

Introducing Microbe Matters



This month we debut a new article type at *Nature Microbiology* called **Microbe Matters that we hope will inspire and entertain by showcasing what motivates microbiologists and virologists.**

Microorganisms have an indisputable impact on our lives. On land and at sea, microorganisms control the fluxes and transformations of carbon, oxygen and greenhouse gases with the atmosphere, dynamics that shape and alter Earth's climate. In and on the human body, the microbiota is implicated in a myriad of functions, from digestion to mood. Microbial infections wreak havoc on human health and have the potential to dramatically alter society, as evidenced most recently by the SARS-CoV-2 pandemic and almost 7 million deaths owing to COVID-19. Human innovation in the face of such issues can also be enabled by microbial ingenuity: antibiotics, vaccine technologies, and CRISPR gene editing techniques are all co-opted from their original functions in microorganisms and viruses. At *Nature Microbiology*, we publish research articles and commission commentaries but we lacked a way to convey the personal stories behind the microorganisms each

of us chooses to study. A researcher's choice of microorganism to research can sometimes foster deep connections between the scientist and their subject. Now, to fill this gap, we are delighted to introduce the Microbe Matters column as a forum for microbiologists to discuss personal stories behind the focus of their research, including anecdotes from their careers, or pivotal moments that ignited their passion for a specific microorganism.

We envisage that specific microorganisms or viruses will be the foundation of each Microbe Matters piece, and that each installment will springboard into personal commentary that might range from experiences in the field, to the history of research on their microorganism or virus, to mentorship and career progression, issues surrounding diversity, equity and inclusion, or wherever the author's creativity and curiosity about the invisible world takes the narrative.

The **inaugural Microbe Matters** piece features the predatory bacterium *Bdellovibrio bacteriovorus*. It accompanies the cover paper for this month's issue, a research **Article** authored by Kaplan, Jensen and colleagues who used cryo-electron tomography to reveal the predation cycle of this bacterium in striking detail. In her Microbe Matters piece, Liz Sockett from the University of Nottingham, UK, recounts the lessons she has learned over a career spent studying *B. bacteriovorus*.

Her piece focuses on learning to 'think' like *Bdellovibrio*, and describes her fascination with how this microscopic predator carries out attacks against Gram-negative bacteria, and coordinates the invasion, digestion and escape from what is left of the prey. This working relationship with *Bdellovibrio* inspired her to ponder ways we might co-opt its capabilities to combat mounting antimicrobial resistance or to rehabilitate soil and aquatic ecosystems. Her writing reveals an undercurrent of the benefits of collaboration, an infectious fascination with the invisible world around us, and an unmistakable drive and delight in working at the bench to discover more about her model microorganism. In Sockett's own words, "*Bdellovibrio* is a microbe that truly matters, and [...] we are lucky if we get to know them". Through recounting her story, we do.

We are excited to publish more stories in the Microbe Matters column: the vexing research questions that propelled a budding scientist into a microbiology lab, stories about challenges that needed to be overcome, the societal impacts of microbiological research, tales from adventures conducting field work, or anecdotes about great mentors and great mentees. We are looking forward to helping microbiologists share stories about the bacteria, archaea, viruses and microbial eukaryotes that matter to them.

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