Claims

1. A medical implant (1) that is adapted to close a defect or a cavity, wherein
the medical implant (1) comprises an occlusion device (6),
the medical implant (1) comprises two states and is adapted to, in a first state, be deployed to a defect site (D), where it can be brought into a second state by an activation mechanism and is adapted to close said defect (D) or cavity in said second state.

2. A medical implant (1) according to claim 1, wherein the medical implant (1) comprises at least one peripheral disk (5), preferably at least two peripheral disks (5).

3. A medical implant (1) according to claim 2, wherein the at least one peripheral disk (5), preferably the at least two peripheral disks (5), are adapted to mechanically anchor the occlusion device (6).

4. A medical implant (1) according to one of the claims 2 or 3, wherein the occlusion device (6) is connected or connectable to at least one peripheral disk (5) by an interconnector (20), preferably at least one out of a group of suture, wire, and strut.

5. A medical implant (1) according to one of the preceding claims, comprising a braided structure (3), preferably a braided structure (3) of PLLA and/or PLGA, wherein the medical implant (1) is adapted such that it has a substantially elongated shape in its first state, and comprises at least one, preferably two, disks (5) that extend orthogonally from its longitudinal axis (L) in its second state.

6. A medical implant (1) according to claim 5, further comprising at least one radio-opaque marking (7), preferably a cuff, preferably located along a longitudinal axis (L) of the medical implant (1).

7. A medical implant (1) according to one of the claims 5 or 6, wherein the braided structure (3) comprises at least one inner cavity (13) that is at least partially filled, preferably completely filled, with an adhesive (14), preferably a dehydrated adhesive, wherein the cavity (13) is located on the inside of the braided structure (3).

8. A medical implant (1) according to one of the preceding claims, wherein the medical implant (1) comprises an adhesive composition (14), wherein in the first state, the adhesive composition (14) is contained in the medical implant (1) and the medical implant (1) is adapted to release said adhesive composition (14) in its second state.

9. A medical implant (1) according to claim 8, wherein the medical implant (1) comprises at least one cavity (13), and wherein said adhesive composition (14) is disposed within said at least one cavity (13), and said at least one cavity (13) is adapted to selectively release the adhesive composition (14).

10. A medical implant (1) according to one of the claims 8 or 9, wherein the medical implant (1) is adapted such that the adhesive composition (14) is released upon mechanical deformation, preferably mechanical compression.

11. A medical implant (1) according to one of the claims 2 to 4 and claim 10, wherein the at least one peripheral disk (5), preferably by the at least two peripheral disks (5), are adapted to selectively apply a mechanical deformation,

preferably the mechanical pressure, to the occlusion device (6).

12. A medical implant (1) according to one of the claims 8 to 11, wherein the medical implant (1) comprises at least two cavities (13), preferably arranged in proximity to the outer surface (17), and the adhesive composition (14) comprises at least two components that are individually disposed in the at least two cavities (13).

13. A medical implant (1) according to one of the claims 8 to 12, wherein the adhesive composition (14) is adapted to be curable by mixing of the at least two components.

14. A medical implant (1) according to one of the claims 8 to 13, wherein the adhesive composition (14) is adapted to be gradually curable, preferably by exposure to electromagnetic radiation.

15. A medical implant (1) according to one of the preceding claims, wherein the adhesive composition (14) is adapted to be curable by exposure to electromagnetic radiation.

16. A medical implant (1) according to one of the claims 8 to 15, wherein the medical implant (1) comprises, preferably consists of, an expandable material, preferably a shape memory material, even more preferably an alginate-based shape memory material.

17. A medical implant (1) according to claim 16, wherein the shape memory material is adapted to expand upon deployment and occlude said defect (D) upon expansion.

18. A medical implant (1) according to one of the preceding claims, wherein the medical implant (1) comprises a central diameter (16), and two peripheral diameters (15), the cen-

tral diameter (16) being smaller than the peripheral diameters (15), such that the medical implant (1) comprises a dumbbell shape.

19. A medical implant (1) according to one of the preceding claims, wherein the occlusion device (6) comprises pericardial tissue (21), preferably arranged on the outer surface (17) of the implant (1).

20. A medical implant (1) according to one of the preceding claims, wherein the occlusion device (6) comprises a material that is flexible in the first state and becomes stiff in the second state, preferably upon exposure to electromagnetic radiation.

21. A medical implant (1) according to one of the preceding claims, wherein the medical implant (1) comprises a distal end that is stiffer than its proximal end such that the distal end is adapted to serve as a cap towards the left atrium.

22. A medical implant (1) according to one of the preceding claims, wherein the implant (1) comprises a dead-end cavity (18) inside the medical implant (1), preferably a cavity (13) that is adapted to receive a balloon catheter, preferably a cavity (13) with an elongated shape.

23. A medical implant (1) according to one of the preceding claims, wherein the implant (1) is self-expanding.

24. A medical implant (1) according to one of the preceding claims, wherein the implant (1) is at least partially transparent to light, in particular to visible, ultraviolet and/or infrared light, in particular along a longitudinal axis (L) of the implant (1).

25. A medical implant according to one of the preceding claims, wherein the implant has one of a size and a shape that at least partially, preferably entirely, substantially corresponds to a human left atrial appendage.

26. A medical implant according to one of the preceding claims, wherein the implant has a first and a second section along a longitudinal axis, wherein the first section has a larger cross-section in a plane perpendicular to the longitudinal axis than the second section.

27. A medical implant according to one of the preceding claims, wherein the implant has a flat shape.

28. A medical implant according to one of the preceding claims, wherein the implant has at least one section with a diameter in the range of 10-25 mm, preferably 15-20 mm.

29. A delivery device (100) carrying a medical implant (1) according to one of the claims preceding claims.

~~30. Method of closing a cavity in a patient, preferably a left atrial appendage, characterized in that the cavity is closed with a medical implant according to one of the claims 1 to 28.~~

~~31. Method of closing a defect in a patient, preferably a defect in an atrial or septal wall, characterized in that the defect is closed with a medical implant according to one of the claims 1 to 28.~~

~~32. Method of treating a paravalvular leak in a patient, wherein the leak is formed by an opening between a valvular implant and the patient's tissue, characterized in that the~~

~~opening is at least partially, preferably completely, closed with a medical implant according to one of the claims 1 to 28.~~

~~33. Method of producing a medical implant, preferably a medical implant according to one of the claims 1 to 28, comprising the steps of~~

~~- imaging an area to be treated, in particular one of an opening, a defect, and a cavity;~~
~~- determining at least one of a size and a shape of the area to be treated;~~
~~- Designing the implant such as to have the at least same size and/or shape as the area to be treated.~~

~~34. Method of closing a cavity in a patient, preferably a left atrial appendage, comprising a step of sealing an area outside of the cavity, and applying an negative pressure to the cavity such as to collapse the cavity, further comprising at least one of the steps of filling the collapsed cavity with an adhesive and sealing the collapsed cavity permanently.~~

~~35. A treatment device for treating a cavity in a patient, preferably a left atrial appendage, comprising a sealing member adapted to at least temporarily seal the cavity, further comprising a fluid transmission line adapted to at least apply an negative pressure and/or transport a fluid to an area distal of the sealing member such as to collapse the cavity.~~