

United States Patent [19]

Naruse et al.

[11] Patent Number: 4,920,122

[45] Date of Patent: Apr. 24, 1990

[54] PHARMACEUTICAL COMPOSITION AND METHOD FOR THE TREATMENT OF INFANTILE AUTISM

[75] Inventors: Hiroshi Naruse, Tokyo; Masashi Takesada, Hyogo; Osamu Hayaishi; Yasuyoshi Watanabe, both of Kyoto, all of Japan

[73] Assignee: Suntory Limited, Osaka, Japan

[21] Appl. No.: 210,312

[22] Filed: Jun. 23, 1988

Related U.S. Application Data

[62] Division of Ser. No. 870,495, Jun. 4, 1986, Pat. No. 4,778,794.

[30] Foreign Application Priority Data

Jun. 4, 1985 [JP] Japan 60-121347

[51] Int. Cl.⁵ A61K 31/50; A61K 31/495

[52] U.S. Cl. 514/254

[58] Field of Search 514/254

[56] References Cited

FOREIGN PATENT DOCUMENTS

0108890 5/1984 European Pat. Off. .

OTHER PUBLICATIONS

Proc. Jpn. Acad. Ser. B, Phys. Biol. Sci., vol. 63, No. 6, pp. 231-234 (1987).

Encephale, vol. 10, No. 2, pp. 93-97 (1984).

J. Am. Acad. Child Psychiatry., vol. 20, No. 1, pp. 104-111 (1981).

Primary Examiner—Stanley J. Friedman

Attorney, Agent, or Firm—Cushman, Darby & Cushman

[57] ABSTRACT

A pharmaceutical composition for the treatment of infantile autism which contains tetrahydrobiopterin or a derivative thereof as a major effective ingredient and 5-hydroxytryptophan and/or L-DOPA as an optional auxiliary effective ingredient is provided.

8 Claims, 5 Drawing Sheets