

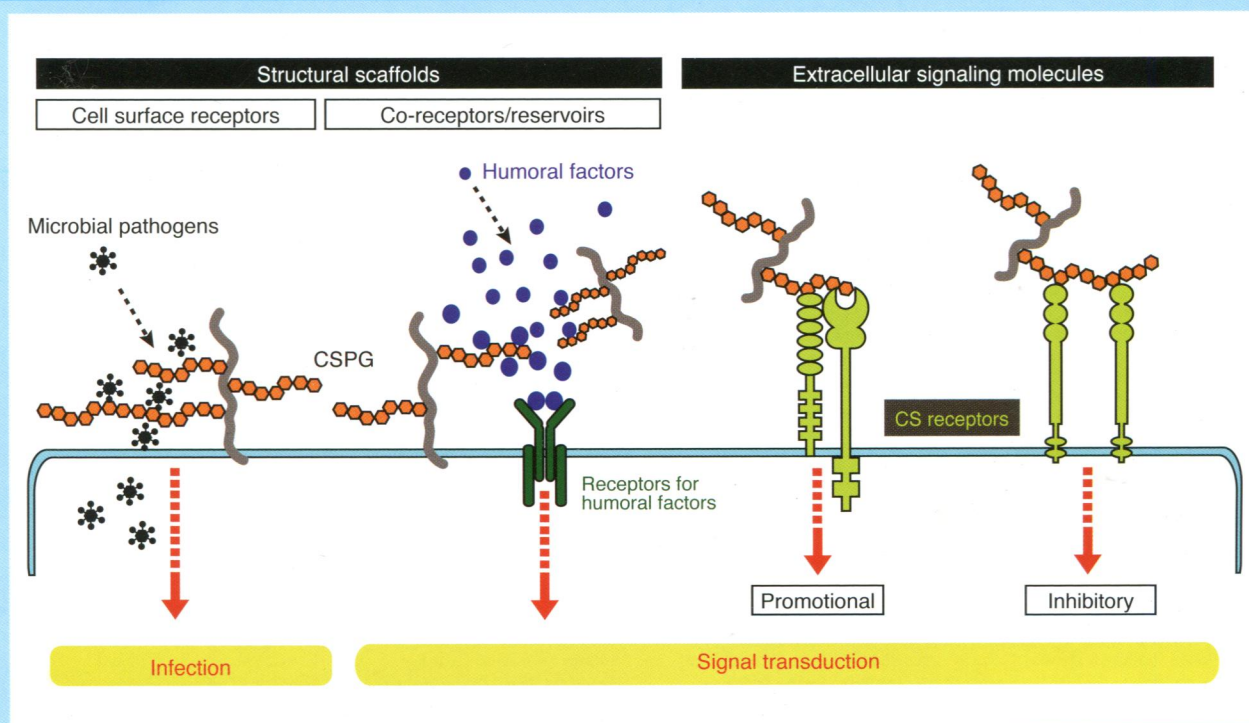
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Cover Figure Functional Analysis of Chondroitin Sulfate

pp. 1705-1712

Highlighted Paper • Berberine Up-Regulates LDL Receptor via AMPK/Raf-1 Pathway
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About the cover: Chondroitin sulfate (CS) chains are distributed on the surfaces of virtually all cells and throughout most extracellular matrices, and are covalently attached to core proteoglycan (PG) proteins. This figure shows mechanisms of action of CS chains. 1) CS chains act as cell surface receptors, especially in the case of microbial infections. 2) CS chains interact with humoral factors, such as cytokines and morphogens, to present them to the respective receptors or to sequester them away from receptors. These coreceptor/modulator functions may also be important in the generation of morphogenic concentration gradients. 3) CS chains bind to specific CS receptors on cell surfaces and therefore function as extracellular signaling molecules that can induce intracellular signaling pathways. See the review by Kitagawa on page 1705 of this issue.