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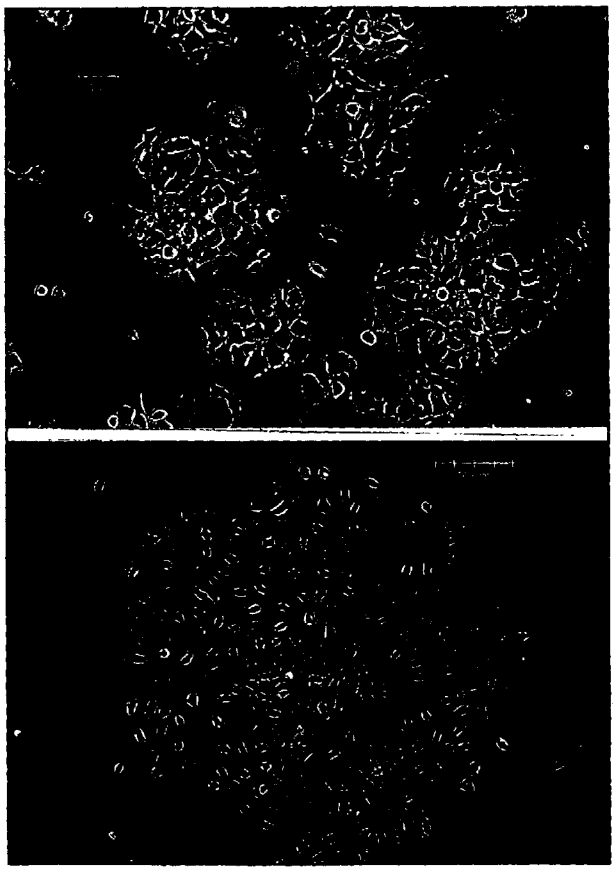
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(54) Title: PRIMITIVE AND PROXIMAL HEPATIC STEM CELLS



(57) Abstract: Hepatic progenitors comprise two populations of human hepatic stem cells, primitive and proximal hepatic stem cells, and two populations of committed progenitors, one for biliary cells and one for hepatocytes. Human primitive hepatic stem cells are a very small fraction of the liver cell population and give rise to proximal hepatic stem cells constituting a much larger fraction of the liver. Human proximal hepatic stem cells give rise to biliary and hepatocyte committed progenitors. Primitive and proximal stem cells are the primary stem cells for the human liver. Human primitive hepatic stem cells may be isolated by immunoselection from human livers or culturing human liver cells under conditions which select for a human primitive hepatic stem cell. Proximal hepatic stem cells may be isolated by immunoselection, or by culturing human liver cells under conditions which include a developmental factor. Proximal hepatic stem cells may also be isolated by culturing colonies comprising a primitive hepatic stem cell under conditions which include a developmental factor. Resulting compositions may be used for treating liver disorders and for producing bioartificial organs.

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