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► **COVER:** 'World travel' by George Marshall, inspired by the Review on p361.



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The phrase 'good fences make good neighbours' suggests that keeping a little distance between ourselves and our immediate neighbours can be important to maintain good community relations. This phrase could equally be applied to the microbial world, in which the communities can comprise a range of different microorganisms that are often competing for limited resources. A balanced interaction between neighbours is key for community structure. For instance, an imbalance in the commensal bacteria and fungi that reside in the human body or invasion of this community by opportunistic pathogens can cause disease. On [page 340](#), Mylonakis and colleagues describe medically important bacterial–fungal interactions and their implications for human disease.

The struggle between bacteria and phages is a classical example of how the drive to 'beggar thy neighbour' has forced bacteria to develop a range of phage resistance mechanisms. Phages are estimated to outnumber bacteria in the environment by approximately tenfold, and genetic variation in the population enables phages to overcome resistance, forcing the bacteria to further adapt their defences. The most important phage resistance mechanisms used by bacteria and the countermeasures deployed by phages are reviewed by Moineau and colleagues on [page 317](#).

Crossing the fence between neighbouring bacteria is a common occurrence owing to the horizontal transfer of genetic material. Genomic islands are clusters of genes in bacterial genomes that are transferred horizontally and that have a key role in bacterial evolution. In their Analysis article on [page 373](#), Brinkman and colleagues assess the computational methods that have been developed for detecting genomic islands.

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