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(54) **ALKYLAMIDO COMPOUNDS AND USES THEREOF**

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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,211,610	A	10/1965	Rogers
3,444,232	A	5/1969	Bernstein
4,036,951	A	7/1977	Halpern et al.
4,348,223	A	9/1982	Grove
4,404,215	A	9/1983	Vincent et al.
4,429,152	A	1/1984	Gries et al.
4,720,506	A	1/1988	Munakata et al.
4,933,330	A	6/1990	Jorgensen et al.
5,262,549	A	11/1993	Telfer et al.
5,302,751	A	4/1994	Manimaran et al.
5,519,014	A	5/1996	Borody
5,594,015	A	1/1997	Kurtz et al.
5,594,151	A	1/1997	Stolowitz
6,114,382	A	9/2000	Moretti
6,194,627	B1	2/2001	Geissler et al.
6,326,364	B1	12/2001	Lin et al.
6,403,656	B1	6/2002	Rivier et al.
6,583,128	B2	6/2003	Ekwuribe et al.
6,602,869	B1	8/2003	Galey et al.
6,844,003	B2	1/2005	Galey et al.
6,884,821	B1	4/2005	Shinoda et al.
6,903,082	B2	6/2005	Ekwuribe et al.
7,098,025	B1	8/2006	Auwerx et al.
7,176,204	B2	2/2007	Miyachi et al.
7,425,578	B2	9/2008	Ekwuribe et al.
7,429,676	B2	9/2008	Woltering et al.
7,749,980	B2	7/2010	Plourde, Jr. et al.
7,998,474	B2	8/2011	Kelly
8,030,520	B2	10/2011	Sundermeier et al.
8,138,357	B2	3/2012	Naccari et al.
8,153,693	B2	4/2012	Baroni et al.
8,153,841	B2	4/2012	Naccari et al.
8,450,506	B2	5/2013	Naccari et al.
8,501,806	B2	8/2013	Baroni et al.
8,710,100	B2	4/2014	Naccari et al.

(Continued)

FOREIGN PATENT DOCUMENTS

EP	0055689	A1	7/1982
EP	0102833	A1	3/1984

(Continued)

OTHER PUBLICATIONS

U.S. Appl. No. 14/314,738, filed Jun. 25, 2014.
U.S. Appl. No. 13/785,485, filed Mar. 5, 2013.
U.S. Appl. No. 14/377,362, filed Aug. 7, 2014.
U.S. Appl. No. 14/394,916, filed Oct. 16, 2014.
U.S. Appl. No. 14/202,386, filed Mar. 10, 2014.
U.S. Appl. No. 15/088,654, Methods for Preventing or Reducing Colon Carcinogenesis, filed Apr. 1, 2016, Pending.
U.S. Appl. No. 14/969,939, Methods of Treating Hair Related Conditions, filed Dec. 15, 2015, Pending.

(Continued)

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(57) **ABSTRACT**

Disclosed herein are compounds that may be specific to PPAR and/or EGF receptors, and methods of making and using same.

8 Claims, 11 Drawing Sheets