Biosketch

Prof. David Berry, Ph.D

Personal Details

Date & place of birth:	October 16, 1982, Santa Monica, CA, USA
Nationality:	USA
Children:	Adam (2012)
Affiliation:	University of Vienna
Email:	david.berry@univie.ac.at
Homepage:	Webpage
Profile:	PUBLONS ID C-8455-2011
List of publications:	ORCID ID 0000-0002-8997-608X

Academic Career and Positions Held

I earned a master's degree in environmental engineering in 2005 from the University of Michigan, Ann Arbor, MI, USA and received my Ph.D. from the same institution in 2009. During my PhD, I was a US EPA STAR fellow and Graham Sustainability Institute fellow, and received the CH2M Hill/AEESP Outstanding Doctoral Dissertation Award. Subsequently, I worked as a post-doctoral researcher with Michael Wagner and Alexander Loy at the University of Vienna, Austria from 2009 to 2012. In 2012, I accepted a tenure-track assistant professorship position at the Division of Microbial Ecology, University of Vienna. I was promoted to associate professor in 2016 and received my habilitation (*venia docendi*) in Microbiology in 2017. In 2018, I was promoted to full professor, and in the same year I became the **founding operational director of the Joint Microbiome Facility** of the Medical University of Vienna and the University of Vienna. I am currently a member of the **Centre for Microbiology and Environmental Systems Science at the University of Vienna**. I am also an editor of the journal *Critical Insights in Microbiology*, and advisory board member for the Austrian Microbiome Initiative (AMICI) as well as the Austrian Society for Hygiene, Microbiology, and Preventative Medicine (ÖGHMP).

Scientific Achievements

Since 2005, I have authored **133 publications**, primarily in leading interdisciplinary and disciplinary journals (H-index: 55, Total citations: 14,630; Google Scholar, Sep. 23, 2025) and have given **86 invited presentations** at international scientific conferences and academic institutions. I have been awarded 12 research grants as PI or co-PI, including an **ERC Starting Grant** focused on illuminating functional networks of interacting bacteria in the gut microbiota. My research focuses on the function of the human microbiota in health and disease, and I have a particular interest in nutrition, inflammation, bacterial-mucosal interactions, cancer, and neurodevelopment. In addition to studying the ecology and evolution of key species in the human microbiota, a major focus is to develop modeling approaches to study microbial communities as well as to develop new molecular and isotope-labeling methods for studying uncultivated microorganisms in their natural environment.

We live in an intimate symbiosis with our gut microbiota, which provides us with many vital services such as breakdown of dietary compounds, colonization resistance against enteric pathogens, and immune training. In the last years, a refined picture of the composition of the human and animal microbiota in healthy individuals has emerged. Now, the major challenge in the field is to discover and elucidate the many uncharacterized metabolisms encoded in the microbiome, and to determine their roles in health and disease. My key research achievements include the development of a **prophylactic treatment for *C. difficile* infections based on gut microbiome modulation**, benchmarking of widely-used **network analysis methods to infer interactions in microbial communities**, and identification

of gut ***Klebsiella* as a biomarker of brain injury in extremely premature infants**. My work has been recognized by the City of Vienna Support Prize for Natural Sciences (2017) and the Austrian Microbiology Prize from the Austrian Society for Hygiene, Microbiology and Preventative Medicine (2014).

10 Selected Publications

[#] Denotes equal contribution

1. *Seki D, Mayer M, Hausmann B, Pjevac P, Giordano V, Goeral K, Unterasinger L, Klebermaß-Schrehof K, De Paepe K, van de Wiele T, Spittler A, Kasprian G, Warth B, Berger A, **Berry D**[#], Wisgrill L[#]. 2021. Aberrant gut microbiota-immune-brain axis development in premature neonates with brain damage. **Cell Host Microbe**, 29(10):1558-1572.e6; DOI: 10.1016/j.chom.2021.08.004
2. Baumgartner M, Lang M, Holley H, Crepaz D, Hausmann B, Pjevac Petra, Moser D, Hof F, Beer A, Orgler E, Frick A, Khare V, Evstatiev R, Strohmaier S, Primas C, Dolak W, Köcher T, Kristaps K, Rath T, Neurath MF, **Berry D**, Makristathis A, Muttenthaler M, Gasche C. 2021. Mucosal biofilms are an endoscopic feature of irritable bowel syndrome and ulcerative colitis. **Gastroenterology**, 161(4):1245-1256.e20; DOI: 10.1053/j.gastro.2021.06.024
3. *Pereira FC, Wasmund K, Cobankovic I, Jehmlich N, Herbold CW, Soo Lee K, Sziranyi B, Vesely C, Decker T, Stocker R, Warth B, von Bergen M, Wagner M, **Berry D**. 2020. Rational design of a microbial consortium of mucosal sugar utilizers reduces *Clostridiodes difficile* colonization. **Nat Commun**, 11: 5104; DOI: 10.1038/s41467-020-18928-1
4. Riva A, Kuzyk O, Forsberg E, Siuzdak G, Pfann C, Herbold C, Daims H, Loy A, Warth B, **Berry D**. 2019. A fiber-deprived diet disturbs the fine-scale spatial architecture of the murine colon microbiome. **Nat Commun**, 10:4366; DOI: 10.1038/s41467-019-12413-0
5. Herp S, Brugiroux S, Garzetti D, Ring D, Jochum L, Beutler M, Eberl C, Walter S, Gerlach R, Ruscheweyh HJ, Huson D, Sellin M, Baines J, Rausch P, Ivanova N, Rath E, Haller D, Basic M, Bleich A, **Berry D**, Stecher B. 2019. *Mucispirillum schaedleri* protects mice against non-typhoidal *Salmonella* colitis by interfering with virulence factor expression. **Cell Host Microbe**, 25(5):681-694.e8; DOI: 10.1016/j.chom.2019.03.004
6. Reese A, Pereira F, Schintlmeister A, **Berry D**, Wagner M, Hale L, Wu A, Jiang S, Durand H, Zhou X, Premont R, Diehl AM, O'Connell T, Alberts S, Kartzinel T, Pringle R, Dunn R, Wright J, David L. 2018. Microbial nitrogen limitation in the mammalian large intestine. **Nat Microbiol**, 3: 1441-1450; DOI: 10.1038/s41564-018-0267-7
7. Brugiroux S, Beutler M, Pfann C, Garzetti D, Ruscheweyh HJ, Ring D, Diehl M, Herp S, Loetscher Y, Hussain S, Bunk B, Pukall R, Huson DH, Münch P, McHardy A, McCoy KD, Macpherson AJ, Loy A, Clavel T, **Berry D**, Stecher B. 2016. Genome-guided design of a defined mouse microbiota that confers colonization resistance against *Salmonella enterica* serovar Typhimurium. **Nat Microbiol**, 2:16215; DOI: 10.1038/nmicrobiol.2016.215
8. **Berry D**, Mader E, Lee TK, Woebken D, Wang Y, Zhu D, Palitinszky M, Schintlmeister A, Schmid M, Hanson BT, Shterzer N, Mizrahi I, Rauch I, Decker T, Bocklitz T, Popp J, Gibson CM, Fowler PW, Huang WE, Wagner M. 2015. Tracking heavy water (D_2O) incorporation for identifying and sorting active microbial cells. **Proc Natl Acad Sci USA**, 112(2): E194-203; DOI: 10.1073/pnas.1420406112
9. **Berry D**, Widder S. 2014. Deciphering microbial interactions and detecting keystone species with co-occurrence networks. **Front Microbiol**, 5: 219; DOI: 10.3389/fmicb.2014.00219
10. *Angelberger S, Reinisch W, Makristathis A, Lichtenberger C, Dejaco C, Papay P, Novacek G, Trauner M, Loy A, **Berry D**. 2013. Temporal bacterial community dynamics vary among ulcerative colitis patients after faecal microbiota transplantation. **Am J Gastroenterol**, 108: 1620-1630; DOI:10.1038/ajg.2013.257