US00RE41920E

(19) United States
(12) Reissued Patent
Singh

(10) Patent Number: US RE41,920 E
(45) Date of Reissued Patent: Nov. 9, 2010

(54) **ISOBUTYLGABA AND ITS DERIVATIVES FOR THE TREATMENT OF PAIN**

(75) Inventor: **Lakhbir Singh**, Cambridgeshire (GB)

(73) Assignee: **Warner-Lambert Company LLC**, New York, NY (US)

(21) Appl. No.: **11/983,750**

(22) PCT Filed: **Jul. 16, 1997**

(86) PCT No.: **PCT/US97/12390**

§ 371 (c)(1),
(2), (4) Date: **Jul. 15, 1998**

(87) PCT Pub. No.: **WO98/03167**

PCT Pub. Date: **Jan. 29, 1998**

Related U.S. Patent Documents

Reissue of:
(64) Patent No.: **6,001,876**
Issued: **Dec. 14, 1999**
Appl. No.: **09/043,358**
Filed: **Jul. 15, 1998**

(51) **Int. Cl.**
A61K 31/195 (2006.01)

(52) **U.S. Cl.** **514/561**
(58) **Field of Classification Search** ..... None
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,471,548	A	10/1969	Keberle et al.
4,024,175	A	5/1977	Satzinger et al.
4,087,544	A	5/1978	Satzinger et al.
4,123,438	A	10/1978	Geurts et al.
4,322,440	A	3/1982	Fish et al.
4,479,005	A	10/1984	Kleschick
5,023,269	A	6/1991	Robertson et al.
5,025,035	A	6/1991	Wallace
5,051,448	A	9/1991	Shashoua et al.
5,084,479	A	1/1992	Woodruff
5,104,869	A	4/1992	Albright et al.
5,492,927	A	2/1996	Gitter et al.
5,510,381	A	4/1996	Pande
5,563,175	A	10/1996	Silverman et al.
5,599,973	A	2/1997	Silverman et al.
5,608,090	A	3/1997	Silverman et al.
5,616,793	A	4/1997	Huckabee et al.
5,629,447	A	5/1997	Huckabee et al.
5,637,767	A	6/1997	Grote et al.
5,684,189	A	11/1997	Silverman et al.
5,710,304	A	1/1998	Silverman et al.
5,792,796	A	8/1998	Woodruff et al.
5,840,956	A	11/1998	Grote et al.
5,847,151	A	12/1998	Silverman et al.
5,929,088	A	7/1999	Horwell et al.
5,998,435	A	12/1999	Horwell et al.
6,020,370	A	2/2000	Horwell et al.
6,028,214	A	2/2000	Silverman et al.
6,046,353	A	4/2000	Grote et al.
6,054,482	A	4/2000	Augart et al.
6,103,932	A	8/2000	Horwell et al.
6,117,906	A	9/2000	Silverman et al.
6,127,418	A	10/2000	Bueno et al.
6,140,366	A	10/2000	Silverman et al.
6,194,459	B1	2/2001	Akunne et al.
6,197,819	B1	3/2001	Silverman et al.
6,242,488	B1	6/2001	Bueno et al.
6,255,345	B1	7/2001	Silverman et al.
6,262,120	B1	7/2001	Silverman et al.
6,291,526	B1	9/2001	Silverman et al.
6,306,910	B1	10/2001	Magnus
6,326,374	B1	12/2001	Magnus et al.
6,329,429	B1	12/2001	Schrier
6,342,529	B1	1/2002	Silverman et al.
6,359,005	B1	3/2002	Pande
6,359,169	B1	3/2002	Silverman et al.
6,372,792	B1	4/2002	Chouinard
6,414,024	B1	7/2002	Silverman et al.
6,426,368	B2	7/2002	Bueno et al.
6,436,974	B1	8/2002	Belliotti et al.
6,451,857	B1	9/2002	Hurtt et al.
6,521,650	B1	2/2003	Belliotti et al.
6,525,096	B1	2/2003	Silverman et al.
6,544,998	B2	4/2003	Mylari
6,566,400	B1	5/2003	Akunne et al.
6,579,879	B2	6/2003	Mylari
6,593,368	B2	7/2003	Magnus-Miller et al.
6,596,900	B2	7/2003	Blakemore et al.
6,605,745	B2	8/2003	Hoge et al.
6,642,398	B2	11/2003	Belliotti et al.
6,680,343	B1	1/2004	Angello
6,689,915	B2	2/2004	Hoge et al.
6,703,522	B2	3/2004	Blakemore et al.
6,713,490	B2	3/2004	Kawamura
6,720,348	B2	4/2004	Mylari
6,730,674	B2	5/2004	Martin et al.

(Continued)

FOREIGN PATENT DOCUMENTS

CA	1304080	6/1992
CA	2265615	3/1998
CA	2530904	6/2007

(Continued)

OTHER PUBLICATIONS

Lever et al (in Annual Reports in Medicinal Chemistry, vol. 19: p. 5, 1984).*

Berge et al (J Pharm Sci 66:1–19, 1977).*

Plea (response) of ANVISA and INPI relating to Brazillan patent application P19710536–8 dated Oct. 5, 2009 (date on last page) (in Portugese).

(Continued)

Primary Examiner—Sreeni Padmanabhan
Assistant Examiner—Craig Ricci
(74) *Attorney, Agent, or Firm*—Connolly Bove Lodge & Hutz LLP

(57) **ABSTRACT**

The instant invention is a method of using certain analogs of glutamic acid and gamma-aminobutyric acid in pain therapy.

23 Claims, 18 Drawing Sheets