Structure-guided design of selective matrix metalloproteinase (MMP) inhibitors and their application in animal models of multiple sclerosis, sepsis, and osteoarthritis

Analysis of matrix metalloproteinase (MMP) expression pro les in various pathologies correlated their presence in promoting disease progression. Drugs were designed to inhibit MMPs by chelating the active site zinc ion. is approach did not distinguish between the MMP family members and had devastating consequences during clinical trials. Subsequen knockout mouse studies showed that some MMPs were bene cial in regulating tumor growth and metastasis and stimulating indirectly the immune system. e broad-spectrum inhibitor approach was rethought in order to increase the speci city,

Notes: