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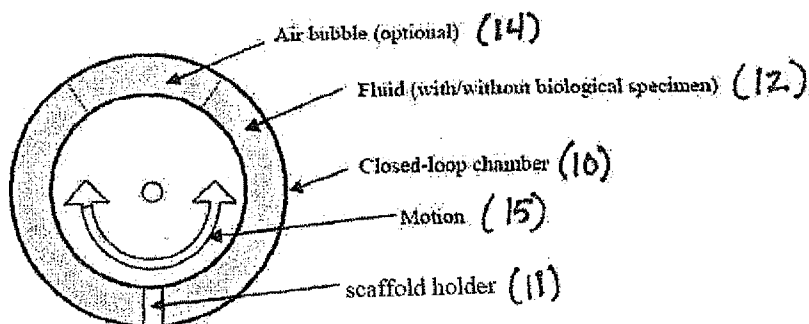


FIGURE 1

(57) Abstract: Methods and devices for cell or tissue culture are provided. One aspect provides a bioreactor having a gas permeable, closed-loop chamber for cell or tissue culture, and an oscillating means for moving the gas permeable, closed-loop chamber bidirectionally along an axis horizontal to an axis normal to the closed-loop chamber to force convection of cells and fluid in the gas permeable, closed-loop chamber. The bioreactor optionally includes a tissue engineering scaffold, an inlet means, an outlet means, and integrated sensors. Another aspect provides a bioreactor having a plurality of gas permeable, closed-loop chambers for cell or tissue culture. Methods of culturing cells and producing tissue constructs are also provided.

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
C12M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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A	US 5 334 497 A (INABA HIDEKI [JP] ET AL) 2 August 1994 (1994-08-02) column 2, line 51 - column 3, line 64	1
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A	US 2004/241790 A1 (ERIKSEN HENRIK [NO] ET AL) 2 December 2004 (2004-12-02) claims 18,19	1

 Further documents are listed in the continuation of Box C. See patent family annex.

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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