



# INTRODUCTION

## **INTRODUCTION**

- Osteoarthritis is the most common form of arthritis in human and its most site is the knee joint (Trippel,1995).
- The formation of articular cartilage defects in OA arises from an imbalance between biosynthetic and catabolic processes affecting the extracellular matrix (Vanden Berge ,1999).
- Interleukin\_1 (IL-1) and transforming growth factor  $B_1$  (TGF-  $B_1$  ) are the prototypic stimuli for the catabolic and anabolic program respectively (Pujol,1999).
- TGF-  $B_1$  plays a role in the regulation of chondrocyte mediated matrix turnover.It is considered an important factor in the formation and repair of cartilage and bone ( Lafeber et al.,1997).
- Because TGF-  $B_1$  has been shown to antagonize IL-1 effects on articular cartilage proteoglycan synthesis,a role in protection against proteoglycan depletion in articular cartilage during arthritry can be expected (Hunziker ,2001).