

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

Mail Stop 3561

April 15, 2009

Thomas A. Bologna, Chief Executive Officer Orchid Cellmark, Inc. 4390 US Route One Princeton, NJ 08540

RE: Orchid Cellmark, Inc.

Form 10-K for Fiscal Year Ended December 31, 2008

Dear Mr. Bologna:

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

Sincerely,

John Reynolds Assistant Director Office of Beverages, Apparel and Health Care Services