

Via Facsimile and U.S. Mail  
Mail Stop 6010

August 20, 2008

Michael T. Flavin, Ph.D.  
Chairman and Chief Executive Officer  
Advanced Life Sciences Holdings, Inc.  
1440 Davey Road  
Woodridge, IL 60517

**Re:   Advanced Life Sciences Holdings, Inc.  
      Form 10-K for the Fiscal Year Ended December 31, 2007  
      File No. 0-51436**

Dear Dr. Flavin:

We have completed our review of your Form 10-K and have no further comments at this time.

Sincerely,

Carlton E. Tartar  
Branch Chief