



US005140016A

United States Patent [19]
Goldberg et al.

[11] **Patent Number:** **5,140,016**
[45] **Date of Patent:** * **Aug. 18, 1992**

[54] **METHOD AND COMPOSITION FOR PREVENTING SURGICAL ADHESIONS USING A DILUTE SOLUTION OF POLYMER**

[75] **Inventors:** Eugene P. Goldberg; Yoseph Yascobi, both of Gainesville, Fla.

[73] **Assignee:** University of Florida, Gainesville, Fla.

[*] **Notice:** The portion of the term of this patent subsequent to Jan. 14, 2009 has been disclaimed.

[21] **Appl. No.:** 696,960

[22] **Filed:** May 8, 1991

Related U.S. Application Data

[63] Continuation of Ser. No. 555,377, Jul. 19, 1990, Pat. No. 5,080,893, which is a continuation of Ser. No. 199,687, May 31, 1988, abandoned.

[51] **Int. Cl.⁵** A61K 31/715; A61K 31/72; A61K 31/725; A61K 31/79

[52] **U.S. Cl.** 514/57; 424/78.38; 424/78.24; 424/423; 514/777; 514/54; 514/781; 514/772.5; 128/898

[58] **Field of Search** 424/78.38; 427/2, 4; 128/898; 514/54; 435/101; 536/55.1

[56] **References Cited**

U.S. PATENT DOCUMENTS

| | | | |
|-----------|---------|------------------|---------|
| 4,064,564 | 12/1977 | Casey | 604/292 |
| 4,141,973 | 2/1979 | Balazs | 514/769 |
| 4,486,416 | 12/1984 | Soll et al. | 514/54 |
| 4,585,666 | 4/1986 | Lambert | 427/2 |
| 4,589,873 | 5/1986 | Schwartz et al. | 427/2 |
| 4,651,736 | 3/1987 | Sander | 128/305 |
| 4,808,576 | 2/1989 | Schultz et al. | 514/825 |
| 4,819,617 | 4/1989 | Goldberg et al. | 536/98 |
| 4,840,626 | 6/1989 | Linsky et al. | 514/56 |
| 4,886,787 | 12/1989 | De Belder et al. | 514/60 |
| 4,965,253 | 10/1990 | Goldberg et al. | 424/80 |

Primary Examiner—Thurman K. Page

Assistant Examiner—E. J. Webman

Attorney, Agent, or Firm—Kerkam, Stowell, Kondracki & Clarke

[57] **ABSTRACT**

An improved method and composition for preventing adhesions during surgery. Tissue surfaces and surgical articles involved in the surgery are coated with a solution of a hydrophilic, polymeric material prior to manipulation of the tissue during surgery. The composition comprises a solution of a polymeric material having a molecular weight of about 500,000 or above having a concentration of from about 0.01 to about 15%, by weight.

7 Claims, No Drawings