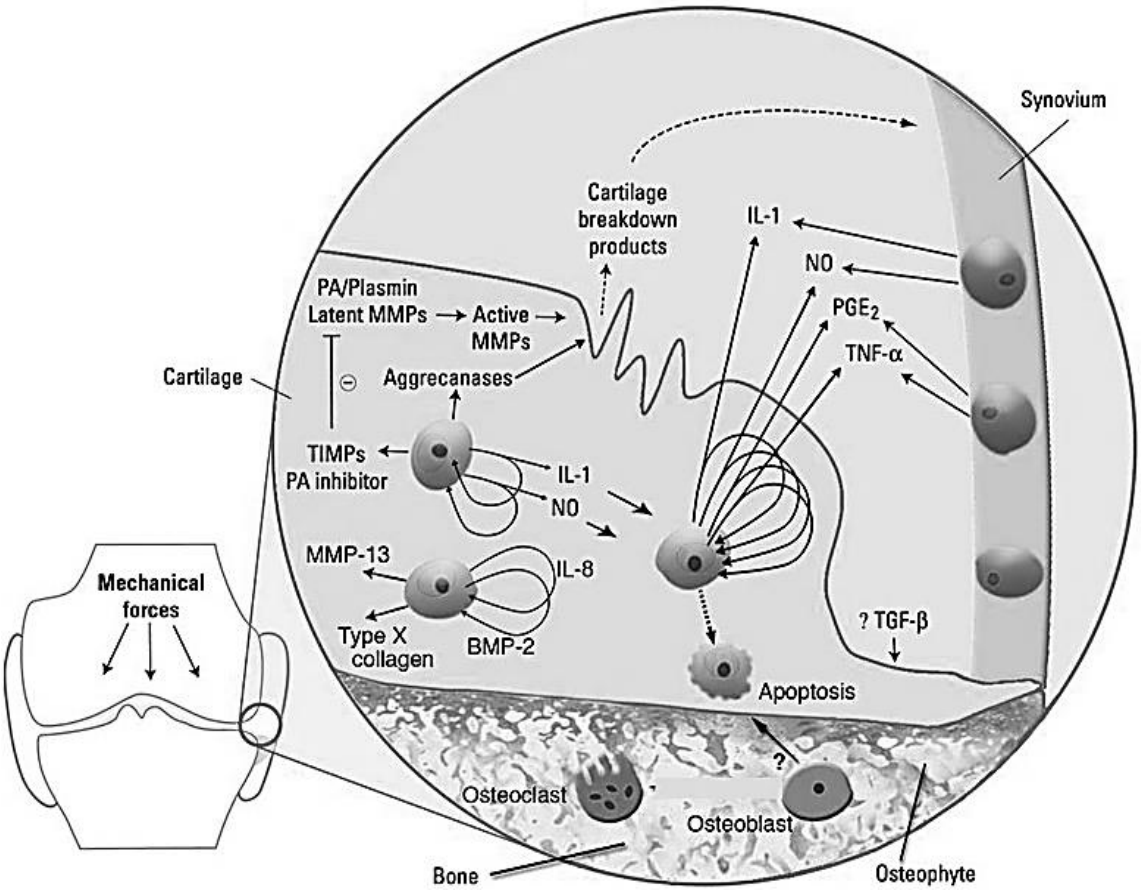

Figure 6: Molecular pathogenesis of osteoarthritis (NYU med osteoarthritis, n.d.)

In light of those identified therapeutic targets, diacerein stands out among current anti-osteoarthritis 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