

Title (en)  
SYSTEMS AND METHODS FOR NEUROLOGIC REHABILITATION

Title (de)  
SYSTEME UND VERFAHREN ZUR NEUROLOGISCHEN REHABILITATION

Title (fr)  
SYSTÈMES ET PROCÉDÉS POUR RÉÉDUCATION NEUROLOGIQUE

Publication  
**EP 4027870 A4 20230816 (EN)**

Application  
**EP 20862953 A 20201112**

Priority

- US 201916569388 A 20190912
- US 201962934457 P 20191112
- US 2020060220 W 20201112

Abstract (en)  
[origin: WO2021051118A1] A method and system for rehabilitation of a patient having a physical impairment by providing repetitive motion therapy is disclosed. The system is configured to receive biomechanical data from the patient regarding repetitive movements of the patient performed using a first and second side of the body, respectively, and select, based on the data, an entrainment side according to which repetitive motion therapy is provided. The system further performs repetitive motion therapy by: providing the patient auditory stimulus comprising beat signals output at respective beat times; receiving time-stamped biomechanical data for repetitive movements performed by the patient using the entrainment side in relation to the respective beat times of the beat signals; calculating an entrainment potential for the entrainment side by comparing a timing of the repetitive movements to the timing of the beat signals; and modifying the auditory stimulus as a function of the calculated entrainment potential.

IPC 8 full level  
**A61B 5/00** (2006.01); **A61B 5/103** (2006.01); **A61B 5/11** (2006.01); **A61M 21/00** (2006.01)

CPC (source: EP KR)  
**A61B 5/112** (2013.01 - EP KR); **A61B 5/1122** (2013.01 - EP KR); **A61B 5/4836** (2013.01 - KR); **A61B 5/486** (2013.01 - KR); **A61B 5/7405** (2013.01 - EP KR); **A61B 5/7455** (2013.01 - EP KR); **A61M 21/00** (2013.01 - EP KR); **A61B 5/1038** (2013.01 - EP); **A61B 5/1128** (2013.01 - EP); **A61B 5/4836** (2013.01 - EP); **A61B 2505/09** (2013.01 - EP KR); **A61M 2021/0027** (2013.01 - EP KR); **A61M 2021/0044** (2013.01 - EP KR); **A61M 2205/3306** (2013.01 - EP KR); **A61M 2205/332** (2013.01 - EP KR); **A61M 2205/3553** (2013.01 - EP KR); **A61M 2205/3569** (2013.01 - EP KR); **A61M 2205/3592** (2013.01 - EP); **A61M 2205/502** (2013.01 - EP KR); **A61M 2205/52** (2013.01 - EP KR); **A61M 2205/581** (2013.01 - EP KR); **A61M 2205/582** (2013.01 - EP); **A61M 2205/583** (2013.01 - EP KR); **A61M 2209/088** (2013.01 - EP); **A61M 2230/04** (2013.01 - KR); **A61M 2230/40** (2013.01 - KR); **A61M 2230/42** (2013.01 - EP); **A61M 2230/60** (2013.01 - EP KR); **A61M 2230/63** (2013.01 - EP KR)

C-Set (source: EP)  
**A61M 2230/63 + A61M 2230/005**

Citation (search report)

- [X] WO 2017181093 A1 20171019 - MEDRHYTHMS INC [US]
- [A] WO 2019023256 A1 20190131 - MEDRHYTHMS INC [US]
- See also references of WO 2021051118A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2021051118 A1 20210318**; CA 3151186 A1 20210318; CN 114630613 A 20220614; EP 4027870 A1 20220720; EP 4027870 A4 20230816; JP 2022548358 A 20221118; JP 7510499 B2 20240703; KR 20220117867 A 20220824

DOCDB simple family (application)  
**US 2020060220 W 20201112**; CA 3151186 A 20201112; CN 202080076036 A 20201112; EP 20862953 A 20201112; JP 2022516364 A 20201112; KR 20227012046 A 20201112