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(12) **United States Patent**
Laine et al.(10) **Patent No.:** **US 8,309,572 B2**
(45) **Date of Patent:** ***Nov. 13, 2012**(54) **MUSCARINIC ACETYLCHOLINE
RECEPTOR ANTAGONISTS**(75) Inventors: **Dramane I. Laine**, King of Prussia, PA (US); **Michael R. Palovich**, King of Prussia, PA (US); **Brent W. McClelland**, King of Prussia, PA (US); **Christopher E. Neipp**, King of Prussia, PA (US); **Sonia M. Thomas**, King of Prussia, PA (US)(73) Assignee: **Glaxo Group Limited**, Greenford, Middlesex (GB)

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(51) **Int. Cl.**
A61K 31/44 (2006.01)(52) **U.S. Cl.** **514/305**(58) **Field of Classification Search** 514/305
See application file for complete search history.(56) **References Cited****U.S. PATENT DOCUMENTS**

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Muscarinic Acetylcholine Receptor Antagonists and methods of using them are provided.

55 Claims, No Drawings