Claims

1. An implantation needle for inserting a subcutaneously insertable element into a body tissue, wherein the implantation needle comprises at least one covering comprising at least one pharmaceutical compound, wherein the pharmaceutical compound is configured to remain at least partially in the body tissue after insertion of the subcutaneously insertable element, wherein the pharmaceutical compound is configured to be released via a mechanical stripping process during withdrawal of the implantation needle from the body tissue, and wherein the implantation needle comprises at least one subcutaneously insertable element receiving portion and at least one tip portion, wherein the tip portion is covered with the covering at least partially.

2. The implantation needle according to claim 1, wherein the pharmaceutical compound is selected from the group consisting of: an immunosuppressive, an anti-allergic, an anti-inflammatory agent.

3. The implantation needle according to any one of claims 1 to 2, wherein the pharmaceutical compound is selected from the group consisting of: dexamethasone, a derivative of dexamethasone, betamethasone, a derivative of betamethasone, wherein the derivative of betamethasone or dexamethasone is selected from: the group consisting of 17-Oxo Betamethasone, Betamethasone hydrochloride, Betamethasone 21-acetate, Betamethasone 17-propionate, Betamethasone 21 propionate, Betamethasone phosphate, Betamethasone 17-valerate, Betamethasone 21-valerate, Betamethasone 17-benzoate, Betamethasone 17,21,-dipropionate, Betamethasone acibutate, Betamethasone sodium phosphate, Betamethasone butyrate propionate, Betamethasone tripropionate, 3-Hydroxy dexamethasone, 6 Hydroxydexamethasone, dexamethasone 17-acetate, dexamethasone 17-carboxamide, dexamethasone 17-propionate, dexamethasone 21-valerate, dexamethasone 21-acetate, dexamethasone 21-beta-D-glucoside, dexamethasone 21-linolate, dexamethasone 21-mesylate, dexamethasone 21-O-b-D-galactopyranose, dexamethasone 21-palmitate, dexamethasone 21-propionate, dexamethasone 21-sodium hydrogen phosphate, dexamethasone 21-sulfate, dexamethasone 21-tributylacetate, dexamethasone acefurate, dexamethasone 17-carboxylic acid, dexamethasone beta-D-glucuronide, dexamethasone dipropionate, Dexamethasone hemisuccinate, dexamethasone laurate, dexamethasone phosphate, dexamethasone sodium phosphate, dexamethasone tridecylate, dexamethasone valerate, dexamethasone 21-isonicotinate.

4. The implantation needle according to any one of claims 1 to 3, wherein the pharmaceutical compound comprises at least one compound which is configured to improve a tolerance of the subcutaneously insertable element.

5. The implantation needle according to any one of claims 1 to 4, wherein the pharmaceutical compound is configured to reduce at least one of an immune rejection, a scarring, a growth of infectious agents.

6. The implantation needle according to any one of claims 1 to 5, wherein the covering comprises at least one excipient.

7. The implantation needle according to claim 6, wherein the excipient is selected from the group consisting of: a polylactide, a polyglycolide, a polydioxanone.

8. The implantation needle according to any one of claims 1 to 7, wherein the implantation needle comprises at least one outer surface facing an outer environment of the implantation needle and at least one inner surface facing an interior space of the implantation needle, wherein the covering covers the outer surface of the implantation needle at least partially.

9. The implantation needle according to claim 1, wherein the tip portion further comprises at least one adhesive coating, wherein the adhesive coating is arranged between at least one surface of the implantation needle and the covering.

10. A kit for inserting a subcutaneously insertable element into a body tissue, wherein the kit comprises:
    - at least one implantation needle according to any one of claims 1 to 9; and
    - at least one subcutaneously insertable element.

11. A method of manufacturing the implantation needle according to any one of claims 1 to 9, wherein the method comprises the following steps:
    a) providing at least one needle element; and
    b) covering at least one surface of the needle element with the pharmaceutical compound by at least one covering process such that the implantation needle is formed.

12. The method according to claim 11, wherein the covering process is selected from the group consisting of: a dip coating process; a powder coating process; a spray coating process; a printing process; a lamination process; a dispensing process; a physical vapor deposition; a chemical vapor deposition; an electrospinning process; an electroplating process; a chemical surface functionalizing process.