CLAIMS

1. An *in vitro* method comprising the steps of:

i) immersing a skin explant in a solidifiable liquid matrix such that the upper face of the epidermis is not covered, which matrix is itself contained in a cell culture insert, the bottom of which consists of a porous membrane, and

ii) solidifying this matrix so as to trap the immersed portion of this skin explant, wherein the upper face of the epidermis is not covered, and adhering this same matrix to the side walls and the porous membrane of the insert,

iii) placing the insert in a container or culture well, and

iv) culturing the skin explant in an appropriate medium

characterized in that:

the skin explant comprises a thickness of at least 5 mm of hypodermis and

~~in that~~ the method aims at obtaining an *ex vivo* model for subcutaneous injection~~.~~

and further comprise the step of:

v) injecting, subcutaneously and in the skin explant, a composition.

~~2. The method according to claim 1, characterized in that it further comprises the steps of:~~

~~iii) placing the insert in a container or culture well, and~~

~~iv) culturing the skin explant in an appropriate medium.~~

~~3. The method according to any one of claims 1 or 2, characterized in that it further comprises the steps of:~~

~~v) injecting, subcutaneously and in the skin explant, a composition.~~

~~4.~~2. The method according to the preceding claim, characterized in that it further comprises the step of:

~~vi)~~iii) determining the injectability of the composition.

~~5.~~3. The method according to the preceding claim, characterized in that it further comprises the step of:

vi) determining the injection bolus of the composition, with the local toxicity resulting from the injection of the composition and/or the efficacy of the composition.

~~6.~~4. A cell culture insert constituting an *ex vivo* model for subcutaneous injection obtainable by the method according to claim 1, which can be placed in a container or culture well, which has a bottom consisting of a porous membrane, and which contains the skin explant comprising a thickness of at least 5 mm of hypodermis trapped in a solidified matrix which is in contact with the inner edge of the insert and the porous membrane, and wherein the epidermis of the skin explant is in contact with the atmosphere, and the dermis, epidermal appendages, and hypodermis of this skin explant are immersed in the solidified matrix.

~~7.~~5. A use of an insert as defined in the preceding claim as an *ex vivo* model for subcutaneous injection.

~~8.~~6. The use according to claim ~~7~~5, characterized in that the *ex vivo* model for subcutaneous injection aims at determining the injectability of a composition.

~~9.~~7. The use according to claim ~~7~~5, characterized in that the *ex vivo* model for subcutaneous injection aims at determining the injection bolus of a composition, with the local toxicity resulting from the injection of a composition and/or the efficacy of the composition.

~~10.~~8. A kit comprising an insert as defined in claim ~~6~~ 4 and an automatic injection device.