Approval Date: March 1, 2006

FREEDOM OF INFORMATION SUMMARY

SUPPLEMENTAL ABBREVIATED NEW ANIMAL DRUG APPLICATION

ANADA 200-308

Flunixin Injection
(Flunixin meglumine)

This supplement allows for the use in lactating dairy cattle for control of pyrexia associated with bovine respiratory disease and endotoxemia and for the control of inflammation in endotoxemia.

Sponsored by:

Norbrook Laboratories, Ltd.

FREEDOM OF INFORMATION SUMMARY

1. GENERAL INFORMATION:

a. File Number	ANADA 200-308
b. Sponsor:	Norbrook Laboratories, Ltd. Station Works Newry BT35 6JP Northern Ireland Drug Labeler Code: 055529
c. Established Name:	Flunixin meglumine
d. Proprietary Name:	Flunixin Injectable
e. Dosage Form:	Injectable
f. How Supplied:	50 mL, 100 mL, and 250 mL multiple dose vials
g. How Dispensed:	Rx
h. Amount of Active Ingredients:	Each milliliter contains flunixin meglumine equivalent to 50 mg flunixin
i. Route of Administration:	Horse: intramuscular or intravenous Cattle: intravenous
j. Species/Class:	Horse and cattle
k. Recommended Dosage:	Horse: 0.5 mg/pound (1 mL/100 lbs) of body weight once daily. Cattle: 1.1 to 2.2 mg/kg (0.5 to 1 mg/lb; 1 to 2 mL per 100 lbs) of body weight once a day as a single dose or divided into two doses administered at 12 hour intervals.
l. Pharmacological Category:	Non-narcotic, non-steroidal, analgesic, anti-inflammatory, and antipyretic.

m. Indications:	*Horse:* Flunixin Meglumine Injection is recommended for the alleviation of inflammation and pain associated with musculoskeletal disorders in the horse. It is also recommended for the alleviation of visceral pain associated with colic in the horse. *Cattle:* Flunixin Meglumine Injection is indicated for the control of pyrexia associated with bovine respiratory disease and endotoxemia. Flunixin Meglumine Injection is also indicated for the control of inflammation in endotoxemia.
n. Pioneer Product:	BANAMINE; flunixin meglumine; Schering-Plough Animal Health Corp.; NADA 101-479.
n. Effect of Supplement:	This supplement provides for the addition of use in lactating dairy cattle for the control of pyrexia associated with bovine respiratory disease and endotoxemia and for the control of inflammation in endotoxemia.

2. TARGET ANIMAL SAFETY AND DRUG EFFECTIVENESS:

Under the provisions of the Federal Food, Drug, and Cosmetic Act, as amended by the Generic Animal Drug and Patent Term Restoration Act (GADPTRA) of 1988, an Abbreviated New Animal Drug Application (ANADA) may be submitted for a generic version of an approved new animal drug (pioneer product). New target animal safety and effectiveness data and human food safety data (other than tissue residue data) are not required for approval of an ANADA.

Ordinarily, the ANADA sponsor is required to show that the generic product is bioequivalent to the pioneer, which has been shown to be safe and effective. If bioequivalence is demonstrated through a clinical endpoint study, then a tissue residue study to establish the withdrawal time for the generic product should also be conducted. For certain dosage forms, the agency will grant a waiver from the requirement of an *in vivo* bioequivalence study. (55 FR 24645, June 18, 1990; Fifth GADPTRA Policy Letter; Bioequivalence Guideline, October 9, 2002).

Based on the formulation characteristics of the generic product, Phoenix Scientific, Inc. was granted a waiver from the requirement of an *in vivo* bioequivalence study for the generic product Flunixin Injection. The generic product is administered as an injectable, contains the same active ingredients in the same concentration and dosage form as the pioneer product, and contains no inactive ingredients that may significantly affect the absorption of the active ingredient. The pioneer product, BANAMINE (flunixin meglumine) Injectable Solution, the subject of Schering-Plough Animal Health Corp. (NADA 101-479), was approved for use in horses on August 2, 1977 and approved for beef and non-lactating dairy cattle on May 6, 1998.

3. HUMAN SAFETY:

- **Tolerances for Residues:**

  The tolerance established for the pioneer product applies to the generic product. A tolerance 125 parts per billion (ppb) is established for flunixin free acid residues (the marker residue) in the liver (the target tissue), 25 ppb in the muscle, and 2 ppb in milk under 21 CFR 556.286. The acceptable daily intake (ADI) for total residues of flunixin meglumine is 0.72 micrograms per kilogram of body weight per day (21 CFR 556.286).

- **Withdrawal Times:**

  Because a waiver of the *in vivo* bioequivalence study was granted, the withdrawal times are those previously assigned to the pioneer product.

  The withdrawal time is four days in cattle and milk that has been taken during treatment and for 36 hours after the last treatment must not be used for food.

- **Regulatory Method for Residues:**

  The procedure for the determination of flunixin residues in bovine liver is a high performance liquid chromatography (HPLC) method. The validated methods are on file at the Center for Veterinary Medicine, 7500 Standish Place, Rockville, MD 20855.

4. AGENCY CONCLUSIONS:

This supplemental ANADA submitted under section 512(b) of the Federal Food, Drug, and Cosmetic Act satisfies the requirements of section 512(n) of the act and demonstrates that Flunixin Meglumine Injection, when used under its proposed conditions of use, is safe and effective for its labeled indications.

5. ATTACHMENTS:

Facsimile generic labeling and currently approved pioneer labeling are attached as follows:

Generic Labeling for ANADA 200-308:
Flunixin Injection
50 mL multiple dose vial label
100 mL multiple dose vial label
250 mL multiple dose vial label
50 mL carton
100 mL carton
250 mL carton
Package Insert (Front)
Package Insert (Back)

Pioneer Labeling for NADA 101-479:
BANAMINE (flunixin Meglumine) Injectable Solution
50 mL multiple dose vial label
100 mL multiple dose vial label
250 mL multiple dose vial label
50 mL carton
100 mL carton
250 mL carton
Package Insert (Front)
Package Insert (Back)