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**MECHANOSENSING IN LIVER REGENERATION**

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**ABSTRACT**

Liver is highly regenerative as it can restore its function and size even after 70% partial hepatectomy. During liver regeneration, the mechanical and chemical environment of liver is altered with accumulation of various growth factors and remodeling of extracellular environment. Cells can sense the changes in their cellular environment through various chemo and mechanosensors present on their surfaces. These changes are then transduced by initiation of multiple signaling pathways. Traditional view of liver regeneration describes the process as a cascade of chemical signaling pathways. In this review, we describe the role of mechanical forces and mechanosensing in regulating liver regeneration with focus on the role of altered shear and extracellular matrix environment following injury. These mechanosensing mechanisms either generate molecular signals that further activate

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