CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:
022184Orig1s000

MICROBIOLOGY REVIEW(S)
Product Quality Microbiology Review

3 JUNE 2009

NDA: 22-184

Drug Product Name
  Proprietary: LUMIGAN 0.01%
  Non-proprietary: bimatoprost ophthalmic solution

Review Number: 3

Dates of Submission(s) Covered by this Review

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Submission History (for amendments only)

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Applicant/Sponsor
  Name: Allergan, Inc.
  Address: 2525 Dupont Drive, PO Box 19534, Irvine, CA 92623-9534
  Representative: Paul Stone
  Telephone: 714-246-4177

Name of Reviewer: Bryan S. Riley, Ph.D.

Conclusion: Recommended for Approval
Product Quality Microbiology Data Sheet

A. 1. TYPE OF SUBMISSION: Amendment to an original NDA

2. SUBMISSION PROVIDES FOR: An endotoxin specification for the drug product

3. MANUFACTURING SITE: Allergan, Inc.
   8301 Mars Drive
   Waco, TX 76712

4. DOSAGE FORM, ROUTE OF ADMINISTRATION AND STRENGTH/POTENCY: Sterile, preserved, aqueous solution in a plastic dropper tip bottle (1 mL physician sample in a 5 mL bottle, a 2.5 mL fill in a 5 mL bottle and a 5 mL and 7.5 mL fill in a 10 mL bottle) for ophthalmic administration, 0.01%.

5. METHOD(S) OF STERILIZATION: (b)(4)

6. PHARMACOLOGICAL CATEGORY: Elevated intraocular pressure

B. SUPPORTING/RELATED DOCUMENTS: N/A

C. REMARKS: This was a eCTD submission.

filename: N022184R3.doc
Executive Summary

I. Recommendations

A. Recommendation on Approvability – This submission is recommended for approval on the basis of product quality microbiology.

B. Recommendations on Phase 4 Commitments and/or Agreements, if Approvable – N/A

II. Summary of Microbiology Assessments

A. Brief Description of the Manufacturing Processes that relate to Product Quality Microbiology – The drug product is [redacted].

B. Brief Description of Microbiology Deficiencies – N/A

C. Assessment of Risk Due to Microbiology Deficiencies – N/A

III. Administrative

A. Reviewer's Signature _____________________________
   Bryan S. Riley, Ph.D.
   Senior Review Microbiologist OPS/NDMS

B. Endorsement Block ______________________________
   James L. McVey
   Team Leader OPS/NDMS

C. CC Block
   N/A

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/s/
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Bryan Riley
MICROBIOLOGIST

James McVey
6/8/2009 09:46:26 AM
MICROBIOLOGIST
I concur.
NDA: 22-184 BI amendment

Drug Product Name
  Proprietary: N/A
  Non-proprietary: bimatoprost ophthalmic solution 0.01%
  Drug Product Priority Classification: S

Review Number: 2

Dates of Submission(s) Covered by this Review

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Submission History (for amendments only)

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Applicant/Sponsor
  Name: Allergan
  Address: 2525 Dupont Drive, PO Box 19534, Irvine, CA 92623-9534
  Representative: Paul Stone
  Telephone: 714-246-4177

Name of Reviewer: Bryan S. Riley, Ph.D.

Conclusion: Recommended for approval (Please see reviewer comment on page 4-5).
Product Quality Microbiology Data Sheet

A. 1. TYPE OF SUBMISSION: Amendment in response to a deficiency

2. SUBMISSION PROVIDES FOR: An endotoxin test method for the drug product and a commitment to establish an endotoxin specification

3. MANUFACTURING SITE: Allergan, Inc.
   8301 Mars Drive
   Waco, TX 76712

4. DOSAGE FORM, ROUTE OF ADMINISTRATION AND STRENGTH/POTENCY: Sterile, preserved, aqueous solution in a plastic dropper tip bottle (1 mL physician sample in a 5 mL bottle, a 2.5 mL fill in a 5 mL bottle and a 5 mL and 7.5 mL fill in a 10 mL bottle) for ophthalmic administration, 0.01%.

5. METHOD(S) OF STERILIZATION: (b) (4)

6. PHARMACOLOGICAL CATEGORY: Elevated intraocular pressure

B. SUPPORTING/RELATED DOCUMENTS: N/A

C. REMARKS: This submission was made electronically in the eCTD format.

filename: N022184R2.doc
Executive Summary

I. Recommendations

A. **Recommendation on Approvability** – This submission is recommended for approval on the basis of product quality microbiology (Please see reviewer comment on pages 4-5).

B. **Recommendations on Phase 4 Commitments and/or Agreements, if Approvable** – It is recommended that a Phase 4 commitment from the applicant regarding establishing an endotoxin specification be accepted as a condition of approval.

II. Summary of Microbiology Assessments

A. **Brief Description of the Manufacturing Processes that relate to Product Quality Microbiology** – The drug product is [omitted for confidentiality]

B. **Brief Description of Microbiology Deficiencies** – N/A

C. **Assessment of Risk Due to Microbiology Deficiencies** – N/A

III. Administrative

A. **Reviewer's Signature**

   Bryan S. Riley, Ph.D.

B. **Endorsement Block**

   James L. McVey
   Microbiology Team Leader

C. **CC Block**

   N/A

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/s/
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Bryan Riley
4/17/2008 07:14:43 AM
MICROBIOLOGIST

James McVey
4/17/2008 11:28:20 AM
MICROBIOLOGIST
I concur.
Product Quality Microbiology Review

1 FEBRUARY 2008

NDA: 22-184 and amendment (BI)

Drug Product Name
Proprietary: N/A
Non-proprietary: bimatoprost ophthalmic solution 0.01%

Drug Product Priority Classification: S

Review Number: 1

Dates of Submission(s) Covered by this Review

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Submission History (for amendments only): N/A

Applicant/Sponsor
Name: Allergan
Address: 2525 Dupont Drive, PO Box 19534, Irvine, CA 92623-9534
Representative: Paul Stone
Telephone: 714-246-4177

Name of Reviewer: Bryan S. Riley, Ph.D.

Conclusion: Approvable pending resolution of product quality microbiology deficiencies. Please see “List of Microbiology Deficiencies” at the end of this review.
Product Quality Microbiology Data Sheet

A. 1. **TYPE OF SUBMISSION**: Original New Drug Application

2. **SUBMISSION PROVIDES FOR**: A sterile ophthalmic drug product

3. **MANUFACTURING SITE**: Allergan, Inc.
   8301 Mars Drive
   Waco, TX 76712

4. **DOSAGE FORM, ROUTE OF ADMINISTRATION AND STRENGTH/POTENCY**: Sterile, preserved, aqueous solution in a plastic dropper tip bottle (1 mL physician sample in a 5 mL bottle, a 2.5 mL fill in a 5 mL bottle and a 5 mL and 7.5 mL fill in a 10 mL bottle) for ophthalmic administration, 0.01%.

5. **METHOD(S) OF STERILIZATION**: (b)(4)

6. **PHARMACOLOGICAL CATEGORY**: Elevated intraocular pressure

B. **SUPPORTING/RELATED DOCUMENTS**: N/A

C. **REMARKS**: This was an electronic submission in the eCTD format.

**filename**: N022184R1.doc
Executive Summary

I. Recommendations

A. Recommendation on Approvability – This submission is approvable, pending resolution of product quality microbiology deficiencies (Please see “List of Microbiology Deficiencies” at the end of this review).

B. Recommendations on Phase 4 Commitments and/or Agreements, if Approvable – N/A

II. Summary of Microbiology Assessments

A. Brief Description of the Manufacturing Processes that relate to Product Quality Microbiology – The drug product is [redacted].

B. Brief Description of Microbiology Deficiencies – The drug product does not have an endotoxin specification.

C. Assessment of Risk Due to Microbiology Deficiencies – Excessive levels of endotoxin in the drug product could cause an inflammatory reaction in the user’s eye.

III. Administrative

A. Reviewer's Signature

Bryan S. Riley, Ph.D.

B. Endorsement Block

James L. McVey
Microbiology Team Leader

C. CC Block

N/A

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/s/
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Bryan Riley  
2/4/2008 11:20:09 AM  
MICROBIOLOGIST

James McVey  
2/4/2008 01:00:17 PM  
MICROBIOLOGIST