CLAIMS

1. An *in vitro* method for modeling hypodermic injection 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,

   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
   the method further comprises the step of:

   v) injecting a composition in the hypodermis of the skin explant.

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

   vi) determining the injectability of the composition.

3. The method according to claim 1, characterized in that it further comprises the step of:

   vii) 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.

4. A use of a cell culture insert as an ex vivo model for hypodermic injection, which insert can be placed in a container or culture well, which has a bottom consisting of a porous membrane, and which contains the skin explant trapped in a solidified matrix which is in contact with the inner edge of the insert and the porous membrane, and wherein:

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

- 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.

5. The use according to claim 4, characterized in that the *ex vivo* model for hypodermic injection aims at determining the injectability of a composition.

6. The use according to claim 4, characterized in that the *ex vivo* model for hypodermic 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.

7. A kit comprising a cell culture insert and an automatic injection device for hypodermic injection, which insert can be placed in a container or culture well, has a bottom consisting of a porous membrane and, which contains a skin explant trapped in a solidified matrix which is in contact with the inner edge of the insert and the porous membrane, and wherein:

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