Osseointegrated Neural Interface And Method

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The Invention

An osseointegrated neural interface (ONI) is provided for control of a prosthetic. The ONI includes an elongated, hollow rod having a first end receivable in an intramedullary cavity of a bone, a second end operatively connected to the prosthetic and an inner surface defining a cavity. An electrode is receiveable on a terminal end of a peripheral nerve and positionable within the cavity of the rod. The electrode being capable of sensing the neural signals generated by the peripheral nerve and stimulating the peripheral nerve. A recording/stimulation unit, receiveable within the cavity of the rod, records the neural signals from the peripheral nerve sensed by the electrode and transmits the signals to a controller operatively connected thereto. The controller controls operation of the prosthetic in response to the neural signals recorded by the recording unit. In addition, the controller receives stimulation signals from a sensor in the prosthetic and causes the electrode to stimulate the peripheral nerve via the recording/stimulation unit in response thereto.

Additional Information

For More Information About the Inventors

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Tech Fields

- Medical Devices : Neurological devices

For current licensing status, please contact Jeanine Burmania at jeanine@warf.org or 608-960-9846