



US009409021B2

(12) **United States Patent**  
**Kishawi et al.**

(10) **Patent No.:** **US 9,409,021 B2**  
(45) **Date of Patent:** **Aug. 9, 2016**

(54) **SELECTIVE STIMULATION SYSTEMS AND SIGNAL PARAMETERS FOR MEDICAL CONDITIONS**

(58) **Field of Classification Search**  
None  
See application file for complete search history.

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/726,359**

(22) Filed: **May 29, 2015**

(65) **Prior Publication Data**

US 2015/0258338 A1 Sep. 17, 2015

**Related U.S. Application Data**

(62) Division of application No. 12/607,009, filed on Oct. 27, 2009, now Pat. No. 9,056,197.

(60) Provisional application No. 61/108,836, filed on Oct. 27, 2008.

(51) **Int. Cl.**  
**A61N 1/36** (2006.01)  
**A61N 1/05** (2006.01)  
**A61N 1/372** (2006.01)

(52) **U.S. Cl.**  
CPC ..... **A61N 1/36071** (2013.01); **A61N 1/0551** (2013.01); **A61N 1/36157** (2013.01); **A61N 1/37247** (2013.01)

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(57) **ABSTRACT**

Devices, systems and methods are provided for targeted treatment of a variety of conditions, particularly conditions that are associated with or influenced by the nervous system, such as pain. Targeted treatment of such conditions is provided with minimal deleterious side effects, such as undesired motor responses or undesired stimulation of unaffected body regions. This is achieved by directly neuromodulating a target anatomy associated with the condition while minimizing or excluding undesired neuromodulation of other anatomies.

**9 Claims, 26 Drawing Sheets**

