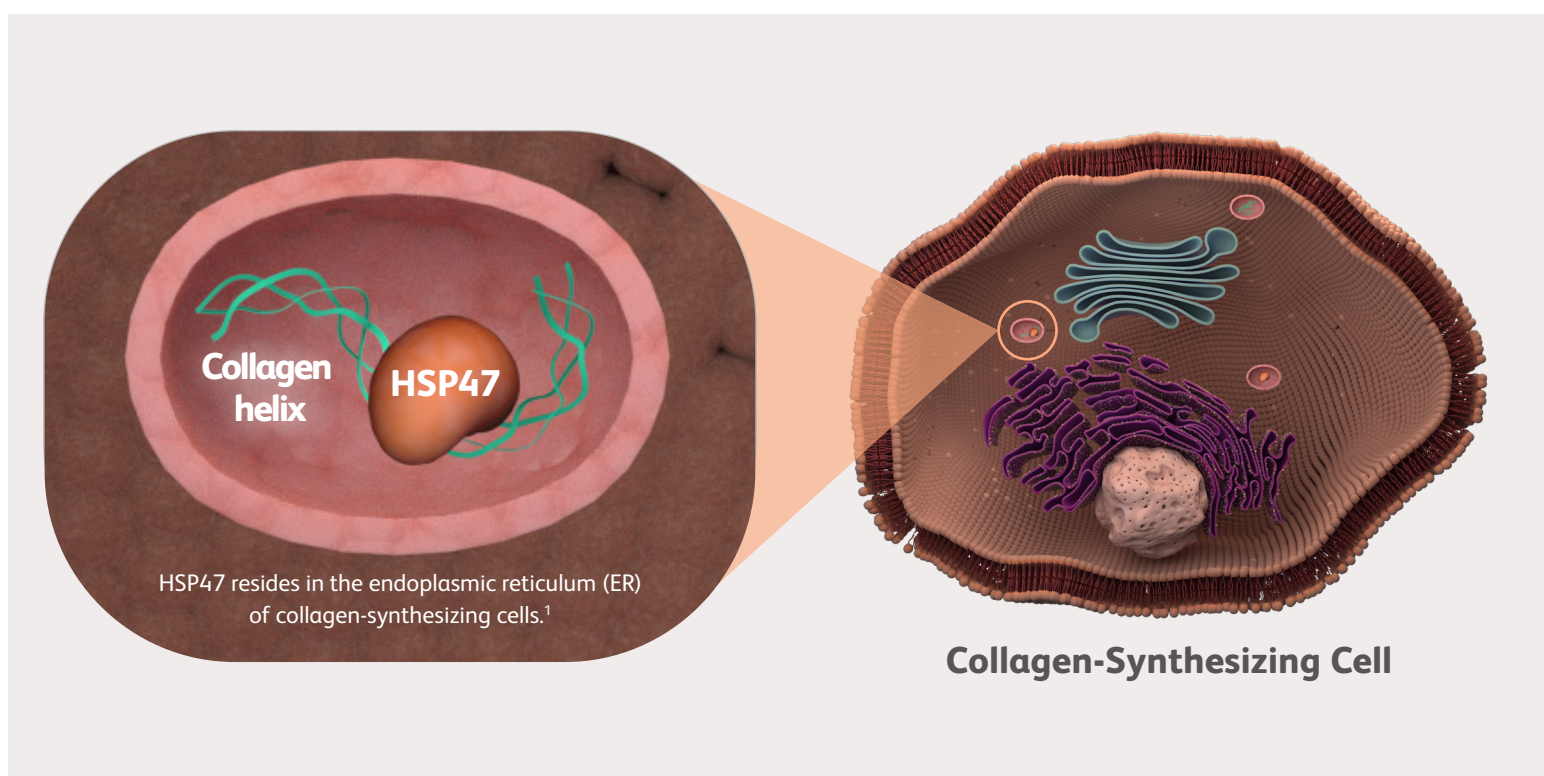


Heat Shock Protein 47 (HSP47) Pathway

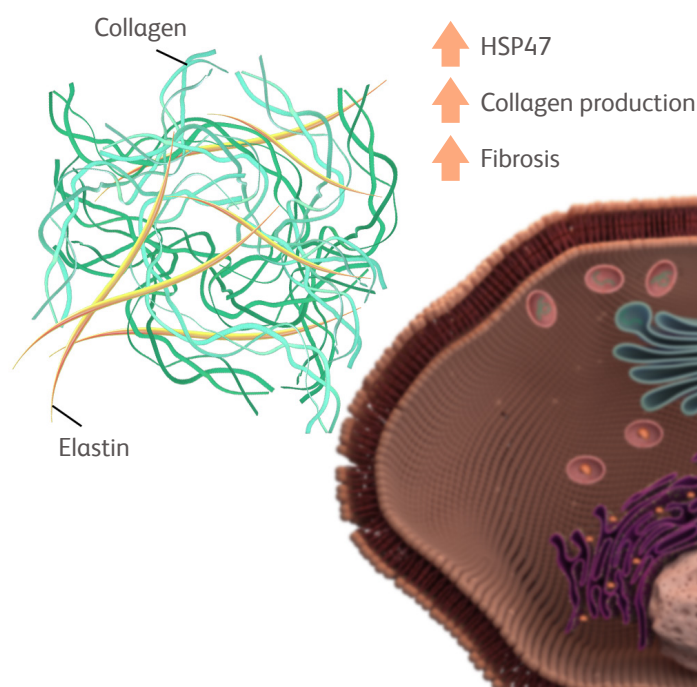


What is HSP47?

Heat shock protein 47 (HSP47) is a collagen-specific chaperone involved in the formation and stabilization of collagen molecules. Collagen is a structural protein that is found in skin and other connective tissues throughout the body. HSP47 guides the correct folding of the collagen protein and ensures it maintains the correct structure.^{1,2}

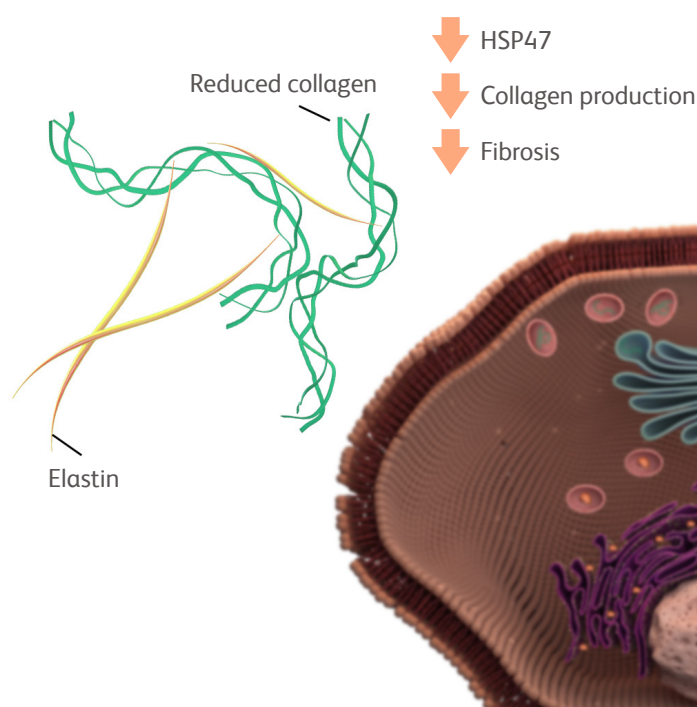
HSP47 and Fibrosis

- Fibrosis is scarring characterized by the accumulation of the protein collagen.
- Increased levels of HSP47 contribute to the production and accumulation of excessive amounts of collagen, which promotes the formation of fibrosis.²
- Elevated levels of HSP47 are observed in models of fibrosis and human fibrotic disease.^{1,2}



Research Implications

- Targeted downregulation of HSP47 in the liver can lead to improper folding of collagen within cells.
- Without proper folding, collagen clumps together inside of cells, decreasing the amount of collagen that is secreted outside of the cell.
- A decrease in the amount of secreted collagen may lead to a decrease in fibrosis.



HSP47 and the collagen synthesis pathway are one of many pathways under investigation at Bristol Myers Squibb. Learn more about our work in fibrosis by visiting: www.bms.com/researchers-and-partners/areas-of-focus.html