

# Amelia E. Barber

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## tl;dr

- Postdoctoral fellow with wet lab and computational biology experience
- Interested in fungal biology and what makes a pathogen a pathogen

## Education

### University of Utah

PHD Salt Lake City, UT  
2016

- Zebrafish reveal variable effects of *Escherichia coli* during sepsis.
- PI: Matthew Mulvey

### University of Wisconsin-Madison

BS Madison, WI  
2006

- Medical Microbiology and Immunology; Women's Studies

## Experience

### Leibniz HKI - Jena

POSTDOCTORAL FELLOW Oliver Kurzej, PI  
2016-present

- Quantified the impact of azole fungicides on the ecology and resistance status of *Aspergillus fumigatus* in the environment.
- Population and comparative genomics of 250 *Aspergillus fumigatus* isolates, characterizing genetic differences between clinical and environmental samples, mechanisms of drug resistance, and pangenome diversity.
- NGS-based outbreak tracking of *Candida auris* isolates submitted to the National Reference Center for Invasive Fungal Infection in Germany

### University of Utah

GRADUATE RESEARCH ASSISTANT Matthew Mulvey, PI  
2009-2016

- Characterized the host response to genetically distinct pathogenic *Escherichia coli* strains
- Determined contributions of bacterial flagellin and TLR5 signaling to host response during sepsis
- Established and validated zebrafish model of sepsis by comparing clinical symptoms of human sepsis patients to pathologies seen in infected zebrafish embryos
- Created transgenic zebrafish lines putting IL-1b and IL-10 under inducible control and knocking out IL-10

### University of Wisconsin-Madison

RESEARCH SPECIALIST Clive Svendsen, PI  
2007-2009

- Examined the neuroprotective and neuroregenerative effects of neural progenitor cell transplants expressing GDNF, IGF-1, and VEGF in animal models of neurodegenerative disease
- Characterized five patient-derived Huntingtons Disease iPS cell lines and established a differentiation protocol for making DARPP-32 positive striatal neurons from iPS cells

## Publications

### AE Barber, M Weber, K Kaerger, J Linde, H Gözl, D Duerschmied, ...

COMPARATIVE GENOMICS OF SERIAL CANDIDA GLABRATA ISOLATES AND THE RAPID ACQUISITION OF ECHINOCANDIN RESISTANCE DURING THERAPY Antimicrobial agents and chemotherapy  
2019

### A Hamprecht, AE Barber, SC Mellinghoff, P Thelen, G Walther, Y Yu, ...

CANDIDA AURIS IN GERMANY AND PREVIOUS EXPOSURE TO FOREIGN HEALTHCARE Emerging infectious diseases  
2019

### CK Kjelstrup, AE Barber, JP Norton, MA Mulvey, TM L'Abée-Lund

ESCHERICHIA COLI O78 ISOLATED FROM SEPTICEMIC LAMBS SHOWS HIGH PATHOGENICITY IN A ZEBRAFISH MODEL Veterinary research  
2017

### AE Barber, JP Norton, TJ Wiles, MA Mulvey

STRENGTHS AND LIMITATIONS OF MODEL SYSTEMS FOR THE STUDY OF URINARY TRACT INFECTIONS AND RELATED PATHOLOGIES Microbiol. Mol. Biol. Rev.  
2016

**AE Barber, BA Fleming, MA Mulvey***Msphere*

SIMILARLY LETHAL STRAINS OF EXTRAINTESTINAL PATHOGENIC ESCHERICHIA COLI TRIGGER MARKEDLY DIVERSE HOST RESPONSES IN A ZEBRAFISH MODEL OF SEPSIS

2016

**AE Barber, MA Mulvey***Clinical Infectious Diseases*

REPLY TO KAYE AND SOBEL

2014

**AE Barber, JP Norton, AM Spivak, MA Mulvey***Clinical infectious diseases*

URINARY TRACT INFECTIONS: CURRENT AND EMERGING MANAGEMENT STRATEGIES

2013

**I Debnath, JP Norton, AE Barber, EM Ott, BK Dhakal, RR Kulesus, ...***Infection and immunity*

THE CPX STRESS RESPONSE SYSTEM POTENTIATES THE FITNESS AND VIRULENCE OF UROPATHOGENIC ESCHERICHIA COLI

2013

**AD Ebert, AE Barber, BM Heins, CN Svendsen***Experimental neurology*

EX VIVO DELIVERY OF GDNF MAINTAINS MOTOR FUNCTION AND PREVENTS NEURONAL LOSS IN A TRANSGENIC MOUSE MODEL OF HUNTINGTON'S DISEASE

2010

**AD Ebert, AJ Beres, AE Barber, CN Svendsen***Experimental neurology*

HUMAN NEURAL PROGENITOR CELLS OVER-EXPRESSING IGF-1 PROTECT DOPAMINE NEURONS AND RESTORE FUNCTION IN A RAT MODEL OF PARKINSON'S DISEASE

2008