



## Personal Information

Email: amelia.barber@uni-jena.de  
Phone: +49 03641 9-49793  
Web: <https://barber-lab.com>

## Research Interests

Antifungal resistance  
Phylo- and population genomics of fungal pathogens  
Evolution and pathoecology of fungal virulence  
Microbial pathogenesis

## Education

August 2016 **PhD**, Microbiology and Immunology  
University of Utah, Salt Lake City, UT (USA)  
*"Zebrafish reveal variable effects of Escherichia coli during sepsis"*

December 2006 **BS**, Medical Microbiology & Immunology; Women's Studies  
University of Wisconsin-Madison, Madison, WI (USA)

## Academic Positions

2022 - present **Independent Junior Group Leader.**  
Institute for Microbiology, Friedrich Schiller University, Jena, Germany.

2020 - 2022 **Junior Group Leader.** Integrated into the group of Gianni Panagiotou.  
Leibniz-HKI, Jena, Germany.

2016 - 2020 **Postdoctoral Fellow**, Research group of Oliver Kurzai.  
Leibniz-HKI and University of Würzburg, Jena and Würzburg, Germany.

2010 - 2016 **Doctoral Researcher**, Research group of Matthew A. Mulvey.  
University of Utah, Salt Lake City, UT, USA.

2007 - 2009 **Associate Research Specialist**, Research group of Clive N. Svendsen.  
University of Wisconsin-Madison, Madison, WI, USA.

## Funding

2020 - 2026 Junior research group funded by the DFG Excellence Cluster Balance of the Microverse; UK MRC fellowship declined

2012 - 2014 T-32 Microbial Pathogenesis Doctoral Training Grant funded by NIAID.

## Ten Selected Publications

**Barber AE<sup>+</sup>**, Sae-Ong T<sup>+</sup>, Kang K, Li J, Walther G, Panagiotou G, Kurzai O. *Aspergillus fumigatus* pan-genome analysis identifies genetic variants associated with human infection. Nat Microbiol. 2021;6(12). \*equal contribution

**Barber AE<sup>++</sup>**, Riedel J<sup>+</sup>, Sae-Ong T, Kang K, Brabetz W, Panagiotou G, Kurzai O\*. Effects of Agricultural Fungicide Use on *Aspergillus fumigatus* Abundance, Antifungal Susceptibility, and Population Structure. mBio. 2020;11(6). \*equal contribution; \*corresponding author

**Barber AE\***, Scheufen S, Walther G, Kurzai O, Schmidt V. Low rate of azole resistance in cases of avian aspergillosis in Germany. Med Mycol. 2020;58(8):1187-90. \*corresponding author

Hamprecht A, **Barber AE**, Mellinghoff SC, Thelen P, Walther G, Yu Y, et al. *Candida auris* in Germany and Previous Exposure to Foreign Healthcare. Emerg Infect Dis. 2019;25(9):1763-5.

**Barber AE**, Weber M, Kaerger K, Linde J, Golz H, Duerschmied D, et al. Comparative Genomics of Serial *Candida glabrata* Isolates and the Rapid Acquisition of Echinocandin Resistance during Therapy. Antimicrob Agents Chemother. 2019;63(2).

Kjelstrup CK, **Barber AE**, Norton JP, Mulvey MA, L'Abée-Lund TM. *Escherichia coli* 078 isolated from septicemic lambs shows high pathogenicity in a zebrafish model. Vet Res. 2017;48(1).

**Barber AE**, Norton JP, Wiles TJ, Mulvey MA. Strengths and Limitations of Model Systems for the Study of Urinary Tract Infections and Related Pathologies. Microbiol Mol Biol Rev. 2016;80(2):351-67.

**Barber AE**, Fleming BA, Mulvey MA. Similarly Lethal Strains of Extraintestinal Pathogenic *Escherichia coli* Trigger Markedly Diverse Host Responses in a Zebrafish Model of Sepsis. mSphere. 2016;1(2). Featured on the ASM Podcast "This Week in Microbiology," episode 126.

**Barber AE**, Norton JP, Spivak AM, Mulvey MA. Urinary tract infections: current and emerging management strategies. Clin Infect Dis. 2013;57(5):719-24. >280 citations

Debnath I, Norton JP, **Barber AE**, Ott EM, Dhakal BK, Kulesus RR, et al. The Cpx stress response system potentiates the fitness and virulence of uropathogenic *Escherichia coli*. Infect Immun. 2013;81(5):1450-9.

Full publication list available at: <https://scholar.google.com/citations?user=COgbwJ4AAAAJ>

## Honors and Awards

2022	Publication Prize, German Speaking Mycological Society
2021-22	Leibniz Mentoring Program
2021	Medac Research Prize
2018	International Society for Human and Animal Mycology Attendance Grant
2017	European Confederation of Medical Mycology Young Investigator Award
2015	ASM Richard and Mary Finkelstein Travel Award
2015	University of Utah Graduate School Travel Award
2012	University of Utah Alma Mater Travel Award



## Supervision

Since 2021	PhD students: <i>P. Brassington, A. Pereira</i> Masters student: <i>H. Lin</i>
2012 - 2022	Co-supervision of: PhD students: <i>T. Sae-Ong, D. Loos</i> // Masters student: <i>A. Lange</i> // Bachelors students: <i>A. Tran, K. Nelson</i>

## Teaching

2022 - present	Lecture and practical modules, Microbiology and Molecular Biology. Friedrich Schiller University.
2014 - 2015	Instructor, Initiative to Bring Science Programs to the Incarcerated (INSPIRE) Utah State Prison and Salt Lake County Jail
2014	Instructor, Mechanisms of Bacterial Pathogenesis, University of Utah
2013	Teaching Assistant, Mechanisms of Bacterial Pathogenesis, University of Utah
2011	Teaching Assistant, Introduction to Medical Microbiology, University of Utah

## Academic Service and Society Memberships

Peer reviewer for mBio, PLoS Pathogens, Antimicrobial Agents and Chemotherapy, Environmental Microbiology, Infection and Immunity, Journal of Fungi, and PLoS One.  
External grant reviewer for UKRI and BSF.

Since 2021	Member, German Speaking Mycological Society (DMyKG)
Since 2020	Invited member, Scientific Network for Antifungal Resistance (SN-AFR)
Since 2020	National Research Data Infrastructure NFDI4Microbiota representative for the Microverse Cluster and the Leibniz-HKI
Since 2018	Member, International Society for Human and Animal Mycology (ISHAM)
2013 - 2016	Member, American Society of Microbiology (ASM)
2012 - 2015	University of Utah Academic Misconduct Committee in Graduate Biosciences
2011	University of Utah Department of Pathology Faculty Retention and Promotion Committee

## Selected Presentations

2022	Microbial Communities: Current Approaches and Open Challenges. <i>Cambridge, UK</i>
2022	FEBS Host-Pathogen Interactions in Human Fungal Pathogens. <i>La-Colle-sur-Loup, France.</i>
2022	University of Basel Biozentrum. <i>Virtual.</i>
2022	EMBL The Next Generation of Infection Biology. <i>Virtual.</i>
2022	Advances Against Aspergillosis and Mucormycosis. <i>Virtual.</i>
2021	Scientific Conference of the German-speaking Mycological Society. <i>Virtual.</i>
2021	LIFE Mini-symposium. Friedrich Schiller University. Jena, Germany. <i>Virtual.</i>
2020	Medical Mycology Trainee Seminar Series. <i>Virtual.</i>
2020	European Conference on Fungal Genetics. <i>Rome, Italy.</i>
2019	Trends in Medical Mycology Conference. <i>Nice, France.</i>



- 2019 Fungal Genetics Conference. *Pacific Grove, CA, USA.*  
2017 Visions for Infection Control: InfectControl Strategy Conference. *Jena, Germany.*  
2015 ASM Microbe. *New Orleans, LA, USA.*

### **Outreach**

- 2019 Long Night of Science Jena  
2019 Skype a Scientist  
2018 World Sepsis Day  
2017 Long Night of Science Jena  
2014 McMillian Elementary School  
2014 University of Utah Educational Outreach Program  
2012 – 2013 Explore Utah Science