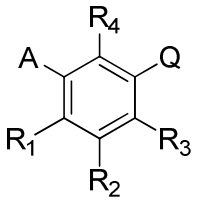
CLAIMS:

1. Use of a compound represented by Formula I or a pharmaceutically acceptable salt thereof, or a combination thereof, for the preparation of a medicament for stimulating tissue regeneration in an injured organ or tissue from a subject, wherein the injured organ or tissue is not a bone or pancreatic tissue:



Formula I

wherein

A is C_5 alkyl, C_6 alkyl, C_5 alkenyl, C_6 alkenyl, $C(O)-(CH_2)_n-CH_3$ or $CH(OH)-(CH_2)_n-CH_3$ wherein n is 3 or 4;

R_1 is H, F or OH;

R_2 is H, F, OH, C_5 alkyl, C_6 alkyl, C_5 alkenyl, C_6 alkenyl, $C(O)-(CH_2)_n-CH_3$ or $CH(OH)-(CH_2)_n-CH_3$ wherein n is 3 or 4;

R_3 is H, F, OH or CH_2Ph;

R_4 is H, F or OH;

Q is

1) $(CH_2)_mC(O)OH$ wherein m is 1 or 2,
2) $CH(CH_3)C(O)OH$,
3) $C(CH_3)_2C(O)OH$,
4) $CH(F)-C(O)OH$,
5) $CF_2-C(O)OH$, or
6) $C(O)-C(O)OH$.

2. The use of claim 1, wherein A is C_5 alkyl or C_6 alkyl.

3. The use of any one of claims 1 or 2, wherein R_2 is H, F, OH, C_5 alkyl or C_6 alkyl.

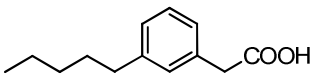
4. The use of any one of claims 1 to 3, wherein R_3 is H, OH or CH_2Ph.

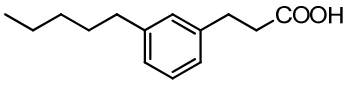
5. The use of any one of claims 1 to 4, wherein Q is $(CH_2)_mC(O)OH$ where m is 1 or 2.

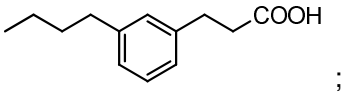
6. The use of claim 1, wherein A is C_5 alkyl or C_6 alkyl; R_1 is H, F or OH; R_2 is H, F, OH, C_5 alkyl or C_6 alkyl; R_3 is H, OH or CH_2Ph; R_4 is H, F or OH; and Q is $(CH_2)_mC(O)OH$ where m is 1 or 2.

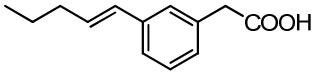
7. The use of claim 1, wherein A is C_5 alkyl; R_1 is H; R_2 is H or C_5 alkyl; R_3 is H; R_4 is H; and Q is $(CH_2)_mC(O)OH$ where m is 1.

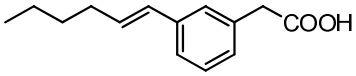
8. The use of any one of claims 1 to 5, wherein said compound is selected from the group consisting of the compounds represented by the following structures:

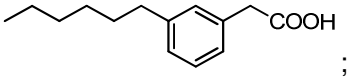


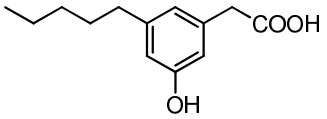
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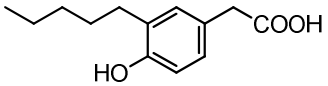
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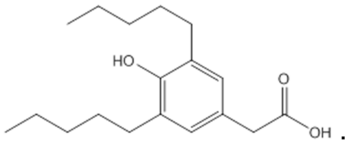
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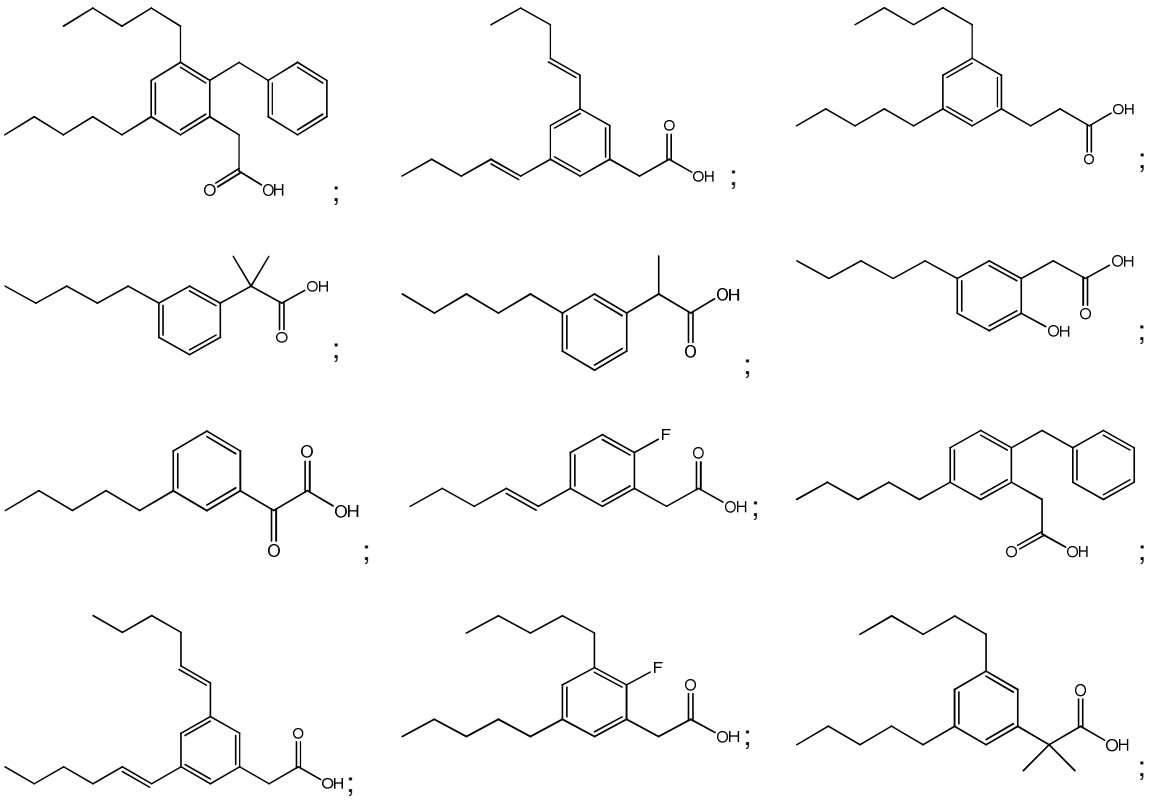
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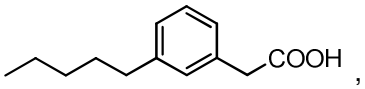
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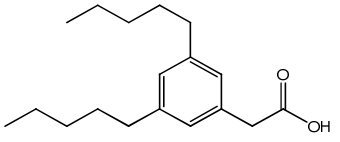
and pharmaceutically acceptable salts thereof.

9. The use of claim 1, wherein said compound is represented by the following structure:



or pharmaceutically acceptable salt thereof.

10. The use of claim 1, wherein said compound is represented by the following structure:



or pharmaceutically acceptable salt thereof.

11. The use of any one of claims 1 to 10, wherein the pharmaceutically acceptable salt is a base addition salt comprising a metal counterion selected from the group consisting of sodium, potassium, calcium, magnesium, lithium, ammonium, manganese, zinc, iron, or copper.

12. The use of any one of claims 1-11, wherein the pharmaceutically acceptable salt is sodium.

13. The use of any one of claims 1 to 12, wherein the tissue regeneration occurs in an injured organ or in an injured tissue, and wherein said organ or tissue is kidney, heart, liver, lung, skin, stomach, intestine, muscle or cartilage.

14. The use of claim 13, wherein the injured organ or injured tissue is kidney.

15. The use of claim 13, wherein the injured organ or injured tissue is heart.

16. The use of claim 13, wherein the injured organ or injured tissue is liver.

17. The use of claim 13, wherein the injured organ or injured tissue is lung.

18. The use of claim 13, wherein the injured organ or injured tissue is skin.

19. The use of claim 13, wherein the injured organ or injured tissue is stomach.

20. The use of claim 13, wherein the injured organ or injured tissue is intestine.

21. The use of claim 13, wherein the injured organ or injured tissue is muscle.

22. The use of claim 13, wherein the injured organ or injured tissue is cartilage.

23. Use of a compound or a pharmaceutically acceptable salt thereof as defined in any one of claims 1 to 22, or a combination thereof, for the preparation of a medicament for modulating the expression of a tissue regeneration marker in an injured organ or injured tissue of a subject, wherein the injured organ or tissue is not a bone or pancreatic tissue, and wherein the tissue regeneration marker is a metalloproteinase or a growth factor.

24. The use of claim 23, wherein the marker is hepatocyte growth factor (HGF) or Serpin A1 (AAT).

25. Use of the compound or pharmaceutically acceptable salt thereof as defined in any one of claims 1 to 22, for the preparation of a medicament for treating aging of skin damage or injury due to UV exposure, climatic conditions exposure, pollution exposure, alcohol consumption or smoking in a subject.