



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

Mail Stop 3030

May 30, 2009

Samuel E. Lynch, D.M.D., D.M.Sc.
Chief Executive Officer
BioMimetic Therapeutics, Inc.
389 Nichol Mill Lane
Franklin, Tennessee 37067

Re: BioMimetic Therapeutics, Inc.
Preliminary Proxy Statement on Schedule 14A
Filed April 17, 2009
File No. 000-51934

Dear Dr. Lynch:

We have completed our review of your preliminary proxy statement and do not, at this time, have any further comments.

Sincerely,

Mary Beth Breslin
Senior Attorney

cc (via fax): Anna T. Pinedo, Esq.