US005827503A

United States Patent [19]

Schwabe

[11] **Patent Number: 5,827,503**

[45] **Date of Patent: Oct. 27, 1998**

[54] **METHOD AND COMPOSITION FOR TREATING PERIODONTITIS**

[75] Inventor: **Christian Schwabe**, Charleston, S.C.

[73] Assignee: **Collagenex Pharmaceuticals, Inc.**, Newton, Pa.

[21] Appl. No.: **689,403**

[22] Filed: **Aug. 8, 1996**

[51] **Int. Cl.**[6] **A61K 7/16**; A61K 7/22

[52] **U.S. Cl.** **424/54**; 424/49

[58] **Field of Search** 424/49–58

[56] **References Cited**

U.S. PATENT DOCUMENTS

2,634,228	4/1953	Kelly et al.	167/51.5
3,758,689	9/1973	Rapfogel	424/329
4,021,537	5/1977	Saurino	424/54
4,036,950	7/1977	Baines et al.	424/54
4,110,429	8/1978	Gaffar et al.	424/54
4,320,147	3/1982	Schaeufele	424/329
4,370,314	1/1983	Gaffar	424/54
4,430,323	2/1984	Silver	424/52
4,994,262	2/1991	Charbonneau et al.	424/52
5,057,497	10/1991	Calam et al.	514/21
5,068,107	11/1991	Hollibush et al.	424/435
5,145,664	9/1992	Thompson	424/49
5,158,763	10/1992	Gaffar et al.	424/54
5,160,737	11/1992	Friedman et al.	424/401
5,176,901	1/1993	Gallopo et al.	424/54
5,178,896	1/1993	Ebine et al.	424/401
5,180,575	1/1993	Ha et al.	404/49
5,330,746	7/1994	Firedman et al.	424/49
5,362,737	11/1994	Vora et al.	514/291
5,374,418	12/1994	Oshino et al.	424/54
5,438,076	8/1995	Friedman et al.	514/772.6
5,496,564	3/1996	Asakura et al.	424/489

FOREIGN PATENT DOCUMENTS

059012	1/1982	European Pat. Off.	A61K 7/22
1525254	9/1978	United Kingdom	A61K 7/16
PCT/WO 95/20971	8/1995	WIPO	A61K 33/42

OTHER PUBLICATIONS

E. Feldbau and C. Schwabe, Selective Inhibition of Serine Protease by Alkyldimethylbenzyl–ammonium Chloride, Biochemistry: 10, 2131–2138 (1971).

M. Addy, et al., The Effect of Some Chlorhexidine–Containing Mouthrinses On Salivary Bacterial Counts, J. Clin. Periodonotol. 18:90–93 (1991).

K. Baker, Mouthrinses in the Prevention and Treatment of Periodontal Disease, Current Opinion in Periodontology 1993:89–96 (1993).

A. Elworthy et al., The Substantivity of a Number of Oral Hygiene Products Determined by the Duration of Effects on Salivary Bacteria, J. Periodontol. 67:572–576 (Jun. 1996).

Primary Examiner—Shep K. Rose
Attorney, Agent, or Firm—Hoffmann & Baron, LLP

[57] **ABSTRACT**

Oral hygiene is improved and diseases of the oral cavity are treated by oral application of a composition containing 0.02 to 0.25 weight percent alkyldimethylbenzylammonium chloride (BAC) and 0.05 to 2.0 weight percent sodium chloride dissolved in water, in the absence of other active ingredients. The BAC and sodium chloride act synergistically to allow the composition to sorb strongly to oral tissues and remain there for several hours.

20 Claims, No Drawings