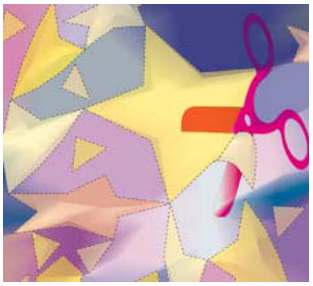
NATUREVIEW
REVIEWS AND COMMENT FROM THE NATURE PUBLISHING GROUP

▲ **Transmissible spongiform encephalopathies: scrapie control under new strain.** Baylis, M. & Mcintyre, K. M. *Nature* 16th December (2004) **The authors debate the wisdom of attempting to eradicate scrapie from European sheep flocks by the practice of selective breeding. This is in light of the recent discovery of a new strain of scrapie that affects sheep thought to be at genetically low risk of the disease.**



▲ **Proteolysis: from the lysosome to ubiquitin and the proteosome.**
Ciechanover, A.
Nature Reviews Molecular Cell Biology January (2004)

• **The role of models in understanding CD8⁺ T-cell memory**
Antia, R., Ganusov, V. V. & Ahmed, R.
Nature Reviews Immunology February (2004)

• **Doing more with less in bacterial DNA repair.**
Weller, G. R., Brandt, V. L. & Roth, D. B.
Nature Structural and Molecular Biology December (2004)
This News and Views article comments on the recent finding that mycobacteria can repair non-complementary double-strand breaks (DSBs) using the non-homologous end-joining pathway (NHEJ). Whereas eukaryotes use an array of proteins to effect NHEJ, mycobacteria use only two proteins — Mt-Lig and Mt-Ku. These mycobacterial proteins are multifunctional and, intriguingly, could repair a DSB in yeast, indicating their efficacy in the context of chromatin.

• **A bacterial big-MAC attack.**
Iacovache, I. & van der Goot, G. F.
Nature Structural and Molecular Biology December (2004)
The pore-forming toxin intermedilysin is produced by bacterial pathogens and is specific for human cells. The identification of CD59 as the human intermedilysin receptor is discussed in this News and Views piece. CD59 protects human cells from the pore-forming action of the membrane attack complex — the terminal component of human complement — and it is intriguing that this same receptor should facilitate the action of intermedilysin.

• **Past and future of an old foe.**
Howlett, R.
Nature 16th December (2004)
An article that reviews the transmission dynamics of the 1918 influenza pandemic is highlighted in this News and Views piece. A photograph of one of the influenza camps established to curb the spread of the virus is a reminder of the measures that might be necessary in the event of a current pandemic.

• **Making sense of it all: bacterial chemotaxis**
Wadhams, G. H. & Armitage, J. P.
Nature Reviews Molecular Cell Biology December (2004)

▼ **The tetraspanin web modulates immune-signalling complexes.**
Levy, S. & Shoham, T.
Nature Reviews Immunology February (2004)
This review focuses on the tetraspanins — a family of cell-surface proteins that are expressed by many organisms and that are involved in many biological processes including immune cell interactions and host–pathogen interactions.