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► **COVER:** 'Oscillate' by Philip Patenall, inspired by the Review on p565.

We all know that change is an inevitable part of life, and this applies to microorganisms too. For example, temporal and spatial oscillations control numerous fundamental processes in bacteria, including gene expression, cell cycle progression, cell division, DNA segregation and cell polarity. Lenz and Søgaard-Andersen review the underlying mechanisms of these oscillations on page 565. Such changes in bacterial gene expression can be controlled at various levels, from transcription to translation. On page 578, Vogel and Luisi focus on a key regulatory protein, Hfq, that participates in post-transcriptional control of gene expression by facilitating the interactions between small non-coding RNAs and their target mRNAs.

Perhaps the masters of change among microorganisms are viruses. As influenza viruses continuously circulate in several animal hosts, the emergence of new strains that could cause human epidemics is a serious possibility. On page 590, Medina and García-Sastre discuss the importance of surveillance in preventing pandemics and describe new developments in our understanding of host tropism and virulence in influenza viruses. Moreover, in an Analysis article on page 617, Simon-Loriere and Holmes examine the recombination mechanisms for RNA viruses and the role of these mechanisms in viral evolution.

Finally, some things do not seem to change enough. Leishmaniasis, caused by insect-borne protists of the genus *Leishmania*, still affect more than 150 million people worldwide. On page 604, Kaye and Scott describe the mechanisms involved in the establishment, survival and persistence of the various species of *Leishmania* in their hosts, and highlight the pitfalls associated with a simplistic view of leishmanial pathogenesis.



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