**CURRICULUM VITAE**

**Dustin C. Ernst**

**Address**: Department of Microbiology

 University of Georgia

 120 Cedar St., Room 359

 Athens, GA 30602-2605

**Contact**: 706-542-9579

 dcernst@uga.edu

**Education**

2011-present Ph.D., Department of Microbiology, University of Georgia – Athens

2003-2007 B.A., Department of Biology, University of San Diego

**Research Experience**

2013-present Research Assistant (Ph.D. thesis), Department of Microbiology,

 University of Georgia – Athens. Advisor: Diana M. Downs

2011-2013 Research Assistant (Ph.D. thesis), Department of Bacteriology,

University of Wisconsin – Madison. Advisor: Diana M. Downs

2008-2011 Senior Research Associate, Synthetic Genomics Inc., San Diego, CA

2007-2008 Research Associate, Genomics Institute of the Novartis Research

 Foundation, San Diego, CA

**Honors**

2015 University of Georgia Travel Award Recipient

**Membership in Professional Societies**

2014-present American Society for Microbiology

2014-present American Society for Molecular Biology and Biochemistry

**Teaching and Mentoring Experience**

2015-present Undergraduate research advisor, University of Georgia - Athens

 Student: Arvin Salmasi

Fall 2014 Teaching assistant, Introduction to Microbiology Laboratory,

 MIBO3510L, University of Georgia – Athens.

Summer 2014 NSF research experience for undergraduates, University of Georgia –

 Athens. Student: Jenna Olsen

2013-2014 Undergraduate research advisor, University of Georgia - Athens

 Student: Harveen Walia

**Posters and Presentations**

2015 Department of Microbiology seminar, University of Georgia –

 Athens. Presentation title: RidA prevents metabolic stress caused by

 amino acid metabolism in *Salmonella enterica*

2014 Southeastern Microbiology ASM meeting, Jacksonville, FL.

 Poster title: RidA prevents 2-aminoacrylate stress generated from the

 detoxification of cysteine and diaminopropionate

2014 ASBMB annual meeting, San Diego, CA.

 Poster title: Salvage of Coenzyme A breakdown products by the

 *STM4195* gene product in Salmonella enterica

2011 Raper symposium, University of Wisconsin – Madison.

 Poster title: Fortuitous discovery of a pantoate permease in *Salmonella*

 *enterica*

**Publications**

 1. Ernst, D. C. & Downs, D. M. The *STM4195* gene product (PanS) transports coenzyme A precursors in *Salmonella* *enterica*. *Journal of Bacteriology* **197,** 1368–1377 (2015).

2. Downs, D. M. & Ernst, D. C. From microbiology to cancer biology: the Rid protein family prevents cellular damage caused by endogenously generated reactive nitrogen species: RidA stress response. *Molecular Microbiology* **Epub ahead of print.,** 1–9 (2015).

3. Ernst, D. C., Lambrecht, J. A., Schomer, R. A. & Downs, D. M. Endogenous synthesis of 2-aminoacrylate contributes to cysteine sensitivity in *Salmonella* *enterica*. *Journal of Bacteriology* **196,** 3335–3342 (2014).

4. Han, G. W. *et al.* Structure of a putative NTP pyrophosphohydrolase: YP\_001813558.1 from *Exiguobacterium sibiricum* 255-15. *Acta Crystallographica Section F Structural Biology and Crystallization Communications* **66,** 1237–1244 (2010).

5. Han, G. W. *et al.* Structures of the first representatives of Pfam family PF06938 (DUF1285) reveal a new fold with repeated structural motifs and possible involvement in signal transduction. *Acta Crystallographica Section F Structural Biology and Crystallization Communications* **66,** 1218–1225 (2010).

6. Das, D. *et al.* Crystal structure of the first eubacterial Mre11 nuclease reveals novel features that may discriminate substrates during DNA repair. *Journal of Molecular Biology* **397,** 647–663 (2010).

7. Das, D. *et al.* The structure of KPN03535 (gi|152972051), a novel putative lipoprotein from *Klebsiella* *pneumoniae*, reveals an OB-fold. *Acta Crystallographica Section F: Structural Biology and Crystallization Communications* **66,** 1254–1260 (2010).

8. Das, D. *et al.* The structure of the first representative of Pfam family PF09836 reveals a two-domain organization and suggests involvement in transcriptional regulation. *Acta Crystallographica Section F Structural Biology and Crystallization Communications* **66,** 1174–1181 (2010).

9. Das, D. *et al.* The structure of BVU2987 from *Bacteroides* *vulgatus* reveals a superfamily of bacterial periplasmic proteins with possible inhibitory function. *Acta Crystallographica Section F Structural Biology and Crystallization Communications* **66,** 1265–1273 (2010).

10. Xu, Q. *et al.* Structural and functional characterizations of SsgB, a conserved activator of developmental cell division in morphologically complex actinomycetes. *Journal of Biological Chemistry* **284,** 25268–25279 (2009).

11. Das, D. *et al.* Crystal structure of the Fic (Filamentation induced by cAMP) family protein SO4266 (gi|24375750) from *Shewanella* *oneidensis* MR-1 at 1.6 Å resolution. *Proteins: Structure, Function, and Bioinformatics* **75,** 264–271 (2009).

12. Das, D. *et al.* Crystal structure of a novel Sm-like protein of putative cyanophage origin at 2.60 Å resolution. *Proteins: Structure, Function, and Bioinformatics* **75,** 296–307 (2009).