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[Continued on next page]

(54) Title: CELL CULTURE SYSTEM

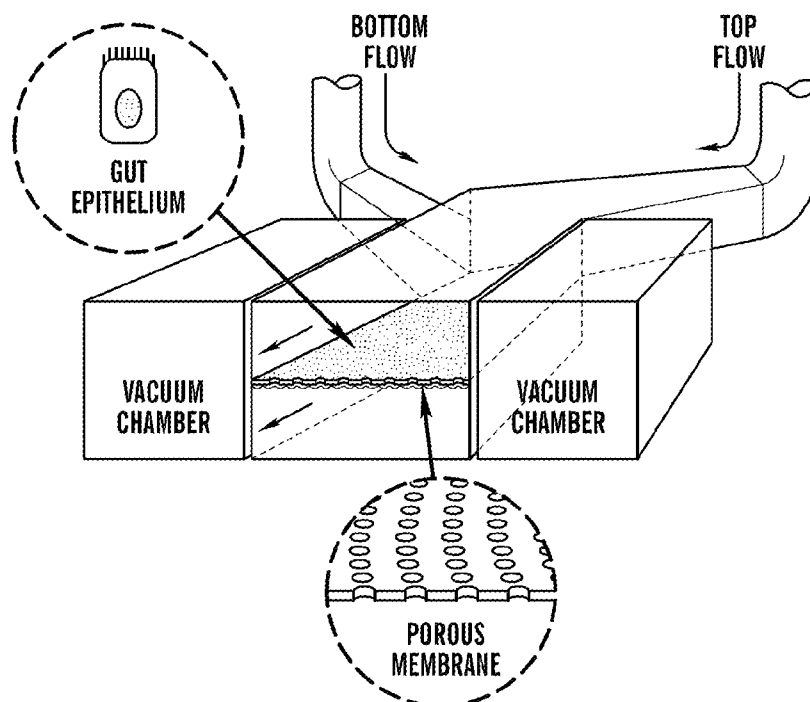


FIG. 12A

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(57) **Abstract:** The embodiments of the invention described herein relate to systems and methods for culturing and/or maintaining intestinal cells, tissues and/or organoids in vitro. The cells, tissues and/or organoids cultured according to the methods and systems described herein can mimic or reproduce natural intestinal epithelial structures and behavior as well as support co-culture of intestinal microflora.