June 2, 2009

Jeffrey L. Wade, J.D. Executive Vice President and General Counsel Lexicon Pharmaceuticals, Inc. 8800 Technology Forest Place The Woodlands, Texas 77381

Re: Lexicon Pharmaceuticals, Inc.

Preliminary Proxy Statement on Schedule 14A

Filed May 22, 2009 File No. 000-30111

Dear Mr. Wade:

We have completed our review of your preliminary proxy statement on Schedule 14A and have no further comments at this time.

Sincerely,

Jeffrey P. Riedler Assistant Director