botulinum toxin. In some embodiments, the liquid pharmaceutical composition further comprises EDTA or an EDTA analog. In some embodiments, the liquid pharmaceutical composition comprises a histidine buffer. In some embodiments, the pH of the liquid pharmaceutical composition ranges from 5 to 7. In some embodiments, the relative weight amount of L-methionine ranges from about 0.1% to about 0.3%. In some embodiments, the relative weight amount of NAC ranges from about 0.1% to about 0.5%. In some embodiments, the relative weight amount of EDTA ranges from about 0.01% to about 0.05%. In some embodiments, the relative weight amount of trehalose ranges from about 1.0 to about 10%. In some embodiments, the relative weight amount of poloxamer 188 ranges from about 2% to about 5%. In some embodiments, the relative weight amount of polysorbate 20 ranges from about 0.02% to about 0.06%.

[0012] In another aspect, the present disclosure provides a solid pharmaceutical composition comprising a botulinum toxin, trehalose, poloxamer 188 or polysorbate 20, NAC, and EDTA or an EDTA analog. In an alternative embodiment, the solid pharmaceutical composition comprises a botulinum toxin, trehalose, poloxamer 188, and NAC. In an alternative embodiment, the solid pharmaceutical composition comprises a botulinum toxin, trehalose, poloxamer 188 and L-methionine. In some embodiments, the solid pharmaceutical composition further comprises histidine buffer. In some embodiments, the relative weight amount of L-methionine ranges from about 0.1% to about 0.3%. In some embodiments, the relative weight amount of NAC ranges from about 0.01% to about 0.05%. In some embodiments, the relative weight amount of EDTA ranges from about 0.01% to about 0.05%. In some embodiments, the relative weight amount of trehalose ranges from about 1.0 to about 10%. In some embodiments, the relative weight amount of poloxamer 188 ranges from about 0.5% to about 5%. In some embodiments, the relative weight amount of polysorbate 20 ranges from about 0.02% to about 0.06%.

[0012a] In another aspect, the present disclosure provides a liquid pharmaceutical composition comprising: (i) a botulinum toxin; (ii) 0.5-5% (w/w) poloxamer 188; (iii) 0.1-0.3% (w/w) methionine; and (iv) 1-10% (w/w) trehalose; wherein the composition comprises a buffer, wherein the buffer is histidine, and wherein the pH is from 5-7.

DESCRIPTION

[0013] Certain compositions of the present invention provide stable liquid or solid pharmaceutical composition comprising a clostridical toxin active ingredient, a disaccharide, a surfactant and an antioxidant. In certain liquid compositions of the present invention, the disaccharide is optional.

[0014] Certain embodiments also provide methods for the treatment of various diseases, disorders and conditions, including, for example, depression (e.g. major depressive disorder), headache (e.g. migraine, tension headache, and the like), pain, atrial fibrillation, hyperhidrosis, muscle spasticity, cervical dystonia, blepherospasm, overactive bladder (e.g. neurogenic detrusor overactivity, and idiopathic overactive bladder), bladder pain (e.g. interstitial cystitis, bladder pain syndrome), skin conditions (e.g. wrinkles, fine wrinkles, excess sebum production, acne, rosacea), irregularities, and the like using the compositions provided according to aspect of the present invention. Embodiments can include various administration techniques, including, for example, injection, such as

What is claimed is:

1. A liquid pharmaceutical composition comprising:

(i) a botulinum toxin;

(ii) 0.5-5% (w/w) poloxamer 188;

(iii) 0.1-0.3% (w/w) methionine; and

(iv) 1-10% (w/w) trehalose;

wherein the composition comprises a buffer, wherein the buffer is histidine, and wherein the pH is from 5-7.

2. The composition according to claim 1, further comprising NaCl and/or EDTA ; wherein the amounts of NaCl and/or EDTA are optionally within the following ranges:

0.1-10% (w/w) NaCl; and/or

0.01-0.1% (w/w) EDTA.

3. The composition according to claim 1 or 2, wherein the relative weight amounts (%, w/w) of trehalose, poloxamer 188, methionine are:

	a) trehalose	7 to 9;
	poloxamer 188	3.5 to 4.5;
	methionine	0.15 to 0.25;
and are preferably:	trehalose	8;
	poloxamer 188	4;
	methionine	0.2;

or

	b) trehalose	7 to 9;
	poloxamer 188	0.5 to 0.7;
	methionine	0.15 to 0.25;
and are preferably:	trehalose	8;
	poloxamer 188	0.6;
	methionine	0.2;

or

	c) trehalose	1 to 3;
	poloxamer 188	3.5 to 4.5;
	methionine	0.15 to 0.25;
	NaCl	0.4 to 0.8;
and are preferably:	trehalose	2;
	poloxamer 188	4;
	methionine	0.2;
	NaCl	0.6;

or

	d) trehalose	7 to 9;
	poloxamer 188	3.5 to 4.5;
	methionine	0.15 to 0.25;
	EDTA	0.01 to 0.05;
and are preferably:	trehalose	8;
	poloxamer 188	4;
	methionine	0.2;
	EDTA	0.03.

4. The composition according to any one of claims claim 1-3, wherein the concentration of histidine is 20 mM, and the pH is in the range 5.5-6.

5. The composition according to any one of claims 1-4, wherein the liquid pharmaceutical composition consists of one or more botulinum toxins, trehalose, poloxamer 188, methionine, a buffer wherein the buffer is histidine, and optionally NaCl, and optionally EDTA.

6. The composition according to any one of claims 1-5, comprising no animal-derived protein.

7. The composition according to any one of claims 1-6, comprising ethylene diamine tetraacetic acid sodium salt (EDTA) or an EDTA analog, wherein the relative weight amount (%, w/w) of EDTA optionally ranges from about 0.01 to 0.10.