# **NATUREVIEW** REVIEWS AND COMMENT FROM THE NATURE PUBLISHING GROUP



▲ Sleeping policemen for DNA replication? Fisher, D. & Méchali, M. *Nature Cell Biology* July (2004). The kinases ATM and ATR are crucial for the response to DNA damage caused by cellular stress, activating key mechanisms such as cell-cycle checkpoints and DNA repair. However, recent evidence indicates that ATM and ATR might also have important roles in normal DNA replication, as discussed in this News and Views article.

#### • Cancer stem cells refined. Scadden, D.

#### Nature Immunology July (2004)

This News and Views article discusses a recent study showing that a hierarchy of cancer stem cells with distinct characteristics is involved in the development of acute myeloid leukaemia, and examines the implications of this for cancer chemotherapy.

### Foot and mouth: podosomes, invadopodia and circular dorsal ruffles.

Buccione, R., Orth, J. D. & McNiven, M. A. Nature Reviews Molecular Cell Biology August (2004) This review discusses the regulation and function of three types of specialized membrane structures involved in cell adhesion, migration and invasiveness.



## Nature Medicine Focus on Cancer.

Nature Medicine August (2004) To celebrate its tenth anniversary, Nature Medicine features a series of special issues highlighting advances over the past decade in various biomedical fields. This month the focus is on cancer, including a Perspective by Bert Vogelstein and Kenneth Kinzler on cancer predisposition genes, and a historical News and Views article by José Baselga and Joaquín Arribas highlighting progress in targeting tyrosine kinases for cancer therapy. Aparna Surendram examines the use of engineered viruses to seek and destroy tumour cells in a News Feature on 'virotherapy'.

• Defective downregulation of receptor tyrosine kinases in cancer.

Bache, K. G., Slagsvold, T. & Stenmark, H.

The EMBO Journal 21 July (2004) Mutations leading to overexpression or aberrant activation of receptor tyrosine kinases (RTKs) are well-known oncogenic defects. However, recent evidence shows that downregulation of RTKs might also be important in cancer, as discussed in this review.

 Inflammation and necrosis promote tumour growth.
Vakkila, J.& Lotze, M. T.
Nature Reviews Immunology
August (2004)

This Opinion article presents the viewpoint that necrosis and chronic inflammation are key factors in the development of adult cancers.



 Oncogenic γ-herpesviruses: comparison of viral proteins involved in tumorigenesis.
Damania, B.
Nature Reviews Microbiology
August (2004)