



"Modeling Human Disease Using Bioengineered Tissues"



Robert Schwartz, M.D., Ph.D.
Associate Professor, Medicine
Weill Cornell Medicine
New York

About this seminar: Liver disease is an important clinical problem, impacting 600 million people worldwide. It is the 11th-leading cause of death in the world and liver transplantation is the gold standard for the treatment of liver failure. However, due to the paucity of available organs, only a small number of patients are transplanted each year. Leveraging stem cell biology and tissue engineering, bioengineered liver tissues can be generated. Bioengineered liver tissue has the potential to be an alternative source of tissue for liver transplantation. Moreover these liver-like tissues have the potential to be used to model and study human liver diseases.

References: (1) Gómez-Salineró JM, Izzo F, et al. Specification of fetal liver endothelial progenitors to functional zoned adult sinusoids requires c-Maf induction. *Cell Stem Cell*. 2022 Apr 7;29(4):593-609. PMC9290393. (2) Rendeiro AF, Ravichandran H, et al. The spatial landscape of lung pathology during COVID-19 progression. *Nature*. 2021 May;593(7860):564-569. PMC8204801. (3) Gupta V, Gupta I, Park J, Bram Y, Schwartz RE. Hedgehog Signaling Demarcates a Niche of Fibrogenic Peribiliary Mesenchymal Cells. *Gastroenterology*. 2020 Aug. PMC8204800.



**Baylor Main Campus
DeBakey Building
Auditorium M112**

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