

5. **King, R.A.**, Alice Wright\* and Courtney Miles\*. Escherichia Phage HK639 complete genome. Genbank database entry, November 10, 2011. Accession number: NC\_016158.

**\*Denotes WKU student authors.**

4. **King, R.A.**, Alice Wright\*, Courtney Miles\* and Nick Wheet\*. Escherichia Phage HK75 complete genome. Genbank database entry, November 10, 2011. Accession number: NC\_016160. **\*Denotes WKU student authors.**

3. Rice, B.G.\*, Bethi, A.\*, Calvert, L.E.\*, Coomer, C.A.\*, Eastes, A.N.\*, Eaton, E.\*, Faughn, J.D.\*, Gutierrez, A.\*, Gutierrez, A.\*, Hawtrey, S.F.\*, Jones, G.M.\*, Jones, M.L.\*, Kurlawala, Z.D.\*, Leet, T.A.\*, Lovell, L.J.\*, Phillips, K.E.\*, Shoup, L.E.\*, Stolze, A.C.\*, Walch, E.M.\*, Westerman, E.W.\*, Wheeler, M.A.\*, Wright, S.K.\*, Parthasarathy, P.T.\*, **King, R.A.**, Rinehart, C.A., Lee, V., Hendricks, S.L., Voegtly, L.J., Wang, Y., Glascock, A.L., Anderson, J., Williamson, S.M., Walstead, R.N., Carvalho, M.R.C., Johnson, A., Buck, G.A., 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. Mycobacterium phage BarrelRoll complete genome. Genbank database entry, Feb. 3, 2012, GenBank: JN643714.1. **\*Denotes WKU student authors.**

2. Schrader, S.M.\*, Parthasarathy, P.T.\*, **King, R.A.**, Rinehart, C.A., Serrano, M.G., Lee, V., Hendricks, S.L., Sheth, N.U., Buck, G.A., 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. Mycobacterium phage TiroTheta9 complete genome. Genbank database entry, Feb. 3, 2012, GenBank: JN561150.1. **\*Denotes WKU student authors.**

1. Howard, C.M.\*, Rinehart, C.A., Parthasarathy, P.T.\*, **King, R.A.**, Anyanwu, E.I.\*, Cole, K.G.\*, Driver, K.B.\*, Farnsworth, E.M.\*, Howard, B.G.\*, Howard, B.E.\*, Olberding, J.R.\*, Perkins, M.C.\*, Sayre, H.L.\*, Scaff, T.L.\*, Schrader, S.M.\*, Tope, C.A.\*, 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. Mycobacterium phage Backyardigan complete genome. Feb. 3, 2012, GenBank: JF704093.1. **\*Denotes WKU student authors.**