

Caitlin Shepard

RESEARCH SPECIALIST · SENIOR

Atlanta, GA 30345

☎ 419-566-8444 | ✉ caitlinshepard727@gmail.com | 🌐 caitlinshepard

Summary

I am a motivated researcher with over 6 years of diverse experience studying microbes, **including HIV**. I am a *skilled communicator* & an attentive leader who can effectively function in *multiple* environments. I bring great enthusiasm & professionalism to any role that I am assigned.

Skills

Molecular biology	PCR, gel electrophoresis, molecular cloning, nucleic acid isolation, protein expression, western blot, Bradford assay
Viral Biochemistry	Drug/enzymatic radioactive assays for HIV and influenza
Cell culture	Sterile technique, experience in BSL2* with live virus
Management	Ordering/receiving, lab organization, equipment maintenance, stock solutions, autoclaving
Administration	Hiring, supply budgets for grants, expense reports; scheduling, itineraries, & travel arrangements; MS office proficient
Bioinformatics	Sequence assembly, multiple sequence alignment, phylogenetics

Education

Bowling Green State University M.S. IN BIOLOGY • Cumulative GPA 4.00/4.00	<i>Bowling Green, OH</i> <i>May 2013</i>
Taylor University B.S. IN BIOLOGY • Minor in Chemistry	<i>Upland, IN</i> <i>January 2010</i>

Experience

Emory University RESEARCH SPECIALIST, SENIOR (LABORATORY MANAGER) • Maximize lab operations for result reproducibility & environmental sustainability • Perform research & compile data to further understand viruses such as HIV, Influenza, & Dengue • Maintain efficient, productive collaborations measuring HIV biomarkers within Emory & with over 10 outside universities	<i>Atlanta, GA</i> <i>May 2013 - present</i>
The Toledo Hospital, Cytology Department PRE-ANALYTICAL LAB TECH • Process patient information & medical tests provided by doctors • Accurately prepare samples for pathologists to examine & conclude diagnosis	<i>Toledo, OH</i> <i>February 2011- May 2013</i>
Bowling Green State University, Biology Department GRADUATE STUDENT, THESIS RESEARCH • Conducted metagenomic & bioinformatic studies with precision & integrity • Carefully handled precious & unique ancient ice samples • Prepared written & oral presentations for a variety of individuals • Formally trained in proper laboratory technique	<i>Bowling Green, OH</i> <i>August 2010 - February 2013</i>
Bowling Green State University, Biology Department TEACHING ASSISTANT • Experienced in teaching anatomy, basic biology to majors, & basic biology to non-majors • Proficient in classroom management & engaging a variety of students despite challenging curriculum	<i>Bowling Green, OH</i> <i>August 2011-December 2012</i>
The Ohio State University, Molecular Genetics Department UNDERGRADUATE RESEARCHER • Learned good lab practices • Carried out experiments to further projects in the lab that were later published • Presented findings in meetings with graduate students and faculty	<i>Columbus, OH</i> <i>June 2009 - August 2009</i>

Publications

- [1] Serena Bonifati, Michele B Daly, Corine St Gelais, Sun Hee Kim, Joseph A Hollenbaugh, *Caitlin Shepard*, Edward M Kennedy, Dong-Hyun Kim, Raymond F Schinazi, Baek Kim, and Li Wu. SAMHD1 controls cell cycle status, apoptosis and HIV-1 infection in monocytic THP-1 cells. *Virology*, 495:92–100, May 2016.
- [2] Feifei Wang, Corine St Gelais, Suresh de Silva, Hong Zhang, Yu Geng, *Caitlin Shepard*, Baek Kim, Jacob S Yount, and Li Wu. Phosphorylation of mouse SAMHD1 regulates its restriction of human immunodeficiency virus type 1 infection, but not murine leukemia virus infection. *Virology*, 487:273–84, Jan 2016.
- [3] Duo Li, Erika Schlaepfer, Annette Audigé, Mary-Aude Rochat, Sandra Ivic, *Caitlin N Knowlton*, Baek Kim, Oliver T Keppler, and Roberto F Speck. Vpx mediated degradation of SAMHD1 has only a very limited effect on lentiviral transduction rate in ex vivo cultured HSPCS. *Stem cell research*, 15(2):271–280, 2015.
- [4] Annelies Stevaert, Salvatore Nurra, Nicolino Pala, Mauro Carcelli, Dominga Rogolino, *Caitlin Shepard*, Robert A Domaoal, Baek Kim, Mercedes Alfonso-Prieto, Salvatore A E Marras, Mario Sechi, and Lieve Naesens. An integrated biological approach to guide the development of metal-chelating inhibitors of influenza virus PA endonuclease. *Mol Pharmacol*, 87(2):323–37, Feb 2015.
- [5] Tommy E White, Alberto Brandariz-Nuñez, Jose Carlos Valle-Casuso, *Caitlin Knowlton*, Baek Kim, Sara L Sawyer, and Felipe Diaz-Griffero. Effects of human SAMHD1 polymorphisms on HIV-1 susceptibility. *Virology*, 460-461:34–44, Jul 2014.
- [6] Alberto Brandariz-Nuñez, Jose Carlos Valle-Casuso, Tommy E White, Laura Nguyen, Akash Bhattacharya, Zhonghua Wang, Borries Demeler, Sarah Amie, *Caitlin Knowlton*, Baek Kim, Dmitri N Ivanov, and Felipe Diaz-Griffero. Contribution of oligomerization to the anti-HIV-1 properties of SAMHD1. *Retrovirology*, 10:131, 2013.
- [7] *Caitlin Knowlton*, Ram Veerapaneni, Tom D’Elia, and Scott O Rogers. Microbial analyses of ancient ice core sections from Greenland and Antarctica. *Biology (Basel)*, 2(1):206–32, 2013.

Travel

Hearts United for Haiti

Assisted in medical clinics, rebuilt a home with earthquake damage, & visited orphans

Haiti

December 2012

Project Mercy

Taught English to HIV infected orphans, observed in a hospital & lab

Yetebon, Ethiopia

January 2009

Taylor University

Biology field experience in the Black Hills

South Dakota

July 2008

Caravan Ministries

Helped build houses

Tijuana, Mexico

June 2003

Honors & Activities

2015-2016 **Member**, Vaccine Dinner Club

Atlanta, GA

2011-2013 **Recipient**, Choose Ohio First Scholarship

BGSU

June 2012 **Poster**, General Meeting of the American Society for Microbiology

San Francisco