Claims

1. An EEG monitor adapted for being arranged in the ear region of a person and comprising a housing holding a power supply and an EEG signal processor, said EEG monitor further comprising an EEG sensing part having EEG electrodes, said EEG sensing part adapted for arrangement subcutaneously at the scalp or in the ear canal of said person, wherein said housing is individually shaped to fit behind or above an ear of said person and into the cleft between a pinna and the skull of said person.

2. The EEG monitor according to claim 1, wherein said housing has been fully or partly manufactured by a 3D printing technology based on a scanning of said person's ear region or on a scanning of an imprint of said person's ear region.

3. The EEG monitor according to claim 1 or 2, wherein said EEG sensing part is adapted for subcutaneous implantation behind the ear of said person, and said EEG monitor comprises an inductive link between said EEG sensing part and said EEG signal processor in said housing.

4. The EEG monitor according to claim 3, wherein said inductive link comprises a first coil in said EEG sensing part, and a second coil in said housing.

5. The EEG monitor according to claim 4, wherein said housing is shaped and said second coil being arranged in said housing such that when positioned behind the ear of said person said first and said second coils are aligned.

6. The EEG monitor according to any one of the claims 3 - 5, wherein said housing is provided with a recessed area, situated at the area of the housing adapted to abut the skin at the spot where the EEG sensing part is implanted below the skin.

7. The EEG monitor according to any one of the preceding claims, wherein the housing is individually shaped to fit into the cleft between a pinna and the skull of said

person, and wherein at least a part of a surface of said housing is configured to abut skin over the skull of said person and wherein said at least the part of the surface of said housing is provided with a surface texture, the surface texture configured to allow for air circulation between said housing and said skin over the skull.

8. The EEG monitor according to claim 7, wherein said surface texture comprises a number of grooves.

9. The EEG monitor according to any one of the preceding claims, wherein said housing is connectable with a fastening device for securing the housing in the correct position during sport or when sleeping.

10. The EEG monitor according to claim 1, wherein said sensing part is adapted to be arranged in said ear canal and wherein the shape of said sensing part is fitted to the shape of said ear canal based on a scanning of said ear canal.

11. The EEG monitor according to claim 1 or 10, wherein said sensing part is adapted to be arranged in said ear canal and a connection comprising a wire connects said housing with said sensing part, wherein said connections is provided with a shape and stiffness such that it will function as a fastener holding the EEG monitor.

12. A method for providing an individually fitted housing for an EEG monitor according to claim 1, wherein the sensing part of said EEG monitor is external to said housing, said method comprising the steps of

- determining a preferred position of said housing,
- scanning a contour of this preferred position,
- establishing a computerized model of said housing from the scanned contour,
- designing an individually fitted housing based on the computerized model, and
- printing said housing.

13. The method according to claim 12, comprising a step of placing a second coil in said housing such that it, when in use, will be aligned with a first coil of an implanted sensing part, thereby forming an inductive link.

14. The method according to claim 12, wherein said sensing part is adapted to be arranged in the ear canal of said person who is to apply said EEG monitor, said method further comprising a step wherein the shape of said sensing part is fitted to the shape of said ear canal including performing a scanning of said ear canal.