

Item 8.01 Other Events.

On May 7, 2012 at the annual meeting of the Association for Research in Vision and Ophthalmology in Fort Lauderdale, Florida, researchers presented six-month results of an investigator initiated exploratory study using systemic complement inhibition for the potential treatment of non-exudative age related macular degeneration, or dry AMD. The lead investigator concluded that the drug, eculizumab, was safe in the patients studied. The lead investigator also concluded that systemic inhibition of complement did not significantly improve the prospectively identified primary endpoints of the study, measurements of dry AMD.

Alexion Pharmaceuticals, Inc. is a biopharmaceutical company focused on serving patients with severe and ultra-rare disorders through the innovation, development and commercialization of life-transforming therapeutic products. Alexion is developing five drug candidates in eight lead development programs, each of which would address a severe or life-threatening, ultra-rare disorder: Soliris for STEC-HUS, acute humoral kidney transplant rejection, neuromyelitis optica, and myasthenia gravis; asfotase alfa for hypophosphatasia; cPMP replacement therapy for molybdenum cofactor deficiency; ALXN 1102, a unique inhibitor of the alternative complement pathway; and ALXN1007, a novel anti-inflammatory antibody.

Signature

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ALEXION PHARMACEUTICALS, INC.

Date: May 7, 2012

By: /s/ Michael V. Greco
Name: Michael V. Greco
Title: Associate General Counsel and
Corporate Secretary