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Classified as

Good for Teaching

Novel Drug Target

Review / Commentary

Confirmation

In this review, Wang et al. analyze several neural pathways involved in skeletal metabolism and homeostasis. The authors focus on specific neuropeptides of the sensory and sympathetic nervous system, on molecules that regulate axon development (as semaphorins) or skeletal cell functions (directly and/or indirectly through the central nervous system as leptin) and on neurotrophic factors (as a brain-derived neurotrophic factor [BDNF], neurotrophin-3 [NT-3] and nerve growth factor [NGF]). The review provides an update on the relationship existing between neural regulatory pathways and other signaling networks involved in skeletal metabolism and homeostasis. This relationship represents the rationale for the use of specific neuromodulators and for the development of agonists/antagonists of their cognate receptors expressed in different cell populations within the skeleton (chondrocytes, cells of the osteogenic and osteoclastic lineages, stromal cells, adipocytes) to treat specific skeletal disorders or symptoms associated therewith as pain.

Disclosures

None declared