

SHAUN WACHTER, MSc

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EDUCATION

The University of Montana	PhD	2015-Present	Microbiology
Northern Illinois University	MS	2013	Microbiology
University of Illinois at Urbana-Champaign	BS	2010	Molecular and Cellular Biology

PROFESSIONAL EXPERIENCE

8/16-present	Graduate Research Assistant , Division of Biological Sciences, The University of Montana, Missoula, MT
8/15-8/16	Graduate Teaching Assistant , Division of Biological Sciences, The University of Montana, Missoula, MT
8/14-8/15,	Clinical Technician , TZAM Diagnostics, Northbrook, IL
12/13-8/14	Adjunct Instructor of Microbiology , Waubensee Community College, Sugar Grove, IL
8/11-12/13	Graduate Teaching Assistant , Department of Biological Sciences, Northern Illinois University, Dekalb, IL

HONORS and AWARDS

Recipient of the Linda Philips Knoblock Fellowship, The University of Montana, 2018
Montana Academy of Sciences Laurie Henneman Outstanding Student Presentation Award, 2018
Montana Academy of Sciences Research Grant recipient, 2017
Runner-up BIOS GEN TEN Research Awards, 2013
Phi-Sigma Symposium; Best Graduate Student Poster, 2012
Dean's List, University of Illinois at Urbana-Champaign, Spring 2009-Fall 2011

PROFESSIONAL MEMBERSHIP and LEADERSHIP

American Society for Rickettsiology (2016-present)

RESEARCH INTERESTS

- Biophysical aspects of small RNA targeting
- Bacterial small RNA regulation
- Host-pathogen interactions
- Bioinformatic and evolutionary analyses

GRANTS AWARDED

- (1) "*Coxiella burnetii* small RNA 12 (CbsR12) *in vivo* Characterization". (PI). The University of Montana, Montana Academy of Sciences Graduant Student Grant, 2017. **\$ 1500 funded.**
- (2) "Determination and Characterization of Promoter Regions within the *pilE* Gene of *Neisseria gonorrhoeae*". (PI). Northern Illinois University Departmental Grant, 2013. **\$ 500 funded.**
- (3) "Intragenic *pilE* Divergent Promoters as Determinants for Antigenic Variation". (PI). Northern Illinois University Departmental Grant, 2012. **\$ 500 funded.**

UNDERGRADUATE TRAINEES

- Finley Andrew, Spring 2018 – Fall 2018
- Kyle Shifflett, Fall 2016 – Summer 2018
- Mason Derendinger, Fall 2016 – Fall 2017
- Daneel Patoli, Spring 2012 – Fall 2012
- Joanna Mason, Fall 2011

PUBLICATIONS

Thesis –

Wachter, Shaun. 2013. Development of a Strand-Specific Method of qRT-PCR Reveals Novel Promoters in the Mid-Genic Region of the *pilE* Gene of *Neisseria gonorrhoeae*. **MS Thesis.** Northern Illinois University, DeKalb, IL.

Peer-Reviewed Articles –

Wachter S, Raghavan R, Wachter J, Minnick MF. 2018. Identification of novel MITEs (miniature inverted-repeat transposable elements) of *Coxiella burnetii*: implications for protein and small RNA evolution. *BMC Genomics* 19(1):247.

Masters TL, **Wachter S,** Wachter J, Hill SA. 2016. H-NS suppresses *pilE* intragenic transcription and antigenic variation in *Neisseria gonorrhoeae*. *Microbiology* 162(1): 177-190.

Wachter J, Masters TL, **Wachter S,** Mason J, Hill SA. 2015. *pilS* loci in *Neisseria gonorrhoeae* are transcriptionally active. *Microbiology* 161(Pt5): 1124-1135.

ABSTRACTS AND PRESENTATIONS

1. **Wachter S,** Minnick MF. Montana Academy of Sciences Annual Meeting 2018. Poster. "*Coxiella burnetii* small RNA 12 (CbsR12) targets *carA* and *metK* transcripts".
2. **Wachter S,** Warrier I, Minnick MF. American Society for Rickettsiology Conference 2016. Poster. "*Coxiella burnetii* small RNA 12 (CbsR12) targets *carA* transcripts *in vitro*".

3. **Wachter, S** and Hill, SA. GEN TEN Research Awards 2013. Runner-up poster presentation. "Identification and characterization of a divergent promoter in the *pilE* gene of *Neisseria gonorrhoeae*".
4. **Wachter, S** and Hill, SA. Argonne National Laboratory Graduate Conference 2013. Oral Presentation. "Identification and characterization of a divergent promoter in the *pilE* gene of *Neisseria gonorrhoeae*".
5. **Wachter, S** and Hill, SA. Rockford Research Day 2012. Poster. "A strand-specific method of qRT-PCR to identify intragenic RNA's in *N. gonorrhoeae*".
6. Derendinger M, **Wachter S**, Hicks L, Minnick MF. University of Montana Conference on Undergrad Research (April 2017). "The Bb_1133 protein of *Bartonella bacilliformis* as a Human Factor H-binding Protein".
7. Hickey B, Battisti J, Minnick MF, **Wachter S**. Montana Academy of Sciences Annual Meeting 2017. "CBU_1932; A Hypothetical DNA-Binding Protein of the Q Fever Pathogen *Coxiella burnetii*".

COURSES TAUGHT

Northern Illinois University-

- Organismal Diversity Laboratory (BIO150)
- Introduction to Biology Laboratory (BIO101)

Waubonsee Community College-

- General Biology (BIOS 100)
- General Biology Laboratory (BIOS 101)
- Introduction to Microbiology (BIOS 150)
- Introduction to Microbiology Laboratory (BIOS 151)

The University of Montana-

- General Physical Chemistry Laboratory (PHYS113)
- Prokaryotic Genetics Laboratory (BIOM 439)