



▲ Inside sensors detecting outside pathogens De Gregorio, E. & Rappuoli, R. *Nature Immunology* November (2004)

In this News & Views article, Ennio De Gregorio & Rino Rappuoli comment on the research paper by Viala *et al.* in the same issue of *Nature Immunology*, which demonstrates that the intracytoplasmic sensor Nod1, an important component of the innate immune system, responds to peptidoglycan delivered into cells by the type IV secretion system of the extracellular pathogen *Helicobacter pylori*.



▲ Profile: David Ho  
Madavilli, A.  
*Nature Medicine*  
November (2004)

Profile of David Ho, Director of the Aaron Diamond AIDS Research Centre in New York.

● Intrinsic immunity: a front-line defense against viral attack

Bieniasz, P. D.  
*Nature Immunology*  
November (2004)

In this review, Paul Bieniasz uses the phrase 'intrinsic immunity' to refer to those host cell activities that do not fall within the conventional definitions of innate or adaptive immunity but which can effectively suppress or prevent viral infections. The two main activities considered are the Fv1/TRIM5 and APOBEC3 inhibitors.

● Antibiotics at the crossroads

Nathan, C.  
*Nature* 20th October (2004)

● Scientists seeking HIV in all the wrong places

Pearson, H.  
*Nature Medicine*  
November (2004)

● George Beadle: from genes to proteins

Berg P. & Singer, M.  
*Nature Reviews Genetics*  
December (2004)

This Timeline article recounts the life of George Beadle, who shared half of the 1958 Nobel Prize for Physiology or Medicine with Edward Tatum "for their discovery that genes act by regulating definite chemical events", the other half of the prize going to Joshua Lederberg.

● Subversion of phosphoinositide metabolism by intracellular bacterial pathogens

Pizarro-Cerdá, J. & Cossart, P.  
*Nature Cell Biology*  
November (2004)

▼ War and peace at mucosal surfaces

Sansonetti, P. J.  
*Nature Reviews Immunology*  
December (2004)

It has been estimated that ~90% of the cells in the human body are bacterial cells, and adults carry in excess of 1 kg of bacteria in the gut. Startling as these figures may be, the real surprise is that the majority of these bacteria are tolerated without ill effect. In this excellent review article, Philippe Sansonetti looks at the complex 'dialogue' between the bacterial population in the gut and that in the intestinal mucosa, and how intestinal epithelial cells distinguish between 'friend' and 'foe'.

