SCHAFER VETERINARY CONSULTANTS, LLC

February 21, 2019

Division of Dockets Management
Food and Drug Administration
Department of Health and Human Services
5630 Fishers Lane, Room 1061, HFA-305
Rockville, MD 20852

RE: Suitability Petition for Revised Dosage Form of Praziquantel Tablets

Division of Dockets Management:

As the US Agent for Felix Pharmaceuticals Pvt. Ltd., 25-28, North Wall Quay, Dublin 1, Republic of Ireland, I am submitting a suitability petition for Agency review and action.

The Sponsor is requesting permission to file an abbreviated new animal drug application (ANADA) for a generic chewable tablet for Praziquantel that differs from the pioneer product, DRONCIT® Tablets, sponsored by Bayer Healthcare LLC, under NADA 111-798. The RLNAD is approved as a compressed tablet and the proposed generic product is a compressed chewable tablet.

There are three appendices to this letter:

1. A suitability petition signed by the Sponsor describing in detail the proposed change.
2. A copy of the Bayer Healthcare LLC package insert for this product.
3. An annotated copy of the package insert showing Felix's proposed changes.

Please feel free to contact me by telephone or email if you should have any questions.

Sincerely,

James H. Schafer, D.V.M.
US Agent for Felix Pharmaceuticals Private Limited
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Fort Collins, CO 80524
Tel: 970-224-5103
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25-28, North Wall Quay, Dublin 1
Republic of Ireland

Suitability Petition

Felix Pharmaceuticals Pvt. Ltd.
25-28, North Wall Quay
Dublin 1, Republic of Ireland

I. Citation: Felix Pharmaceuticals Pvt. Ltd. submits this petition under Section 512(n)(3) of the Federal Food, Drug and Cosmetic Act.

II. Action Requested: We request permission to file an application for an abbreviated new animal drug application (ANADA) for a generic compressed chewable tablet for Praziquantel that differs from the pioneer product, DRONCIT® Tablets, sponsored by Bayer Healthcare LLC, under NADA 111-798. The RLNAD is approved as a compressed tablet and the proposed generic product is a compressed chewable tablet.

III. Statement of Grounds: Under Section 512(n)(3)(A), if a person wants to submit an abbreviated application for a new animal drug "whose active ingredients, route of administration, dosage form, or strength differ from that of an approved new animal drug", such person shall submit a petition to the Secretary seeking permission to file such an application.

Permission is sought to change the oral dosage form from a compressed tablet to a compressed chewable tablet. The proposed generic chewable tablet will be bioequivalent to the pioneer product. The route of administration remains the same. All of the excipients in the chewable tablets are already used in other products approved for use in dogs. Therefore, the different dosage form will not adversely affect the safety or effectiveness of Praziquantel.

IV. Environmental Impact: Felix Pharmaceuticals Pvt. Ltd. requests that this petition be considered for categorical exclusion under 21 CFR 25.30(h). We confirm that no extraordinary circumstances exist that may significantly affect the quality of the human environment as described in 21 CFR 25.21.

V. Economic Impact: An economic impact statement will be provided if requested after review of this petition.

VI. Certification: Felix Pharmaceuticals Pvt. Ltd. certifies that this suitability petition contains all information known to them that is unfavorable to the petition.

VII. Labeling: For the package insert, the only changes proposed will pertain to the product name, the manufacturer, and the Palatability, and How Supplied sections. Other aspects of labeling will differ only in the product name and manufacturer. Copies of the pioneer package insert and a draft of the proposed package insert for the Felix Pharmaceuticals Pvt. Ltd. generic tablets are provided as Attachments 1 and 2 to this petition.

Signature:
Neeraj Agrawal
Chairman,
Felix Pharmaceuticals Pvt. Ltd.
25-28, North Wall Quay
Dublin 1, Republic of Ireland

Date: 08 Feb 2019

DRONCIT CANINE CESTOCIDE- praziquantel tablet
Bayer HealthCare, LLC Animal Health Division

Droncit®
(praziquantel tablets)

34 Canine Cestocide

CAUTION: Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian.

Each tablet contains 34 mg praziquantel.

DESCRIPTION:

Droncit® (praziquantel tablets) 34 Canine Cestocide are sized for easy oral administration to either adult dogs or puppies. The tablets may be crumbled and mixed with the feed.

INDICATIONS:

Droncit® (praziquantel tablets) 34 Canine Cestocide are indicated for the removal of the following canine cestodes: *Dipylidium caninum*, *Taenia pisiformis*, *Echinococcus granulosus* and for the removal and control of *Echinococcus multilocularis*.

CONTRAINDICATIONS:

There are no known contraindications to the use of praziquantel in dogs.

ACTION:

Droncit® (praziquantel tablets) is absorbed, metabolized in the liver and excreted in the bile. Upon entering the digestive tract from the bile, cestocidal activity is exhibited.[1] Following exposure to praziquantel, the tapeworm loses its ability to resist digestion by the mammalian host. Because of this, whole tapeworms, including the scolex, are very rarely passed after administration of praziquantel. In many instances only disintegrated and partially digested pieces of tapeworms will be seen in the stool. The majority of tapeworms are digested and are not found in the feces.

USE DIRECTIONS:

Droncit® (praziquantel tablets) 34 Canine Cestocide may be administered directly per os or crumbled and mixed with the feed. The recommended dosage of praziquantel varies according to body weight. Smaller animals require a relatively larger dosage because of their higher metabolic rate. The optimum dose for each individual animal will be achieved by utilizing the following dosage schedule:

Dogs and Puppies*	
5 lbs. and under	½ tablet
6-10 lbs.	1 tablet
11-15 lbs.	1 ½ tablets
16-30 lbs.	2 tablets
31-45 lbs.	3 tablets
46-60 lbs.	4 tablets

Over 60 lbs.	5 tablets max

* Not intended for use in puppies less than 4 weeks of age.

FASTING:

The recommended dosage of praziquantel is not affected by the presence or absence of food in the gastrointestinal tract, therefore, **FASTING IS NEITHER NECESSARY NOR RECOMMENDED.**

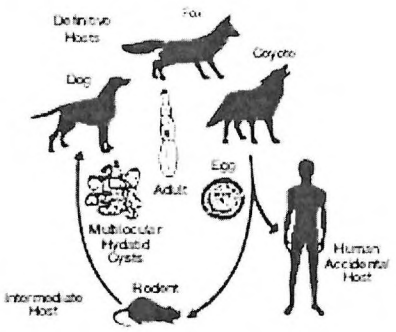
RETREATMENT:

For those animals living where reinfections are likely to occur, clients should be instructed in the steps to optimize prevention, otherwise, retreatment may be necessary. This is true in cases of *Dipylidium caninum* where reinfection is almost certain to occur if fleas are not removed from the animal and its environment. In addition, for control of *Echinococcus multilocularis,* a program of regular treatment every 21 to 26 days may be indicated (see *E. multilocularis* section below).

ECHINOCOCCUS MULTILOCULARIS:

Echinococcus multilocularis is a tapeworm species ordinarily considered to be found in wild canids, including foxes, coyotes and wolves. The parasite has also been identified in domestic dogs and cats and potentially is a serious public health concern by involving humans as accidental intermediate hosts.

The life cycle of the parasite is based on a predator-prey relationship, as depicted.



The adult tapeworm is small (1-4 mm) and resides in the intestinal tract of the definitive host (wild or domestic canids). Eggs from the adult tapeworm are shed in the feces of the infected canid. Rodents such as mice and voles serve as the intermediate host for *E. multilocularis.* Eggs ingested by rodents develop in the liver, lungs and other organs to form multilocular cysts. The life cycle is completed after a canid consumes a rodent infected with cysts. After ingestion of an infected rodent, larvae contained within the cyst develop into adult tapeworms in the intestinal tract of the canid. Eggs may begin to be passed in the feces of the canid approximately 28 days later.

This parasite poses a serious public health problem because of the possibility for human involvement in the lifecycle. If eggs shed by an infected canid are accidentally ingested, a highly pathogenic condition (Alveolar Hydatid Disease) results from development of the cyst stage in humans.

The original geographic distribution of *E. multilocularis* was primarily confined to northern areas of North America. Current evidence indicates migration of the parasite well into the continental United States.[2,3]

Domestic dogs living in *E. multilocularis* endemic areas that roam freely with the opportunity to catch wild rodents are at risk for infection. Pet owners should be advised on how to minimize this risk. Proper restraint of roaming dogs should be encouraged, along with regular treatment with Droncit tablets,

following the established dosage schedule (above) and the precautions indicated below.

Additional information on the life cycle and epidemiology of this parasite is available in veterinary parasitology texts.[4,5]

DIAGNOSIS:

Diagnosis of *E. multilocularis* in canids is difficult. The adult tapeworm produces no clinical signs of infection. Tapeworm segments (proglottids) are usually not observed in the feces. *E. multilocularis* eggs, observed using microscopic fecal examination procedures, are similar in appearance to the common taeniid species of canids such as *Taenia pisiformis.*

Assistance in the diagnosis of *E. multilocularis* may be available from a state veterinary diagnostic laboratory. Additional information regarding areas where *E. multilocularis* is suspected or has been confirmed may be obtained from area veterinary schools or the Centers for Disease Control in Atlanta, GA.

TREATMENT:

Dogs infected with *E. multilocularis* should be treated to prevent exposure of humans to infective eggs and to reduce perpetuation of the parasite's life cycle.

The dosage of Droncit tablets for removal of *E. multilocularis* is the same as that indicated for the removal of the other tapeworm species listed on the label. Laboratory efficacy studies have demonstrated the recommended dosage is 100% efficacious for removal of this tapeworm.

Under condition of continual exposure to wild rodents, retreatment of the dog at 21-26 day intervals is recommended to prevent the shedding of infectious eggs.

PRECAUTIONS:

Strict hygienic precautions should be taken when handling dogs or feces suspected of harboring *E. multilocularis.* Infected dogs treated for the first time with Droncit tablets and dogs treated at intervals greater than 28 days may shed eggs in the feces after treatment. The animal should be held in the clinic during this interval and all feces should be incinerated or autoclaved. If these procedures are not possible, the eggs can be destroyed by soaking the feces in a sodium hypochlorite (bleach) solution of 3.75% or greater.[6] All areas where the animal was maintained or in contact with should be thoroughly cleaned with sodium hypochlorite and allowed to dry completely before reuse.

ANIMAL SAFETY:

The safety index has been derived from controlled safety evaluations, clinical trials and prior approved use in foreign countries. Dosages of 5 times the labeled rate at 14 day intervals to dogs as young as 4 weeks did not produce clinical signs of toxicity. No significant clinical chemistry, hematological, cholinesterase, or histopathological changes occurred. Symptoms of gross overdosage include vomition, salivation, diarrhea and depression.

PREGNANCY:

Droncit® (praziquantel tablets) has been tested in breeding and pregnant dogs. No adverse effects were noted.

ADVERSE REACTIONS:

Seven instances (3.2%) of either vomiting, anorexia, lethargy or diarrhea were reported during the field

trials in which 218 dogs were administered Droncit® (praziquantel tablets) 34 Canine Cestocide. The investigators rated these as non-significant.

For medical emergencies or to report adverse reactions, call 1-800-422-9874.

WARNING:

Keep out of the reach of children. Not for human use. For customer service or to obtain product information, including Safety Data Sheet, call 1-800-633-3796.

STORAGE:

Store at less than or equal to 25°C (77°F)

HOW SUPPLIED:

Bottle of 50 and 150 scored tablets.

Each scored tablet contains 34 mg praziquantel.

50 Tablets

150 Tablets

REFERENCES:

[1]Andrews, P. Pharmacokinetic Studies with Droncit® in Animals Using a Biological Assay. *Veterinary Medical Review* 2/76: 154-165.

[2]Hildreth, M.B., Johnson, M.D. and Kozacos, K.R. 1991. A Zoonosis of Increasing Concern in the United States. *Compendium for Cont Ed* 13(5): 727-740.

[3]Lieby, P.D., Carney, W.P., and Woods, C.E. 1970. Studies on Sylvatic Echinococcosis. III. Host Occurrence and Geographic Distribution of *Echinococcus multilocularis* in the North Central United States. *J Parasit* 56(6): 1141-1150.

[4] Georgi, J.R. and Georgi M.E. 1990. *Parasitology for Veterinarians.* W.B. Saunders Co. 118-138.

[5]Soulsby, E.J.L. 1982. *Helminths, Arthropods and Protozoa of Domesticated Animals.* 7th Edition. Lea & Febigir 118-138.

[6]Craig, P.S. and McPharson, C.N.L. 1988. Sodium Hypochlorite as an Ovicide for *Echinococcus. Ann Trop Med and Parasit* 82(2): 211-213.

Bayer

Bayer HealthCare LLC, Animal Health Division
Shawnee Mission, Kansas 66201 U.S.A.
NADA 111-798, Approved by FDA
Made in Germany