

# Laura Lizbeth Hoon-Hanks

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**Address:** Colorado State University  
Microbiology, Immunology, and Pathology  
Fort Collins, CO 80523

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## Education

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- PhD Candidate** July 2015 – Present  
Colorado State University – Microbiology, Immunology,  
and Pathology Department  
Advisor: Mark Stenglein, PhD
- Veterinary Anatomic Pathology Resident** July 2014 – Present  
Colorado State University – Microbiology, Immunology,  
and Pathology Department
- Doctorate of Veterinary Medicine** Aug. 2010 – May 2014  
Colorado State University – College of Veterinary Medicine  
and Biomedical Sciences
- Bachelor of Arts – Biology/Zoology** Sept. 2007 – May 2010  
University of Montana - Missoula

## Research Experience

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- Research Assistant - Prion Research Center** Jan. 2012 – June 2013  
Colorado State University Department of Microbiology, Immunology, and Pathology – Fort Collins, CO  
Edward A. Hoover DVM, PhD, DACVP – Principal Investigator
- Assisted in the development of the real time quaking induced conversion (RT-QuIC) assay for the detection of CWD prions in antemortem and postmortem samples, including the use of novel tissues.
- Undergraduate Researcher - Lyme Disease Research Laboratory** Jan. 2008 – Aug. 2010  
University of Montana Division of Biological Sciences – Missoula, MT  
D. Scott Samuels PhD – Principal Investigator
- Performed molecular genetics and mutagenesis to generate null and complemented mutants for in vitro and in vivo infectivity, transmission, and survival studies using tick (*Ixodes scapularis*) and mouse models.

## Publications

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- Haley NJ, Carver S, **Hoon-Hanks LL**, et al. (2014), Detection of Chronic Wasting Disease in the Lymph Nodes of Free-Ranging Cervids by Real-Time Quaking-Induced Conversion. *Journal of Clinical Microbiology*, 52(9).
- Hoon-Hanks LL**, Regan D, Dubey JP, Porter MC, Duncan CG (2013), Hepatic neosporosis in a dog treated for pemphigus foliaceus. *Journal of Veterinary Diagnostic Investigation*, 25(6).
- Drecktrah D, Hall LS, **Hoon-Hanks LL**, Samuels DS (2013), An inverted repeat in the *ospC* operator is required for induction in *Borrelia burgdorferi*. *PLoS ONE*, 8(7): e68799.
- Hoon-Hanks LL**, Morton EA, Lybecker MC, Battisti JM, Samuels DS, Drecktrah D (2012), *Borrelia burgdorferi malQ* mutants utilize disaccharides and traverse the enzootic cycle. *FEMS Immunology & Medical Microbiology*, 66: 157–165

## Presentations

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- Colorado Ocular Pathology Seminar** September 19, 2014  
 Diagnostic Medical Center – Fort Collins, CO  
 Title: Anterior Segment Dysgenesis in a Mule Deer Fawn  
 Presentation type: Oral
- Prion 2013 International Prion Congress** May 26-29, 2013  
 Banff, Alberta, Canada  
 Title: Analysis of Cervid Field Samples by RT-QuIC: Potential for Improved Sensitivity in CWD Surveillance  
 Presentation type: Poster
- Prion 2013 International Prion Congress – Animal/TSE Workshop** May 26, 2013  
 Banff, Alberta, Canada  
 Title: Kinetics of Salivary Shedding and Analysis of Antemortem Samples via RT-QuIC  
 Presentation type: Oral
- Cellular and Molecular Biology Research Symposium** February 22, 2013  
 Colorado State University – Fort Collins, CO  
 Title: Analysis of Cervid Field Samples by RT-QuIC: Potential for Improved Sensitivity in CWD Surveillance  
 Presentation type: Poster
- CVMBBS Research Day** January 26, 2013  
 College of Veterinary Medicine and Biomedical Sciences – Fort Collins, CO  
 Title: Highly Sensitive In Vitro Evaluation of Cervid Field Samples for Chronic Wasting Disease Infection  
 Presentation type: Oral
- National Conference for Undergraduate Research** April 16, 2010  
 University of Montana – Missoula, MT  
 Title: The Mechanism of Cryoprotection by the Lyme Disease Agent During Persistence in its Tick Vector  
 Presentations type: Oral
- UM Conference for Undergraduate Research** April 17, 2009  
 University of Montana – Missoula, MT  
 Title: The Role of MalQ in Cryoprotection of the Lyme Disease Spirochete *Borrelia burgdorferi* in Overwintering Ticks  
 Presentation type: Oral

## Teaching Experience

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- Assistant Instructor – Veterinary Student Necropsy Rotation** July 2014 – Present  
 Colorado State University
- Assistant Lab Instructor – Biology of Disease VM741/742** March, April 2015  
 Colorado State University

## Research Grants

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- MILES Student Research Grant**  
 University of Montana - Award: \$7000
- Gordon and Anna Watkins Research Grant**  
 University of Montana - Award: \$2000
- Davidson Honors College Undergraduate Research Grant**  
 University of Montana - Award: \$2000

**MT NSF EPSCoR Undergraduate Research Grant**

University of Montana - Award: \$1500

**Honors/Awards**

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**Eula C. Voirol Scholarship** (Colorado State University – 2013)  
**John and Tracy Bissette Memorial Scholarship** (Colorado State University – 2012)  
**CVMBBS Endowment Fund Scholarship** (Colorado State University – 2011)  
**Josephine C. Linger Memorial Scholarship** (Colorado State University – 2010)  
**Department of Biological Sciences General Scholarship** (University of Montana – 2008, 2009)  
**University of Montana Honors Scholarship** (University of Montana – 2009)  
**Donald M. Hetler Premedical Scholarship** (University of Montana – 2008)  
**Ralph and Joan Fessenden Outstanding Female Student in Organic Chemistry Award** (University of Montana – 2008)  
**Governor's Post Secondary Scholarship** (Montana State University – 2006; University of Montana – 2007, 2008, 2009)  
**St. Patrick Sons and Daughters Scholarship** (University of Montana – 2007, 2008)  
**Florence-Carlton Scholarship** (Montana State University – 2006)

**Memberships**

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<b>American College of Veterinary Pathology</b>	July 2014 – Present
<b>American Veterinary Medical Association</b>	May 2014 – Present
<b>The Society of Phi Zeta - Theta Chapter</b> Honor Society of Veterinary Medicine	May 2013 – Present
<b>Student Chapter of American College of Veterinary Pathologists</b> College of Veterinary Medicine and Biomedical Sciences – Fort Collins, CO	Aug. 2010 – May 2013
<b>Student Chapter of the American Veterinary Medical Association</b> College of Veterinary Medicine and Biomedical Sciences – Fort Collins, CO <i>Club Representative (2012-2013)</i>	Aug. 2010 – May 2013
<b>Zoological Medicine Society</b> College of Veterinary Medicine and Biomedical Sciences – Fort Collins, CO <i>President (2011-2012)</i> <i>Exotics on Tap Coordinator (2012-2013)</i> <i>Open House Representative (2010-2011)</i>	Aug. 2010 – May 2013
<b>Student Chapter of Wildlife Disease Association</b> College of Veterinary Medicine and Biomedical Sciences – Fort Collins, CO	Aug. 2010 – May 2012
<b>Student Association of Veterinary Surgeons</b> College of Veterinary Medicine and Biomedical Sciences – Fort Collins, CO	Aug. 2010 – May 2012
<b>Student Chapter of American College of Veterinary Internal Medicine</b> College of Veterinary Medicine and Biomedical Sciences – Fort Collins, CO	Aug. 2010 – May 2011
<b>Pre-Veterinary Club</b> University of Montana – Missoula, MT <i>Secretary (2008-2009)</i>	Aug 2007 – May 2010

## Other Experience

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### **Type II Wildland Fire Fighter**

*Larimer County Wildland Fire Crew – Fort Collins, CO*  
*High Desert Fire Services – Florence, MT*

Summer 2011, 2012  
 Summer 2007 - 2012

### **Tutor - Domestic Animal Gross Anatomy**

Colorado State University – Fort Collins, CO

Jan. 2011 – May 2011

### **Tutor – TRiO Student Support Services**

Montana State University – Bozeman, MT

Jan. 2007 – May 2007

## Volunteer/Extracurricular Activities

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### **Outdoor Competitions**

- The Colorado Half-Marathon (Fort Collins, CO) May 4, 2014
- The Colder Boulder 5K (Boulder, CO) Dec. 8, 2012
- Heart Center of the Rockies 10K (Loveland, CO) Nov. 3, 2012
- Oktoberfest Sprint Triathlon (Longmont, CO) Sept. 23, 2012

### **Intramural Sports**

- Co-Ed Slow-Pitch Softball (Fort Collins, CO) Fall 2014, 2015
- Co-Ed Flag Football (Colorado State University – Fort Collins, CO) Fall 2010, 2011, 2012
- Co-Ed Dodgeball (Colorado State University – Fort Collins, CO) Fall 2010 & 2011
- Co-Ed Softball (Montana State University – Bozeman, MT) Fall 2006

### **Big Brothers Big Sisters**

Missoula, Montana

Nov. 2008 – Aug. 2010

### **Peer Advisor**

University of Montana – Missoula, MT

March 2008 – May 2009

### **Montana State Science Fair Judge**

University of Montana – Missoula, MT

March 2008 & 2009