

CorNotes

CVI JOURNAL CLUB

October 11.....Dr. Hoppensteadt
 October 25.....Dr. Simmons

For further information, contact Dr. Ken Byron at 72819.

RECENT PUBLICATIONS FROM THE CVI

Cummings, C.J., Sun, Y.L., Opal, P., Antalffy, B., Mestril, R., Orr, H.T., Dillmann, W.H., Zoghbi, H.Y. Over-expression of inducible HSP70 chaperone suppresses neuropathology and improves motor function in *SCA1* mice. *Hum. Mol. Genet.* 10(14):1511-1518, 2001.

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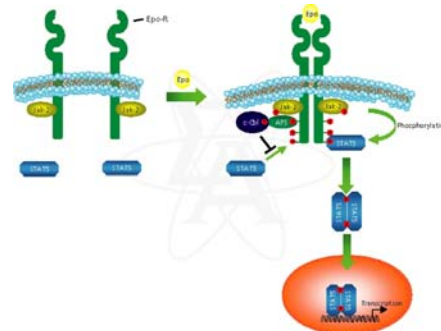
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An example is provided below (sorry, but it's nicer in color!). Each slide is accompanied by a brief textual description and pertinent references. Other slide sets are also available at this website.

The Jak/Stat Signaling Pathway

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The Jak/Stat Signaling Pathway

A wide variety of extracellular signals activate the Stat (signal transducers and activators of transcription) class of transcription factors. Cytokines, lymphokines, and growth factors all signal through a related superfamily of cell surface receptors that are associated with and activate Janus kinases (Jaks). Ligand-induced dimerization of the receptor induces the reciprocal tyrosine phosphorylation of the associated Jaks, which, in turn, phosphorylates tyrosine residues on the cytoplasmic tail of the receptor. These phosphorylated tyrosines serve as docking sites for the Src Homology-2 (SH-2) domain of the Stat protein, and Jak catalyzes the tyrosine phosphorylation of the receptor-bound Stat. Phosphorylation of Stat at a conserved tyrosine residue induces SH-2-mediated homo- or heterodimerization, followed by translocation of the Stat dimer to the nucleus. Stat dimers bind to specific DNA response elements in the promoter region of target genes to activate gene expression. APS (adaptor molecule containing pleckstrin homology and SH-2 domains) can inhibit the Jak-Stat pathway by binding to the cytoplasmic domain of the receptor where it is phosphorylated (activated) by Jak. Activated APS binds to c-Cbl and blocks Stat activation.

CVI SEMINAR SERIES

Dr. Wolfgang Dillmann's Seminar scheduled for October 18, 2001 has been cancelled because of illness.

CVI HALLOWEEN PARTY

Is scheduled for October 30, 2001. Please see Allison Bayer, Ph.D. for details.