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**Till et al.**

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(54) **PRESBYOPIA TREATMENT BY LENS ALTERATION**

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(51) **Int. Cl.**  
**A61K 31/74** (2006.01)  
(52) **U.S. Cl.** ..... **424/78.04**  
(58) **Field of Classification Search** ..... None  
See application file for complete search history.

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1105 days.  
  
This patent is subject to a terminal disclaimer.

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**Related U.S. Application Data**

(63) Continuation-in-part of application No. 11/135,271, filed on May 24, 2005, now Pat. No. 7,914,815, and a continuation-in-part of application No. 10/050,879, filed on Jan. 18, 2002, now Pat. No. 6,923,955, application No. 11/946,659, which is a continuation-in-part of application No. 11/010,436, filed on Dec. 14, 2004, now Pat. No. 7,935,332, which is a continuation-in-part of application No. 10/050,879, application No. 11/946,659, which is a continuation-in-part of application No. 10/969,868, filed on Oct. 22, 2004, now abandoned, said application No. 10/050,879 and a continuation-in-part of application No. 09/930,287, filed on Aug. 16, 2001, now abandoned.

(60) Provisional application No. 60/861,262, filed on Nov. 28, 2006, provisional application No. 60/907,734, filed on Apr. 16, 2007, provisional application No. 60/924,686, filed on May 29, 2007, provisional application No. 60/574,211, filed on May 26, 2004,

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(57) **ABSTRACT**

Embodiments of the present invention relate to methods and pharmacological or biological compositions to treat presbyopia in the human eye. According to the embodiments, pharmacological or biological compositions may be applied to or injected into an eye to effect a change in the accommodative ability of the eye by the breaking and reduction of lenticular bonds in the eye that may be responsible for presbyopia. The compositions may be applied in an inactive state and subsequently be activated to achieve a therapeutic effect. The application of energy may be used to either break the oxidized lenticular bonds and/or to activate one or more of the pharmacological or biological agents. The energy may be used in a focus treatment pattern to affect a change in the refractive characteristics of the eye and thereby reduce inherent optical distortions.

**5 Claims, 6 Drawing Sheets**

