WHAT IS CLAIMED IS:

1. A single-use system for integrated, continuous processing of an initial biologic product, wherein the system comprises a viral filtration unit operation coupled to a single-pass tangential flow filtration (SPTFF) and diafiltration (DF) unit operation.

2. The single-use system of claim 1, wherein the processing comprises filtration, concentration and buffer exchange.

3. The single-use system of claim 1 or claim 2, wherein the biologic product is a protein.

4. The single-use system of claim 1 or claim 2, wherein the biologic product is a monoclonal antibody.

5. The single-use system of ~~claim 1~~any one of claims 1 to 4, wherein the viral filtration unit operation comprises a pump, at least one pre-filter and one or more viral reduction filtration membranes.

6. The single-use system of ~~claim 1~~any one of claims 1 to 4, wherein the SPTFF-DF unit operation comprises one or more SPTFF membranes, DF mixing tanks, DF membranes, sensors, pumps or a combination thereof.

7. The single-use system of ~~claim 1~~any one of claims 1 to 6, further comprising a feed reservoir coupled to the viral filtration unit operation.

8. The single-use system of claim 7, wherein the feed reservoir holds purified and polished monoclonal antibody at a concentration between about 5 and about 20 g/L.

9. The single-use system of claim 7, wherein the feed reservoir holds purified and polished monoclonal antibody at a concentration of between about 8 and about 12 g/L.

10. The single-use system of ~~claim 1~~any one of claims 1 to 9, wherein the system performs integrated, continuous viral filtration, concentration and buffer exchange within a time frame of about 8 hours.

11. The single-use system of ~~claim 1~~any one of claims 1 to 9, wherein the system performs integrated, continuous viral filtration, concentration and buffer exchange within a period of about 24 hours or less.

12. The single-use system of ~~claim 1~~any one of claims 1 to 9, wherein the system performs integrated, continuous viral filtration, concentration and buffer exchange within a period of about 12 hours or less.

13. The single-use system of any one of claims 1 to 9, wherein the system performs integrated, continuous viral filtration, concentration and buffer exchange within a time frame of about 8 hours or less.

~~13~~14. The single-use system of ~~claim 1~~any one of claims 1 to 13, wherein the system is capable of processing a ten-fold increase in the concentration of the biologic product.

~~14~~15. An integrated, continuous method for providing a processed biologic product, comprising a) providing a feedstream comprising an initial biologic product; b) filtering the feed stream to remove viral contaminants; c) concentrating the initial biologic product; and d) conducting buffer exchange to produce a processed biologic product, wherein the steps b)-d) are carried out by a viral filtration unit operation coupled to a single-pass tangential flow filtration (SPTFF) and diafiltration (DF) unit operation.

16. The method of claim ~~14~~15, wherein the viral filtration unit operation comprises a pump, at least one pre-filter and one or more viral reduction filtration membranes.

17. The method of ~~claim 14~~claim 15 or claim 16, wherein the SPTFF-DF unit operation comprises one or more SPTFF membranes, DF mixing tanks, DF membranes, sensors, pumps or a combination thereof.

18. The method of ~~claim 14~~any one of claims 15 to 17, wherein the initial biologic product is a protein.

19. The method of ~~claim 14~~any one of claims 15 to 17, wherein the initial biologic product is a monoclonal antibody.

20. The method of ~~claim 14~~any one of claims 15 to 19, wherein the method performs integrated, continuous viral filtration, concentration and buffer exchange within a time frame reduced by about 50% compared to a conventional method.

21. The system of ~~claim 14~~any one of claims 15 to 20, wherein the system performs integrated, continuous viral filtration, concentration and buffer exchange within a period of about 24 hours or less.

22. The system of ~~claim 14~~any one of claims 15 to 20, wherein the system performs integrated, continuous viral filtration, concentration and buffer exchange within a period of about 12 hours or less.

23. The system of ~~claim 15~~any one of claims 15 to 20, wherein the system performs a ten-fold increase in the concentration of the initial biologic product.

24. A method of manufacturing a biologic product of interest comprising the steps of:

(I) cultivating a eukaryotic cell expressing the biologic product of interest in cell culture;

(II) harvesting the biologic product of interest from the cell culture in the form of a fluid feed comprising biologic product of interest and one or more impurities or buffer components;

(III) purifying the fluid feed comprising biologic product of interest and one or more impurities or buffer components to isolate the biologic product of interest from the fluid feed; and

(IV) optionally formulating the biologic product of interest into a pharmaceutically acceptable formulation suitable for administration;

wherein step IV of the method further comprises the step of: passing the fluid feed through a single-use system for integrated, continuous processing of an initial biologic product;

wherein the single-use system for integrated, continuous processing of an initial biologic product comprises a viral filtration unit operation coupled to a single-pass tangential flow filtration (SPTFF) and diafiltration (DF) unit operation.

25. The method of claim 24, wherein the biologic product of interest is a recombinant protein.

26. The method of claim 24 or claim 25, wherein the step of cultivating a eukaryotic cell expressing the biologic product of interest in cell culture occurs in a fed-batch cell culture.

27. The method of claim 24 or claim 25, wherein the step of cultivating a eukaryotic cell expressing the biologic product of interest in cell culture occurs in a continuous cell culture.

28. A method of manufacturing a biologic product of interest comprising the steps of:

(I) cultivating a eukaryotic cell expressing the biologic product of interest in cell culture;

(II) harvesting the biologic product of interest from the cell culture in the form of a fluid feed comprising biologic product of interest and one or more impurities or buffer components;

(III) purifying the fluid feed comprising biologic product of interest and one or more impurities or buffer components to isolate the biologic product of interest from the fluid feed; and

(IV) optionally formulating the biologic product of interest into a pharmaceutically acceptable formulation suitable for administration; and

wherein step IV of the method further comprises:

a) providing a feedstream comprising an initial biologic product; b) filtering the feed stream to remove viral contaminants; c) concentrating the initial biologic product; and d) conducting buffer exchange to produce a processed biologic product.

29. The method of claim 28, wherein the biologic product of interest is a recombinant protein.

30. The method of claim 28 or claim 29, wherein the step of cultivating a eukaryotic cell expressing the biologic product of interest in cell culture occurs in a fed-batch cell culture.

31. The method of claim 28 or claim 29, wherein the step of cultivating a eukaryotic cell expressing the biologic product of interest in cell culture occurs in a continuous cell culture.

~~32. The single-use system of claim 1, wherein the system performs integrated, continuous viral filtration, concentration and buffer exchange within a time frame of about 8 hours or less.~~