

Figure 6: Molecular pathogenesis of osteoarthritis (NYU med osteoarthritis, n.d.)

In light of those identified therapeutic targets, diacerein stands out among current antiosteoarthritis drugs in that it has been shown to be capable of influencing both the anabolism and catabolism of chondrocytes, pro-inflammatory cytokines and osteoblast/osteoclast activity, where the hypothesis for its mechanism of action and that of its active metabolite rhein, is that they inhibit the production and activity of cytokine IL-1β (Yaron et al., 1999; Pujol et al., 2000; Moldovan et al., 2000).

By inhibiting IL-1, diacerein and rhein would therefore inhibit IL-1-induced events such as the production and activity of other pro-inflammatory and pro-catabolic cytokines (Pelletier and Martel-Pelletier, 1995), the production and activity of reactive oxygen