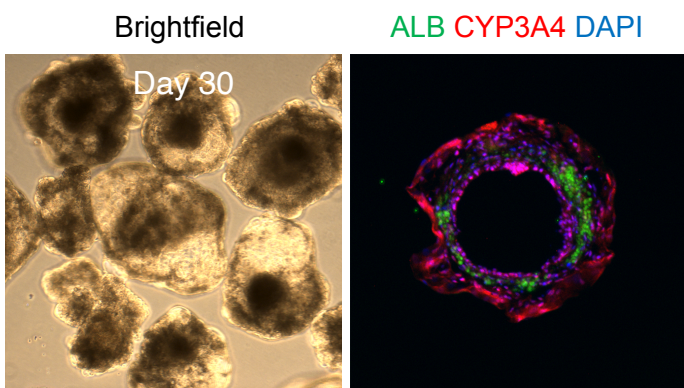
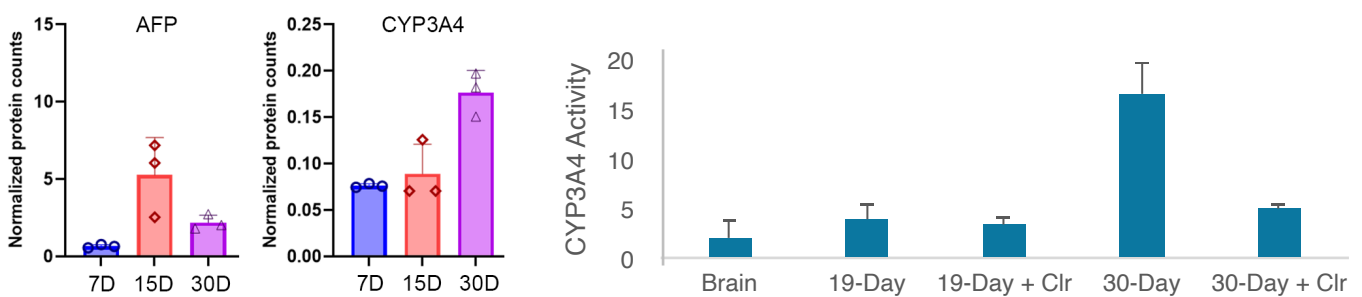


Liver Organoids

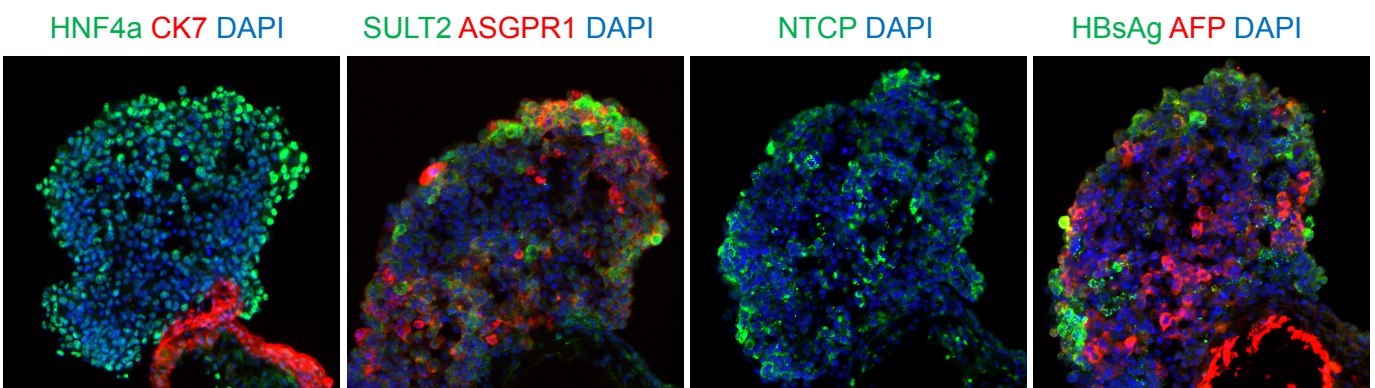
The next frontier in stem cell biology is to make organ-like tissues that recapitulate the complex architectures and developmental programs found in vivo. Such 3D organoids provide unique tools for the study of organogenesis, generation of clinically relevant cell types, and development of new disease models and pharmacotherapy. Dexorgen has developed liver organoids that are susceptible to Hepatitis B virus infection and could be used in preclinical drug testing.



iPSC-derived liver organoids express mature and functional markers Albumin (ALB) and Cytochrome P450 3A4 (CYP3A4). Treatment of Clarithromycin (Clr) greatly inhibits CYP3A4 activity in liver organoids.



Modeling HBV Infection Using Liver Organoids



Liver organoids express HNF4a, Cytokeratin 7 (cholangiocytes), Sulfotransferase 2 (SULT2), Asialoglycoprotein receptor 1 (ASGPR1), Sodium taurocholate cotransporting polypeptide (NTCP), and Alpha fetoprotein (AFP). Upon infection of HBV, hepatocytes in liver organoids express Hepatitis B surface antigen (HBsAg).

Contact us for more information about our liver organoids and services