

CLAIMS

1. A system adapted to be implanted in a living body for supplying medical substance, such as insulin, the system comprising:
 - a first module (1) having an inlet port (5) for receiving a transcutaneous injection of the medical substance;
 - a second module (2) having a reservoir (27) for storing the medical substance;
 - a first tube (3), arranged between the first module and the second module to allow the medical substance to flow to or from the reservoir (27); and
 - a catheter (4) connected to the first module for releasing the stored medical substance into the living body,
 wherein the first tube (3) is arranged to allow the first module and second module to be implanted at different locations in the living body.
2. The system of claim 1, wherein the first tube is arranged to allow the medical substance to flow to and from the reservoir (27).
3. The system of claim 1 or claim 2, wherein the first tube (3) is arranged to conduct the medical substance from and to the first module (1) and the second module (2).
4. The system of any of the preceding claims, wherein the first module (1) comprises:
 - a first liquid connection connecting the first tube (3) to the catheter (4);
 - a second liquid connection connecting the inlet port (5) to the first tube (3),
 wherein preferably the first and second connections are formed by a controllable valve.
5. The system of any of the preceding claims, wherein the system, preferably the first module (1), is provided with a power supply, such as a battery, for supplying an electronic power to the system, preferably to both the first module and the second module.
6. The system of any of the preceding claims, wherein the system, preferably the first module (1), is provided with a rechargeable battery, and a charging circuit for receiving a contactless charging signal from a charging device, wherein preferably the charging circuit is provided in or close to the inlet port.

7. The system of claim 6, the system further comprising a charging device for emitting a charging signal for the charging circuit.
8. The system of any of the preceding claims, wherein the first tube (3) provides an electrical connection between the first module (1) to the second module (2).
9. The system of any of the preceding claims, wherein the system, preferably the second module, comprises a pump for pumping the medical substance from and/or to the reservoir.
10. The system of any of the preceding claims, further comprising a glucose sensor for measuring a value representing a level of blood sugar, wherein the system is arranged to control release of the medical substance via the catheter (4) in response to the measured value.
11. The system of any of the preceding claims, wherein a housing of the second module (2) has a closed-off internal volume that receives the reservoir and wherein the reservoir is arranged to change a shape in dependence of an accumulated release of the medical substance, wherein preferably the internal volume further is filled with a material adapted to transform between a liquid phase and a gas phase in in dependence of the internal volume.
12. The system of any of the preceding claims, wherein the first module is arranged in a first housing (11), wherein the inlet port (5) comprises a self-sealing material, preferably comprising rubber.
13. The system of claim 12, wherein the inlet port (5) is preferably one or more of:
 - dome-shaped;
 - positioned on a generally flat side of the first housing;
 - shaped to extend from the first housing.
14. The system of claim 12, wherein the inlet port (5) towers from the first housing in a range between 1 cm and 4 cm, preferably between 0.5 cm and 8 cm.
15. The system of any of the preceding claims, wherein the first module (1) comprises a control circuit (50) for controlling the second module (2) to release the stored medical

substance via the catheter (4), preferably comprising a memory that can contain instructions for configuring the release of medical substance.

16. The system of any of the preceding claims, wherein the catheter is connected to the first module (1), wherein the first module comprises three operation modes, wherein:
 - in a first mode, the first module is configured to allow the medical substance to flow from the first tube (3) to the catheter (4);
 - in a second mode, the first module is configured to allow the medical substance to flow from the inlet port (5) to the first tube (3); and
 - in a third mode, the first module is configured to allow fluid to flow from the inlet port (5) to the catheter (4) for rinsing the catheter.
17. The system of any of the preceding claims, wherein the first module is adapted to be positioned subcutaneous and the second module is adapted to be positioned deeper than the first module in the living body.
18. The system of any of the preceding claims, wherein the second module is arranged in a housing (21), wherein the first tube (3) has a length between 4cm and 15cm.
19. The system of any of the preceding claims, wherein the first module (1) is arranged in a first housing (11), the second module (2) is arranged in a second housing (21), and at least one of the first housing and second housing have a plate-like shape, preferably having one or more rounded edges, preferably having a generally rectangular shape.
20. The system of any of the preceding claims, the housing of the second module having a plate-like shape having a general bar shape, preferably a wind shield shape, preferably having a
 - top face (21a) and a bottom face (21b) and preferably four side faces (21c), wherein the top face and the bottom face are connected to the side faces over two curved edges (23) and over two generally straight edges (24), wherein preferably the top face and/or the bottom face are curved in a direction perpendicular to the straight edges thereof, the top face and the bottom face preferably having a different curvature.

21. The system of any of the preceding claims, wherein the first module (1) comprises a magnet or an electromagnetic coil, preferably in or close to the inlet port, to be attracted by an electromagnetic force generated outside the living human body.
- 5 22. The system of claim 21, further comprising a locator device for locating the first module by an electromagnetic force.