~~WHAT IS CLAIMED IS:~~CLAIMS:

1. A method for purifying a botulinum toxin, comprising purifying the toxin from a solution comprising the toxin, wherein the process does not comprise precipitation, centrifugation or lyophilization.

2. The method of claim 1, wherein:

a. the botulinum toxin is serotype A~~.~~;

~~3~~b. ~~The method of claim 1 or 2, wherein~~ the purified botulinum toxin obtained is free, essentially free, or substantially free of botulinum toxin complexes~~.~~;

~~4~~c. ~~The method of any one of claims 1-3, wherein~~ the purified botulinum toxin obtained is free, essentially free, or substantially free of animal products~~.~~;

~~5~~c. ~~The method of any one of claims 1-4, wherein~~ the purified botulinum toxin obtained is free, essentially free, or substantially free of human albumin~~.~~; and/or

~~6~~d. ~~The method of any one of claims 1-5, wherein~~ the purifying comprises a filtering step, preferably a tangential flow filtration step.

~~7~~3. The method of claim ~~6~~2, wherein the filtering step uses a hollow fiber filter.

~~8~~4. The method of any one of claims 1-~~7~~3, wherein the purifying comprises contacting a first chromatography column with a solution comprising the toxin to produce a toxin-containing fraction.

~~9~~5. The method of claim ~~8~~4, wherein the first chromatography column comprises an anion exchange chromatography column.

~~10~~6. The method of claim ~~9~~5, wherein the anion exchange chromatography column comprises Q Sepharose.

~~11~~7. The method of any one of claims 1-~~10~~6, wherein the purifying further comprises collecting the toxin-containing fraction, wherein the toxin-containing fraction does not adsorb to the first stationary phase.

~~12~~8. The method of claim any one of claims ~~8-11~~4-7, wherein the purifying further comprises contacting a second chromatography column with the toxin-containing fraction.

~~13~~9. The method of claim ~~12~~8, wherein the second chromatography column comprises a cation exchange chromatography column.

~~14~~10. The method of claim ~~13~~9, wherein the cation exchange chromatography column comprises SP Sepharose.

~~15~~11. The method of any one of claims ~~12-14~~8-10, further comprising eluting the botulinum toxin from the second chromatography column to produce a first toxin-containing eluant~~.~~; and/or

~~16. The method of any one of claims 12-15,~~ further comprising filtering the first toxin-containing eluant to produce a toxin-containing retentate

~~17~~12. The method of claim ~~16~~11, wherein filtering the toxin-containing eluant comprises a buffer exchange.

~~18~~13. The method of claim ~~16 or 17~~11 or 12, wherein filtering the first toxin-containing eluant separates botulinum toxin molecules from non-toxin proteins to produce free toxin molecules in the toxin-containing retentate~~.~~; and/or

~~19. The method of any one of claims 16-18,~~ further comprising contacting a third chromatography column with the toxin-containing retentate.

~~20~~14. The method of claim ~~19~~13, wherein the third chromatography column comprises a second anion exchange chromatography column.

~~21~~15. The method of claim ~~20~~14, wherein the second anion exchange chromatography column comprises Q Sepharose.

~~22~~16. The method of any one of claims ~~19-21~~13-15, further comprising eluting the botulinum toxin from the third chromatography column to produce a second toxin-containing eluant~~.~~; and/or

~~23. The method of any one of claims 19-22,~~ further comprising contacting a fourth chromatography column with the second toxin-containing eluant.

~~24~~17. The method of claim ~~23~~16, wherein the fourth chromatography column comprises a size exclusion chromatography column.

~~25~~18. The method of claim ~~24~~17, wherein the size exclusion chromatography column comprises a gel filtration chromatography column.

~~26~~19. The method of claim ~~25~~18, wherein the gel filtration chromatography column comprises Superdex 200.

~~27~~20. The method of any one of claims ~~23-26~~16-19, further comprising eluting the botulinum toxin from the fourth chromatography column to produce a purified botulinum toxin.

~~52~~21. The method of any one of claims 1-~~27~~20, wherein the solution comprising botulinum toxin is an animal product free, essentially animal product free, or substantially animal product free fermentation medium~~.~~; or

~~54. The method of any one of claims 1-27,~~ further comprising contacting the botulinum toxin with a buffer solution, wherein the buffer solution has been filtered to reduce bioburden.

~~28~~22. A method for purifying a botulinum toxin from a solution comprising the toxin, comprising:

(a) filtering the solution comprising the toxin;

(b) contacting a first chromatography column with the filtered solution comprising the toxin from (a), wherein the first chromatography column is an ion exchange chromatography column;

(c) collecting a toxin-containing fraction, wherein the toxin-containing fraction flows through the first chromatography column without adsorbing to the stationary phase;

(d) contacting a second chromatography column with the toxin-containing fraction, wherein the second chromatography column is an ion exchange chromatography column;

(e) eluting the botulinum toxin from the second chromatography column to produce a first toxin-containing eluant;

(f) filtering the first toxin-containing eluant to produce a toxin-containing retentate;

(g) contacting a third chromatography column with the toxin-containing retentate from the filtering (f), wherein the third chromatography column is an ion exchange column;

(h) eluting the botulinum toxin from the third chromatography column to produce a second toxin-containing eluant;

(i) contacting a fourth chromatography column with the second toxin-containing eluant, wherein said fourth chromatography column is a size exclusion chromatography column;

(j) eluting the botulinum toxin from the fourth chromatography column, thereby producing a purified botulinum toxin,

wherein the process does not comprise precipitating, centrifugation or lyophilizing the botulinum toxin.

~~29~~23. The method of claim ~~28~~22, wherein:

a. the botulinum toxin comprises botulinum neurotoxin serotype A~~.~~;

~~30~~b. ~~The method of claim 28 or 29,~~ wherein the purified botulinum toxin obtained is free, essentially free, or substantially free of botulinum toxin complexes~~.~~;

~~31~~c. ~~The method of any one of claims 28-30,~~ wherein the purified botulinum toxin obtained is free, essentially free, or substantially free of animal products~~.~~;

~~32~~d. ~~The method of any one of claims 28-31,~~ wherein the purified botulinum toxin is free, essentially free, or substantially free of human albumin~~.~~;

~~33~~e. ~~The method of any one of claims 28-32,~~ wherein the first chromatography column comprises an anion exchange chromatography column~~.~~;

~~34~~f. ~~The method of any one of claims 28-33,~~ wherein the first chromatography column comprises Q Sepharose~~.~~;

~~35~~g. ~~The method of any one of claims 28-34,~~ wherein the second chromatography column comprises a cation exchange chromatography column~~.~~;

~~36~~h. ~~The method of any one of claims 28-35,~~ wherein the second chromatography column comprises SP Sepharose~~.~~;

~~37~~i. ~~The method of claim any one of claims 28-36,~~ wherein the first chromatography column comprises an anion exchange chromatography column and the second chromatography column comprises a cation exchange chromatography column~~.~~;

~~38~~j. ~~The method of any one of claims 28-37,~~ wherein the first chromatography column comprises Q Sepharose and the second chromatography column comprises SP Sepharose~~.~~;

~~39~~k. ~~The method of any one of claims 28-38,~~ wherein the third chromatography column comprises an anion exchange chromatography column~~.~~;

~~40~~l. ~~The method of any one of claims 28-39,~~ wherein the third chromatography column comprises Q Sepharose~~.~~;

~~41~~m. ~~The method of any one of claims 28-40,~~ wherein the fourth chromatography column comprises a gel filtration column~~.~~;

~~42~~n. ~~The method of any one of claims 28-41,~~ wherein the fourth chromatography column comprises Superdex 200~~.~~;

~~43~~o. ~~The method of any one of claims 28-42,~~ wherein the third chromatography column comprises an anion exchange chromatography column and the fourth chromatography column comprises a gel filtration chromatography column~~.~~;

~~44~~p. ~~The method of any one of claims 28-43,~~ wherein the third chromatography column comprises Q Sepharose and the fourth chromatography column comprises Superdex 200~~.~~;

~~45~~q. ~~The method of any one of claims 28-44,~~ wherein the second toxin-containing eluant is directly injected onto the fourth chromatography column~~.~~;

~~46~~r. ~~The method of any one of claims 28-45,~~ wherein the third chromatography column and the fourth chromatography column are interconnected~~.~~;

~~47~~s. ~~The method of any one of claims 28-46,~~ wherein the first chromatography column is an anion exchange chromatography column, the second chromatography column is a cation exchange chromatography column, the third chromatography column is a second anion exchange chromatography column, and the fourth chromatography column is a gel filtration chromatography column~~.~~;

~~48~~t. ~~The method of any one of claims 28-47,~~ wherein the first chromatography column comprises Q Sepharose, the second chromatography column comprises SP Sepharose, the third chromatography column comprises Q Sepharose, and the fourth chromatography column comprises Superdex 200~~.~~;

~~49~~u. ~~The method of any one of claims 28-48,~~ wherein the first, second, third, and fourth chromatography columns are single-use chromatography systems~~.~~;

~~50~~v. ~~The method of any one of claims 28-49,~~ wherein the filtering (f) dissociates botulinum toxin protein molecules from non-toxin proteins to produce free toxin molecules~~.~~;

~~51~~w. ~~The method of any one of claims 28-50,~~ wherein the filtering (f) comprises a buffer exchange~~.~~;

~~52. The method of any one of claims 1-27, wherein the solution comprising botulinum toxin is an animal product free, essentially animal product free, or substantially animal product free fermentation medium.~~

~~53~~x. ~~The method of any one of claims 28-51,~~ wherein the solution comprising botulinum toxin is an animal product free, essentially animal product free, or substantially animal product free fermentation medium~~.~~; and/or

~~54. The method of any one of claims 1-27, further comprising contacting the botulinum toxin with a buffer solution, wherein the buffer solution has been filtered to reduce bioburden.~~

~~55~~y. ~~The method of any one of claims 28-51,~~ further comprising contacting the botulinum toxin with a buffer solution, wherein said buffer solution has been filtered to reduce bioburden.

~~56. A purified botulinum toxin produced according to the method of any one of claims 1 to 27.~~

~~57. The purified botulinum toxin of claim 56, wherein the botulinum toxin is serotype A.~~

~~58. The purified botulinum toxin of claim 56 or 57, wherein the purified botulinum toxin is free, essentially free, or substantially free of toxin complexes.~~

~~59. The purified botulinum toxin of any one of claims 56-58, wherein the purified botulinum toxin is free, essentially free, or substantially free of animal products.~~

~~60. The purified botulinum toxin of any one of claims 56-59, wherein the purified botulinum toxin is free, essentially free, or substantially free of human albumin.~~

~~61. A purified botulinum toxin produced according to the method of any one of claims 28-51.~~

~~62. The purified botulinum toxin of claim 61, wherein the toxin is serotype A.~~

~~63. The purified botulinum toxin of claim 61 or 62, wherein the purified botulinum toxin is free, essentially free, or substantially free of toxin complexes.~~

~~64. The purified botulinum toxin of any one of claims 61 to 63, wherein the purified botulinum toxin is free, essentially free, or substantially free of animal products.~~

~~65. The purified botulinum toxin of any one of claims 61-64, wherein the purified botulinum toxin is free, essentially free, or substantially free of human albumin.~~

~~66~~24. A composition comprising purified botulinum toxin in a buffer, the buffer comprising phosphate.

~~67~~25. The composition of claim ~~66~~24, wherein:

a. the buffer further comprises acetate.~~.~~;

~~68~~b. ~~The composition of claim 66 or 67, wherein~~ the buffer further comprises at least one source of chloride ions~~.~~;

~~69. The composition of claim 68, wherein the at least one source of chloride ions is sodium chloride.~~

~~70~~c. ~~The composition of any one of claims 66-69, wherein~~ the buffer further comprises at least one surfactant~~.~~;

~~71. The composition of claim 70, wherein the at least one surfactant comprises polysorbate 20.~~

~~72~~d. ~~The composition of any one of claims 66-71, wherein~~ the botulinum toxin is botulinum neurotoxin serotype A~~.~~;

~~73~~e. ~~The composition any one of claims 66-72, wherein~~ the composition is free, essentially free, or substantially free of botulinum toxin complexes~~.~~;

~~74~~f. ~~The composition of any one of claims 66-73, wherein~~ the composition is free, essentially free, or substantially free of animal products~~.~~;

~~75~~g. ~~The composition of any one of claims 66-74, wherein~~ the composition is free, essentially free, or substantially free of human albumin~~.~~; and/or

~~76~~h. ~~The composition of any one of claims 66-75, wherein~~ the composition has a pH of between about 6.6 and 6.9.

~~69~~26. The composition of claim ~~68~~25, wherein the at least one source of chloride ions is sodium chloride.

~~71~~27. The composition of claim ~~70~~25, wherein the at least one surfactant comprises polysorbate 20.