Claims

1. Use of an immunomodulatory substance(s) and/or skin-conditioning agent in the manufacture of a medicament for use in a method for treating and/or preventing an inflammatory disease, immunological disease and/or autoimmunological disease in a subject,

   wherein the method comprises a step (A), wherein step (A) is selected from one or more of steps:

   (A-0) generating an accumulation of PBMCs (peripheral blood mononuclear cells) within the skin of the subject;

   (A-1) generating a vasodilation of the capillaries within the skin of the subject;

   (A-2) generating an increased blood volume within the skin of the subject;

   (A-3) generating an increased sO_2 (oxygen saturation of haemoglobin) within the skin and/or an increased rHb (relative haemoglobin amount) within the skin of the subject;

   (A-4) generating an increased temperature on the skin of the subject;

   (A-5) generating a redness on the skin of the subject;

   (A-6) administering conditioning energy to the skin of the subject;

   (A-7) administering a skin-conditioning agent to the skin of the subject; and/or

   (A-8) administering PBMCs into the skin of the subject,

   wherein:

   (B) an immunomodulatory substance(s) is to be administered to the skin of the subject; and/or

   (C) an immunomodulatory substance(s) is to be administered to the skin of the subject,

   wherein immunomodulatory substance(s) to be administered in step © is different from the immunomodulatory substance(s) to be administered in step (B).

2. The use according to claim 1, wherein the skin is of a skin area, wherein preferably the skin of the skin area is immunological inactive and/or unchallenged and/or spatially distanced to any site of immunological activity and/or challenge.

3. The use according to any of the preceding claims, wherein the immunomodulatory substance(s) is to be administered in step (B) and/or step (C) in an amount that does not cause a systemic increase of the concentration of the immunomodulatory substance(s) in the subject.

4. The use according to any of the preceding claims, wherein step (A) is selected from one or more of steps (A-0), (A-1), (A-2), (A-3) and/or (A-4).

5. The use according to any of the preceding claims, wherein in step (A-1) of the method:
   - the vasodilation is determined in terms of the sO_2 and/or the rHb within the skin.

6. The use according to any of the preceding claims, wherein in step (A-2) of the method:
   - the increased blood volume is determined in terms of the sO_2 and/or the rHb within the skin.

7. The use according to any of the preceding claims, wherein in step (A-3) of the method:

   - the sO_2 is increased by 2 % or more and/or the sO_2 is increased by 2 %-points or more; and/or the rHb is increased by 2 % or more and/or the rHb is increased by 2 AU (arbitrary units).

8. The according to any of the preceding claims, wherein in step (A-4) of the method:

   - the temperature is increased by 1 % or more and/or the temperature is increased by 0.2 °C or more.

9. The use according to any of the preceding claims, wherein in step (A-6) of the method the conditioning energy is administered to generate:

   - a vasodilation of the capillaries within the skin of the subject, wherein the vasodilation is determined in terms of the sO_2 and/or the rHb; and/or
   - an increased blood volume within the skin of the subject, wherein the vasodilation is determined in terms of the sO_2 and/or the rHb; and/or
   - an increased sO_2 and/or an increased rHb within the skin of the subject, wherein preferably the sO_2 is increased by 2 % or more and/or increased by 2 %-points or more; and/or the rHb is increased by 2 % or more and/or by 2 AU (arbitrary units) or more; and/or
   - an increased temperature on the skin of the subject, wherein preferably the temperature is increased by 1 % or more and/or is increased by 0.2 °C or more; and/or
   - a redness on the skin of the subject,

   wherein preferably the conditioning energy is administered by using an energizing means.

10. The use according to any of the preceding claims, wherein in (A-7) of the method the skin-conditioning agent is administered to generate:

    - a vasodilation of the capillaries within the skin of the subject, wherein the vasodilation is determined in terms of the sO_2 and/or the rHb; and/or
    - an increased blood volume within the skin of the subject, wherein the vasodilation is determined in terms of the sO_2 and/or the rHb; and/or
    - an increased sO_2 and/or an increased rHb within the skin of the subject, wherein preferably the sO_2 is increased by 2 % or more and/or increased by 2 %-points or more; and/or the rHb is increased by 2 % or more and/or by 2 AU (arbitrary units) or more; and/or
    - an increased temperature on the skin of the subject, wherein preferably the temperature is increased by 1 % or more and/or is increased by 0.2 °C or more; and/or
    - a redness on the skin of the subject.

11. The use according to any of the preceding claims, wherein in step (A-8) of the method the PBMCs are injected into a sub-topical layer of the skin.

12. The use according to any of the preceding claims, wherein the immunomodulatory substance(s) of step (B) and/or (C) is a cytokine-like acting substance(s), preferably an interferon-like acting substance(s), interleukin-like acting substance(s) and/or neurotrophin-like acting substance(s), more preferably an IFN-γ-like acting substance(s), IL-4-like acting substance(s), BDNF-like acting substance(s) and/or IL-2 like acting substance(s), even more preferably IFN-γ (interferon-gamma), IL-4 (interleukin 4), BDNF (brain-derived neurotrophic factor) and/or IL-2 (interleukin 2) and/or

any derivative, fragment, biopharmaceutical, inductor, precursor, prodrug, mutein, co-drug and/or pharmaceutically acceptable salt of any of these, still more preferably IFN-γ, IL-4, BDNF and/or IL-2.

13. The use according to any of the preceding claims,:

- comprising steps (A) and (B);
- the immunomodulatory substance(s) is IFN-γ, IL-4 and/or BDNF; and
- the immunomodulatory substance(s) to be administered in step (B) is IFN-γ, IL-4 and/or BDNF,

or

- comprising steps (A), (B) and (C);
- the immunomodulatory substance(s) is any of the immunomodulatory substance(s);
- the immunomodulatory substance(s) in step (B) is any of the immunomodulatory substance(s) except for IL-2; and
- the immunomodulatory substance(s) in step (C) is IL-2,

or

- comprisingsteps (A), (B) and (C);
- the immunomodulatory substance(s) is IFN-γ, IL-4, BDNF and/or IL-2;
- the immunomodulatory substance(s) in step (B) is IFN-γ, IL-4 and/or BDNF; and
- the immunomodulatory substance(s) in step (C) is IL-2.

14. The use according to any of the preceding claims,:

- comprising steps (A), (B) and optionally (C);
- the immunomodulatory substance(s) is IFN-γ and/or IL-2;
- the immunomodulatory substance(s) in step (B) is IFN-γ; and
- the immunomodulatory substance(s) in step (C) is IL-2,

or

- comprising steps (A), (B) and optionally (C);
- the immunomodulatory substance(s) is IL-4, BDNF and/or IL-2, preferably IL-4 and/or IL-2;
- the immunomodulatory substance(s) in step (B) is IL-4 and/or BDNF, preferably IL-4; and
- the immunomodulatory substance(s) in step (C) is IL-2.

15. The use according to claims 12 to 14, wherein:

- the IFN-γ is to be administered in an amount of 600 IU/kg body mass of the subject or less; in an amount of 30 ng/kg body mass of the subject or less; in a total amount of 30,000 IU or less; and/or in a total amount of 1,500 ng or less;
- the IL-4 is to be administered in an amount of 20 ng/kg body mass of the subject or less; and/or in a total amount of 1,000 ng or less;
- the BDNF is to be administered in an amount of 10 ng/kg per body mass of the subject or less; and/or in a total amount of 500 ng or less; and/or
- the IL-2 is to be administered in an amount of 10 IU/kg body mass of the subject or less; in an amount of 0.6 ng/kg body mass of the subject or less; in a total amount of 500 IU or less; and/or in a total amount of 30.5 ng or less.

16. The use according to any of the preceding claims, wherein the inflammatory disease, immunological disease and/or autoimmunological disease to be treated and/or prevented comprises, preferably consists of, arthritis, synovitis, tenosynovitis, inflammatory rheumatic disease, Hashimoto's disease, Basedow's disease, Morbus Crohn and/or multiple sclerosis.

17. The use according to any of the preceding claims, wherein

- comprising steps (A), (B) and (C);
- the immunomodulatory substance(s) is any immunomodulatory substance(s), preferably a cytokine(s), more preferably an interferon(s), neurotrophin(s) and/or interleukin(s), even more preferably IL-2;
- the inflammatory disease, immunological disease and/or autoimmunological disease to be treated and/or prevented is any of the inflammatory disease, immunological disease and/or autoimmunological disease to be treated and/or prevented;
- the immunomodulatory substance(s) in step (B) is the immunomodulatory substance(s) except for IL-2; and
- the immunomodulatory substance(s) in step (C) is IL-2,

or

- comprising steps (A) and (B) and optionally (C);
- the immunomodulatory substance(s) is IFN-γ, IL-4 and/or IL-2, preferably IFN-γ and/or IL-2;
- the inflammatory disease, immunological disease and/or autoimmunological disease to be treated and/or prevented is any of the inflammatory disease, immunological disease and/or autoimmunological disease to be treated and/or prevented except for an inflammatory disease of the nervous system, preferably except for multiple sclerosis, preferably is arthritis, synovitis, tenosynovitis, inflammatory rheumatic disease, Hashimoto's disease and/or Basedow's disease, more preferably is arthritis, synovitis, tenosynovitis, rheumatoid arthritis (RA), psoriatic arthritis, polymyalgia rheumatica, Bechterew's disease and/or Basedow's disease;
- the immunomodulatory substance(s) in step (B) is IFN-γ and/or IL-4, preferably is IFN-γ; and
- the immunomodulatory substance(s) in step (C) is IL-2,

or

- comprising steps (A) and (B) and optionally (C);
- the immunomodulatory substance(s) is IL-4, BDNF and/or IL-2, preferably IL-4 and/or IL-2;
- the inflammatory disease, immunological disease and/or autoimmunological disease to be treated and/or prevented is an inflammatory disease of the nervous system, preferably is multiple sclerosis;
- the immunomodulatory substance(s) in step (B) is IL-4 and/or BDNF, preferably IL-4; and
- the immunomodulatory substance(s) in step (C) is IL-2.

18. Use of an immunomodulatory substance(s) and/or skin-conditioning agent in the manufacture of a medicament for use in a method for treating and/or preventing an inflammatory disease, immunological disease and/or autoimmunological disease in a subject, wherein the skin-conditioning agent of step (A-7) of the method is a blood-circulation-increasing agent, vasodilating agent, skin-temperature increasing agent, skin-sO_2-increasing agent and/or skin-rHb-increasing agent, preferably the skin-conditioning agent comprises nitrates, alpha blockers, ACE-inhibitors, ginkgo preparations like gingko balm, calcium antagonists, dihydralazine, minoxidil, dihydroergotoxin, nicotinic acid analogues, vasodilators like methylnicotinat, moxa herbs, capsaicine, pentoxifylline, vasodilator containing crème, methylnicotinat containing crème, Kytta® heat balm and/or any combination thereof.

19. The use according to any of the preceding claims, wherein step (A), step (B) and/or step (C) is performed multiple times.

20. Pharmaceutical composition (I) comprising:

- a skin-conditioning agent; and
- an immunomodulatory substance(s).

21. Pharmaceutical composition (II) comprising:

- an IFN-γ-like acting substance(s);
- an IL-4-like acting substance(s);
- an BDNF-like acting substance(s); and/or
- an IL-2-like acting substance(s),

wherein the pharmaceutical composition is suitable to deliver:

- IFN-γ-like acting substance(s)
  in an amount equivalent to 600 IU IFN-γ/kg body mass of the subject or less;
  in an amount equivalent in activity to 30 ng IFN-γ/kg body mass of the subject or less;
  in a total amount equivalent to 30,000 IU IFN-γ or less; and/or
  in a total amount equivalent in activity to 1,500 ng IFN-γ or less;
- IL-4-like acting substance(s)
  in an amount equivalent in activity to 20 ng IL-4/kg body mass of the subject or less; and/or
  in a total amount equivalent in activity to 1,000 ng IL-4 or less;
- BDNF-like acting substance(s)
  in an amount equivalent in activity to 10 ng BDNF/kg per body mass of the subject or less; and/or
  in a total amount equivalent in activity to 500 ng BDNF or less; and/or
- IL-2-like acting substance(s) in an amount equivalent to 10 IU/kg body mass of the subject or less;
  in an amount of 0.6 ng/kg body mass of the subject or less;
  in a total amount equivalent in activity to 500 IU IL-2 or less; and/or
  in a total amount equivalent in activity to 30.5 ng IL-2 or less.

22. Pharmaceutical composition (II) according to claim 21 comprising:

- IFN-γ;
- IL-4;
- BDNF; and/or
- IL-2,

wherein the pharmaceutical composition is suitable to deliver:

- IFN-γ in an amount of 600 IU/kg body mass of the subject or less; in an amount of 30 ng/kg body mass of the subject or less; in a total amount of 30,000 IU or less; and/or in a total amount of 1,500 ng or less;
- IL-4 in an amount of 20 ng/kg body mass of the subject or less; and/or in a total amount of 1,000 ng or less;

- BDNF in an amount of 10 ng/kg per body mass of the subject or less; and/or in a total amount of 500 ng or less; and/or
- IL-2 in an amount of 10 IU/kg body mass of the subject or less; in an amount of 0.6 ng/kg body mass of the subject or less; in a total amount of 500 IU or less; and/or in a total amount of 30.5 ng or less.

23. Pharmaceutical composition (III), comprising:
    - IFN-γ-like acting substance(s) in a concentration equivalent to 100,000 IU IFN-γ /ml or IU IFN-γ /g or less, or in a concentration equivalent in activity to 5,000 ng IFN-γ /ml or ng IFN-γ /g or less;
    - IL-4-like acting substance(s) in a concentration or equivalent in activity to 1,000 ng IL-4/ml or ng/g or less;
    - BDNF-like acting substance(s) in a concentration equivalent in activity to 1,500 ng BDNF /ml or ng/g or less;
    - IL-2-like acting substance(s) in a concentration equivalent to 100,000 IU IL-2/ml or IU IL-2/g less, or in a concentration equivalent in activity to 6100 ng IL-2/ml or ng IL-2/g or less.

24. Pharmaceutical composition (III) according to claim 23, comprising:
    - IFN-γ in a concentration of 100,000 IU/ml or IU/g or less, or of 5,000 ng/ml or ng/g or less;
    - IL-4 in a concentration of 1,000 ng/ml or ng/g or less;
    - BDNF in a concentration of 1,500 ng/ml or ng/g or less; and/or
    - IL-2 in a concentration of 100,000 IU/ml or IU/g less of IL-2, or of 6100 ng/ml or ng/g or less of IL-2.

25. Pharmaceutical composition (IV) comprising:
    - an IFN-γ-like acting substance;
    - an IL-4-like acting substance;
    - an BDNF-like acting substance; or
    - an IL-2-like acting substance, and

    an immunomodulatory substance(s), wherein in case the pharmaceutical composition (IV) comprises:

    - the IFN-γ-like acting substance, the immunomodulatory substance(s) is different from the IFN-γ-like acting substance;
    - the IL-4-like acting substance, the immunomodulatory substance(s) is different from the IL-4-like acting substance;
    - the BDNF-like acting substance, the immunomodulatory substance(s) is different from the BDNF-like acting substance; and
    - the IL-2-like acting substance, the immunomodulatory substance(s) is different from the IL-2-like acting substance.

26. Injectable dosage form (I), comprising:
    - an IFN-γ-like acting substance;
    - an IL-4-like acting substance;
    - an BDNF-like acting substance; or
    - an IL-2-like acting substance, and

    an immunomodulatory substance(s), wherein in case the injectable dosage form (I) comprises:

- the IFN-γ-like acting substance, the immunomodulatory substance(s) is different from the IFN-γ-like acting substance;
- the IL-4-like acting substance, the immunomodulatory substance(s) is different from the IL-4-like acting substance;
- the BDNF-like acting substance, the immunomodulatory substance(s) is different from the BDNF-like acting substance; and
- the IL-2-like acting substance, the immunomodulatory substance(s) is different from the IL-2-like acting substance.

27. Injectable dosage form (II), comprising:
    - an IFN-γ-like acting substance(s) in a total amount equivalent to 30,000 IU IFN-γ or less and/or in a total amount equivalent in activity to 1,500 ng IFN-γ or less;
    - an IL-4-like acting substance(s) in a total amount equivalent in activity to 1,000 ng IL-4 or less;
    - an BDNF-like acting substance(s) in a total amount equivalent in activity to 500 ng BDNF or less; or
    - an IL-2-like acting substance(s) a total amount equivalent to 1,000 IU IL-2 or less and/or in a total amount equivalent in activity to 61 ng IL-2 or less.

28. Injectable dosage form (II) according to claim 27, comprising:
    - IFN-γ in a total amount of 30,000 IU or less and/or in a total amount of 1,500 ng or less;
    - IL-4 in a total amount of 1,000 ng or less;
    - BDNF in a total amount of 500 ng or less; or
    - IL-2 a total amount of 1,000 IU or less and/or in a total amount of 61 ng or less.

29. Topical dosage form (I) comprising:
    - an IFN-γ-like acting substance;
    - an IL-4-like acting substance;
    - an BDNF-like acting substance; or
    - an IL-2-like acting substance.

30. Topical dosage form (II) comprising:
    - an immunomodulatory substance(s);
    - an energizing constituent.

31. Medical device (100) comprising:
    - a skin-conditioning unit (110); and
    - an applicator unit (120);

    wherein the skin-conditioning unit (110) and the applicator unit (120) are configured to cooperatively interact to administer to a skin (102) of a subject an amount of a first therapeutic agent by means of the applicator unit (120) with an amount of conditioning measures by means of the skin-conditioning unit (110); and/or

    wherein the skin-conditioning unit (110) and the applicator unit (120) are configured to act to a skin (102) of a subject.

32. Kit of parts (I) comprising:
    i) an immunomodulatory substance(s); and

ii) a skin-conditioning agent; and/or

iii) an energizing means.

33. Kit of parts (II) comprising:

i) an IFN-γ-like acting substance, IL 4-like acting substance, BDNF-like acting substance and/or IL-2-like acting substance; and

ii) an immunomodulatory substance(s), wherein in case the Kit of parts (II) comprises:

- the IFN-γ-like acting substance, the immunomodulatory substance(s) is different from the IFN-γ-like acting substance;
- the IL-4-like acting substance, the immunomodulatory substance(s) is different from the IL-4-like acting substance;
- the BDNF-like acting substance, the immunomodulatory substance(s) is different from the BDNF-like acting substance; and
- the IL-2-like acting substance, the immunomodulatory substance(s) is different from the IL-2-like acting substance.

34. Kit of parts (III) comprising:

i) an injectable dosage form according to claim 26 and/or claim 27; and

ii) a skin-conditioning agent; and/or

iii) an energizing means.

35. Kit of parts (IV) comprising:

i) a topical dosage form according to claim 29; and

ii) a skin-conditioning agent; and/or

iv) an energizing means.

36. Kit of parts (V) comprising:

- an applicator unit (120); and
- a skin-conditioning unit (110); and
- optionally a reservoir (121), comprising a first therapeutic agent like an immunomodulatory substance, wherein the reservoir (121) is configured to be fluidly coupled to the applicator unit (120).

37. Pharmaceutical composition (I) according to claim 20;
pharmaceutical composition (II) according to claim 21;
pharmaceutical composition (III) according to claim 23;
pharmaceutical composition (IV) according to claim 25;
injectable dosage form (I) according to claim 26;
injectable dosage form (II) according to claim 27;
topical dosage form (I) according to claim 29;
topical dosage form (II) according to claim 30;
kit of parts (I) according to claim 32;
kit of parts (II) according to claim 33;
kit of parts (III) according to claim 34;
kit of parts (IV) according to claim 35; and/or

kit of parts (V) according to claim 36,

further comprising a pharmaceutically acceptable vehicle, diluent, adjuvant, excipient, carrier, additive and/or salt.

38. Pharmaceutical composition (I) according to claim 20;
pharmaceutical composition (II) according to claim 21;
pharmaceutical composition (III) according to claim 23;
pharmaceutical composition (IV) according to claim 25;
injectable dosage form (I) according to claim 26;
injectable dosage form (II) according to claim 27;
topical dosage form (I) according to claim 29;
topical dosage form (II) according to claim 30;
kit of parts (I) according to claim 32;
kit of parts (II) according to claim 33;
kit of parts (III) according to claim 34; and/or
kit of parts (IV) according to claim 35;

for use as a medicament, preferably for use in the treatment and/or prevention of an inflammatory disease, immunological disease and/or autoimmunological disease.

39. Use of the pharmaceutical composition (I) according to claim 20;
pharmaceutical composition (II) according to claim 21;
pharmaceutical composition (III) according to claim 23;
pharmaceutical composition (IV) according to claim 25;
injectable dosage form (I) according to claim 26;
injectable dosage form (II) according to claim 27;
topical dosage form (I) according to claim 29;
topical dosage form (II) according to claim 30;
medical device (100) according to claim 31;
kit of parts (I) according to claim 32;
kit of parts (II) according to claim 33;
kit of parts (III) according to claim 34;
kit of parts (IV) according to claim 35; and/or
kit of parts (V) according to claim 36,

in the manufacture of a medicament for use in a method for treating and/or preventing an inflammatory disease, immunological disease and/or autoimmunological disease in a subject,

wherein the method comprises a step (A), wherein step (A) is selected from one or more of steps:

(A-0) generating an accumulation of PBMCs within the skin of the subject;

(A-1) generating a vasodilation of the capillaries within the skin of the subject;

(A-2) generating an increased blood volume within the skin of the subject;

(A-3) generating an increased sO_2 within the skin and/or an increased rHb within the skin of the subject;

(A-4) generating an increased temperature on the skin of the subject;

(A-5) generating a redness on the skin of the subject;

(A-6) administering conditioning energy to the skin of the subject;

(A-7) administering a skin-conditioning agent to the skin of the subject; and/or

(A-8) administering PBMCs into the skin of the subject,

and wherein:

(B) an immunomodulatory substance(s) is to be administered to the skin of the subject; and/or

(C) an immunomodulatory substance(s) is to be administered to the skin of the subject,

wherein immunomodulatory substance(s) to be administered in step (C) is different from the immunomodulatory substance(s) to be administered in step (B).

40. Use of the pharmaceutical composition (X), topical dosage form (X), injectable dosage forms (X) and/or kit of parts (X) comprising:

- a skin-conditioning agent; or
- an immunomodulatory substance(s),

in the manufacture of a medicament for use in a method for treating and/or preventing an inflammatory disease, immunological disease and/or autoimmunological disease in a subject,

wherein the method comprises a step (A), wherein step (A) is selected from one or more of steps:

(A-0) generating an accumulation of PBMCs within the skin of the subject;

(A-1) generating a vasodilation of the capillaries within the skin of the subject;

(A-2) generating an increased blood volume within the skin of the subject;

(A-3) generating an increased sO_2 within the skin and/or an increased rHb within the skin of the subject;

(A-4) generating an increased temperature on the skin of the subject;

(A-5) generating a redness on the skin of the subject;

(A-6) administering conditioning energy to the skin of the subject;

(A-7) administering a skin-conditioning agent to the skin of the subject; and/or

(A-8) administering PBMCs into the skin of the subject,

and wherein:

(B) an immunomodulatory substance(s) is to be administered to the skin of the subject; and/or

(C) an immunomodulatory substance(s) is to be administered to the skin of the subject,

wherein immunomodulatory substance(s) to be administered in step (C) is different from the immunomodulatory substance(s) to be administered in step (B).

41. Pharmaceutical composition (I) according to claim 20;
pharmaceutical composition (IV) according to claim 25;
injectable dosage form (I) according to claim 26;
topical dosage form (II) according to claim 30;
kit of parts (I) according to claim 32;
kit of parts (II) according to claim 33;
kit of parts (V) according to claim 36; and/or
pharmaceutical composition (X), topical dosage form (X), injectable dosage forms (X) and/or kit of parts (X) according to claim 40,

wherein the immunomodulatory substance(s) is a cytokine-like acting substance(s),

preferably an interferon-like acting substance(s), interleukin-like acting substance(s) and/or neurotrophin-like acting substance(s),

more preferably an IFN-γ-like acting substance(s), IL-4-like acting substance(s), BDNF-like acting substance(s) and/or IL-2 like acting substance(s),

even more preferably IFN-γ, IL-4, BDNF, IL-2 and/or any derivative, fragment, biopharmaceutical, inductor, precursor, prodrug, mutein, co-drug and/or pharmaceutically acceptable salt of any of these,

still more preferably IFN-γ, IL-4, BDNF and/or IL-2.

42. Pharmaceutical composition (II) according to claim 21;
pharmaceutical composition (III) according to claim 23;
pharmaceutical composition (IV) according to claim 25;
injectable dosage form (I) according to claim 26;
injectable dosage form (II) according to claim 27;
topical dosage form (I) according to claim 29; and/or
kit of parts (II) according to claim 33, wherein

the IFN-γ-like acting substance is IFN-γ and/or any derivative, fragment, biopharmaceutical, inductor, precursor, prodrug, mutein, co-drug and/or pharmaceutically acceptable salt thereof, preferably IFN-γ,

the IL-4-like acting substance is IL-4 and/or any derivative, fragment, biopharmaceutical, inductor, precursor, prodrug, mutein, co-drug and/or pharmaceutically acceptable salt thereof, preferably IL-4,

the BDNF-like acting substance is BDNF and/or any derivative, fragment, biopharmaceutical, inductor, precursor, prodrug, mutein, co-drug and/or pharmaceutically acceptable salt thereof, preferably BDNF, and

the IL-2-like acting substance is IL-2 and/or any derivative, fragment, biopharmaceutical, inductor, precursor, prodrug, mutein, co-drug and/or pharmaceutically acceptable salt thereof, preferably IL-2.

43. Use of the pharmaceutical composition according to any of claims 20, 21, 23 and/or 25 for producing an article, preferably the injectable dosage form according to claims 26 and/or 27, and/or the topical dosage form according to any of claims 29 and/or 30, or use of the pharmaceutical composition according to any of claims 20, 21, 23 and/or 25 and/or the injectable dosage form according to any of claims 26 and/or 27 for producing a medical device, preferably the medical device (100) according to claim 31.