

SEQUENCE LISTING

<110> The Board of Trustees of the Leland Stanford Junior
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Kintzing, James R.
Miller, Caitlyn

<120> Drug Conjugates and Methods of Using Same

<130> STAN-1624W0

<150> US 62/851,443

<151> 2019-05-22

<160> 41

<170> PatentIn version 3.5

<210> 1

<211> 28

<212> PRT

<213> Artificial sequence

<220>

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Ala	Gly	Cys	Val	Cys	Gly	Pro	Asn	Gly	Phe	Cys	Gly
			20					25			

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Cys	Val	Arg	Leu	His	Glu	Ser	Cys	Leu	Gly	Gln	Gln	Val	Pro	Cys	Cys
1				5					10					15	

Asp	Pro	Ala	Ala	Thr	Cys	Tyr	Cys	Arg	Phe	Phe	Asn	Ala	Phe	Cys	Tyr
			20					25					30		

Cys Arg

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Cys	Gly	Glu	Thr	Cys	Val	Gly	Gly	Thr	Cys	Asn	Thr	Pro	Gly	Cys	Thr
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Cys	Ser	Trp	Pro	Val	Cys	Thr	Arg	Asn	Gly	Leu	Pro	Val
			20					25				

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Ser	Gly	Ser	Asp	Gly	Gly	Val	Cys	Pro	Lys	Ile	Leu	Lys	Lys	Cys	Arg
1				5					10					15	

Arg	Asp	Ser	Asp	Cys	Pro	Gly	Ala	Cys	Ile	Cys	Arg	Gly	Asn	Gly	Tyr
			20					25					30		

Cys Gly

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<400> 5

Met Cys Met Pro Cys Phe Thr Thr Asp His Gln Met Ala Arg Lys Cys
1 5 10 15

Asp Asp Cys Cys Gly Gly Lys Gly Arg Gly Lys Cys Tyr Gly Pro Gln
20 25 30

Cys Leu Cys Arg
35

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<400> 6

Gly Cys Pro Gln Gly Arg Gly Asp Trp Ala Pro Thr Ser Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Arg Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

<210> 7
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<400> 7

Gly Cys Pro Arg Pro Arg Gly Asp Asn Pro Pro Leu Thr Cys Ser Gln
1 5 10 15

Asp Ser Asp Cys Leu Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

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Gly Cys Ala Glu Pro Arg Gly Asp Met Pro Trp Thr Trp Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Leu Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

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Gly Cys Val Gly Gly Arg Gly Asp Trp Ser Pro Lys Trp Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Pro Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

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Gly Cys Ala Glu Leu Arg Gly Asp Arg Ser Tyr Pro Glu Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Leu Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

<210> 11

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Gly Cys Arg Leu Pro Arg Gly Asp Val Pro Arg Pro His Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Gln Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

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<400> 12

Gly Cys Tyr Pro Leu Arg Gly Asp Asn Pro Tyr Ala Ala Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Arg Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

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Gly	Cys	Thr	Ile	Gly	Arg	Gly	Asp	Trp	Ala	Pro	Ser	Glu	Cys	Lys	Gln
1				5					10					15	

Asp	Ser	Asp	Cys	Leu	Ala	Gly	Cys	Val	Cys	Gly	Pro	Asn	Gly	Phe	Cys
			20					25					30		

Gly

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Gly	Cys	His	Pro	Pro	Arg	Gly	Asp	Asn	Pro	Pro	Val	Thr	Cys	Lys	Gln
1				5					10					15	

Asp	Ser	Asp	Cys	Leu	Ala	Gly	Cys	Val	Cys	Gly	Pro	Asn	Gly	Phe	Cys
			20					25					30		

Gly

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<400> 15

Gly Cys Pro Glu Pro Arg Gly Asp Asn Pro Pro Pro Ser Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Arg Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

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<400> 16

Gly Cys Leu Pro Pro Arg Gly Asp Asn Pro Pro Pro Ser Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Gln Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

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<400> 17

Gly Cys His Leu Gly Arg Gly Asp Trp Ala Pro Val Gly Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Pro Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys

20

25

30

Gly

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Gly	Cys	Asn	Val	Gly	Arg	Gly	Asp	Trp	Ala	Pro	Ser	Glu	Cys	Lys	Gln
1				5					10					15	

Asp	Ser	Asp	Cys	Pro	Ala	Gly	Cys	Val	Cys	Gly	Pro	Asn	Gly	Phe	Cys
			20					25					30		

Gly

<210> 19

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<400> 19

Gly	Cys	Phe	Pro	Gly	Arg	Gly	Asp	Trp	Ala	Pro	Ser	Ser	Cys	Lys	Gln
1				5					10					15	

Asp	Ser	Asp	Cys	Arg	Ala	Gly	Cys	Val	Cys	Gly	Pro	Asn	Gly	Phe	Cys
			20					25					30		

Gly

<210> 20

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<400> 20

Gly	Cys	Pro	Leu	Pro	Arg	Gly	Asp	Asn	Pro	Pro	Thr	Glu	Cys	Lys	Gln
1				5					10					15	

Asp	Ser	Asp	Cys	Gln	Ala	Gly	Cys	Val	Cys	Gly	Pro	Asn	Gly	Phe	Cys
			20					25					30		

Gly

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<400> 21

Gly	Cys	Ser	Glu	Ala	Arg	Gly	Asp	Asn	Pro	Arg	Leu	Ser	Cys	Lys	Gln
1				5					10					15	

Asp	Ser	Asp	Cys	Arg	Ala	Gly	Cys	Val	Cys	Gly	Pro	Asn	Gly	Phe	Cys
			20					25					30		

Gly

<210> 22

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<400> 22

Gly	Cys	Leu	Leu	Gly	Arg	Gly	Asp	Trp	Ala	Pro	Glu	Ala	Cys	Lys	Gln
1				5					10					15	

Asp Ser Asp Cys Arg Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

<210> 23
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<400> 23

Gly Cys His Val Gly Arg Gly Asp Trp Ala Pro Leu Lys Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Gln Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

<210> 24
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<400> 24

Gly Cys Val Arg Gly Arg Gly Asp Trp Ala Pro Pro Ser Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Pro Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

<210> 25

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<400> 25

Gly	Cys	Leu	Gly	Gly	Arg	Gly	Asp	Trp	Ala	Pro	Pro	Ala	Cys	Lys	Gln
1			5					10					15		

Asp	Ser	Asp	Cys	Arg	Ala	Gly	Cys	Val	Cys	Gly	Pro	Asn	Gly	Phe	Cys
		20					25					30			

Gly

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<400> 26

Gly	Cys	Phe	Val	Gly	Arg	Gly	Asp	Trp	Ala	Pro	Leu	Thr	Cys	Lys	Gln
1			5					10					15		

Asp	Ser	Asp	Cys	Gln	Ala	Gly	Cys	Val	Cys	Gly	Pro	Asn	Gly	Phe	Cys
		20					25					30			

Gly

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<400> 27

Gly Cys Pro Val Gly Arg Gly Asp Trp Ser Pro Ala Ser Cys Lys Gln

1	5	10	15
Asp Ser Asp Cys Arg Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys	20	25	30

Gly

<210> 28
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<400> 28

Gly Cys Pro Arg Pro Arg Gly Asp Asn Pro Pro Leu Thr Cys Lys Gln	5	10	15
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Asp Ser Asp Cys Leu Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys	20	25	30
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Gly

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Gly Cys Tyr Gln Gly Arg Gly Asp Trp Ser Pro Ser Ser Cys Lys Gln	5	10	15
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Asp Ser Asp Cys Pro Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys	20	25	30
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Gly

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<400> 30

Gly	Cys	Ala	Pro	Gly	Arg	Gly	Asp	Trp	Ala	Pro	Ser	Glu	Cys	Lys	Gln
1				5					10					15	

Asp	Ser	Asp	Cys	Gln	Ala	Gly	Cys	Val	Cys	Gly	Pro	Asn	Gly	Phe	Cys
			20					25					30		

Gly

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Gly	Cys	Val	Gln	Gly	Arg	Gly	Asp	Trp	Ser	Pro	Pro	Ser	Cys	Lys	Gln
1				5					10					15	

Asp	Ser	Asp	Cys	Pro	Ala	Gly	Cys	Val	Cys	Gly	Pro	Asn	Gly	Phe	Cys
			20					25					30		

Gly

<210> 32
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<400> 32

Gly Cys His Val Gly Arg Gly Asp Trp Ala Pro Glu Glu Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Gln Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

<210> 33
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<400> 33

Gly Cys Asp Gly Gly Arg Gly Asp Trp Ala Pro Pro Ala Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Arg Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

<210> 34
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<400> 34

Gly Cys Pro Gln Gly Arg Gly Asp Trp Ala Pro Glu Trp Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Pro Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

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<400> 35

Gly Cys Pro Arg Gly Arg Gly Asp Trp Ser Pro Pro Ala Cys Lys Gln
1 5 10 15

Asp Ser Asp Cys Gln Ala Gly Cys Val Cys Gly Pro Asn Gly Phe Cys
20 25 30

Gly

<210> 36
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<220>
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<400> 36

Gly Cys Val Arg Leu His Glu Ser Cys Leu Gly Gln Gln Val Pro Cys
1 5 10 15

Cys Asp Pro Ala Ala Thr Cys Tyr Cys Ser Gly Arg Gly Asp Asn Asp
20 25 30

Leu Val Cys Tyr Cys Arg
35

<210> 37
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<400> 37

Gly Cys Val Arg Leu His Glu Ser Cys Leu Gly Gln Gln Val Pro Cys
1 5 10 15

Cys Asp Pro Ala Ala Thr Cys Tyr Cys Lys Gly Arg Gly Asp Ala Arg
20 25 30

Leu Gln Cys Tyr Cys Arg
35

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Gly Cys Val Arg Leu His Glu Ser Cys Leu Gly Gln Gln Val Pro Cys
1 5 10 15

Cys Asp Pro Ala Ala Thr Cys Tyr Cys Val Gly Arg Gly Asp Asp Asn
20 25 30

Leu Lys Cys Tyr Cys Arg
35

<210> 39

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Gly Cys Val Arg Leu His Glu Ser Cys Leu Gly Gln Gln Val Pro Cys
1 5 10 15

Cys Asp Pro Ala Ala Thr Cys Tyr Cys Glu Gly Arg Gly Asp Arg Asp
20 25 30

Met Lys Cys Tyr Cys Arg
35

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Gly Cys Val Arg Leu His Glu Ser Cys Leu Gly Gln Gln Val Pro Cys
1 5 10 15

Cys Asp Pro Ala Ala Thr Cys Tyr Cys Tyr Gly Arg Gly Asp Asn Asp
20 25 30

Leu Arg Cys Tyr Cys Arg
35

<210> 41
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<212> PRT
<213> Homo sapiens

<400> 41

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
1 5 10 15

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
20 25 30

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
35 40 45

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
50 55 60

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
65 70 75 80

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
85 90 95

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
100 105 110

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
115 120 125

Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
130 135 140

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
145 150 155 160

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
165 170 175

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
180 185 190

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
195 200 205

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
210 215 220

Pro Gly Lys
225