CLAIMS

[Claim 1]

A cell processing system comprising:

an enclosure,

an outer enclosure that envelops the enclosure,

an intake air purification filter provided in the enclosure, that purifies gas that has been drawn in from outside the enclosure and inside the outer enclosure,

a circulating apparatus, inside the outer enclosure, that circulates gas inside and outside the enclosure in such a manner that the gas in the outer enclosure is drawn into the enclosure through the intake air purification filter and the gas inside the enclosure is discharged into the outer enclosure, and that purifies the gas inside the enclosure and inside the outer enclosure, and

a cell processing apparatus for processing of cells, disposed inside the enclosure,

wherein the outer enclosure has an openable and closeable structure to allow the enclosure disposed in it to be inserted into and removed from it, and

the interior of the outer enclosure is completely sealed off when the openable and closeable structure is in a closed state.

[Claim 2]

The cell processing system according to claim 1, wherein a pressure adjustment hole is provided in the outer enclosure, and when the openable and closeable structure and the pressure adjustment hole are in a closed state, the interior of the outer enclosure is sealed off.

[Claim 3]

The cell processing system according to claim 1, wherein the circulating apparatus comprises a gas discharger, provided in the enclosure, that draws in gas from the enclosure and discharges the purified gas out of the enclosure and into the outer enclosure.

[Claim 4]

The cell processing system according to claim 3, wherein the gas discharger comprises

an exhaust system that exhausts gas inside the enclosure to the exterior of the enclosure

and to the interior of the outer enclosure, and

an exhaust purification filter that purifies the gas that has been drawn in by the exhaust system.

[Claim 5]

The cell processing system according to claim 4, wherein the exhaust purification filter is situated upstream from the exhaust system.

[Claim 6]

The cell processing system according to claim 5, which further comprises a shielding member that can be attached to the exhaust purification filter so as to shield the exhaust purification filter.

[Claim 7]

The cell processing system according to claim 6, wherein the shielding member comprises:

an enclosure side shielding member that can be attached to the exhaust purification filter so as to shield the exhaust purification filter from the enclosure interior, and

an exhaust system side shielding member that can be attached to the exhaust purification filter so as to shield the exhaust purification filter from the exhaust system.

[Claim 8]

The cell processing system according to claim 6 or 7, which further comprises a sterilizing device that sterilizes the exhaust purification filter.

[Claim 9]

The cell processing system according to claim 5, which further comprises a second exhaust purification filter disposed downstream from the exhaust system.

[Claim 10]

The cell processing system according to claim 9, which further comprises a shielding member that can be attached to the second exhaust purification filter so as to shield the second

exhaust purification filter.

[Claim 11]

The cell processing system according to claim 10, wherein the shielding member further comprises an exhaust system side shielding member that can be attached to the second exhaust purification filter, so as to shield the second exhaust purification filter from the exhaust system.

[Claim 12]

The cell processing system according to claim 10 or 11, which further comprises a sterilizing device that sterilizes the second exhaust purification filter.

[Claim 13]

The cell processing system according to any one of claims 1 to 12, wherein

the circulating apparatus comprises an injector, provided in the enclosure, that draws in the gas to be purified by the intake air purification filter, from outside the enclosure and inside the outer enclosure.

[Claim 14]

The cell processing system according to claim 13, wherein the intake air purification filter is situated downstream from the injector.

[Claim 15]

The cell processing system according to claim 14, which further comprises a shielding member that can be attached to the intake air purification filter so as to shield the intake air purification filter.

[Claim 16]

The cell processing system according to claim 15, wherein

the shielding member comprises

an enclosure side shielding member that can be attached to the intake air purification filter so as to shield the intake air purification filter from the enclosure interior, and

an injector side shielding member that can be attached to the intake air purification filter so as to shield the intake air purification filter from the injector.

[Claim 17]

The cell processing system according to claim 15 or 16, which further comprises a sterilizing device that sterilizes the intake air purification filter.

[Claim 18]

The cell processing system according to any one of claims 1 to 17, wherein the enclosure interior is at negative pressure compared to the enclosure exterior.

[Claim 19]

The cell processing system according to any one of claims 1 to 18, wherein stem cells are cultured in the cell processing apparatus.

[Claim 20]

The cell processing system according to any one of claims 1 to 19, which further comprises a sterilizing device that sterilizes a space in which the cell processing apparatus is disposed inside the enclosure.

[Claim 21]

The cell processing system according to any one of claims 1 to 20, which further comprises a temperature regulating device that regulates a temperature in a space in which the cell processing apparatus is disposed inside the enclosure.

[Claim 22]

The cell processing system according to any one of claims 1 to 21, which further comprises a carbon dioxide concentration control device that controls a carbon dioxide concentration of a space in which the cell processing apparatus is disposed inside the enclosure.

[Claim 23]

The cell processing system according to any one of claims 1 to 22, wherein the enclosure interior is demarcated into multiple zones.

[Claim 24]

A cell processing system comprising:

an enclosure,

an outer enclosure that envelops the enclosure,

an intake air purification filter provided in the enclosure, that purifies gas that has been drawn in from outside the enclosure and inside the outer enclosure,

a circulating apparatus, inside the outer enclosure, that circulates gas inside and outside the enclosure in such a manner that the gas in the outer enclosure is drawn into the enclosure through the intake air purification filter and the gas inside the enclosure is discharged into the outer enclosure, and

a cell processing apparatus for processing of cells, disposed inside the enclosure,

wherein the outer enclosure has an openable and closeable structure to allow the enclosure disposed in it to be inserted into and removed from it, and

the interior of the outer enclosure is completely sealed off when the openable and closeable structure is in a closed state,

wherein the cell processing apparatus comprises:

a preintroduction cell solution-feeding channel through which a solution containing cells passes,

a factor introducing device that is connected to the preintroduction cell solution-feeding channel and introduces an inducing factor into the cells to prepare inducing factor-introduced cells,

a cell mass preparation device in which the inducing factor-introduced cells are cultured to prepare a plurality of cell masses comprising stem cells, and

an introduced cell solution-feeding channel for feeding of the inducing factor-introduced cells from the factor introducing device to the cell mass preparation device.

[Claim 25]

The cell processing system according to claim 24, wherein the inducing factor-introduced cells are fed to the cell mass preparation device through a pump.

[Claim 26]

The cell processing system according to claim 24, wherein the cell mass preparation device carries out suspension culture of the inducing factor-introduced cells to prepare the plurality of cell masses comprising stem cells.