

SEQUENCE LISTING

<110> Stemline Therapeutics, Inc.

<120> COMBINATION THERAPY METHOD OF TREATING MYELOPROLIFERATIVE
NEOPLASMS WITH A DIPHTHERIA TOXIN-HUMAN INTERLEUKIN-3 CONJUGATE
IN COMBINATION WITH OTHER AGENTS

<130> 01214-0017-00PCT

<150> US 62/753,145

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<150> US 62/832,558

<151> 2019-04-11

<160> 3

<170> PatentIn version 3.5

<210> 1

<211> 152

<212> PRT

<213> Homo sapiens

<400> 1

Met	Ser	Arg	Leu	Pro	Val	Leu	Leu	Leu	Leu	Gln	Leu	Leu	Val	Arg	Pro
1				5					10					15	

Gly	Leu	Gln	Ala	Pro	Met	Thr	Gln	Thr	Thr	Ser	Leu	Lys	Thr	Ser	Trp
			20					25						30	

Val	Asn	Cys	Ser	Asn	Met	Ile	Asp	Glu	Ile	Ile	Thr	His	Leu	Lys	Gln
		35					40					45			

Pro	Pro	Leu	Pro	Leu	Leu	Asp	Phe	Asn	Asn	Leu	Asn	Gly	Glu	Asp	Gln
		50				55					60				

Asp	Ile	Leu	Met	Glu	Asn	Asn	Leu	Arg	Arg	Pro	Asn	Leu	Glu	Ala	Phe
65					70					75					80

Asn	Arg	Ala	Val	Lys	Ser	Leu	Gln	Asn	Ala	Ser	Ala	Ile	Glu	Ser	Ile
				85					90					95	

Leu Lys Asn Leu Leu Pro Cys Leu Pro Leu Ala Thr Ala Ala Pro Thr
100 105 110

Arg His Pro Ile His Ile Lys Asp Gly Asp Trp Asn Glu Phe Arg Arg
115 120 125

Lys Leu Thr Phe Tyr Leu Lys Thr Leu Glu Asn Ala Gln Ala Gln Gln
130 135 140

Thr Thr Leu Ser Leu Ala Ile Phe
145 150

<210> 2
<211> 560
<212> PRT
<213> Corynebacterium diphtheriae

<400> 2

Met Ser Arg Lys Leu Phe Ala Ser Ile Leu Ile Gly Ala Leu Leu Gly
1 5 10 15

Ile Gly Ala Pro Pro Ser Ala His Ala Gly Ala Asp Asp Val Val Asp
20 25 30

Ser Ser Lys Ser Phe Val Met Glu Asn Phe Ser Ser Tyr His Gly Thr
35 40 45

Lys Pro Gly Tyr Val Asp Ser Ile Gln Lys Gly Ile Gln Lys Pro Lys
50 55 60

Ser Gly Thr Gln Gly Asn Tyr Asp Asp Asp Trp Lys Gly Phe Tyr Ser
65 70 75 80

Thr Asp Asn Lys Tyr Asp Ala Ala Gly Tyr Ser Val Asp Asn Glu Asn
85 90 95

Pro Leu Ser Gly Lys Ala Gly Gly Val Val Lys Val Thr Tyr Pro Gly
100 105 110

Leu Thr Lys Val Leu Ala Leu Lys Val Asp Asn Ala Glu Thr Ile Lys
115 120 125

Lys Glu Leu Gly Leu Ser Leu Thr Glu Pro Leu Met Glu Gln Val Gly
130 135 140

Thr Glu Glu Phe Ile Lys Arg Phe Gly Asp Gly Ala Ser Arg Val Val
145 150 155 160

Leu Ser Leu Pro Phe Ala Glu Gly Ser Ser Ser Val Glu Tyr Ile Asn
165 170 175

Asn Trp Glu Gln Ala Lys Ala Leu Ser Val Glu Leu Glu Ile Asn Phe
180 185 190

Glu Thr Arg Gly Lys Arg Gly Gln Asp Ala Met Tyr Glu Tyr Met Ala
195 200 205

Gln Ala Cys Ala Gly Asn Arg Val Arg Arg Ser Val Gly Ser Ser Leu
210 215 220

Ser Cys Ile Asn Leu Asp Trp Asp Val Ile Arg Asp Lys Thr Lys Thr
225 230 235 240

Lys Ile Glu Ser Leu Lys Glu His Gly Pro Ile Lys Asn Lys Met Ser
245 250 255

Glu Ser Pro Asn Lys Thr Val Ser Glu Glu Lys Ala Lys Gln Tyr Leu
260 265 270

Glu Glu Phe His Gln Thr Ala Leu Glu His Pro Glu Leu Ser Glu Leu
275 280 285

Lys Thr Val Thr Gly Thr Asn Pro Val Phe Ala Gly Ala Asn Tyr Ala
290 295 300

Ala Trp Ala Val Asn Val Ala Gln Val Ile Asp Ser Glu Thr Ala Asp
305 310 315 320

Asn Leu Glu Lys Thr Thr Ala Ala Leu Ser Ile Leu Pro Gly Ile Gly
325 330 335

Ser Val Met Gly Ile Ala Asp Gly Ala Val His His Asn Thr Glu Glu
340 345 350

Ile Val Ala Gln Ser Ile Ala Leu Ser Ser Leu Met Val Ala Gln Ala
355 360 365

Ile Pro Leu Val Gly Glu Leu Val Asp Ile Gly Phe Ala Ala Tyr Asn
370 375 380

Phe Val Glu Ser Ile Ile Asn Leu Phe Gln Val Val His Asn Ser Tyr
385 390 395 400

Asn Arg Pro Ala Tyr Ser Pro Gly His Lys Thr Gln Pro Phe Leu His
405 410 415

Asp Gly Tyr Ala Val Ser Trp Asn Thr Val Glu Asp Ser Ile Ile Arg
420 425 430

Thr Gly Phe Gln Gly Glu Ser Gly His Asp Ile Lys Ile Thr Ala Glu
435 440 445

Asn Thr Pro Leu Pro Ile Ala Gly Val Leu Leu Pro Thr Ile Pro Gly
450 455 460

Lys Leu Asp Val Asn Lys Ser Lys Thr His Ile Ser Val Asn Gly Arg
465 470 475 480

Lys Ile Arg Met Arg Cys Arg Ala Ile Asp Gly Asp Val Thr Phe Cys
485 490 495

Arg Pro Lys Ser Pro Val Tyr Val Gly Asn Gly Val His Ala Asn Leu
500 505 510

His Val Ala Phe His Arg Ser Ser Ser Glu Lys Ile His Ser Asn Glu
515 520 525

Ile Ser Ser Asp Ser Ile Gly Val Leu Gly Tyr Gln Lys Thr Val Asp
530 535 540

His Thr Lys Val Asn Ser Lys Leu Ser Leu Phe Phe Glu Ile Lys Ser
545 550 555 560

<210> 3
<211> 388
<212> PRT
<213> Corynebacterium diphtheriae

<400> 3

Gly Ala Asp Asp Val Val Asp Ser Ser Lys Ser Phe Val Met Glu Asn
1 5 10 15

Phe Ser Ser Tyr His Gly Thr Lys Pro Gly Tyr Val Asp Ser Ile Gln
20 25 30

Lys Gly Ile Gln Lys Pro Lys Ser Gly Thr Gln Gly Asn Tyr Asp Asp
35 40 45

Asp Trp Lys Gly Phe Tyr Ser Thr Asp Asn Lys Tyr Asp Ala Ala Gly
50 55 60

Tyr Ser Val Asp Asn Glu Asn Pro Leu Ser Gly Lys Ala Gly Gly Val
65 70 75 80

Val Lys Val Thr Tyr Pro Gly Leu Thr Lys Val Leu Ala Leu Lys Val
85 90 95

Asp Asn Ala Glu Thr Ile Lys Lys Glu Leu Gly Leu Ser Leu Thr Glu
100 105 110

Pro Leu Met Glu Gln Val Gly Thr Glu Glu Phe Ile Lys Arg Phe Gly

115

120

125

Asp Gly Ala Ser Arg Val Val Leu Ser Leu Pro Phe Ala Glu Gly Ser
 130 135 140

Ser Ser Val Glu Tyr Ile Asn Asn Trp Glu Gln Ala Lys Ala Leu Ser
 145 150 155 160

Val Glu Leu Glu Ile Asn Phe Glu Thr Arg Gly Lys Arg Gly Gln Asp
 165 170 175

Ala Met Tyr Glu Tyr Met Ala Gln Ala Cys Ala Gly Asn Arg Val Arg
 180 185 190

Arg Ser Val Gly Ser Ser Leu Ser Cys Ile Asn Leu Asp Trp Asp Val
 195 200 205

Ile Arg Asp Lys Thr Lys Thr Lys Ile Glu Ser Leu Lys Glu His Gly
 210 215 220

Pro Ile Lys Asn Lys Met Ser Glu Ser Pro Asn Lys Thr Val Ser Glu
 225 230 235 240

Glu Lys Ala Lys Gln Tyr Leu Glu Glu Phe His Gln Thr Ala Leu Glu
 245 250 255

His Pro Glu Leu Ser Glu Leu Lys Thr Val Thr Gly Thr Asn Pro Val
 260 265 270

Phe Ala Gly Ala Asn Tyr Ala Ala Trp Ala Val Asn Val Ala Gln Val
 275 280 285

Ile Asp Ser Glu Thr Ala Asp Asn Leu Glu Lys Thr Thr Ala Ala Leu
 290 295 300

Ser Ile Leu Pro Gly Ile Gly Ser Val Met Gly Ile Ala Asp Gly Ala
 305 310 315 320

Val His His Asn Thr Glu Glu Ile Val Ala Gln Ser Ile Ala Leu Ser
325 330 335

Ser Leu Met Val Ala Gln Ala Ile Pro Leu Val Gly Glu Leu Val Asp
340 345 350

Ile Gly Phe Ala Ala Tyr Asn Phe Val Glu Ser Ile Ile Asn Leu Phe
355 360 365

Gln Val Val His Asn Ser Tyr Asn Arg Pro Ala Tyr Ser Pro Gly His
370 375 380

Lys Thr Arg Pro
385