

# Health and Wellness on the Beat

<https://www.neurodegenerationresearch.eu/survey/health-and-wellness-on-the-beat/>

## **Principal Investigators**

**Institution**

**Contact information of lead PI**

**Country**

European Commission

## **Title of project or programme**

Health and Wellness on the Beat

## **Source of funding information**

European Commission FP7-Seventh Framework Programme

## **Total sum awarded (Euro)**

€ 2,942,000

## **Start date of award**

01/10/2013

## **Total duration of award in years**

3.0

## **The project/programme is most relevant to:**

Parkinson's disease & PD-related disorders

## **Keywords**

### **Research Abstract**

There is a tight link between the rhythm of external information (e.g., auditory) and movement. It can be seen when we spontaneously or deliberately move on the beat of music (e.g., in dance), or when we enjoy performing physical and sport activities (e.g., running or cycling) together with music. This propensity to match movement to rhythm is natural, develops very precociously, and is likely hard-wired in humans, as shown by cognitive sciences and neurosciences. In this proposal, we exploit this compelling link between music and movement for boosting individual performance and enhancing health and wellness. This goal will be achieved by creating an intelligent technological architecture – BeatHealth. Our architecture will deliver embodied, flexible, and efficient rhythmical stimulation adapted to the individual's skills with the goal of enhancing or recovering features of movement performance (i.e., kinematics and physiological performance). This endeavour is highly multidisciplinary. It involves (i) fundamental research aimed at improving information parameters, for maximizing the beneficial effects of rhythmic stimulation on movement kinematics and physiology, (ii) technological development to achieve

state-of-the-art system reliability, flexibility, and portability of the BeatHealth architecture, and (iii) the creation of a new IT service in the form of a network-based application for collecting on the fly kinematic data and sharing them with online with others (e.g., medical doctors, family, coach, etc). The beneficial effects of BeatHealth will be evaluated in patients with movement disorders (i.e., Parkinson's disease), and in healthy citizens of various ages with moderate physical activity.

### **Lay Summary**

**Further information available at:**

#### **Types:**

Investments > €500k

#### **Member States:**

European Commission

#### **Diseases:**

Parkinson's disease & PD-related disorders

#### **Years:**

2016

#### **Database Categories:**

N/A

#### **Database Tags:**

N/A