

CURRICULUM VITAE

January 19, 2016

Emily Clark Woods

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Emory University

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EDUCATION:

Emory University, Atlanta, GA

Entered Medical Scientist Training Program, June 2012

Completed two years of Doctor of Medicine coursework, Dec 2013

Currently in PhD, Microbiology and Molecular Genetics

Rhodes College, Memphis, TN

Bachelor of Science, Biochemistry and Molecular Biology, May 2012

WORK EXPERIENCE

ORISE Intern, Centers for Disease Control, Atlanta, GA, May-July 2011

- Worked within the Division of Laboratory Sciences using mass spectrometry to develop new methods to quantify the amount of hemagglutinin put in the yearly trivalent influenza vaccines.

Zero Waste Program Intern, Local Environmental Action Division, City of Boulder, May – August 2010

- Implemented the city's zero waste (recycling and composting) program in all city facilities
- Educated city employees regarding recycling and composting policies

Summer Research Intern, Laboratory for Atmospheric and Space Physics, University of Colorado, Boulder, CO, June – August 2009

- Utilized IDL to analyze data for calibration of an instrument on a research satellite

AWARDS/HONORS

- Southeastern Branch American Society for Microbiology, 1st place graduate poster presentation, Recipient, November 2015
- ASM Student and Post Doctoral Fellows Travel Grant for ICAAC/ICC 2015, Recipient, September 2015
- Emory University MSTP Training Grant, Recipient, 2012 - 2014
- Graduation *summa cum laude*, Rhodes College, May 2012
- Phi Beta Kappa honors society, Member, 2012-present
- Omicron Delta Kappa honors society, Member, 2012-present
- Gamma Sigma Epsilon (Chemistry Honors Society), Member, 2011-present
- "Post-Secondary Russian Scholar Laureate," American Council of Teachers of Russian, 2011
- Beta Beta Beta (Biology Honors Society) Member, 2010-present
- Dobro Slovo (Slavic Honors Society) Member, 2010-present

PROFESSIONAL MEMBERSHIPS

- American Society for Microbiology, Member, 2014 – present
- American Medical Association, Member, 2012-present

RESEARCH:

Emory University, Atlanta, GA, June 2014 – Present

- graduate student in laboratory of Dr. Shonna McBride, Emory School of Medicine Department of Microbiology and Immunology, Emory University Antibiotic Resistance Center
- investigating mechanisms of resistance to antimicrobial peptides in *Clostridium difficile*

Emory University, Atlanta, GA, April 2014 – May 2014

- laboratory rotation under Dr. Joanna Goldberg
- investigated the role of glucose in *Pseudomonas aeruginosa* growth and virulence

Emory University, Atlanta, GA, March 2014 – April 2014

- laboratory rotation under Dr. William Shaffer
- investigated the role of a putative histone deacetylase gene in *Neisseria gonorrhoeae* and its role in survival within macrophages

Emory University, Atlanta, GA, January 2014 – February 2014

- laboratory rotation under Dr. Shonna McBride
- investigated the role of sigma factor V in inducing resistance to antimicrobial peptides in *Clostridium difficile*

Emory University, Atlanta, GA, May 2012 – July 2012

- laboratory rotation under Dr. Richard Cummings
- Investigated the role of galectins in innate immunity to schistosomal infection

Rhodes College, Memphis, TN, August 2011 – May 2012

- Investigated the role and composition of the nucleolus in *Saccharomyces cerevisiae* in the laboratory of Dr. Mary Miller

ORISE Intern, Centers for Disease Control, Atlanta, GA, May-July 2011

- Worked within the Division of Laboratory Sciences using mass spectrometry to develop new methods to quantify the amount of hemagglutinin put in the yearly trivalent influenza vaccines.

Center for Experimental Rheumatology, University Hospital, Zurich, Switzerland, September – December 2010

- Researched the effects of hypoxia on microRNA expression in rheumatoid arthritis synovial fibroblasts
- Utilized laboratory techniques such as: cell culture, RNA isolation, reverse transcription, Taqman polymerase chain reaction, Western Blot

PUBLICATIONS

1. Woods EC, KL Nawrocki, JM Suarez, SM McBride. The *Clostridium difficile* Dlt pathway is controlled by the ECF sigma factor, σ^V , in response to lysozyme. *Infection and Immunity*. *In review*.
2. Edwards AN, RA Pascual, KO Childress, KL Nawrocki, EC Woods, SM McBride. 2015. An alkaline phosphatase reporter for use in *Clostridium difficile*. *Anaerobe*. doi:10.1016/j.anaerobe.2015.01.002.
3. Woods EC, C Ospelt, A Jüngel, M Filkova, S Vettori, R Gay, S Gay. High levels of microRNA-210 in rheumatoid arthritis. *Rhodes Journal of Biological Science* 2011; 26: 24-28.
4. Hock RA, PC Chamberlin, TN Woods, D Crotser, FG Eparvier, M Furst, DL Woodraska, and EC Woods. EUV Variability Experiment (EVE) Multiple EUV Grating Spectrographs (MEGS) Radiometric Calibrations and Results, *Solar Phys.*, doi 10.1007/s11207-010-9520-9, 2010.

Additional information and links available at SciENcv, the National Center for Biotechnology Information's electronic system that enables researchers to assemble their professional information:

<http://www.ncbi.nlm.nih.gov/sites/myncbi/emily.woods.1/bibliography/46234050/public/?sort=date&direction=ascending>

POSTER PRESENTATIONS:

1. Woods EC and SM McBride. Extracytoplasmic sigma factor V regulates expression of *dlt* in response to lysozyme in *Clostridium difficile*. Poster presented at: Emory Division Student Advisory Council Student Research Symposium; 2016 Jan 14; Atlanta, GA.
2. Woods EC, R Tamayo, JM Suarez, SM McBride. The Dlt Pathway is Required for Lysozyme Resistance in *Clostridium difficile* and is Regulated by SigV. Poster presented at: American Society of Microbiology Southeastern Branch Meeting; 2015 Nov 14; Kennesaw, GA.
3. Woods EC, R Tamayo, JM Suarez, SM McBride. The Dlt Pathway is Required for Lysozyme Resistance in *Clostridium difficile* and is Regulated by SigV. Poster presented at: Interscience Conference of Antimicrobial Agents and Chemotherapeutics; 2015 Sept 17-21; San Diego, CA.
4. Woods EC and SM McBride. Extracytoplasmic sigma factor V regulates expression of *dlt* in response to lysozyme in *Clostridium difficile*. Poster presented at: Inaugural Emory Antibiotic Resistance Center symposium; 2015 Aug 19; Atlanta, GA.
5. Zughair SM, JL Kandler, EC Woods, JT Balthazar, WM Shafer. Posphoethanolamine modification on the lipid A moiety of *Neisseria gonorrhoeae* lipooligosaccharide reduces autophagy formation in macrophages. Poster session presented at: International Pathogenic Neisseria Conference; 2014 Oct 12-17; Asheville, NC.
6. Woods EC and SM McBride. Extracytoplasmic sigma factor V regulates expression of *dlt* in response to lysozyme in

Clostridium difficile. Poster presented at: American Society of Microbiology Southeastern Branch Meeting; 2014 Sept 6-7; Ponte Vedra, FL.

TEACHING

- BIOL475/IBS548 “Biology of the Eye,” Emory University, Teaching Assistant, Jan 2015 – May 2015

EXTRA-CURRICULAR ACTIVITIES:

- “The River” Homelessness Initiative (Virginia Highland Church), Steering Committee Member (Feb. 2015 – present)
- Health Students Taking Action Together, Inc., Marketing/Communications Chair and Secretary (June 2014 – present)
- Good Samaritan Health Clinic, Volunteer (2013 – present)
- In-Town Collaborative Food Ministry, Volunteer (2012 – 2015)
- Physicians for Human Rights, Emory Chapter, Member (2012 – 2014)
- Gateway Health Clinic, Volunteer (2012 – 2014)
- Jerusalem House, Volunteer (Jan. 2014 – June 2014)
- Christian Medical and Dental Association, Emory Chapter, Secretary (2012 - 2013)
- GlobeMed, Director of Communications (2009-2012), Member (2008 – 2009)

SKILLS:

Computers: IDL programing, competent with Microsoft Office suite

Languages: Russian (proficient), German (proficient), Spanish (elementary)