



Cover

Ribbon models of phosphotransferases of the DXXD(T/V) superfamily. By dephosphorylating the mobile carboxy-terminal domain of polymerase II, some of its members play a crucial role in transcription. For further details on their structure and reaction mechanism, see the article by Tomislav Kamenski on pages 257–261.

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Growth factor receptors and tumour development. Are they more than just stimulators of tumour growth?
EGF receptor family members, such as the ErbB1 (EGF receptor) and ErbB2 (HER2/neu), have long been in the focus of drug development. However, the two molecules do not influence only tumour growth – the usual readout in clinical trials. In addition, these EGF receptors seem to contribute to tumour malignancy by stimulating the motility of tumour cells and their entry into the blood circulation.

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Synapses are not all the same. Exploring synaptic diversity in the central nervous system
The quantal theory of synaptic neurotransmission and the binomial model have helped us to gain an understanding of signal transmission at the neuromuscular junction. However, synapses in the central nervous system vary greatly in their properties, often violating some of the assumptions of the quantal model. It thus depends on the individual synaptic connection as to whether or not, and if so, which type of quantal analysis can be applied.

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