CLAIMS

1. A single-use chamber comprising:

a primary subchamber containing at least one primary component configured to perform an operation comprising at least one of generation and handling of a biological material; and

a secondary subchamber containing at least one of a connection to equipment external to the single-use chamber and a secondary component, wherein the external equipment and the secondary component are configured to support the operation of the at least one primary component;

wherein the primary subchamber and the secondary subchamber are configured to be connected to each other so that the at least one primary component is operatively coupled to at least one of the connection and the secondary component, and

further comprising coupling means configured to aseptically couple the single-use chamber to at least one additional single-use chamber such that the single-use chamber and the at least one additional single-use chamber are at least partially fluidly connected.

2. The single-use chamber of claim 1, wherein one of the primary subchamber and the secondary subchamber has rigid walls and the other of the primary subchamber and the secondary subchamber has flexible walls.

3. The single-use chamber of claim 1 or 2, wherein the primary subchamber and the secondary subchamber are configured to be sterilized via different sterilization methods.

4. The single-use chamber of claim 1 or 2, wherein the primary subchamber is configured to be sterilized and the secondary subchamber is configured to remain unsterilized.

5. The single-use chamber of any one of claims 1 to 4, wherein the primary subchamber and the secondary subchamber are configured to be removably connected.

6. The single-use chamber of any one of claims 1 to 4, wherein the primary subchamber and the secondary subchamber are configured to be permanently connected.

7. The single-use chamber of any one of claims 1 to 6, further comprising a tertiary subchamber containing at least one of a connection to equipment external to the single-use chamber and a tertiary component, wherein the external equipment and the tertiary component are configured to support the operation of the at least one primary component.

8. A network of single-use chambers comprising a plurality of single-use chambers according to claim 1.

9. A container assembly comprising:

an enclosure configured to accommodate at least one single-use chamber according to any one of claims 1 to 8 for performing an operation comprising at least one of generation and handling of a biological material, the enclosure comprising at least one supporting equipment module;

wherein the at least one supporting equipment module is configured to be operatively coupled to the at least one single-use chamber to support the operation of the at least one single-use chamber, and

wherein a modular arrangement of the at least one supporting equipment module and of the at least one single-use chamber is selectively mountable in one configuration of a plurality of possible configurations.

10. The container assembly of claim 9, wherein the at least one supporting equipment module comprises at least one of the following:

- at least one connection to supplying units;
- at least one connection to waste containers;
- at least one drive mechanism for driving devices contained in the at least one single-use chamber;

- at least one component configured to perform tasks in preparation for the operation of the at least one single-use chamber;
- at least one component configured to perform tasks after the operation of the at least one single-use chamber.

11. The container assembly of claim 10, further comprising at least one supplying unit.

12. The container assembly of any one of claims 9 to 11, wherein the enclosure further comprises an access opening configured to allow the modular arrangement of the at least one supporting equipment module and of the at least one single-use chamber to be modified.

13. The container assembly of any one of claims 9 to 12, wherein the container assembly further comprises a rigid base and the rigid base is formed by a plurality of displaceable elements.

14. The container assembly of any one of claims 9 to 12, wherein the container assembly further comprises a rigid base and the rigid base comprises at least one wheel.

15. The container assembly of any one of claims 9 to 14, further comprising a controlling device configured to control the at least one supporting equipment module and the at least one single-use chamber.

16. A single-use manufacturing system comprising at least one single-use chamber according to any one of claims 1 to 8, the at least one single-use chamber containing a plurality of components configured to perform the entire upstream and downstream processing of biological material.

17. The single-use manufacturing system of claim 16, wherein the system comprises a plurality of single-use chambers aseptically connected to each other and each single-use chamber is configured to perform a different step in the upstream and downstream processing.

18. The single-use manufacturing system of claim 17, wherein the plurality of single-use chambers comprise:

a mixing assembly chamber;

a bioreactor assembly chamber;

a centrifugation assembly chamber;

a fluid storage assembly chamber; and

a post-processing and packaging chamber.

19. The single-use manufacturing system of claim 18, wherein the system is configured to perform one of the following:

bag filling of a processed bioactive product,

vial filling of a processed bioactive product,

encapsulation of a processed bioactive product,

vaccine production into sterile syringes,

viral vectors production for delivery of CRISPR sequences,

custom manufacture of Fecal Microbiota Transplant capsules,

packaging of a bioactive product.