CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

202278Orig1s000

MICROBIOLOGY REVIEW(S)

Product Quality Microbiology Review

6 December 2012

NDA: **202-278**

Drug Product Name
Proprietary: Zelrix
Non-proprietary: sumatriptan iontophoretic transdermal system

Review Number: 2

Dates of Submission(s) Covered by this Review

Submit	Received	Review Request	Assigned to Reviewer
16 July 2012	17 July 2012	31 August 2012	4 September 2012

Submission History (for amendments only)

Submit Date(s)	Microbiology Review #	Review Date(s)
29 October 2010	1	15 June 2011
3 May 2011	1	15 June 2011

Applicant/Sponsor
Name: NuPathe Inc.
Address: 227 Washington St.
Suite 200
Conshohocken, PA 19428

Representative: Sanjay Sehgal
Telephone: 484-567-0130 x1130

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

Conclusion: Recommended for approval

Product Quality Microbiology Data Sheet

A. 1. TYPE OF SUBMISSION: Class 2 Resubmission

2. SUBMISSION PROVIDES FOR: Information related to the manufacture of NP101 drug/device combination.

3. MANUFACTURING SITE: (b) (4) [redacted]

4. DOSAGE FORM, ROUTE OF ADMINISTRATION AND STRENGTH/POTENCY:

- Iontophoretic system
- Transdermal
- 6.5 mg

5. METHOD(S) OF STERILIZATION: Non-sterile

6. PHARMACOLOGICAL CATEGORY: Treatment of migraines

B. SUPPORTING/RELATED DOCUMENTS: Not applicable

C. REMARKS: The submission was provided in eCTD format. The medical officer was consulted during the original review with regard to the necessity for sterilization of the transdermal system due to the fact that electrical current will be used to transfer the drug product through the skin. It was decided that because the patches will not be applied to compromised skin, the skin patches do not need to be sterile. The 16 July 2012 submission was in response to a complete response letter issued on 29 August 2011.

filename: N202278r2.doc

Executive Summary

I. Recommendations

A. Recommendation on Approvability -

NDA 202-278 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 -

NP101 is a drug device combination composed of two non-sterile topical patches co-packaged in a container closure system called a "reservoir card". The patches are packaged in a preserved solution and have antimicrobial effectiveness and microbial limits specifications.

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 _____

Stephen E. Langille, Ph.D.
Senior Microbiology Reviewer

B. Endorsement Block _____

John Metcalfe, Ph.D.
Senior Microbiology Reviewer

C. CC Block

N/A

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/s/

STEPHEN E LANGILLE
12/06/2012

Product Quality Microbiology Review

14-June 2011

NDA: **202-278**

Drug Product Name
Proprietary: Zelrix
Non-proprietary: sumatriptan iontophoretic transdermal system

Review Number: 1

Dates of Submission(s) Covered by this Review

Submit	Received	Review Request	Assigned to Reviewer
29 October 2010	29 October 2010	28 January 2011	31 January 2011
3 May 2011	3 May 2011	Not provided	Not provided

Submission History (for amendments only): Not applicable

Applicant/Sponsor
Name: NuPathe Inc.
Address: 227 Washington St.
Suite 200
Conshohocken, PA 19428

Representative: Michele A. Roy RN, MS
Telephone: 484-567-0130 x1103

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

Conclusion: Approvable

Product Quality Microbiology Data Sheet

A. 1. TYPE OF SUBMISSION: Original new drug application

2. SUBMISSION PROVIDES FOR: Information related to the manufacture of NP101 drug/device combination.

3. MANUFACTURING SITE: (b) (4)

4. DOSAGE FORM, ROUTE OF ADMINISTRATION AND STRENGTH/POTENCY:

- Iontophoretic system
- Transdermal
- 6.5 mg

5. METHOD(S) OF STERILIZATION: Non-sterile

6. PHARMACOLOGICAL CATEGORY: Treatment of migraines

B. SUPPORTING/RELATED DOCUMENTS: Not applicable

C. REMARKS: The submission was provided in eCTD format. The medical officer was consulted with regard to the necessity for sterilization of the transdermal system due to the fact that electrical current will be used to transfer the drug product through the skin.

filename: N202278r1.doc

Executive Summary

I. Recommendations

A. Recommendation on Approvability -

NDA 202-278 is approvable pending the resolution of product quality microbiology deficiencies.

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 drug device combination composed of two non-sterile topical patches co-packaged in a container closure system called a "reservoir card". The patches are packaged in a preserved solution and have antimicrobial effectiveness and microbial limits specifications.

B. Brief Description of Microbiology Deficiencies -

The applicant failed to provide proof of antimicrobial effectiveness or microbial control of the finished product.

C. Assessment of Risk Due to Microbiology Deficiencies -

Failure to address the product quality microbiology deficiencies could result in microbial contamination of the product.

III. Administrative

A. Reviewer's Signature _____

Stephen E. Langille

B. Endorsement Block

James McVey – Team Leader

C. CC Block

N/A

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/s/

STEPHEN E LANGILLE
06/15/2011

JAMES L MCVEY
06/15/2011
I concur.