# Glossary

**Biocompatible (or Biocompatibility)** is the ability of a material to perform its function with an appropriate host response without causing any undesirable local and systemic effects.

**Bioprocess** is a specific process that uses complete living cells or their components (e.g., bacteria, enzymes, chloroplasts) to obtain desired products.

**Closed system** is a physical system that does not allow transfer of matter in or out of the system.

**Compression** is the application of balanced inward forces to different points on a material or structure, to reduce its size in one or more directions.

**Consumption rate** is the average quantity of an item consumed or expended during a given time interval.

**Culture parameters** are a group of measurable factors that define a cell culture system or set the conditions of their operation.

**Dynamic seeding** uses agitation or perfusion of the cell suspension to actively increase cell seeding efficiency, uniformity, and/or penetration of cells into the scaffold.

**Elimination rate** is the rate at which a molecule is removed from a biological system.

**Hydrostatic pressure** is the pressure exerted by a fluid at equilibrium at a given point within the fluid.

**Mass transport (in cell culture)** is when materials are moved through the culture medium to the cell surface to deliver nutrients, remove waste or trigger communication between cells through soluble factors.

**Mixing bioreactors** are a specific type of bioreactors that homogeneously distribute nutrients, oxygen as well as cellular byproducts via stirring or oscillating and rocking components.

**Non-invasive(ly)** is not involving introduction of instruments in the culturing system.

**Perfusion bioreactor** is a continuous culturing method in which a directed flow of medium is applied to the cells or cell seeded scaffols.

**Scale-out** is adding more components for capacity expansion.

**Scaling up** is the development of culture systems in stages from (small scale) laboratory to (large scale) industry.

**Shear (force)** is the component of stress parallel to the material cross section.

**Sink** is a reservoir that provides storage for a substance.

**Strain** is the opposite of compression. Thus, it represents a pulling force applied axially on an object which results in an increase of size in one direction.

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