

Title (en)

METHODS AND SYSTEMS TO ESTIMATE NUTRITIONAL NEEDS OF HUMAN AND OTHER PATIENTS AND TO SUPPORT SUCH NUTRITIONAL NEEDS

Title (de)

VERFAHREN UND SYSTEME ZUR BESTIMMUNG DES NÄHRSTOFFBEDARFS MENSCHLICHER UND ANDERER PATIENTEN UND ZUR DECKUNG DIESES NÄHRSTOFFBEDARFS

Title (fr)

PROCÉDÉS ET SYSTÈMES POUR ESTIMER LES BESOINS NUTRITIONNELS DE PATIENTS HUMAINS ET D'AUTRES PATIENTS ET POUR PRENDRE EN CHARGE DE TELS BESOINS NUTRITIONNELS

Publication

EP 2912161 A4 20160824 (EN)

Application

EP 13848522 A 20131024

Priority

- US 201261795819 P 20121025
- US 201313903929 A 20130528
- US 201313903936 A 20130528
- US 201313903939 A 20130528
- US 201313957813 A 20130802
- US 201313957872 A 20130802
- US 201313957977 A 20130802
- US 201314043703 A 20131001
- US 201314061640 A 20131023
- US 2013066597 W 20131024

Abstract (en)

[origin: WO2014066628A2] Systems, techniques and methods for estimating the metabolic state or flux, e.g., the body energy state (BES) of a patient, are disclosed. The BES provides a deep insight into the nutritional needs of the patient, thus allowing for a sort of exquisite glycemic control with regard to the patient. The invention discloses systems and methods for estimating fractional gluconeogenesis. The invention also discloses systems and methods for estimating and targeting patient blood lactate concentration, both as a target itself and as an intermediate step to estimating and targeting patient fractional gluconeogenesis glucose production. Nutritional support methods and formulations are also disclosed. The invention is suitable for any sort of patient, including those who are injured, such as with traumatic brain injury, ill, or have other conditions that stress the metabolic system.

IPC 8 full level

A61K 31/047 (2006.01); **A23L 33/00** (2016.01)

CPC (source: EP US)

A23L 33/30 (2016.07 - EP); **A61K 9/0029** (2013.01 - EP); **A61K 31/047** (2013.01 - EP); **A61K 31/19** (2013.01 - EP); **A61K 31/22** (2013.01 - EP); **A61K 33/00** (2013.01 - EP); **A61K 33/06** (2013.01 - EP); **A61K 33/42** (2013.01 - EP); **A61P 3/02** (2017.12 - EP); **G01N 33/66** (2013.01 - US)

Citation (search report)

- [A] US 2009285909 A1 20091119 - LEVERVE XAVIER M [FR]
- [A] US 2008275136 A1 20081106 - GRYNBERG ALAIN [FR], et al
- [AP] LARS W. ANDERSEN ET AL: "Etiology and Therapeutic Approach to Elevated Lactate Levels", MAYO CLINIC PROCEEDINGS, vol. 88, no. 10, 1 October 2013 (2013-10-01), US, pages 1127 - 1140, XP055288931, ISSN: 0025-6196, DOI: 10.1016/j.mayocp.2013.06.012
- [A] CAROLE BERTHET ET AL: "Neuroprotective role of lactate after cerebral ischemia", JOURNAL OF CEREBRAL BLOOD FLOW & METABOLISM, vol. 29, no. 11, 1 November 2009 (2009-11-01), US, pages 1780 - 1789, XP055288957, ISSN: 0271-678X, DOI: 10.1038/jcbfm.2009.97
- [A] HOLLOWAY R ET AL: "Effect of lactate therapy upon cognitive deficits after traumatic brain injury in the rat", ACTA NEUROCHIRURGICA ; THE EUROPEAN JOURNAL OF NEUROSURGERY, SPRINGER-VERLAG, VI, vol. 149, no. 9, 30 July 2007 (2007-07-30), pages 919 - 927, XP019544456, ISSN: 0942-0940, DOI: 10.1007/S00701-007-1241-Y
- [A] KING P ET AL: "INTRAVENOUS LACTATE PREVENTS CEREBRAL DYSFUNCTION DURING HYPOGLYCAEMIA IN INSULIN-DEPENDENT DIABETES MELLITUS", CLINICAL SCIENCE, BIOCHEMICAL SOCIETY AND THE MEDICAL RESEARCH SOCIETY, LONDON, GB, vol. 94, no. 2, 1 February 1998 (1998-02-01), pages 157 - 163, XP009034382, ISSN: 0143-5221
- [A] C. BERGER ET AL: "Neurochemical Monitoring of Glycerol Therapy in Patients With Ischemic Brain Edema", STROKE, vol. 36, no. 2, 1 February 2005 (2005-02-01), US, pages e4 - e6, XP055289143, ISSN: 0039-2499, DOI: 10.1161/01.STR.0000151328.70519.e9
- [T] THOMAS C. GLENN ET AL: "Lactate: Brain Fuel in Human Traumatic Brain Injury: A Comparison with Normal Healthy Control Subjects", JOURNAL OF NEUROTRAUMA., vol. 32, no. 11, 1 June 2015 (2015-06-01), US, pages 820 - 832, XP055288968, ISSN: 0897-7151, DOI: 10.1089/neu.2014.3483
- [T] THOMAS C. GLENN ET AL: "Endogenous Nutritive Support after Traumatic Brain Injury: Peripheral Lactate Production for Glucose Supply via Gluconeogenesis", JOURNAL OF NEUROTRAUMA., vol. 32, no. 11, 1 June 2015 (2015-06-01), US, pages 811 - 819, XP055288969, ISSN: 0897-7151, DOI: 10.1089/neu.2014.3482
- [AP] BOUZAT PIERRE ET AL: "Cerebral metabolic effects of exogenous lactate supplementation on the injured human brain.", INTENSIVE CARE MEDICINE MAR 2014, vol. 40, no. 3, March 2014 (2014-03-01), pages 412 - 421, XP009191029, ISSN: 1432-1238
- See references of WO 2014066628A2

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 2014066628 A2 20140501; **WO 2014066628 A3 20140828**; AU 2013334526 A1 20150611; AU 2013334526 B2 20180614; AU 2018229477 A1 20181004; CA 2889348 A1 20140501; EP 2912161 A2 20150902; EP 2912161 A4 20160824; EP 3505167 A1 20190703; JP 2016502654 A 20160128; JP 2020101549 A 20200702; KR 102172971 B1 20201103; KR 20150076229 A 20150706

DOCDB simple family (application)

US 2013066597 W 20131024; AU 2013334526 A 20131024; AU 2018229477 A 20180912; CA 2889348 A 20131024; EP 13848522 A 20131024; EP 19151852 A 20131024; JP 2015539789 A 20131024; JP 2020017024 A 20200204; KR 20157013573 A 20131024