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Simulation of blood and oxygen distributions in a hepatic lobule with sinusoids obstructed by cancer cells

Weiping Ding , Sen Liu , Shibo Li , Duobiao Ge , Fenfen Li , Dayong Gao

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Highlights

- A 3D geometric structure is developed to model the hepatic lobule
- The blood flow and oxygen transport in the hepatic lobule is studied theoretically
- The area and degree of liver damage induced by sinusoid obstruction are analyzed
- Liver microenvironments with migration of cancer cells in sinusoid are presented
- The minimum cancer cell size causing liver damage for various positions is analyzed

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