

[LEXICON PHARMACEUTICALS LETTERHEAD]

December 3, 2007

Securities and Exchange Commission
Division of Corporate Finance
100 F Street, N.E.
Washington, D.C. 20549

Attention: Mr. Mark Brunhofer
Division of Corporate Finance

Re: *Lexicon Pharmaceuticals, Inc.*
Form 10-K for the fiscal year ended December 31, 2006
Form 10-Q for the quarterly period ended September 30, 2007
File No. 000-30111

Dear Mr. Brunhofer:

We are in receipt of the comment letter dated November 16, 2007 from the Securities and Exchange Commission's staff with respect to the above-referenced filings. We are currently preparing our responses to those comments and respectfully request an additional 10 business days within which to provide you with those responses.

Please contact me at (281) 863-3321 if you are unable to grant this requested extension or if you have any additional comments or questions concerning this letter.

Very truly yours,

/s/ Jeffrey L. Wade

Jeffrey L. Wade
*Executive Vice President and
General Counsel*