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C07C 237/08 (2006.01)
C07C 317/44 (2006.01)
C07C 321/14 (2006.01)
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C07D 207/16 (2006.01)
C07D 333/40 (2006.01)

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(54) Title **LIPIDS FOR THERAPEUTIC AGENT DELIVERY FORMULATIONS**

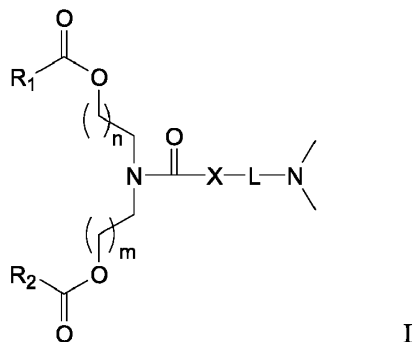
(56) References

Cited: WO-A2-2012/170952, CA-A1- 2 800 818

Enclosed is a translation of the patent claims in Norwegian. Please note that as per the Norwegian Patents Acts, section 66i the patent will receive protection in Norway only as far as there is agreement between the translation and the language of the application/patent granted at the EPO. In matters concerning the validity of the patent, language of the application/patent granted at the EPO will be used as the basis for the decision. The patent documents published by the EPO are available through Espacenet (<http://worldwide.espacenet.com>) or via the search engine on our website here: <https://search.patentstyret.no/>

P A T E N T K R A V

1. Ioniserbar lipidforbindelse med formel I:



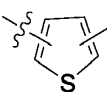
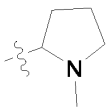
hvor

n og m er uavhengig 1, 2, 3 eller 4;

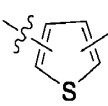
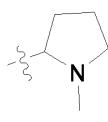
R₁ og R₂ er uavhengig C₁₀₋₁₈alkyl eller C₁₂₋₁₈alkenyl;

X er -CH₂-, S, O, eller er fraværende;

L er C₁₋₄alkylen, -S-C₁₋₄alkylen, -O-C₁₋₄alkylen, -O-C(O)-C₁₋₄alkylen, -S(O)₂-C₁₋

4alkylen,  C₁₋₄ alkylen, eller  L-N  ;

eller en farmasøytisk akseptabel saltform derav, og som videre er karakterisert ved at n og m er 2 eller

X er fraværende og L er  C₁₋₄ alkylen, eller  L-N  ,

eller

X er -CH₂- og L er -S-C₁₋₄alkylen, -S(O)₂-C₁₋₄alkylen, eller -O-C(O)-C₁₋₄alkylen eller

X er S eller

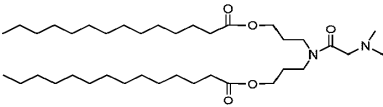
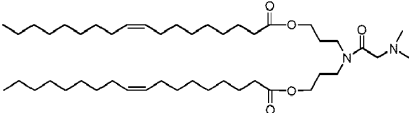
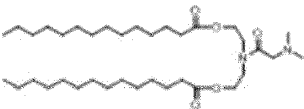
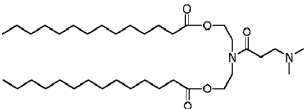
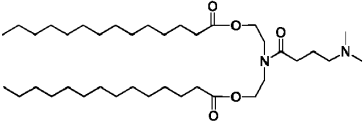
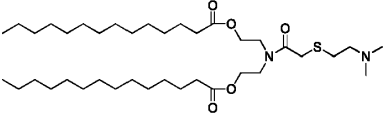
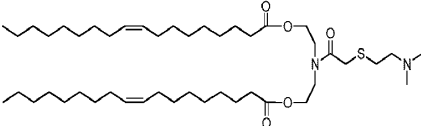
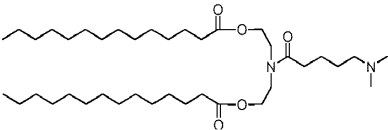
R₁ og R₂ er hver C₁₀₋₁₈alkyl.

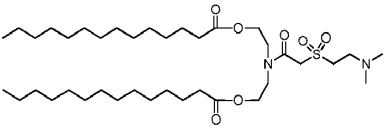
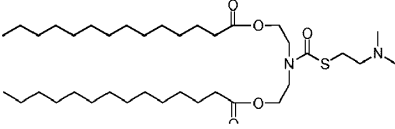
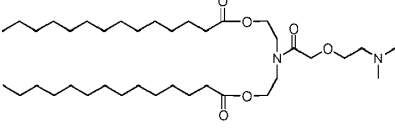
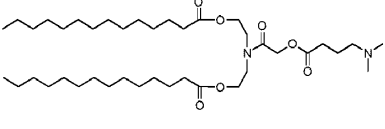
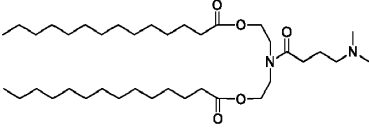
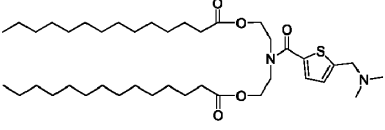
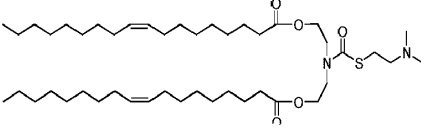
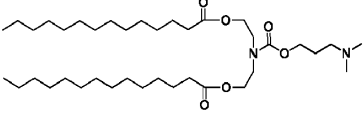
2. Forbindelse ifølge krav 1, hvor n og m er 1.

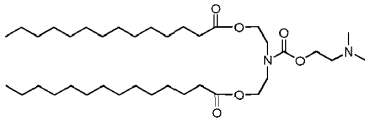
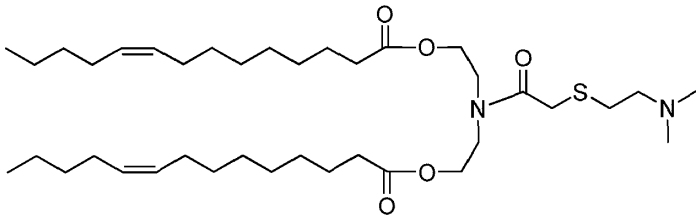
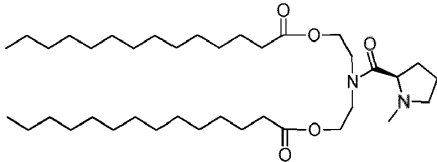
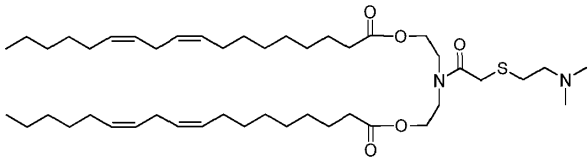
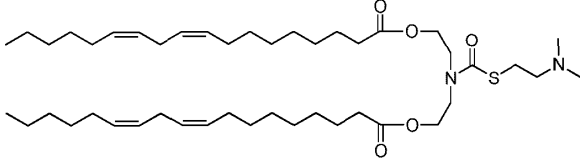
3. Forbindelse ifølge krav 1, hvor X er -CH₂-.

4. Forbindelse ifølge krav 1, som er valgt fra den følgende gruppe:

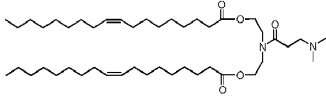
Lipid	Struktur
i-Pr-DC-	

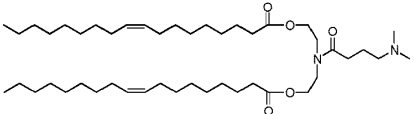
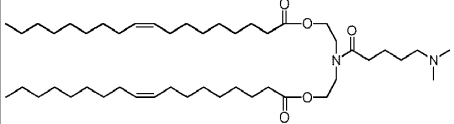
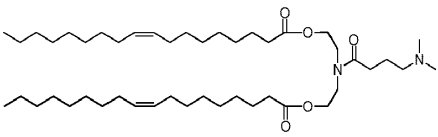
Lipid	Struktur
	
i-Pr-DODC	
i-DC-	
i-Et-DC (Et104)	
i-Prop-DC	
S104	
S104-DO	
C104	
SO2-S104	

Lipid	Struktur
	
TU104	
O104	
HEDC-M1	
Pr104	
T104	
TU104-DO	
CB104	

Lipid	Struktur
CA104	
S104-DMO	
Pro-DC	
S104-DLin	
TU104-DLin	

5. Forbindelse som er valgt fra den følgende gruppe:

Lipid	Struktur
i-Et-DODC	
i-Prop-DODC	

Lipid	Struktur
	
C104-DO	
Pr104-DO	

6. Sammensetning omfattende en forbindelse ifølge krav 1 eller 5 i et liposom som omfatter et dobbeltlag av lipidmolekyler.

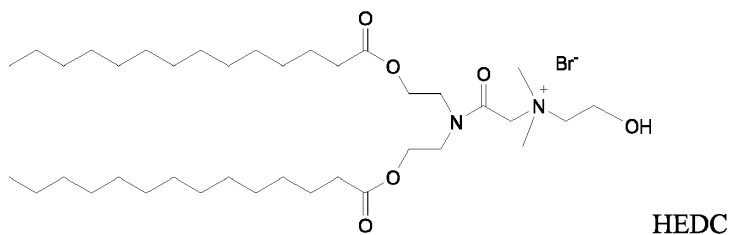
5

7. Sammensetning ifølge krav 6, hvori forbindelsen er 5 til 50 mol% av lipidmolekylene.

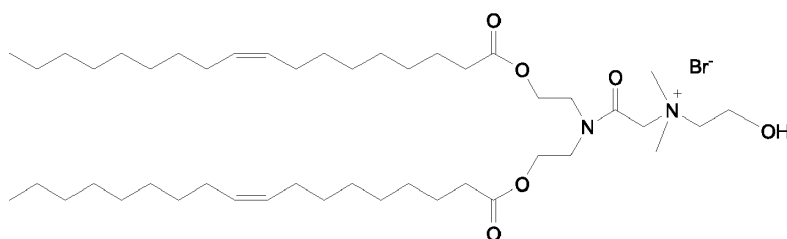
8. Sammensetning ifølge krav 7, som videre omfatter en kationisk lipid.

10

9. Sammensetning ifølge krav 8, hvori det kationiske lipidet er



eller



HEDODC.

15

10. Sammensetning ifølge krav 8, hvori det kationiske lipidet er 5 til 40 mol% av lipidmolekylene.
- 5
11. Sammensetning ifølge krav 6, som videre omfatter et flytende medium.
12. Sammensetning ifølge krav 6, som videre omfatter minst ett fosfolipid.
- 10
13. Sammensetning ifølge krav 6, som videre omfatter minst ett PEG-konjugert lipid.
14. Stelatcelle-spesifikk medikamentbærer omfattende sammensetningen ifølge krav 6, og en stelatcellespesifikk mengde av et målmolekyl bestående av strukturen (retinoid)_n-linker-(retinoid)_n, hvor n = 0, 1, 2 eller 3; og hvor linkeren omfatter et
- 15 polyetylenglykol (PEG) eller PEG-lignende molekyl.
15. Medikamentbærer ifølge krav 14, som videre omfatter et siRNA-molekyl.
- 20
16. Farmasøytisk formulering ifølge krav 15, hvori siRNA er innkapslet av liposomet.