

CV

Curriculum Vitae

Will K. Arnold

Updated [July 17, 2017]

PERSONAL DETAILS

Mailing Address: Medical Science Building MN469 800 Rose Street Lexington, KY 40536

EDUCATION

Degree, University and location, Month/Year

B.S. Biology University of Kentucky May 2011

Ph.D. Microbiology, Immunology, and Molecular Genetics University of Kentucky Exp. 2017

PROFESSIONAL EXPERIENCE

Year(s), Job title, Location

2009-2011 Research Assistant Department of Nutritional Sciences University of Kentucky

2011-2012 Research Technician Department of Physiology University of Kentucky

2012 Research Technician Department of Biology University of Kentucky

2012-2017(exp) Graduate Student Department of Microbiology, Immunology, and Molecular Genetics University of Kentucky

PROFESSIONAL ORGANIZATIONS

Name of organization, year(s)

AAAS, 2015 - Present

Biomedical Graduate Student Organization, 2015 - Present * Social Activity Chair, 2015 * Director of IT, 2016 - 2017

HONORS AND AWARDS

Name of award, year(s)

Domestic Travel Award, 2014

International Travel Award, 2015

Dissertation Enhancement Award, 2015

Sponsored AAAS Membership, 2016 – Present

Top Poster MIMG Departmental Retreat, 2017

CIVIC AND COMMUNITY INVOLVEMENT

Function, name of association, year(s)

Judge, Morton Middle school science fair 2015 - 2017

PUBLICATIONS

Bobrov, A. G., et al. (2017). "Zinc transporters YbtX and ZnuABC are required for the virulence of *Yersinia pestis* in bubonic and pneumonic plague in mice." *Metallomics* 9(6): 757-772.

Arnold, W. K., et al. (2016). "RNA-Seq of *Borrelia burgdorferi* in Multiple Phases of Growth Reveals Insights into the Dynamics of Gene Expression, Transcriptome Architecture, and Noncoding RNAs." *PLoS ONE* 11(10): e0164165.

Woodman, M. E., Savage, C.R., Arnold, W.K., and Stevenson, B. (2016). "Direct PCR of intact bacteria (colony PCR)." *Curr. Protoc. Microbiol.* 42:A.3D.1-A.3D.7.

Savage, C. R., et al. (2015). "Intracellular Concentrations of *Borrelia burgdorferi* Cyclic Di-AMP Are Not Changed by Altered Expression of the CdaA Synthase." *PLoS ONE* 10(4): e0125440.

Arnold, W. K., et al. (2015). "Apparent role for *Borrelia burgdorferi* LuxS during mammalian infection." *Infect Immun* 83(4): 1347-1353.

RELEVANT TRAINING AND COURSEWORK

(Year, Course title, Location)

2017, Data Intensive Biology Summer Institute, Davis CA

Presentations

ORAL

2014 Departmental Seminar * Giant viruses shed light on the evolution of life

2015 Departmental Seminar * Quorum sensing in the Lyme disease spirochete - A link between metabolic flux and virulence

2015 Departmental Retreat 3 Minute Thesis * Growth rate as a cue for virulence gene expression

2015 IBS Interview Day 3 Minute Thesis * Growth rate as a cue for virulence gene expression

2016 Departmental Seminar * Mechanistic links between bacterial growth rate and virulence

2017 Departmental Seminar * Dissection of gene regulatory networks in *B. burgdorferi*

POSTER

Gordon Research Seminar & Conference Biology of Spirochetes, 2014, Transcriptional Regulation of *bpuR*

MIMG Departmental Retreat, 2014, Transcriptional Regulation of *bpuR*

MIMG Departmental Retreat, 2015, Transcriptional Regulation of *bpuR* (An updated model)

International Conference on Lyme Borreliosis and other Tick Borne diseases, 2015, Transcriptional Regulation of *bpuR*

Gordon Research Seminar & Conference Biology of Spirochetes, 2016, Replication linked expression of the RNA/DNA binding protein, *bpuR*

MIMG Departmental Retreat, 2016, Replication linked expression of the RNA/DNA binding protein, *bpuR*

Gordon Research Seminar & Conference on Microbial Stress Responses, 2016, Replication linked expression of the RNA/DNA binding protein, *bpuR*

Molecular Genetics of Bacteria & Phages, 2016, Replication linked expression of the RNA/DNA binding protein, *bpuR*

Midwest Molecular Pathogenesis Conference, 2016, Replication linked expression of the RNA/DNA binding protein, *bpuR*

Bacterial Locomotion and Signal Transduction, 2017, Replication linked expression of the RNA/DNA binding protein, *bpuR*

MIMG Departmental Retreat, 2017, Replication linked expression of the RNA/DNA binding protein, *bpuR*

TRAINING GRANTS AND FELLOWSHIPS

(Year(s), Grant or fellowship title, source of funding, total amount of funding)