concomitant. Surprisingly, they are even incompatible. To solve this problem, the inventors developed a process that includes a step of cell proliferation and a step of elicitation with a cocktail of eliciting agents that stops cell division. The inventors also demonstrated that the use of pairs of elicitors, notably methyl jasmonate (MeJa) and chitin, makes it possible to obtain a concentration of **16.6 mg/g** celastrol per dry weight at the end of culture. The celastrol yield of this elicited culture is thus **22 times** higher than that obtained by Liu *et al.* (op. cit.). Furthermore, the yield by the process according to the invention is **57 times** higher than that obtained by Coppede *et al.* (op. cit.) without elicitation. The process according to the invention also makes it possible to enrich in celastrol derivatives, notably of the pentacyclic triterpene type, such as tingenin A (also called tingenone or maytenin), tingenin B (also called 22beta–hydroxy–tingenone), pristimerin and tripterygone.

Furthermore, the inventors have shown, surprisingly, that a crude extract enriched in pentacyclic triterpenes obtained by this process inhibits, with a dose effect, the Th17–specific interleukins induced in human CD4+ T cells.

SUMMARY

In one aspect, there is provided a process for producing a crude extract enriched in pentacyclic triterpenes comprising the following steps:

(i) a phase of proliferation of cells of a plant of the Celastraceae family in a proliferation medium,

(ii) a phase of elicitation by adding an elicitation cocktail to the cell culture obtained in step (i), said elicitation cocktail comprising at least one monocarboxylic compound–type elicitor and at least one biotic elicitor, said biotic elicitor being an N–acetylaminoglucosamine, and

(iii) preparation of a crude extract enriched in pentacyclic triterpenes from the cell culture obtained in step (ii).

In another aspect, there is provided an enriched crude extract obtainable by the process described herein.

In another aspect, there is provided the enriched crude extract described herein, for use as a medicinal product.

In another aspect, there is provided the use of an enriched crude extract as described herein, for the manufacture of a medicament to treat inflammatory dermatosis inducing a TH17–type immune response.

In another aspect, there is provided a pharmaceutical or dermocosmetic composition comprising an enriched crude extract as described herein.

The present invention thus concerns a process for producing a crude extract enriched in pentacyclic triterpenes comprising the following steps:

(i) a phase of proliferation of cells of a plant of the Celastraceae family in a proliferation medium,

(ii) a phase of elicitation by adding an elicitation cocktail to the cell culture obtained in step (i), said elicitation cocktail comprising at least one monocarboxylic compound–type elicitor and at least one biotic elicitor, and

(iii) preparation of a crude extract enriched in pentacyclic triterpenes from the cell culture obtained in step (ii).

Furthermore, the present invention concerns an extract obtainable by the process according to the invention, as well as uses thereof.

According to the invention, "pentacyclic triterpenes" means the pentacyclic triterpenes naturally produced by the cells of a plant of the Celastraceae family and notably celastrol (of formula I), tingenin A (also called

7. The process for producing an enriched crude extract according to claim 5 or 6, wherein the at least one precursor of terpene synthesis is selected from the group consisting of sodium pyruvate, potassium pyrophosphate and a mixture thereof.

8. The process for producing an enriched crude extract according to any one of claims 1 to 7, wherein the pentacyclic triterpene is selected from the group consisting of celastrol, tingenin A, tingenin B, pristimerin, tripterygone and mixtures thereof.

9. The process for producing an enriched crude extract according to claim 8, wherein the pentacyclic triterpene is celastrol.

10. The process for producing an enriched crude extract according to any one of claims 1 to 9, wherein:

(i) the plant of the Celastraceae family is *Tripterygium wilfordii*,

(ii) the at least one monocarboxylic compound–type elicitor is methyl jasmonate and the at least one biotic elicitor is chitin, and

(iii) the pentacyclic triterpene is celastrol.

11. The process for producing an enriched crude extract according to any one of claims 1 to 10, further comprising a step (iv) of obtaining a purified extract of one or more pentacyclic triterpenes from the enriched crude extract obtained in step (iii).

12. An enriched crude extract obtainable by the process according to any one of claims 1 to 10.

13. The enriched crude extract according to claim 12, for use as a medicinal product.

14. The use of an enriched crude extract according to claim 13, for the manufacture of a medicament to treat inflammatory dermatosis inducing a TH17–type immune response.

15. The use according to claim 14, wherein the inflammatory dermatosis is selected from the group consisting of psoriasis, atopic dermatitis and acne.

16. A pharmaceutical or dermocosmetic composition comprising an enriched crude extract according to claim 12.