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(54) Title: DUCT ORGANOID-ON-CHIP

(57) Abstract: The present disclosure is directed in one non-limiting embodiment to a biochip for growing ductal tissue including at least one membrane structure, wherein the membrane structure includes at least one porous membrane configured to provide a mimetic cellular environment, at least one chassis, wherein the at least one chassis includes a channel configured to support the at least one membrane structure and at least one microfluidic channel in fluid communication with the channel supporting the at least one membrane structure and at least one cover slip, wherein the at least one chassis is configured such that an internal space is provided within the at least one chassis and capable of creating at least one channel within the at least one chassis, wherein the internal space created between the chassis provides a compartment that is internal relative to the body of the chassis but external relative to the membrane structure.



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