CLAIMS

1. A mobile device for detecting an electrical signal generated by an ingestible event marker, the mobile device comprising:

a detection subsystem to receive an electrical signal generated by an ingestible event marker from a detection arrangement;

a processing subsystem coupled to the detection subsystem to decode the electrical signal; ~~and~~

an application software program comprising a series of computer executable instructions executable by the processing subsystem; and

a radio subsystem configured to transmit the decoded electrical signal to a wireless node; wherein when the computer executable instructions are executed by the processing subsystem causes the radio subsystem to initiate communication with the wireless node.

2. The mobile device of claim 1, wherein the detection subsystem comprises an electrode input circuit to receive the electrical signal from the detection arrangement.

3. The mobile device of claim 1, comprising a connector to receive a plug coupled to the detection arrangement.

4. The mobile device of claim 1, comprising a housing, wherein the detection arrangement is integrated with the housing.

~~5. The mobile device of claim 1, comprising an application software program comprising a series of computer executable instructions executable by the processing system, wherein when the computer executable instructions are executed by the processing subsystem causes the radio subsystem to initiate communication with the wireless node.~~

5~~6~~. A system for detecting an electrical signal generated by an ingestible event marker, the system comprising:

a mobile device;

a detection arrangement to couple to the mobile device;

a detection subsystem to receive an electrical signal generated by an ingestible event marker from the detection arrangement;

a processing subsystem coupled to the detection subsystem to decode the electrical signal; ~~and~~

an application software program comprising a series of computer executable instructions executable by the processing subsystem; and

a radio subsystem configured to transmit the decoded electrical signal to a wireless node; wherein when the computer executable instructions are executed by the processing subsystem causes the radio subsystem to initiate communication with the wireless node.

6~~7~~. The system of claim 5~~6~~, wherein the detection subsystem comprises an electrode input circuit to receive the electrical signal from the detection arrangement.

7~~8~~. The system of claim 5~~6~~, wherein the mobile device comprises a connector coupled to the electrode input circuit and the detection arrangement comprises a plug to be received in the connector.

8~~9~~. The system of claim 5~~6~~, wherein the mobile device comprises a housing, and wherein the detection arrangement is integrated with the housing.

~~10. The system of claim 6, comprising an application software program comprising a series of computer executable instructions executable by the processing system, wherein when the computer executable instructions are executed by the processing subsystem causes the radio subsystem to initiate communication with the wireless node.~~

911. The system of claim 56, comprising a cover to receive the mobile device, wherein the detection subsystem is located in the enclosing arrangement.

1012. The system of claim 911, wherein the processing subsystem is located in the cover.

1113. The system of claim 911, wherein the cover comprises a connector to couple to the detection subsystem of the processing to receive the processing subsystem of the mobile device.

1214. The system of claim 56, wherein the detection arrangement comprises:

at least one electrode to couple to a living body; and

a plug having a first end wiredly coupled to the at least one electrode and a second end wiredly coupled to a connector of the mobile device to wiredly connect the at least one electrode to the detection subsystem of the mobile device.

1315. The system of claim 56, wherein the detection arrangement comprises:

at least one electrode to couple to a living body;

a detection circuit module coupled to the at least one electrode; and

an antenna coupled to the detection circuit module.

1416. The system of claim 1315, wherein the detection arrangement is wirelessly coupled to the mobile device.

1517. The system of claim 56, wherein the detection arrangement is located in a suitable ordinary object.

1618. The system of claim 1517, wherein the ordinary object is selected from the group consisting essentially of headphones with ear buds, a mobile device, a mobile device cover, eyeglasses, a visor, and a helmet.

1719. A method of processing an electrical signal generated by an ingestible event marker, the method comprising:

receiving an electrical signal generated by an ingestible event marker at a mobile device;

decoding the electrical signal received by the mobile device to extract information associated with the ingestible event marker; and

executing a series of computer executable instructions to cause a radio subsystem to initiate communication with a wireless node; and

transmitting the information to thea wireless node.

1820. The method of claim 1719, further comprising transmitting the information to a remote node.