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Approval Package for:

APPLICATION NUMBER:

21-272/S-002

Trade Name: Remodulin

Generic Name: treprostinil sodium

Sponsor: United Therapeutics Corporation

Approval Date: November 24, 2004

Purpose: Adding the infusion of Remodulin (treprostinil sodium) 1, 2.5, 5 & 10 mg/ml Injection via an indwelling central venous catheter to the labeling

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APPROVAL LETTER

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
Rockville, MD 20857

NDA 21-272/S-002

United Therapeutics Corporation
Attention: Mr. Dean Bunce
One Park Drive
Research Triangle Park, NC 27709

Dear Mr. Bunce:

Please refer to your supplemental new drug application dated January 30, 2004, received January 30, 2004, submitted under section 505(b) of the Federal Food, Drug, and Cosmetic Act for Remodulin (treprostinil sodium) 1, 2.5, 5 & 10 mg/mL Subcutaneous and Intravenous Injection.

We acknowledge receipt of your submissions dated March 5 and 15; April 5, May 4, 6 and 20; July 21; August 26; September 17; and November 11 and 18, 2004.

This supplemental new drug application provides for adding the infusion of Remodulin (treprostinil sodium) 1, 2.5, 5 & 10 mg/mL Injection via an indwelling central venous catheter to the labeling.

We have completed the review of this supplemental application, as amended, according to the regulations for accelerated approval, and have concluded that adequate information has been presented to approve Remodulin (treprostinil sodium) 1, 2.5, 5 & 10 mg/mL Subcutaneous and Intravenous Injection for use as recommended in the enclosed labeling text. Accordingly, the application is approved under 21 CFR 314 Subpart H. Approval is effective on the date of this letter. Marketing of this drug product and related activities are to be in accordance with the substance and procedures of the referenced accelerated approval regulations.

The final printed labeling (FPL) must be identical to the enclosed labeling text for the package insert, and immediate container and carton labels submitted on November 12, 2004 (email attachment). Please submit the FPL electronically according to the guidance for industry titled *Providing Regulatory Submissions in Electronic Format – NDAs* (January 1999) as soon as it is available, in no case more than 30 days after it is printed. Alternatively, you may submit 20 paper copies of the FPL, ten of which are individually mounted on heavy-weight paper or similar material. For administrative purposes, this submission should be designated "**FPL for approved NDA 21-272/S-002**." Approval of this submission by FDA is not required before the labeling is used.

Products approved under the accelerated approval regulations, 21 CFR 314.510, require further adequate and well-controlled studies to verify and describe clinical benefit. We remind you of your post marketing study (Subpart H Phase 4 commitments) specified in our letter dated August 18, 2003.

We also remind you that, under 21 CFR 314.550, after the initial 120 day period following this approval, you must submit all promotional materials, including promotional labeling as well as advertisements, at least 30 days prior to the intended time of initial dissemination of the labeling or initial publication of the advertisement.

All applications for new active ingredients, new dosage forms, new indications, new routes of administration, and new dosing regimens are required to contain an assessment of the safety and effectiveness of the product in pediatric patients unless this requirement is waived or deferred. We are exempting the pediatric study requirement for this application because Remodulin (treprostinil sodium) indicated for the treatment of pulmonary arterial hypertension received Orphan Drug designation on November 2, 1999.

Please submit one market package of the drug product when it is available.

We remind you that you must comply with the requirements for an approved NDA set forth under 21 CFR 314.80 and 314.81.

If you have any questions, please call:

Mr. Daryl Allis
Regulatory Project Manager
(301) 594-5332

Sincerely,

{See appended electronic signature page}

Norman Stockbridge, M.D., Ph.D.
Acting Director
Division of Cardio-Renal Drug Products
Office of Drug Evaluation I
Center for Drug Evaluation and Research

Enclosure

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