

What is claimed is:

1. A container for separating microcarriers from a process fluid, comprising:

a first compartment;

an inlet port providing a fluid path into the first compartment;

an outlet port providing a fluid path exiting the first compartment; and

a second compartment disposed inside the first compartment and fluidly connected with the inlet port of the first compartment, said second compartment comprising a plurality of discrete microcarrier receiving regions.

2. The container of claim 1, wherein each microcarrier receiving region comprises porous mesh having a porosity sufficient to allow process fluid to pass while retaining said microcarriers.

3. The container of claim 1 wherein the microcarrier receiving regions in fluid communication with a plenum to form a manifold.

4. The container of claim 1, wherein each microcarrier receiving region comprises a mesh bag coupled to a manifold that is fluidly connected to an input port of the first compartment.

5. The container of claim 1, wherein each microcarrier receiving region comprises a porous pleated bag.