# CENTER FOR DRUG EVALUATION AND RESEARCH

**Application Number** 21-179

## CHEMISTRY REVIEW(S)

**DIVISION OF METABOLISM AND ENDOCRINE DRUG PRODUCTS - HFD-510**
Review of Chemistry, Manufacturing, and Controls

**NDA #: 21-179** **DATE REVIEWED:** June 28, 2000 **CHEMISTRY REVIEW #:** 2

| SUBMISSION TYPE | DOCUMENT DATE | CDER DATE |
|---|---|---|
| AMENDMENT | 6/12/00 | 6/13/00 |
| AMENDMENT | 6/14/00 | 6/15/00 |
| AMENDMENT | 6/19/00 | 6/20/00 |

**NAME & ADDRESS OF SPONSOR:** Gel Tex Pharmaceuticals, Inc.
153 Second Ave.
Waltham, MA 02451 (781) 290-5888

**DRUG PRODUCT NAME:**
Proprietary: Renagel
Nonproprietary: Allylamine polymer with 1-chloro-2,3-epoxypropane, hydrochloride

Sevelamer HCl (USAN)
Chem. Type/Therapeutic Class: Type 3/ Class S

**PHARMACOL. CATEGORY/INDICATION:** Treatment of hyperphosphatemia in patients with renal failure
**DOSAGE FORM:** Tablets ———
**STRENGTHS:** 400 and 800 mg
**ROUTE OF ADMINISTRATION:** Oral
**Rx/OTC:** X Rx __ OTC

**CHEMICAL NAME, STRUCTURAL FORMULA (see next page), MOLECULAR FORMULA, MOLECULAR WEIGHT:**
Poly(allylamine-co-N,N'-diallyl-1,3-diamino-2-hydroxypropane), hydrochloride; CAS #: 182683-00-7; approximate formula: $(C_3 H_7 N \cdot nHCl)_{812z}$ $(C_9 H_{18} N_2 O \cdot nHCl)_{94z}$ where z is a large number.

**REMARKS:**
NDA provides for two strengths of a new film-coated compressed tablet formulation which uses the same drug substance as NDA 20-926, Renagel Capsules, approved 10/30/98. The 6/12/00 Amendment contains responses to labeling issues raised by OPDRA. The " ——— " designation needs to be replaced by "tablet". The 6/14/00 Amendment contains updated stability information. The 6/19/00 Amendment contains the firm's responses to minor chemistry deficiencies related to drug product ingredients. The EES status is acceptable. User fee goal date is 7/16/00. For specific chemistry comments, see Review notes.

**CONCLUSIONS & RECOMMENDATIONS:**
From a chemistry viewpoint, the application is approvable, pending minor labeling corrections.

Orig. NDA # 20-926
cc: HFD-510/Division file/D-G.Wu/M.Haber/R.Hedin

[ /S/ ]
Martin Haber, Ph.D.
Review Chemist

R/D Init. by: Dr. D-G. Wu, Team Leader Chemist

[ /S/ ] 7/3/00

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**DIVISION OF METABOLISM AND ENDOCRINE DRUG PRODUCTS - HFD-510**
Review of Chemistry, Manufacturing, and Controls

**NDA #:** 21-179 **DATE REVIEWED:** June 1, 2000 **CHEMISTRY REVIEW #:** 1

| SUBMISSION TYPE | DOCUMENT DATE | CDER DATE | ASSIGNED DATE |
|---|---|---|---|
| ORIGINAL | 9/15/99 | 9/17/99 | 10/5/99 |
| AMENDMENT | | | |

**NAME & ADDRESS OF SPONSOR:** Gel Tex Pharmaceuticals, Inc.
153 Second Ave.
Waltham, MA 02154 (781) 290-5888

**DRUG PRODUCT NAME:**
Proprietary: Renagel
Nonproprietary: Allylamine polymer with 1-chloro-2,3-epoxypropane, hydrochloride

Sevelamer HCl (USAN)
Chem. Type/Therapeutic Class: Type 3/ Class S

**PHARMACOL. CATEGORY/INDICATION:** Treatment of hyperphosphatemia in patients with renal failure
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**Rx/OTC:** __X__ Rx ___ OTC

**CHEMICAL NAME, STRUCTURAL FORMULA (see next page), MOLECULAR FORMULA, MOLECULAR WEIGHT:**
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**REMARKS:**
The NDA provides for two strengths of a new film-coated compressed tablet formulation which uses the same drug substance as NDA 20-926, Renagel Capsules, approved 10/30/98. The larger 800 mg tablet will halve the number of units a patient needs to ingest and the 400 mg tablet is smaller in size than the approved 403 mg capsule for patients who have difficulty swallowing. No clinical data is provided. Minor chemistry deficiencies are related to drug product ingredients. EES status is acceptable and labeling review is complete. The tradename is the same as the approved capsule product. OPDRA objected to the ———designation, recommending "tablet" instead. User fee goal date is 7/16/00. For specific chemistry comments, see Review notes.

**CONCLUSIONS & RECOMMENDATIONS:**
From a chemistry viewpoint, the application is approvable, pending satisfactory response to chemistry deficiencies.

[ /S/ ]
Martin Haber, Ph.D.
Review Chemist

Orig. NDA # 20-926
cc: HFD-510/Division file/D-G.Wu/M.Haber/R.Hedin

R/D Init. by: Dr. D-G. Wu, Team Leader Chemist

[ /S/ ] 7/7/00

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