

**Claims**

1. An implantable leadless pacemaker (1) configured to provide antibradycardia pacing of a human or animal heart, comprising:
  - 5 - an electrical energy source (120),
  - a sensor (140) configured to sense intracardiac potentials of the heart,
  - a pulse generator (140) configured to generate electrical pacing pulses,
  - a control unit (140) for controlling the pulse generator, wherein the control unit is configured to inhibit generation of an electrical pacing pulse when an intracardiac potential is sensed, wherein the control unit is further configured to permanently switch off the pulse generator after passing of a predetermined timespan and/or after a pre-defined event detected by the pacemaker (1),
  - 10 - an electrode pole (220, 250) for electrical stimulation and sensing intracardiac potentials,
  - 15 - at least one fastening element (230, 260) for fastening the pacemaker (1) to heart tissue, wherein
  - the implantable leadless pacemaker (1) is adapted such that a lifetime of the implantable leadless pacemaker (1) is smaller than one year, particularly smaller than one month, particularly smaller than two weeks.
- 20 2. The implantable leadless pacemaker according to claim 1, **wherein** the electrical energy source (120) is a solid state battery.
3. The implantable leadless pacemaker according to claim 1 or 2, **wherein** the electrical energy source comprises a capacity in the range from 0,1 mAh to 30 mAh.
- 25 4. The implantable leadless pacemaker according to claim 1 to 3, **wherein** a volume of the implantable leadless pacemaker (1) is smaller than 0.5 cm<sup>3</sup>, preferably smaller than 0.2 5cm<sup>3</sup>, preferably smaller than 0.1 5cm<sup>3</sup>, preferably smaller than 0.1 cm<sup>3</sup>.
- 30 5. The implantable leadless pacemaker according to one of the preceding claims, **wherein** at least the electrical energy source (120), the sensor (140), the pulse

generator (140) and the control unit (140) are one of: embedded in a liquid crystal polymer, coated with parylene, encapsulated in a silicone, encapsulated in an epoxy resin, encapsulated in a metallic housing, encapsulated in a ceramic housing.

- 5 6. The implantable leadless pacemaker according to one of the preceding claims, **wherein** the implantable leadless pacemaker (1) comprises an elongated housing (210) carrying the electrical energy source (120), the sensor (140), the pulse generator (140), the control unit (140) and the electrode pole (220, 250), wherein particularly the housing is flexible or comprises a flexible portion.
- 10 7. The implantable leadless pacemaker according to one of the preceding claims, **wherein** the implantable leadless pacemaker (1) is configured to detect another implanted pacemaker and to automatically switch off delivering electrical stimulation pulses in case another implanted pacemaker is detected.
- 15 8. The implantable leadless pacemaker according to one of the preceding claims, **wherein** the implantable leadless pacemaker (1) is configured to operate in VVI mode.
- 20 9. The implantable leadless pacemaker according to one of the preceding claims, **wherein** the implantable leadless pacemaker (1) comprises a stimulation frequency in the range from 40 bpm to 55 bpm.
- 25 10. The implantable leadless pacemaker according to one of the preceding claims, **wherein** the implantable leadless pacemaker (1) comprises a frequency hysteresis function.
11. The implantable leadless pacemaker according to one of the preceding claims, **wherein** the implantable leadless pacemaker (1) is MRI-compatible.
- 30 12. The implantable leadless pacemaker according to one of the preceding claims, **wherein** the implantable leadless pacemaker (1) comprises a steroid-releasing reservoir to avoid increases in stimulus thresholds after implantation.

13. A method for anti-bradycardia stimulation of the human or animal heart, wherein the method comprises the steps of: implanting a leadless pacemaker (1) for temporary or permanent placement in the heart; delivering demand-driven electrical stimulation to the heart using the pacemaker (1) for a predetermined period of time in the range from one day to three months; and permanently deactivating delivery of electrical stimulation to the heart via the pacemaker (1) after a pre-determined timespan has passed and/or after a pre-determined event is detected by the implanted leadless pacemaker.
14. The method according to claim 13, **wherein** the method further comprises explanting the implantable leadless pacemaker (1).
15. The method according to claim 13 or 14, **wherein** the method further comprising activating and/or programming the implantable leadless pacemaker (1) before or during implantation.