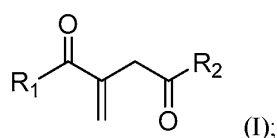


THAT WHICH IS CLAIMED:

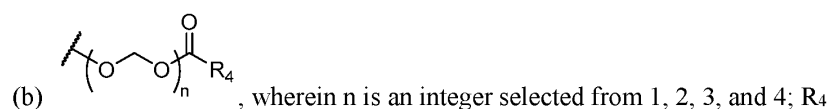
1. A method for inducing hair growth or treating an inflammatory skin condition, or immune activation condition (adaptive or innate), or other condition associated with hair loss in a subject in need of treatment thereof, the method comprising administering to the subject a therapeutically effective amount of a compound of formula (I):



wherein:

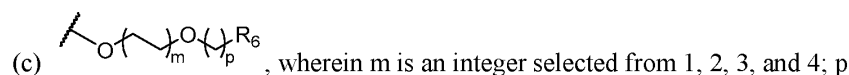
R_1 and R_2 can be the same or different and are each independently selected from one or more of the following and combinations thereof:

(a) $-\text{OR}_3$, wherein R_3 is H or C₁-C₆ straight-chain or branched unsubstituted or substituted alkyl;

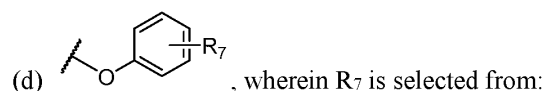


is C₁-C₆ straight-chain or branched unsubstituted or substituted alkyl or $-\text{OR}_5$,

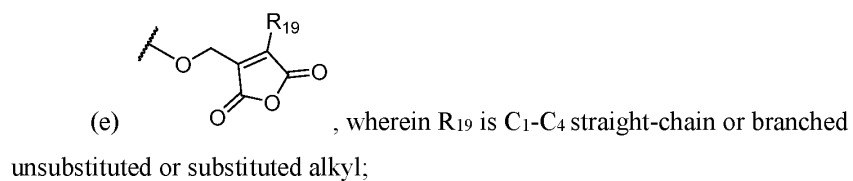
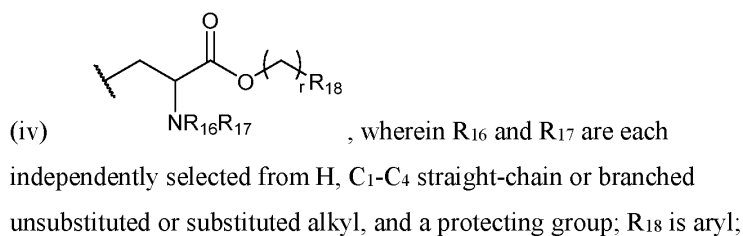
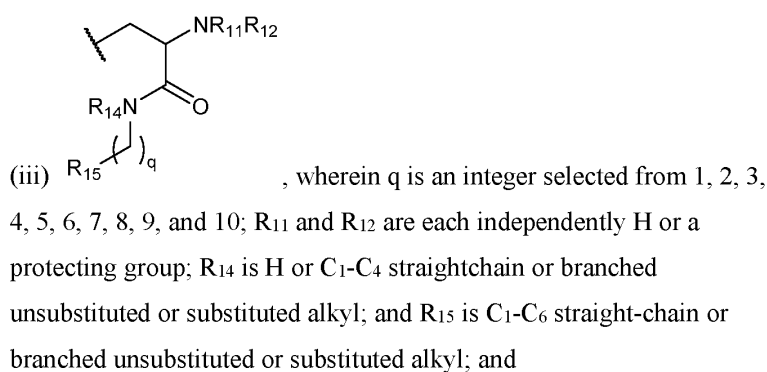
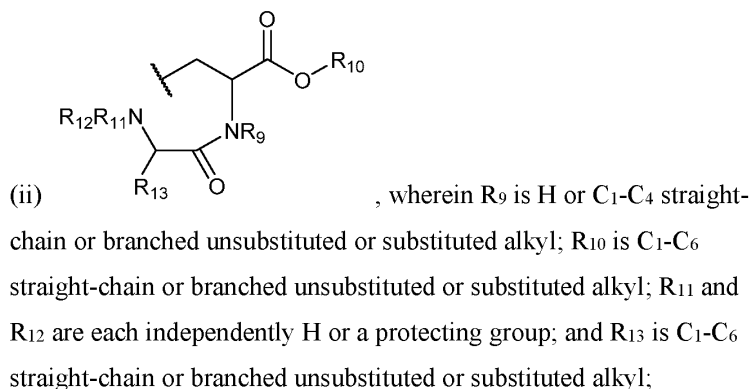
wherein R_5 is C₁-C₆ straight-chain or branched unsubstituted or substituted alkyl;

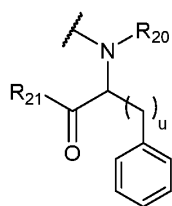


is an integer selected from 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20; and R_6 is C₁-C₆ straight-chain or branched unsubstituted or substituted alkyl;



(i) $-\text{C}(=\text{O})-\text{O}-\text{R}_8$, wherein R_8 is C₁-C₆ straight-chain or branched unsubstituted or substituted alkyl;



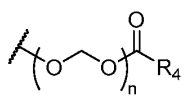


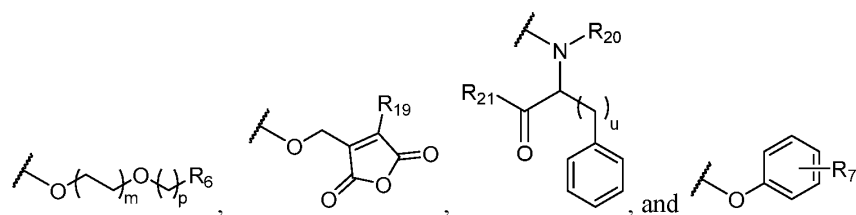
(f) , wherein u is an integer selected from 1, 2, 3, and 4; R₂₀ is

H or C₁-C₄ straight-chain or branched unsubstituted or substituted alkyl; and R₂₁ is –OR₂₂, wherein R₂₂ is C₁-C₆ straightchain or branched unsubstituted or substituted alkyl or –NR₂₃R₂₄, wherein R₂₃ and R₂₄ are each independently H or C₁-C₄ straightchain or branched unsubstituted or substituted alkyl;

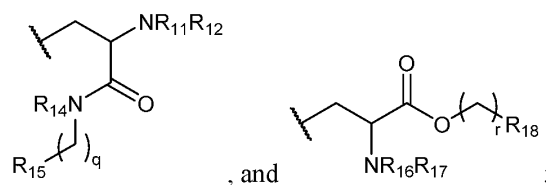
and pharmaceutically acceptable salts thereof.

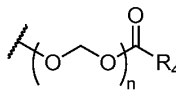
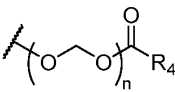
2. The method of claim 1, wherein:

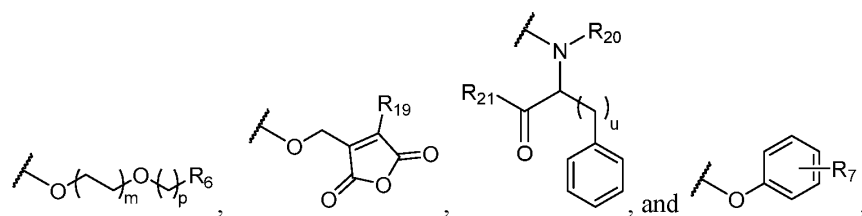
(a) R₁ is –OR₃ and R₂ is selected from –OR₃, ,

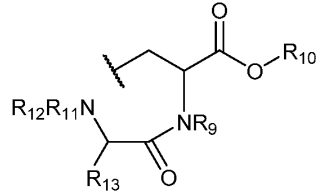


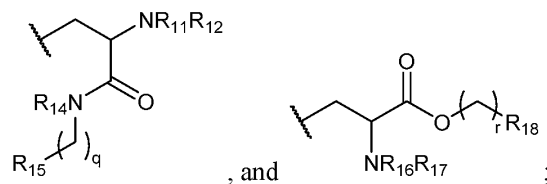
wherein R₇ is selected from –C(=O)-O-R₈,

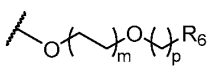
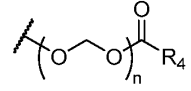


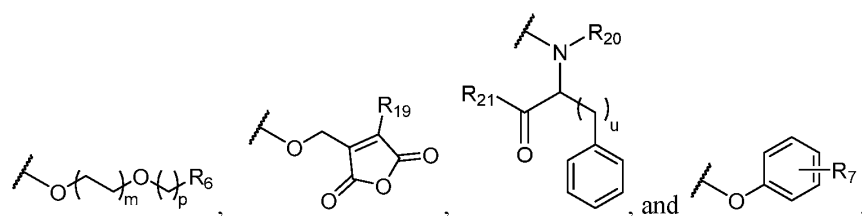
(b) R₁ is  and R₂ is selected from -OR₃, ,

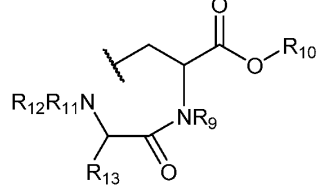


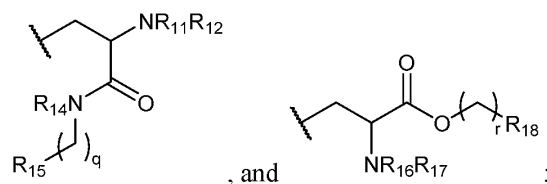
wherein R₇ is selected from -C(=O)-O-R₈, ,

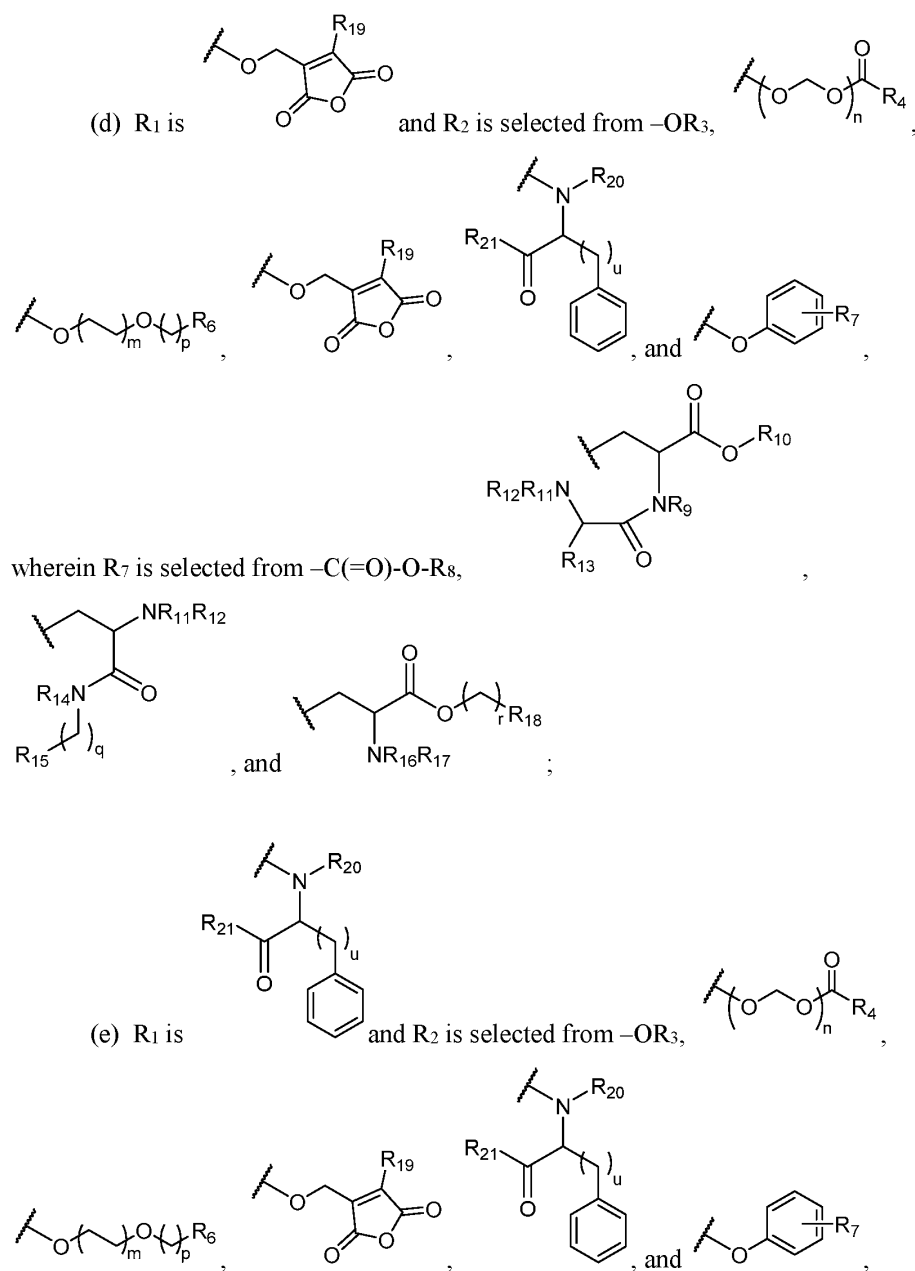


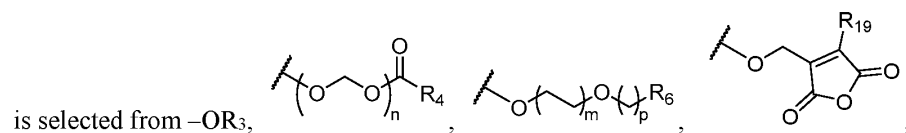
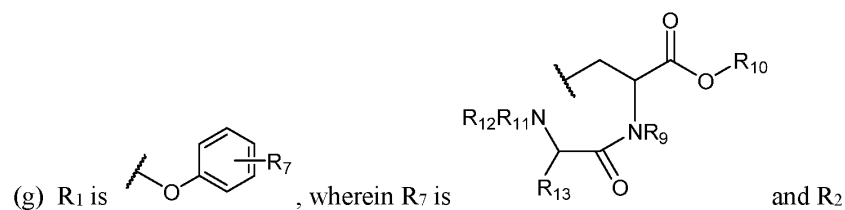
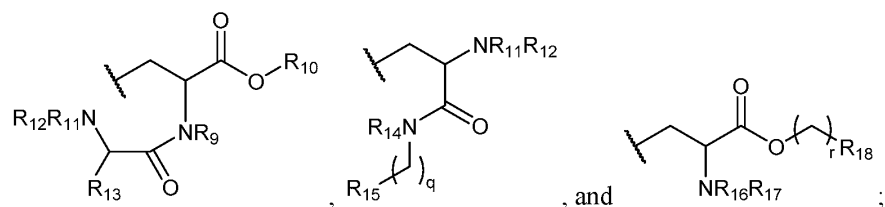
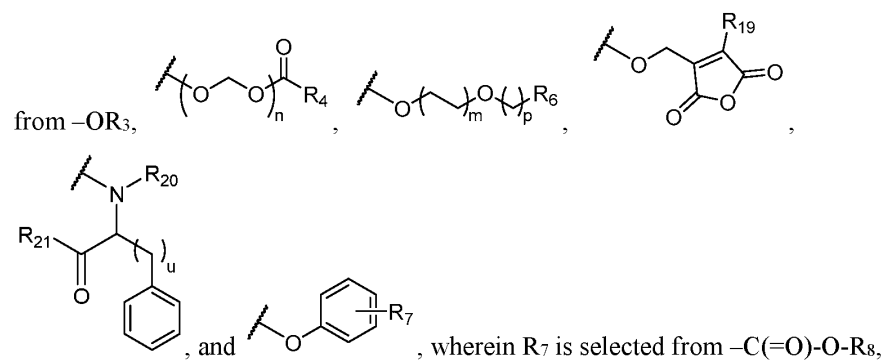
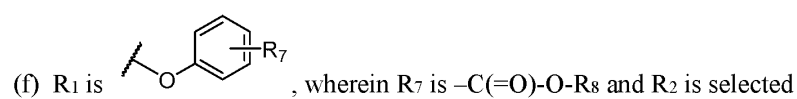
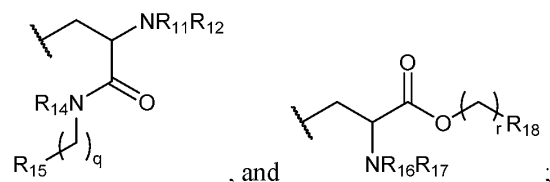
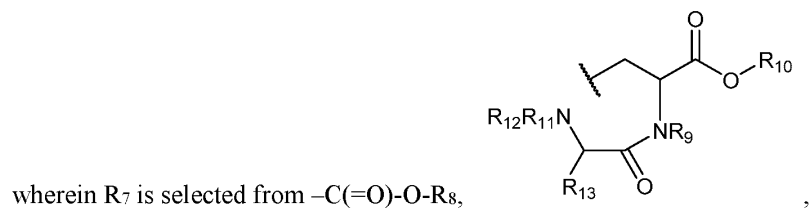
(c) R₁ is  and R₂ is selected from -OR₃, ,

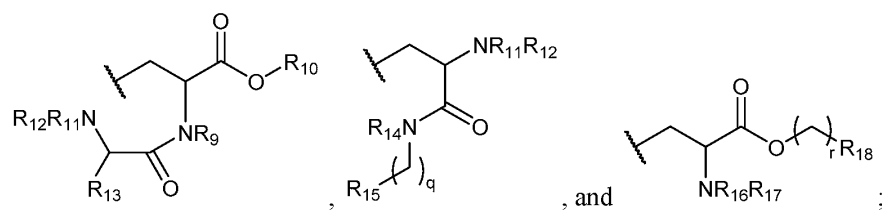
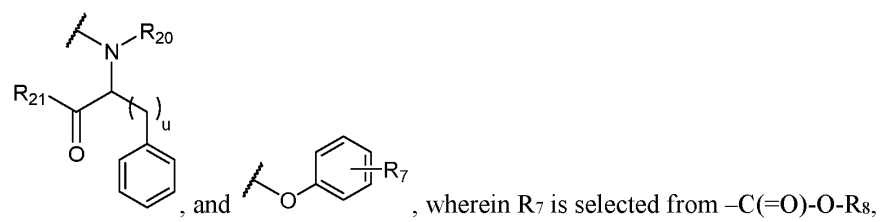
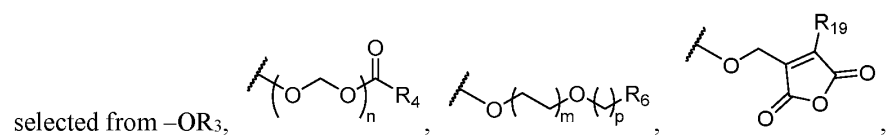
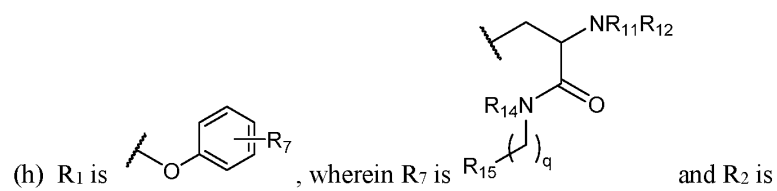
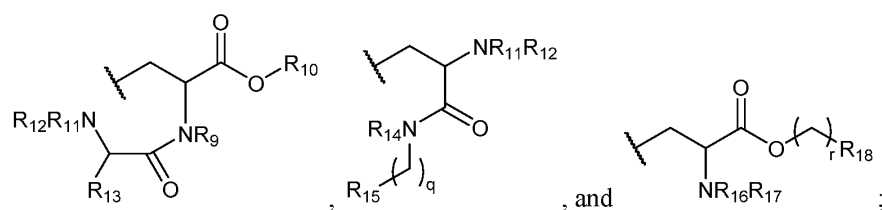
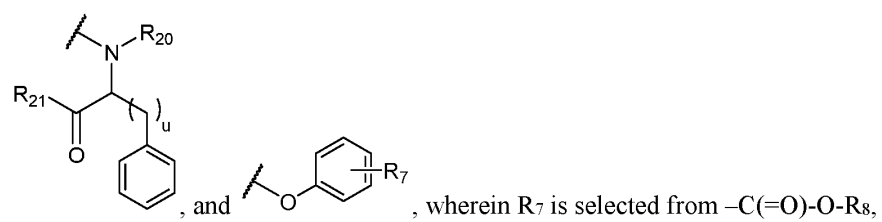


wherein R₇ is selected from -C(=O)-O-R₈, ,

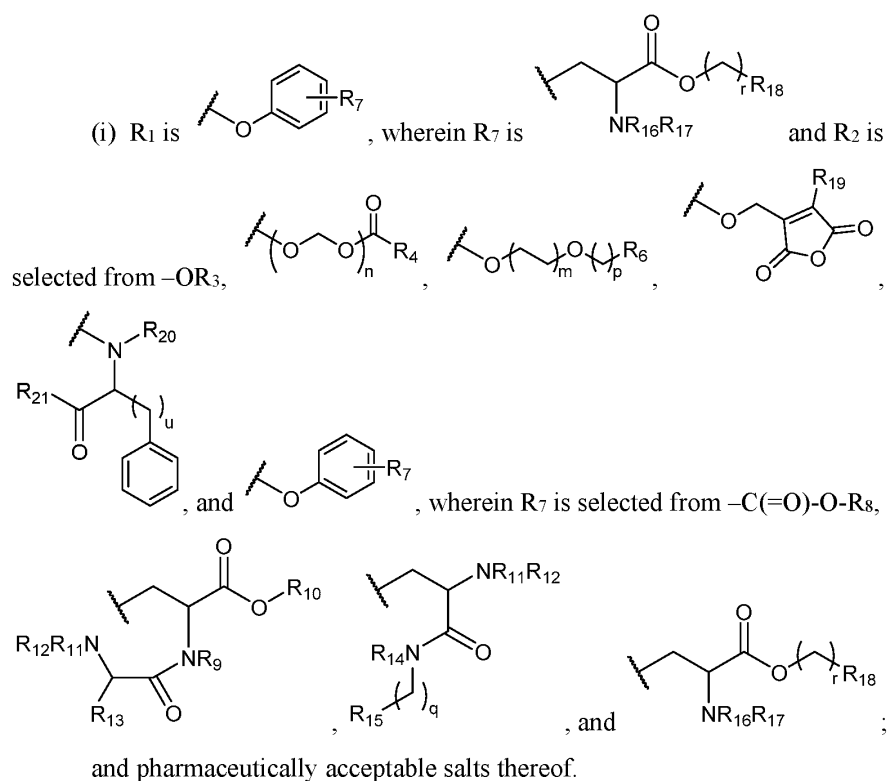






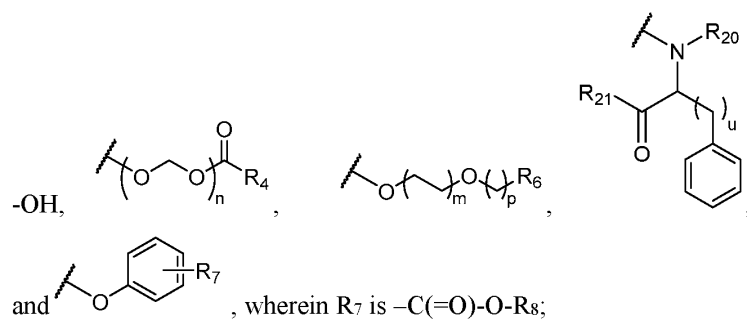


and

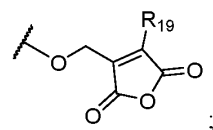
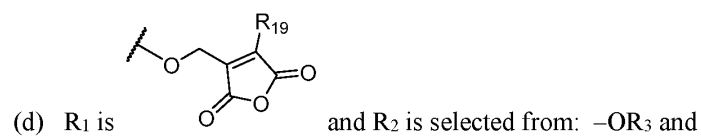
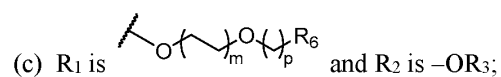
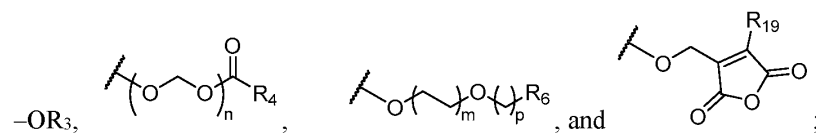
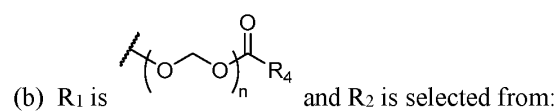
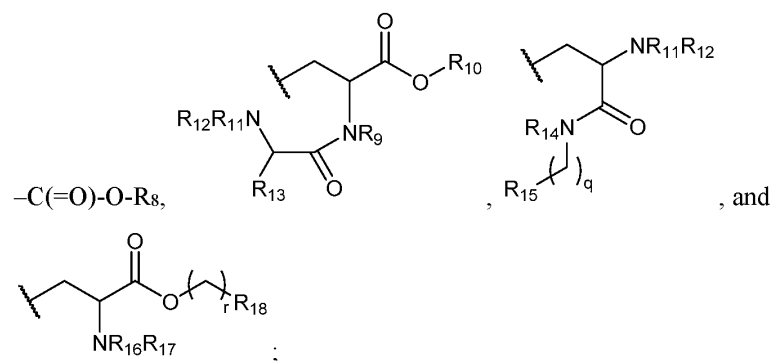
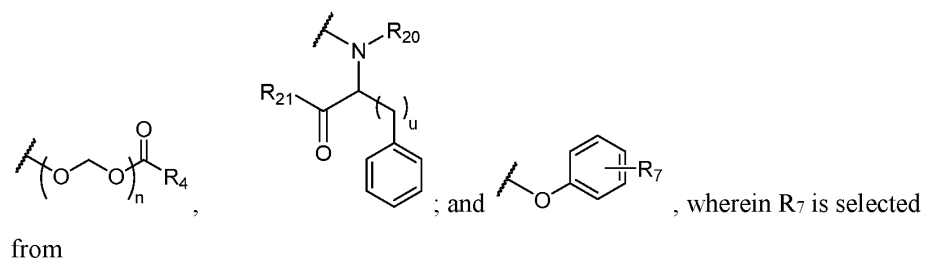


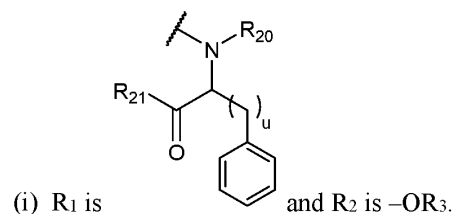
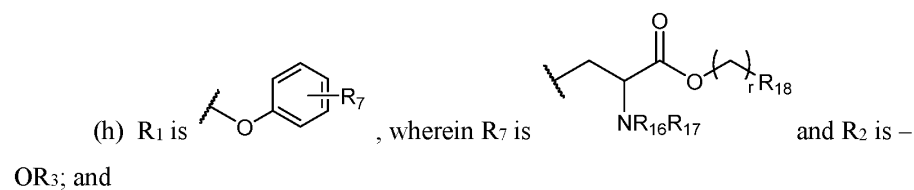
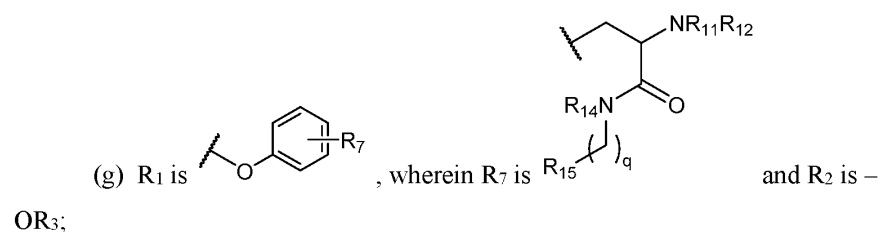
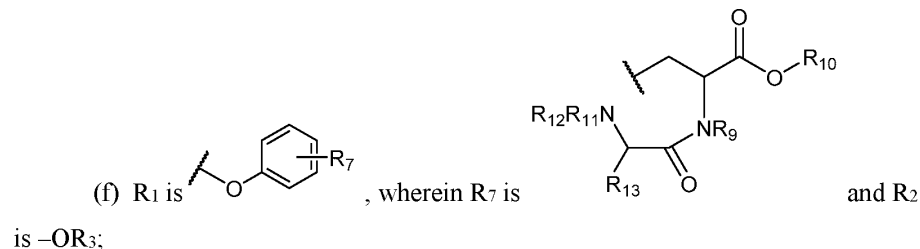
3. The method of claim 1, wherein:

(a-i) R_1 is $-\text{OH}$ and R_2 is selected from:



(a-ii) R_1 is $-OR_3$ and R_2 is selected from:





4. The method of any of claims 1-3, wherein R₃, R₄, R₅, R₆, R₈, R₉, R₁₀, R₁₃, R₁₅, and R₂₂ are each independently selected from methyl, ethyl, n-propyl, isopropyl, n-butyl, sec-butyl, iso-butyl, t-butyl, pentyl, isopentyl, neopentyl, n-hexyl, 2-methylpentane, 3-methylpentane, 2,2-dimethylbutane, and 2,3-dimethylbutane.

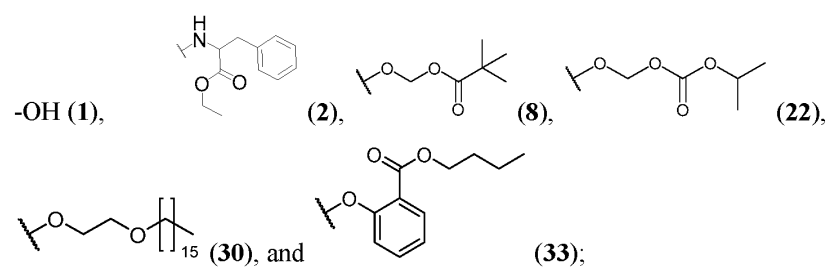
5. The method of any of claims 1-4, wherein R_9 , R_{14} , R_{16} , R_{17} , R_{19} , R_{20} , R_{23} , and R_{24} are each independently selected from methyl, ethyl, n-propyl, isopropyl, n-butyl, sec-butyl, iso-butyl, and t-butyl.

6. The method of any of claims 1-5, wherein the protecting group is selected from tert-butoxycarbonyl (boc), carbobenzyloxy (Cbz), p-Methoxybenzyl carbonyl (Moz or MeOZ), 9-fluorenylmethyloxycarbonyl (Fmoc) group, benzyl (Bn), p-methoxybenzyl (PMB), 3,4-dimethoxybenzyl (DMPM), tosyl (Ts), Troc (trichloroethyl chloroformate), (4-nitrophenyl)sulfonyl (Nosyl), and nitrophenylsulfenyl (Nps).

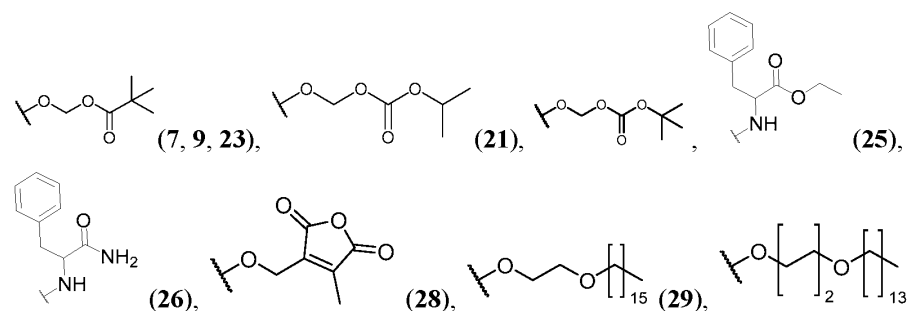
7. The method of any of claim 1-6, wherein R_{18} is selected from phenyl.

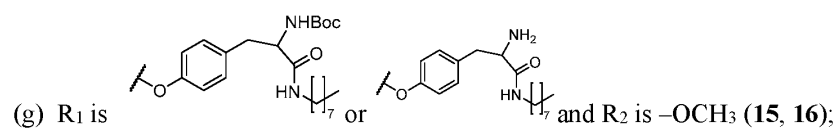
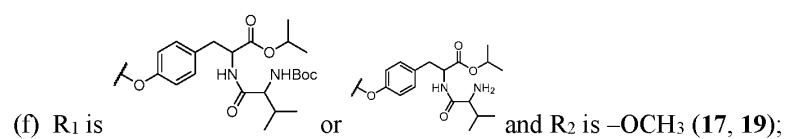
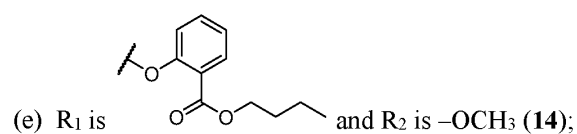
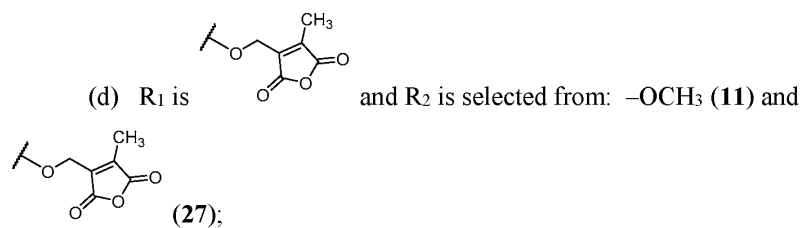
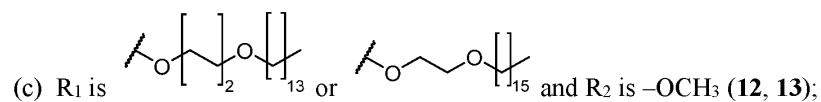
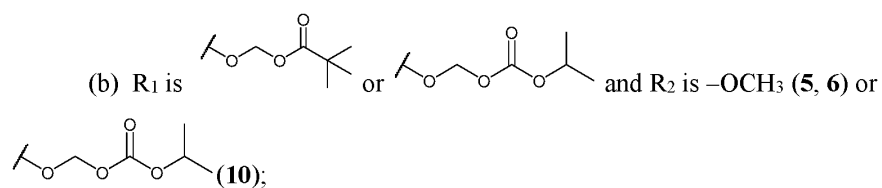
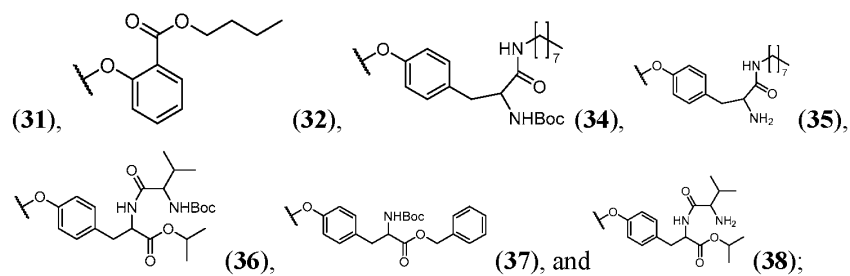
8. The method of any of claims 1-7, wherein:

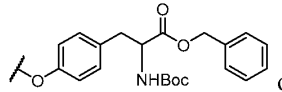
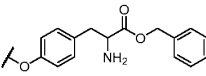
(a-i) R_1 is $-OH$ and R_2 is selected from:

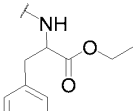
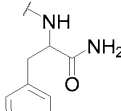


(a-ii) R_1 is selected from $-OCH_3$, $-OCH(CH_3)_2$, and $-OC(CH_3)_3$ and R_2 is selected from:

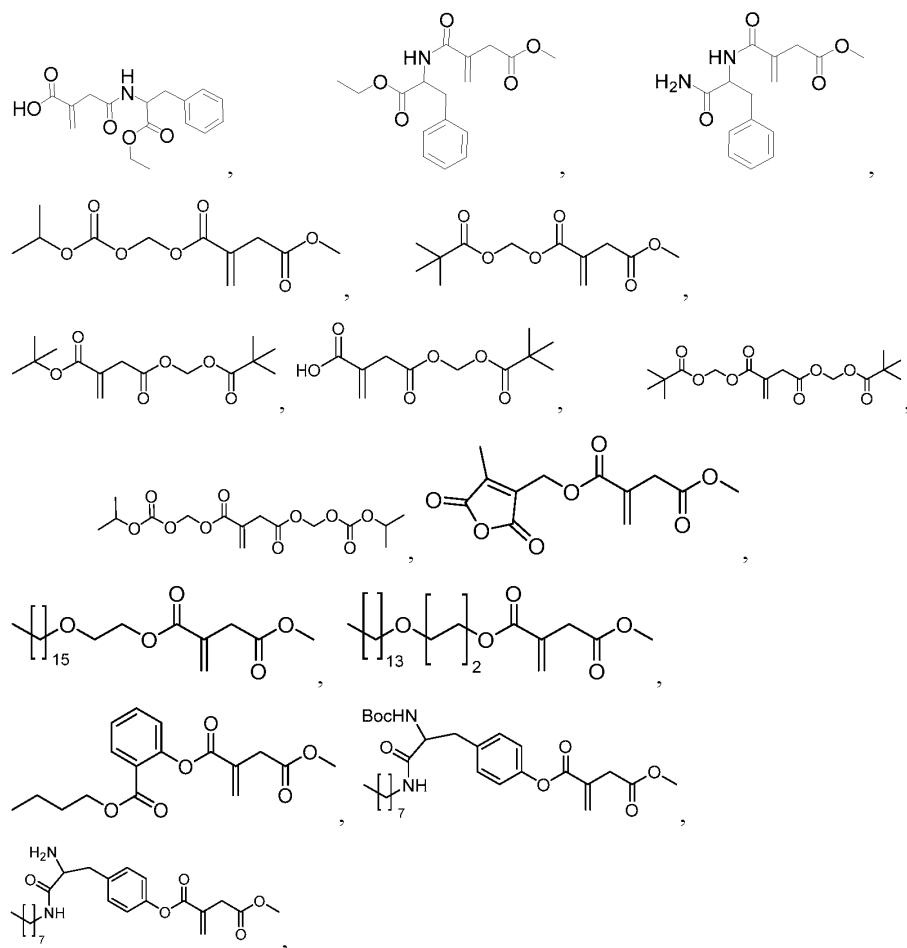


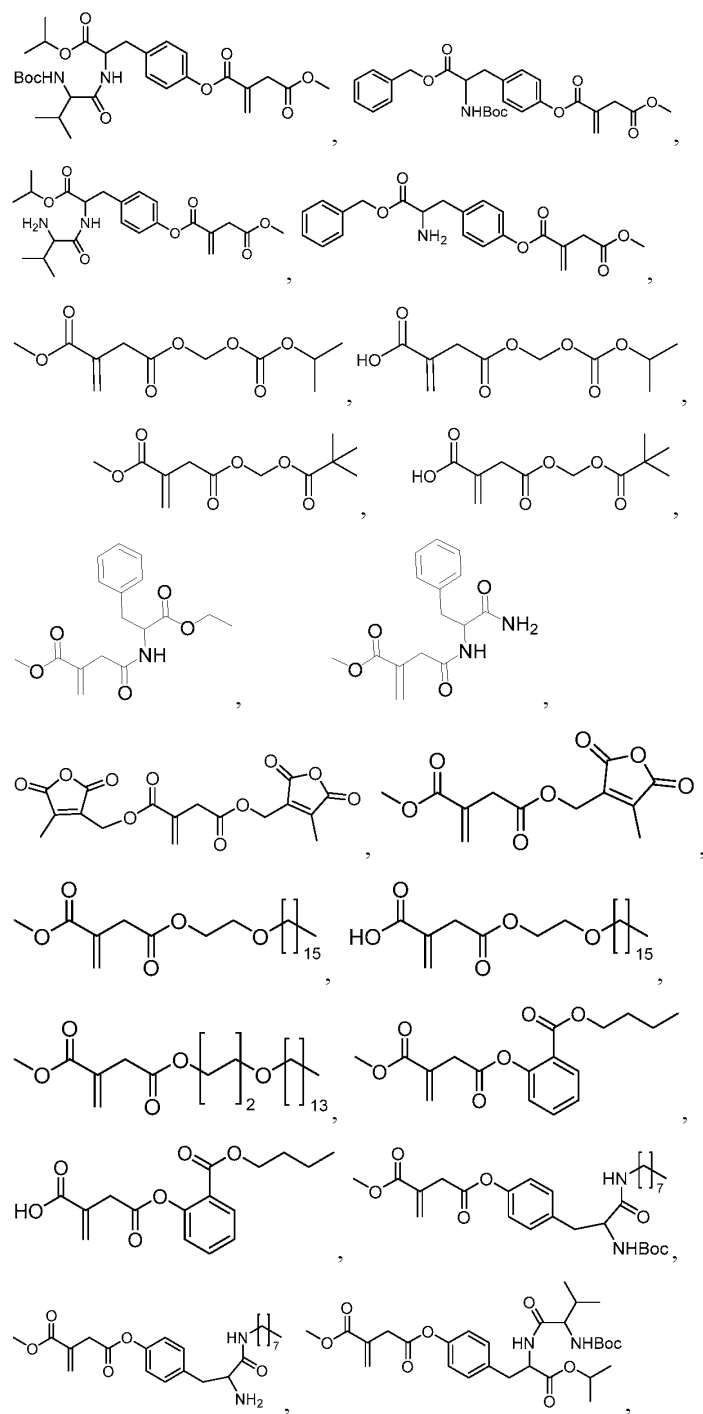


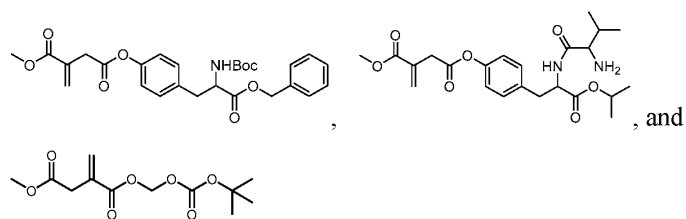
(h) R₁ is  or  and R₂ is -OCH₃ (18, 20); and

(i) R₁ is  or  and R₂ is -OCH₃ (3, 4).

9. The method of any of claims 1-8, wherein the compound of formula (I) is selected from:







10. The method of claim 1, further comprising a pharmaceutical composition comprising a compound of formula (I) and a pharmaceutically acceptable excipient.

11. The method of claim 1, wherein the inflammatory skin condition or other condition associated with hair loss comprises alopecia areata.

12. The method of claim 11, wherein the alopecia areata comprises patchy alopecia areata.

13. The method of claim 11, wherein the alopecia areata comprises alopecia totalis.

14. The method of claim 11, wherein the alopecia areata comprises alopecia universalis.

15. The method of claim 1, wherein the method for inducing hair growth induces a transition from a telogen phase to an anagen phase of a hair growth cycle.

16. The method of claim 15, further comprising increasing a number of hair follicles present in the subject in the anagen phase.

17. The method of claim 16, wherein the subject has a decreased number of hair follicles in the anagen phase relative to a control subject prior to administering a therapeutically effective amount of a compound of formula (I).

18. The method of claim 1, wherein the subject is afflicted with or is at risk of developing alopecia from an underlying health disorder or therapeutic treatment.

19. The method of claim 18, wherein the underlying health disorder is selected from acquired immune deficiency (AID), hypothyroidism, hyperthyroidism, lupus erythematosus, diabetes, anemia, syphilis, zinc deficiency, trichotillomania, Cushing syndrome, systemic lupus erythematosus, infection, discoid lupus erythematosus, lichenplanus, Pseudopelade of Brocq, aplasia cutis congenita, congenital trichia, scleroderma, and tinea capitis (ringworm), androgenetic alopecia, alopecia areata, other forms of alopecia, UV radiation, wound healing defects, psoriasis, atopic dermatitis, contact dermatitis, rosacea, acne, and autoimmune/autoinflammatory conditions.

20. The method of claim 18, wherein underlying health disorder includes a disorder or condition associated with hair loss.

21. The method of claim 20, wherein the disorder or condition associated with hair loss is selected from androgenic alopecia, alopecia areata, anagen effluvium, self-induced hair loss, telogen effluvium, and scarring alopecia.

22. The method of claim 18, wherein the therapeutic treatment comprises chemotherapy or radiation therapy.