**ABSTRACT**

Muscle Stimulation System

According to one aspect of the invention, there is provided a muscle stimulation system for effecting appendage movement, the muscle stimulation system comprising: first transceiver circuitry; at least one first implantable stimulation device for implantation adjacent to one or more first muscles responsible for the appendage movement, the first implantable stimulation device configured to be wirelessly activated by the first transceiver circuitry; second transceiver circuitry; at least one second implantable stimulation device for implantation adjacent to one or more second muscles responsible for the appendage movement, the second implantable stimulation device configured to be wirelessly activated by the second transceiver circuitry; and a base station configured to wirelessly communicate with both the first transceiver circuitry and the second transceiver circuitry to receive and transmit signals that causes coordinated activation of the first implantable stimulation device and/or the second implantable stimulation device to coordinate stimulation of the first muscles and/or the second muscles that are responsible for the appendage movement.

Figure 2