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RESEARCH**

*APPLICATION NUMBER:*  
**202236Orig1s000**

**PHARMACOLOGY REVIEW(S)**

INTEROFFICE MEMO

TO: NDA 202,236 (DYMISTA; Azelastine Hydrochloride 0.1% and Fluticasone Propionate 0.37% Nasal Spray)  
Submissions dated April 1 and July 1, 2011, respectively

FROM: Timothy W. Robison, Ph.D., D.A.B.T.  
Pharmacology/Toxicology Team Leader  
Division of Pulmonary, Allergy, and Rheumatology Products

DATE: December 7, 2011

I concur with the conclusions and recommendations of Dr. Marcie Wood's Review dated September 23, 2011. The review recommended approval of the application from the nonclinical perspective.

The applicant has developed a fixed dose combination of azelastine and fluticasone propionate administered as a nasal spray for the treatment of allergic rhinitis in children and adults 12 years of age and older. This is the first combination product of an anti-histamine and corticosteroid.

The nonclinical safety program for the fixed dose combination of azelastine and fluticasone propionate administered as a nasal spray is based upon the complete toxicology programs conducted with each of the monoproducts. The applicant also conducted 14-day intranasal toxicology studies in rats and dogs and a 3-month intranasal toxicology study in rats with the combination of azelastine hydrochloride and fluticasone propionate to assess for potential additive or synergistic toxic effects of the combination. There was no evidence of additive or synergistic toxic effects of the combination with particular reference to local toxicity in the nasal cavity and sinuses. See Dr. Wood's review for further details.

Dr. Wood's Review makes recommendations for changes in the product labeling in Sections 8.1, 8.3, 10, 12.1, 13.1, and 13.2.

There are no outstanding PharmTox issues.

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/s/  
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TIMOTHY W ROBISON  
12/07/2011

**DEPARTMENT OF HEALTH AND HUMAN SERVICES  
PUBLIC HEALTH SERVICE  
FOOD AND DRUG ADMINISTRATION  
CENTER FOR DRUG EVALUATION AND RESEARCH**

**PHARMACOLOGY/TOXICOLOGY NDA REVIEW AND EVALUATION**

Application number: NDA 202236

Supporting document/s: SDN 1, SDN 4

Applicant's letter date: SDN 1: April 1, 2011  
SDN 4: July 1, 2011

CDER stamp date: SDN 1: April 1, 2011  
SDN 4: July 1, 2011

Product: Azelastine Hydrochloride 0.1% and Fluticasone  
Propionate 0.37% Nasal Spray

Indication: Seasonal allergic rhinitis

Applicant: Meda Pharmaceuticals, Inc.

Review Division: Division of Pulmonary, Allergy, and  
Rheumatology Products

Reviewer: Marcie Wood, Ph.D.

Supervisor/Team Leader: Timothy Robison, Ph.D., DABT

Division Director: Badrul Chowdhury, M.D., Ph.D.

Project Manager: Philantha Bowen

*Template Version: September 1, 2010*

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