

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**213436Orig1s000**

**NON-CLINICAL REVIEW(S)**

# MEMORANDUM

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
**Public Health Service**  
**Food and Drug Administration**

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**Division of Pharmacology/Toxicology-Neuroscience (DPT-N)**  
**Center for Drug Evaluation and Research**

Date: September 3, 2021  
From: Edmund Nesti, PhD  
Reviewer  
Subject: NDA 213436  
Re: Submission 0001 (November 6, 2020)  
Product: Trudhesa (dihydroergotamine mesylate)  
Indication: Acute treatment of migraine with or without aura  
Applicant: Impel NeuroPharma, Incorporated

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Trudhesa is a drug-device combination product developed for intranasal administration of dihydroergotamine (DHE) mesylate for the acute treatment of migraine with or without aura. The therapeutic activity is generally attributed to the agonist effects at the 5-HT<sub>1D</sub>. This NDA is a 505(b)(2) application referencing DHE 45<sup>®</sup> injection (NDA 05929) and Migranal<sup>®</sup> Nasal Spray (NDA 20148). The maximum recommended daily dose is 2.9 mg.

In submission 0001, a specification limit of NMT  $\frac{(b)}{(4)}\%$  was set for degradant  $\frac{(b)}{(4)}$ . Because this limit exceeded the ICH qualification threshold, the sponsor submitted a 14-day intranasal toxicity study of  $\frac{(b)}{(4)}$  in rat to support the higher limit. However, the study was not of adequate duration (90 days) to support chronic-intermittent use. Therefore, the sponsor lowered the specification limit to the qualification threshold of  $\leq 1\%$  (CDER stamp date: July 2, 2021; #0021).

Therefore, there is no objection to approval of the NDA from a nonclinical standpoint.

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/s/  
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