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RESEARCH**

APPLICATION NUMBER:
21-813

MICROBIOLOGY REVIEW(S)

Product Quality Microbiology Review

11-October-2006

NDA: 21-813
21-813-BI

Drug Product Name

Proprietary: Bio-E-Gel™

Non-proprietary: estradiol gel

Drug Product Priority Classification: Standard

Review Number: 1

Dates of Submission(s) Covered by this Review

Submission	Letter	Stamp	Consult Sent	Assigned to Reviewer
NDA 21-813	2/17/06	2/21/06	7/24/06	7/25/06
NDA 21-813-BI	9/28/06	9/9/06	9/29/06	Not applicable

Submission History (for amendments only): Not applicable

Applicant/Sponsor

Name: Biosante Pharmaceuticals
Address: 111 Barclay Blvd.
Lincolnshire, IL 60069
Representative: Joanne Zborowski
Telephone: 847-478-0500

Name of Reviewer: Stephen E. Langille, Ph.D.

Conclusion: Recommended for approval

Product Quality Microbiology Data Sheet

- A.
1. **TYPE OF SUBMISSION:** Original Application
 2. **SUBMISSION PROVIDES FOR:** Preservative effectiveness and microbial limits testing for a topical gel drug product.
 3. **MANUFACTURING SITE:** DPT Laboratories, Ltd.
307 E. Josephine St.
San Antonio, TX 78215
 4. **DOSAGE FORM, ROUTE OF ADMINISTRATION AND STRENGTH/POTENCY:**
 - Gel
 - Topical
 - 0.06% 17- β -estradiol w/w
 5. **METHOD(S) OF STERILIZATION:** Non-sterile drug product
 6. **PHARMACOLOGICAL CATEGORY:** Hormone
- B. **SUPPORTING/RELATED DOCUMENTS:** None
- C. **REMARKS:** An information request was e-mailed to Ms. Joanne Zborowski in the Biosante Pharmaceuticals Inc. regulatory affairs department on September 20, 2006. Ms. Zborowski mailed a response to the agency on 9/28/06.

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Executive Summary**I. Recommendations**

- A. Recommendation on Approvability -**
NDA 21-813 is recommended for approval from the standpoint of product quality microbiology.
- B. Recommendations on Phase 4 Commitments and/or Agreements, if Approvable -**
Not applicable

II. Summary of Microbiology Assessments

- A. Brief Description of the Manufacturing Processes that relate to Product Quality Microbiology -**
The drug product is a non-sterile topical gel containing []% ethanol. The results of preservative effectiveness testing and microbial limits specifications were provided in the application.
- B. Brief Description of Microbiology Deficiencies -**
No deficiencies were identified based upon the information provided.
- C. Assessment of Risk Due to Microbiology Deficiencies -**
Not applicable.

III. Administrative

- A. Reviewer's Signature** _____
- B. Endorsement Block**
James McVey, Team Leader
- C. CC Block**
N/A

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Microbiology Review

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/s/

Stephen Langille
10/11/2006 03:26:55 PM
MICROBIOLOGIST

James McVey
10/12/2006 09:19:09 AM
MICROBIOLOGIST