CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

215179Orig1s000

CLINICAL PHARMACOLOGY REVIEW(S)

Clinical Pharmacology NDA Memorandum

NDA (SDN)	215179 (1)
Product Name	Pemetrexed for Injection
Submission Dates	08/27/2020
Submission Type; Code	505 (b)(2)
PDUFA Due Date	06/27/2021
Proposed Dosage Form / Strength	100 mg/10 mL, 500 mg/50 mL, and 1 g/100 mL
Proposed Dosing Regimen	500 mg/m^2 Intravenous Infusion over 10 minutes on Day1 of a 21-day cycle
Proposed Indications	The same as Alimta®: • In combination with pembrolizumab and platinum chemotherapy, in patients with metastatic non-squamous NSCLC, with no EGFR or ALK genomic tumor aberrations. • In combination with cisplatin for the initial treatment of patients with locally advanced or metastatic, non-squamous, non-small cell lung cancer (NSCLC). • As a single agent for the maintenance treatment of patients with locally advanced or metastatic, non-squamous NSCLC whose disease has not progressed after four cycles of platinum-based first-line chemotherapy. • As a single agent for the treatment of patients with recurrent, metastatic non-squamous, NSCLC after prior chemotherapy. Limitations of Use: pemetrexed injection is not indicated for the treatment of patients with squamous cell, non-small cell lung cancer. • Initial treatment, in combination with cisplatin, of patients with malignant pleural mesothelioma whose disease is unresectable or who are otherwise not candidates for curative surgery.
Applicant	Shilpa Meidcare Ltd.
OCP Reviewer	Sriram Subramaniam, Ph.D.
OCP Team Leader	Hong Zhao, Ph.D.
Clinical Division	Division of Oncology 2 (DO2)

Shilpa Meidcare submitted a NDA for Pemetrexed for Injection, 100 mg/10 mL, 500 mg/50 mL, and 1 g/100 mL under Section 505(b)(2). Alimta (pemetrexed disodium) is the Listed Drug (NDA 021462) approved in two strengths, 100 mg/vial and 500 mg/vial. The proposed indications, active moiety, dose, and route and duration of administration for Shilpa's product are the same as those for Alimta.

The differences from Alimta include that the Shilpa's pemetrexed formulations are "ready to use" solutions (Alimta is a lyophilized powder), an additional strength (1 g/100 mL), and addition of L-cysteine hydrochloride as (b) (4) which is not present in Alimta.

In the current NDA submission, Shilpa Meidcare requests a waiver of *in vivo* bioequivalence (BE) studies between the proposed product and Alimta under 21 CFR 320.22. Shilpa Meidcare has not conducted or sponsored any clinical pharmacokinetic or BE study to support this NDA. The approval will be primarily based on publicly available information for Alimta, and the physicochemical comparability of the two products.

This NDA submission does not contain any clinical pharmacology information and does not involve any changes to the clinical pharmacology sections of the labeling. Thus, a clinical pharmacology review is not warranted and there are no clinical pharmacology issues if the Applicant's biowaiver request is granted.

Signatures:

Sriram Subramaniam, Ph.D.	Hong Zhao, Ph.D.
Clinical Pharmacology Reviewer	Team Leader
Division of Cancer Pharmacology I	Division of Cancer Pharmacology II

This is a representation of an electronic record that was signed electronically. Following this are manifestations of any and all electronic signatures for this electronic record.

/s/

SRIRAM SUBRAMANIAM
05/18/2021 11:26:25 PM

HONG ZHAO
05/19/2021 08:23:23 AM