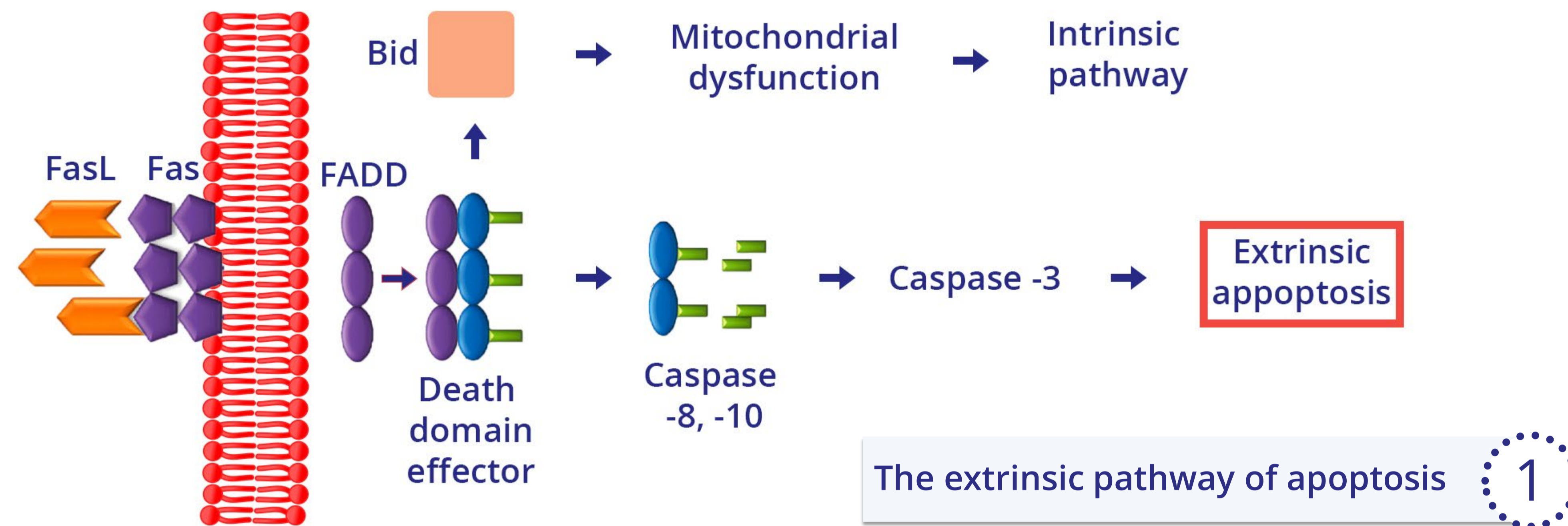


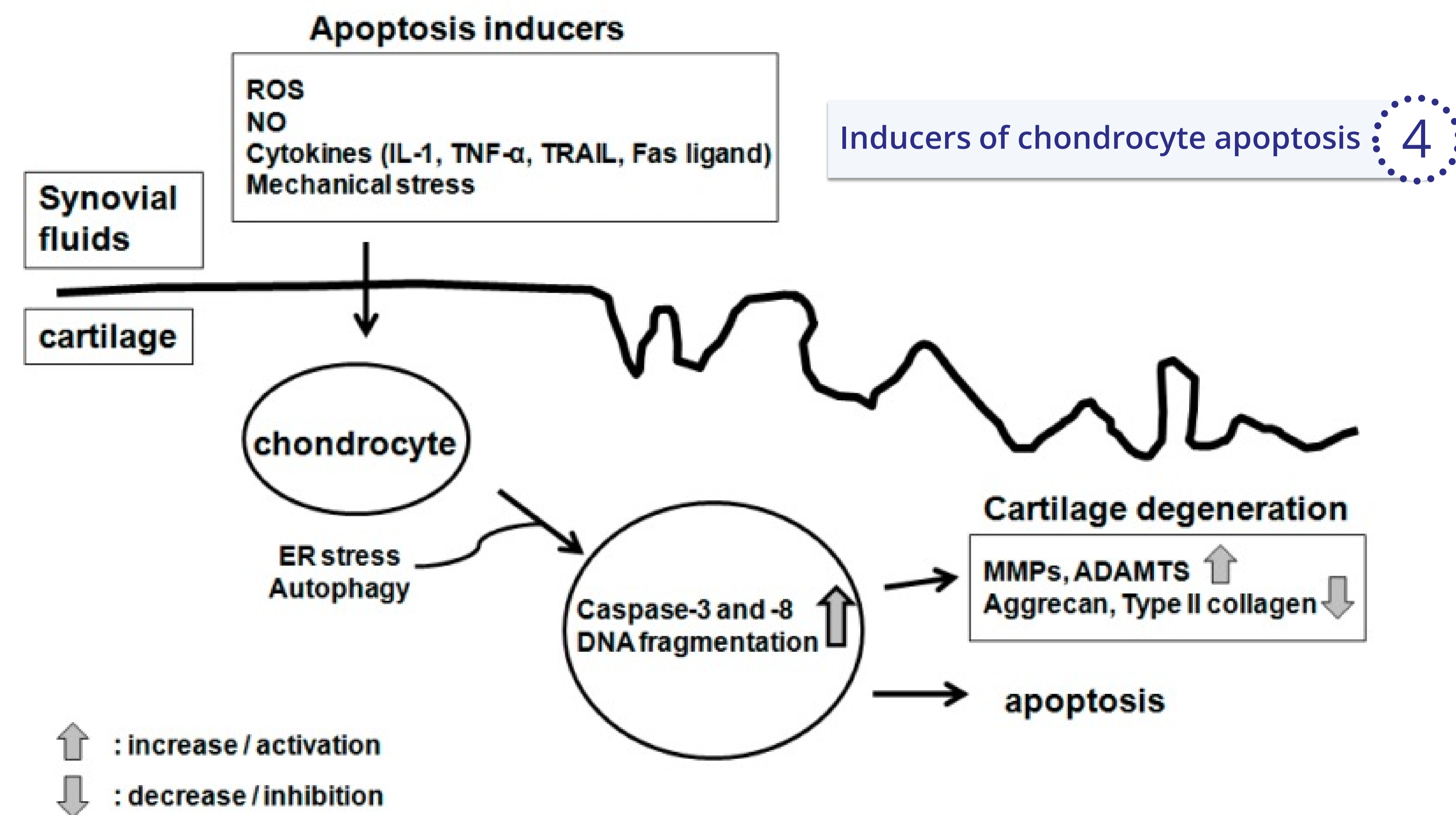
THE ROLE OF CHONDROCYTE APOPTOSIS IN THE PATHOGENESIS OF OSTEOARTHRITIS

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Introduction: Osteoarthritis is characterized by degeneration of articular cartilage. There are several molecular factors of chondrocyte apoptosis that contribute to the degradation of cartilage in osteoarthritis, but do not yet constitute therapeutic targets for its treatment.



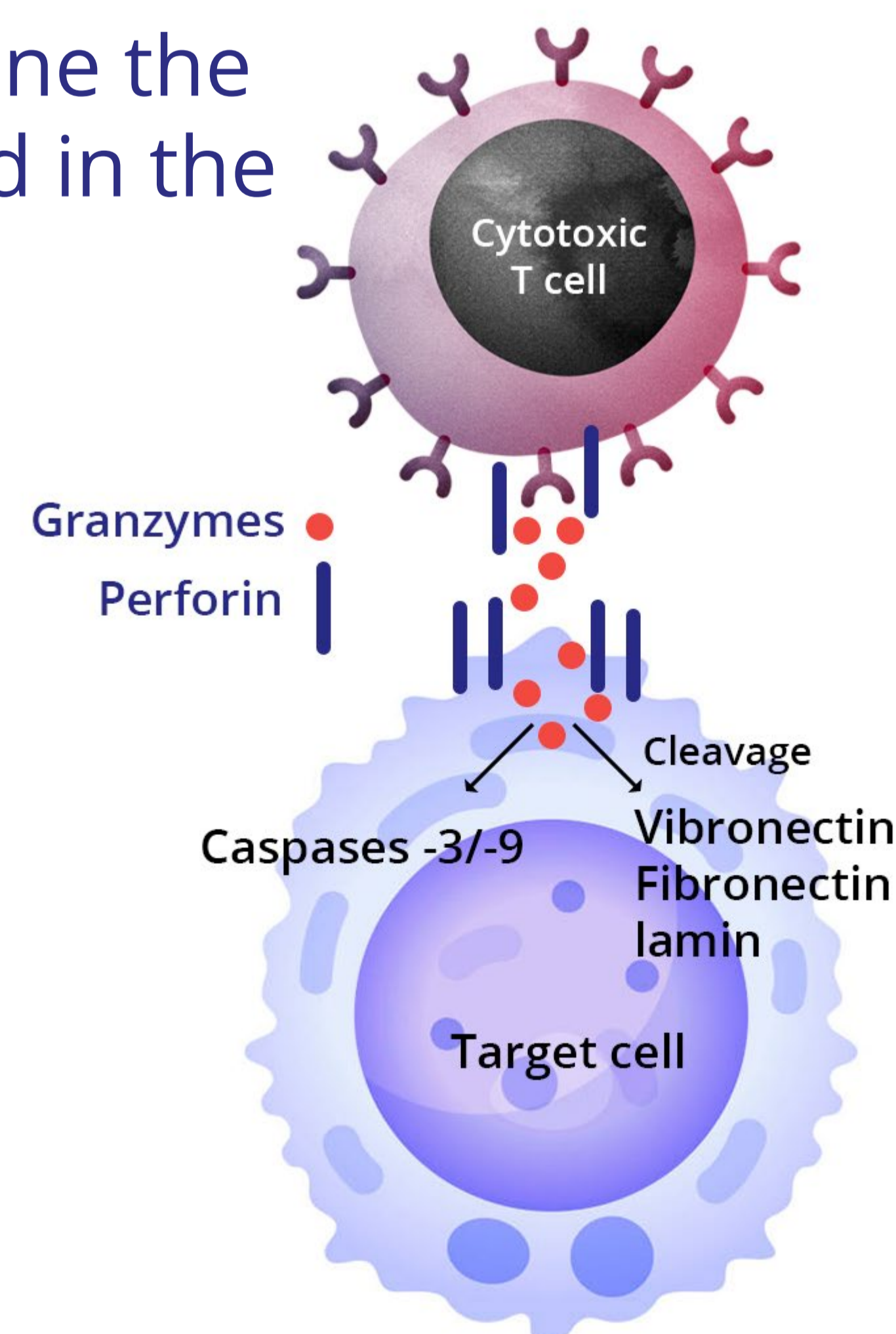
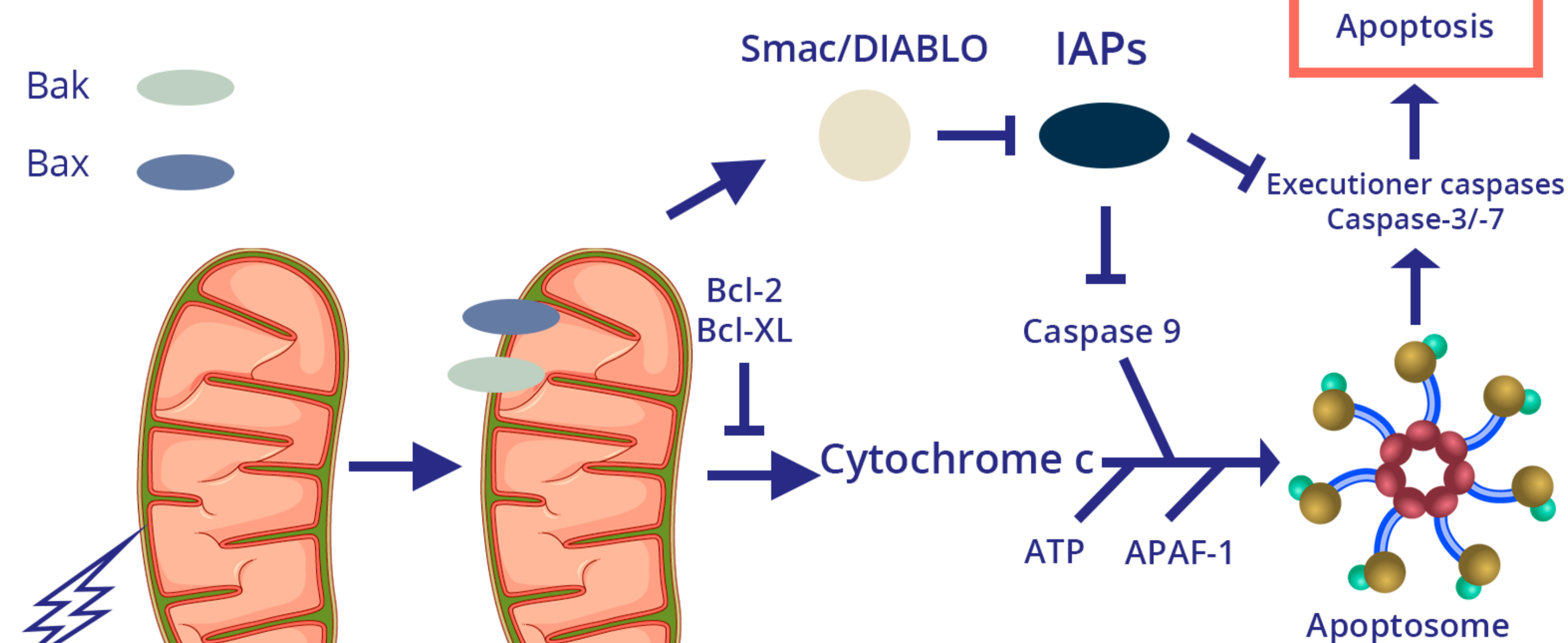
Material and methods: This research represents a detailed synthesis of bibliographic sources published abroad in scientific databases in the years 2015-2020. I have accessed the following search engines: PubMed, Google Scholar, Hinari.



Keywords: Osteoarthritis, chondrocyte, apoptosis, molecular factors.

Purpose: Synthesis of bibliographic data to determine the molecular factors of chondrocyte apoptosis involved in the pathogenesis of osteoarthritis.

2 The intrinsic pathway of apoptosis



3 Granzyme-mediated apoptosis pathway

Results: Analyzing the bibliographic sources, the review articles performed at the international level, a series of molecular markers involved in the pathogenesis of osteoarthritis were highlighted: NO, caspase-1, -3, -6, -7, -8 and -9, tumour suppressor protein p53, MAPK, NFkB, c-myc, death receptor Fas, C-terminal PARP-1 fragment, Toll-like receptors 1/2, TNF-alfa, transforming growth factor beta, calcium-binding S100 proteins, matrix metalloproteinase-13, fibronectin, Bax, Bak, Bid, Bad, Bim, Bik, IL-1, leptin.

Conclusions: The existence of a large number of molecular factors involved in the chondrocyte apoptosis offers a multitude of potential targets for pharmacological treatment of osteoarthritis.