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► **COVER:** 'Camouflage' by George Marshall, inspired by the Review on p493.



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In the dim and distant past, hospitals were viewed as places to go to be treated for an illness. However, the rise in health care-associated infections over the past decade has been so great that hospitals are now viewed more as places to go to acquire an infection. *Clostridium difficile* is one of the most important causes of health care-associated infections, and on page 526, Maja Rupnik, Mark Wilcox and Dale Gerding review the epidemiology and pathogenesis of *C. difficile* infection. Since 2001, there has been a continuous increase in the incidence of *C. difficile* infection in the United States, Canada and Europe, much of which has been attributed to the emergence of the epidemic *C. difficile* strain BI/NAP1/027. Rupnik and colleagues discuss the changing epidemiology of *C. difficile* infection, the latest treatment and prevention regimens and what is known about *C. difficile* virulence.

One element of the host response that determines whether a *C. difficile* infection is symptomatic or not is the presence of an immunoglobulin G response to *C. difficile* toxin A. The immune response is an obstacle that is faced by all microorganisms that infect humans. On page 493, Kirk Deitsch, Sheila Lukehart and James Stringer review how bacterial, protozoan and fungal pathogens have evolved surprisingly similar mechanisms of antigenic variation to avoid eradication by the immune system.

Finally, in a Progress article on page 485, K. Heran Darwin discusses the recent identification of prokaryotic ubiquitin-like protein (Pup), a ubiquitin-like modifier. Despite the presence of proteasomes in some bacteria and all archaea, post-translational protein modifiers were thought to be absent. Darwin discusses the identification of Pup in *Mycobacterium tuberculosis* and the implications of this finding.

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