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 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 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 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 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 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 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.

14. The single-use system of 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.

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 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 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 any one of claims 15 to 17, wherein the initial biologic product is a protein.

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

20. The method of 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 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 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 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.