However, there continues to be a need for improvements in personal event monitoring. For example, manually logging when an event takes place can be time consuming and prone to error.

SUMMARY

The present invention provides for rapid and simple notation of a personal event of interest, i.e., an event that is specific to a given individual. The event may vary widely, ranging from onset of a physiological parameter of interest, e.g., a disease symptom, the start of a given activity, the administration of a therapeutic agent, etc. Notation or marking of personal events according to the present invention finds application in a variety of different applications, including medical and non-medical applications.

The present invention is made possible through an inventive system that includes an ingestible event marker (i.e., an IEM) and a personal signal receiver. Embodiments of the IEM include an identifier, which may or may not be present in a physiologically acceptable carrier. The identifier is characterized by being activated upon contact with a target internal physiological site of a body (e.g., a specific target environment, including a target chemical environment, target physical environment etc.), such as digestive tract internal target site. The personal signal receiver is configured to be associated with a physiological location, e.g., inside of or on the body, and to receive a signal from the IEM. During use, the IEM broadcasts a signal which is received by the personal signal receiver. Where desired, the signal receiver performs one or more subsequent operations, such as relaying the signal to a third external device, recording the signal, processing the recorded signal with additional data points, etc.

According to an aspect of the invention, an ingestible event marker is disclosed, the ingestible event marker comprising: a battery section including two electrodes to supply a battery voltage upon contacting a body fluid, an IC circuit to generate an identification code through the two electrodes by changing a current flowing through the body fluid from the two electrodes, wherein the IC circuit comprises: a control logic to generate a coded signal representing the identification code, a power supply coupled to the control logic, and a capacitor coupled to the control logic and the power supply circuit, the capacitor chargeable by the battery voltage.

According to another aspect of the invention, an ingestible event marker is disclosed, the ingestible event marker comprising: a battery section including two electrodes to supply a battery voltage upon contacting a body fluid, an IC circuit comprising: switch to change an impedance between the two electrodes to generate an identification code through the two electrodes by changing a current flowing through the body fluid from the two electrodes, a power supply circuit coupled to the switch, and a capacitor coupled to the power supply circuit, the capacitor chargeable by the battery voltage.

BRIEF DESCRIPTION OF THE FIGURES

FIG. 1 provides a diagrammatic representation of an identifier according to an embodiment of the invention.

FIG. 2 provides detail of certain implementations of an electronic circuit of various embodiments of the invention.

FIG. 3 illustrates an exemplary device configuration of an IEM IC in accordance with one embodiment of the present invention.