



US 20060106064A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2006/0106064 A1**  
 Schetz et al. (43) **Pub. Date: May 18, 2006**

(54) **BUTYROPHENONES AND SIGMA-1 RECEPTOR ANTAGONISTS PROTECT AGAINST OXIDATIVE-STRESS**

(75) Inventors: **John A. Schetz**, Fort Worth, TX (US);  
**James Simpkins**, Fort Worth, TX (US);  
**Jeffery Talbert**, Austin, TX (US)

Correspondence Address:  
**CHALKER FLORES, LLP**  
 2711 LBJ FRWY  
 Suite 1036  
 DALLAS, TX 75234 (US)

(73) Assignee: **University of North Texas Health Science Center at Fort Worth**, Fort Worth, TX

(21) Appl. No.: **11/267,030**

(22) Filed: **Nov. 3, 2005**

**Related U.S. Application Data**

(60) Provisional application No. 60/624,899, filed on Nov. 3, 2004.

**Publication Classification**

(51) **Int. Cl.**  
*A61K 31/445* (2006.01)  
*A61K 31/137* (2006.01)  
*A61K 31/12* (2006.01)  
 (52) **U.S. Cl.** ..... **514/317**; 514/649; 514/688

(57) **ABSTRACT**  
 The present invention includes compositions and methods for the protection of one or more central nervous system cells from trauma, when administered before, during or after the trauma, wherein the composition includes an effective amount of a butyrophenone, e.g., a 1-linked phenyl butyrophenone that is electronegative along the butyl chain and/or a Sigma-1 receptor antagonist.

