

Mail Stop 6010

February 20, 2009

Mr. Michael T. Flavin
Chairman and Chief Executive Officer
Mr. John L. Flavin
President, Chief Financial Officer, and Secretary
Advanced Life Sciences Holdings, Inc.
1440 Davey Road
Woodridge, Illinois 60517

Re: Advanced Life Sciences Holdings, Inc.
Preliminary proxy statement filed February 6, 2009
File No. 000-51459

Dear Messrs. Flavin:

We have completed our review of your preliminary proxy statement and related filings and have no further comments at this time.

Sincerely,

Jeffrey Riedler
Assistant Director