DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
Rockville MD 20857

INAD 010697 P 0030 and T 0031

David A. Erdahl
National INAD Coordinator
USFWS, National INAD Office
Bozeman Fish Technology Center
4050 Bridger Canyon Rd.
Bozeman, MT 59715

AUG 7 2003

Dear Dr. Erdahl:

We refer to your submission dated February 5, 2003, as amended February 10, 2003, to your investigational new animal drug (INAD) file for Aquaflor® (florfenicol). You requested review of a study conducted to demonstrate the effectiveness of florfenicol medicated-feed to control mortality in fingerling cutthroat trout, *Oncorhynchus clarki,* due to coldwater disease caused by *Flavobacterium psychrophilum.*

Based on the information in this submission and the information contained in INAD 010697, the Division of Therapeutic Drugs for Food Animals considers the EFFECTIVENESS technical section complete for the purpose of recommending approval of a New Animal Drug Application for the use of Aquaflor® (florfenicol) administered as a medicated-feed at a dose of 10 mg/kg of fish/day for 10 consecutive days to control mortality in freshwater-raised salmonids due to coldwater disease caused by *Flavobacterium psychrophilum.*

A final decision on the approval of the application will be made when all of the data for all technical sections are viewed as a whole and it is determined that:

1) the information contained in and referenced by the application supports approval;

2) the GMP status of each manufacturing facility is current and satisfactory;

3) if a claim for categorical exclusion was made, conditions for the categorical exclusion are still applicable.

4) there is no new information that would preclude the approval of the application.

This study as well as the studies included in submissions dated September 9, 2002, and January 7, 2003, should be included in the Freedom of Information Summary.

Future correspondence regarding your submission to the INAD file should include the date of this letter and our file number, INAD 010697 P 0030. A copy of this technical section complete letter should be included in the Administrative NADA.

If you need further information regarding this letter, please contact Dr. Donald Prater, Leader, Aquaculture Drugs Team, who may be reached at 301-827-7567.

Sincerely yours,

Joan C. Gotthardt

Joan C. Gotthardt, D.V.M.
Director, Division of Therapeutic Drugs for
Food Animals
Office of New Animal Drug Evaluation
Center for Veterinary Medicine

United States Department of the Interior

FISH AND WILDLIFE SERVICE
FISH TECHNOLOGY CENTER
4050 BRIDGER CANYON ROAD
BOZEMAN, MONTANA 59715
(406) 587-9265/FTS 585-4900

February 10, 2003

Dr. Joan Gotthardt
Director, Division of Therapeutic Drugs
for Food Animals, HFV-199
Center for Veterinary Medicine
7500 Standish Place, MPN-2
Rockville, MD 20855

Dear Dr. Gotthardt:

The purpose of this submission is to request that the enclosed data be included with the Final Study Report (FSR) submitted on February 5, 2003 titled "The efficacy of florfenicol-medicated feed to control mortality of fingerling westslope cutthroat trout (*Oncorhynchus clarki*) caused by bacterial coldwater disease, causative agent *Flavobacterium psychrophilum*." The FSR is identified by Study Number FLOR-01-EFF-04. The data in the current submission were inadvertently not included in the FSR submitted on February 5, 2003, and include raw mortality data (hardcopy) and statistical output data (electronic version). Please note that we request that the FSR for FLOR-01-EFF-04 (including the attached mortality data and statistical output) be included in the florfenicol-medicated feed efficacy technical section in support of New Animal Drug Approval for florfenicol, and that the FSR be filed in the U.S. Fish and Wildlife Service's Investigational New Animal Drug (INAD) file #10-697. We refer to your file number INAD 10-697 E-0024, dated November 21, 2002.

The current sponsor of INAD #10-697 is William Knapp, Deputy Assistant Director - Fisheries, U. S. Fish and Wildlife Service, 4401 N. Fairfax Dr., Arlington, VA 22203. We would like to thank you in advance for your time and consideration with respect to the above-described request. If you have questions, please contact Dr. David Erdahl, National INAD Office, Bozeman, MT at (406) 587-9265, ext. 125.

Sincerely,

Dr. David Erdahl
National INAD Coordinator

enclosures

United States Department of the Interior

FISH AND WILDLIFE SERVICE
FISH TECHNOLOGY CENTER
4050 BRIDGER CANYON ROAD
BOZEMAN, MONTANA 59715
(406) 587-9265/FTS 585-4900

February 5, 2003

Dr. Joan Gotthardt
Director, Division of Therapeutic Drugs
for Food Animals, HFV-199
Center for Veterinary Medicine
7500 Standish Place, MPN-2
Rockville, MD 20855

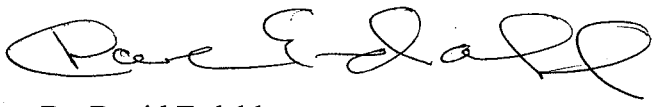
Dear Dr. Gotthardt:

The purpose of this submission is to request a formal review of the enclosed Final Study Report (FSR) titled "The efficacy of florfenicol-medicated feed to control mortality of fingerling westslope cutthroat trout (*Oncorhynchus clarki*) caused by bacterial coldwater disease, causative agent *Flavobacterium psychrophilum*." The FSR is identified by Study Number FLOR-01-EFF-04. Please note that we also request that the FSR be included in the florfenicol-medicated feed efficacy technical section in support of New Animal Drug Approval for florfenicol, and that the FSR be filed in the U.S. Fish and Wildlife Service's Investigational New Animal Drug (INAD) file #10-697. We refer to your file number INAD 10-697 E-0024, dated November 21, 2002.

The enclosed FSR is intended to demonstrate the efficacy of florfenicol-medicated feed to control mortality in cutthroat trout caused by bacterial coldwater disease when administered at a dosage of 10 mg florfenicol/kg of fish/day for 10 days. The study was conducted under the currently active research study protocol FLOR-01-EFF at the Montana Fish, Wildlife, and Parks Murray Springs Trout Hatchery, Eureka, MT. It should be noted that although total mortality in treated tanks was lower than in untreated tanks, the differences were not significant. Also, fish were already in tanks when the study started and were not randomly allocated from a common rearing tank. Therefore the level of bacterial disease infection of test fish was not uniform among all test tanks at the start of the study. However, we believe this study does in fact demonstrate efficacy of florfenicol-medicated feed to control mortality in salmonids caused by bacterial coldwater disease, and should be included in the "body of evidence" that is being established to support of a New Animal Drug Approval for florfenicol.

The current sponsor of INAD #10-697 is William Knapp, Deputy Assistant Director - Fisheries, U. S. Fish and Wildlife Service, 4401 N. Fairfax Dr., Arlington, VA 22203. We would like to thank you in advance for your time and consideration with respect to the above-described request. If you have questions, please contact Dr. David Erdahl, National INAD Office, Bozeman, MT at (406) 587-9265, ext. 125.

Sincerely,



Dr. David Erdahl
National INAD Coordinator

enclosure

United States Department of the Interior

FISH AND WILDLIFE SERVICE
FISH TECHNOLOGY CENTER
4050 BRIDGER CANYON ROAD
BOZEMAN, MONTANA 59715
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January 17, 2002

Dr. Steven Vaughn
Director, Division of Therapeutic Drugs for Food Animals
Document Control Unit, HFV-199
Center for Veterinary Medicine
7500 Standish Place
Rockville, MD 20855

Dear Dr. Vaughn:

The purpose of this submission is to request a formal review of the enclosed Final Study Report (FSR) titled "The efficacy of florfenicol-medicated feed to control mortality of fingerling westslope cutthroat trout (*Oncorhynchus clarki*) caused by bacterial coldwater disease, causative agent *Flavobacterium psychophilum*." The FSR is identified by Study Number FLOR-01-EFF-04. Please note that we also request that the FSR be included in the florfenicol medicated feed efficacy technical section in support of a New Animal Drug Approval for florfenicol, and that the FSR be filed in the U.S. Fish and Wildlife Service Investigational New Animal Drug (INAD) file #10-697. We refer to your file number INAD 10-697 E-0004, dated September 12, 2001.

The enclosed FSR is intended to demonstrate the efficacy of florfenicol-medicated feed to control mortality in cutthroat trout caused by coldwater disease when administered at a dosage of 10 mg florfenicol/kg of fish/day for 10 days. This study was conducted under the currently active research study protocol FLOR-01-EFF at the Montana Fish, Wildlife, and Parks Murray Springs Trout Hatchery, Eureka, MT. It should be noted that although total mortality in treated tanks was lower than in untreated tanks, the differences were not significant. If it is determined that this condition precludes study results for being considered "pivotal", we then request that the FSR receive only informal review and the data be considered supportive.

The current sponsor of INAD 10-697 is William Knapp, Deputy Assistant Director - Fisheries, U.S. Fish and Wildlife Service, 4401 N. Fairfax Dr., Arlington, VA 22203. We would like to thank you for your time and consideration with respect to the above-described request. If you have any questions, please contact Dr. David Erdahl, National INAD Office, Bozeman, MT at (406) 587-9265 ext. 125.

Sincerely,

Dr. David Erdahl
National INAD Coordinator

enclosure