

**CENTER FOR DRUG EVALUATION AND RESEARCH**

**Approval Package for:**

***APPLICATION NUMBER:***  
**NDA 20-261/S016**

***Trade Name:*** Lescol Tablets

***Generic Name:*** fluvastatin sodium

***Sponsor:*** Novartis Pharmaceutical Corporation

***Approval Date:*** April 23, 1998

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

***APPLICATION NUMBER:***  
**NDA 20-261/S016**

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**Reviews / Information Included in this NDA Review.**

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<b>Chemistry Review(s)</b>	<b>X</b>
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***APPLICATION NUMBER:***  
**NDA 20-261/S016**

**APPROVAL LETTER**

NDA 20-261/S-016

APR 23 1998

Novartis Pharmaceuticals Corporation  
Attention: Donna Kapples  
59 Route 10  
East Hanover, New Jersey 07936-1080

Dear Ms. Kapples:

Please refer to your supplemental new drug application dated December 19, 1997, received December 29, 1998, submitted under section 505(b) of the Federal Food, Drug, and Cosmetic Act for Lescol (fluvastatin sodium) capsules.

The User Fee goal date for this application is June 29, 1998.

The supplemental application provides for an alternate source for the drug substance

We have completed the review of this supplemental application and it is approved.

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 contact Margaret Simoneau, R.Ph., Regulatory Management Officer, at (301) 827-6418.

Sincerely yours,

*Stephen K. Moore 4/23/98*

Stephen K. Moore, Ph.D.  
Chemistry Team Leader I, DNDC II  
Division of Metabolic and Endocrine Drug  
Products  
Office of Drug Evaluation II  
Center for Drug Evaluation and Research



NDA 20-261/S-016

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cc:

Original NDA 20-261

HFD-510/Div. Files

HFD-510/CSO/M. Simoneau

HFD-510/W.Berlin/S.Moore/E.Barbehenn/R.Steigerwalt/E.Galliers

HFD-820/ONDC Division Director

HFD-92/DDM-DIAB

DISTRICT OFFICE

Drafted by: Mas/April 20, 1998/20261.16

Initialed by: WBerlin4.21.98/S.Moore4.20.98/EBarbehenn4.21.98/RSteigerwalt4.20.98

EGalliers4.22.98

Final: Mas4.23.98

APPROVAL (AP)

**FOI: Please redact the word \_\_\_\_\_**

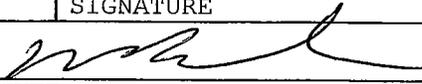
**CENTER FOR DRUG EVALUATION AND  
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*APPLICATION NUMBER:*  
**NDA 20-261/S016**

**CHEMISTRY REVIEW(S)**

# ORIGINAL

APR - 7 1998

<b>CHEMISTS REVIEW</b>		1. ORGANIZATION	2. NDA NUMBER
		DMEDP II, HFD-510	20-261
3. NAME AND ADDRESS OF APPLICANT		4. SUPPLEMENT NUMBER, DATE	
Novartis Pharmaceuticals Corp. 59 Route 10 East Hanover, NJ 07936		SCS-016  12-19-97	
5. PROPRIETARY NAME	6. NAME OF THE DRUG	7. AMENDMENTS, REPORT, DATE	
Lescol®	fluvastatin sodium		
8. SUPPLEMENT PROVIDES FOR			
An alternate source for the drug substance starting material _____			
9. PHARMACOLOGICAL CATEGORY	10. HOW DISPENSED	11. RELATED IND, NDA, DMF	
antihypercholesteremic	RX		
12. DOSAGE FORM	13. POTENCY		
Capsules, oral	20, 40 mg		
14. CHEMICAL NAME AND STRUCTURE			
See Chemistry Review #1			
15. COMMENTS			
<p>The sponsor has provided data to support the purchase of _____ (currently manufactured _____), the drug substance _____ commercial suppliers. Included in the supplement are complete descriptions of the drug substance manufacturing process including in-process controls and tests and specifications. Analytical comparison for _____ ("different suppliers were used") batches of _____ were provided (no raw data), and included appearance, LOD, as well as assay and impurities by HPLC (vol. 2, p. 495). No significant differences are apparent from the data. Additionally, data for _____ batches of _____ in the synthesis were provided (vol. 2, p. 496). Results were provided for appearance, ID (TLC and IR), LOD, as well as assay and impurities by HPLC. Again, no significant differences are apparent from the data provided. Finally, results of the tests and specifications for the final drug substance, fluvastatin sodium, for _____ batches are provided.</p> <p>(continued next page)</p>			
16. CONCLUSION AND RECOMMENDATION			
The sponsor has adequately demonstrated that manufacture using commercially-supplied starting material, _____ results in no decrease in drug substance quality. The stability commitment provided is acceptable. Issue an approval letter.			
17. NAME	18. REVIEWERS SIGNATURE	19. DATE COMPLETED	
WILLIAM K. BERLIN		3-7-98	
DISTRIBUTION: ORIGINAL JACKET		CSO	DIVISION FILE

AP

*Stephen K. Moore*  
4/7/98

/      Page(s) Withheld

     /      § 552(b)(4) Trade Secret /  
Confidential

     § 552(b)(4) Draft Labeling

     § 552(b)(5) Deliberative Process

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*APPLICATION NUMBER:*  
**NDA 20-261/S016**

**ADMINISTRATIVE and CORRESPONDENCE**  
**DOCUMENTS**



Food and Drug Administration  
Rockville MD 20857

NDA 20-261/S-016

Novartis Pharmaceuticals Corporation  
59 Route 10  
East Hanover, NJ 07936-1080

JAN 6 1998

Attention: Donna Kapples

Dear Ms. Kapples:

We acknowledge receipt of your supplemental application for the following:

Name of Drug: LESCOL® (fluvastatin sodium) Capsules

NDA Number: 20-261

Supplement Number: S-016

Date of Supplement: December 19, 1997

Date of Receipt: December 29, 1997

Unless we find the application not acceptable for filing, this application will be filed under Section 505(b)(1) of the Act on February 27, 1998, in accordance with 21 CFR 314.101(a).

All communications concerning this NDA should be addressed as follows:

Center for Drug Evaluation and Research  
Division of Metabolic and Endocrine Drug Products, HFD-510  
Office of Drug Evaluation II  
Attention: Document Control Room 14B-19  
5600 Fishers Lane  
Rockville, MD 20857

Sincerely,

Enid Galliers  
Chief, Project Management Staff  
Division of Metabolic and Endocrine  
Drug Products, HFD-510  
Office of Drug Evaluation II  
Center for Drug Evaluation and Research

NDA 20-261/016

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cc:

Original NDA 20-261/016

HFD-510/Div. Files

HFD-510/CSO/M. Simoneau

filename: C:\DATA\WPFILES\20261ACK

SUPPLEMENT ACKNOWLEDGEMENT



**NDA SUPPLEMENT**

Novartis Pharmaceuticals Corporation  
Drug Regulatory Affairs  
59 Route 10  
East Hanover, NJ 07936-1080

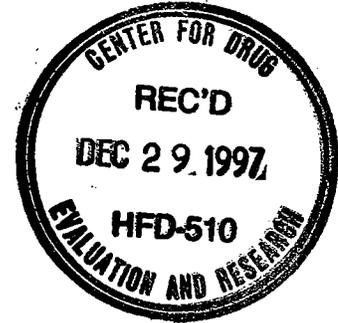
NDA NO. 20261 REF. NO. 016

NDA SUPPL FOR SCS

Tel 201 503 7500  
Fax 201 503 6325

ORIGINAL

December 19, 1997



Solomon Sobel, MD  
Director  
Division of Metabolic and  
Endocrine Drug Products/HFD-510  
Office of Drug Evaluation II  
Attn: Document Control Room 14B-04  
Center for Drug Evaluation and Research  
5600 Fishers Lane  
Rockville, Maryland 20857

NDA No. 20-261  
LESCOL®  
(fluvastatin sodium) Capsules

SUPPLEMENTAL NEW DRUG  
APPLICATION

EXPEDITED REVIEW REQUESTED

Dear Dr. Sobel:

In accordance with 21 CFR §314.70(B), Novartis Pharmaceuticals Corporation herewith submits a supplemental new drug application for Lescol® (fluvastatin sodium) Capsules. This supplement provides for the purchase \_\_\_\_\_, the \_\_\_\_\_ in the synthesis of the drug substance, Fluvastatin Sodium.

The currently approved sites for the synthesis of \_\_\_\_\_ Novartis Basel, Switzerland and Novartis Ringaskiddy, Ireland. \_\_\_\_\_ is now commercially available. As a result, Novartis Pharmaceuticals Corporation is providing the documentation to qualify the supply \_\_\_\_\_ from external sources. The quality of Fluvastatin Sodium synthesized using purchased \_\_\_\_\_ is equivalent to the quality of Fluvastatin Sodium synthesized by the currently approved process. This equivalence is demonstrated by the analytical comparisons of \_\_\_\_\_ Fluvastatin Sodium. The intermediates and drug substance made by the currently approved process were compared analytically to the intermediates and drug substance made using two external sources of \_\_\_\_\_. Summaries of the analytical data comparisons are included in the supplement as well as the \_\_\_\_\_ for the Fluvastatin Sodium batches

The control of purchased \_\_\_\_\_ will be in accordance with the currently approved procedures and specifications established for \_\_\_\_\_. Additionally, the vendor certificate of analysis for \_\_\_\_\_ will also be reviewed against the internally generated data.

The synthesis and quality of Fluvastatin Sodium remains essentially unchanged. The purchased \_\_\_\_\_ currently approved process. In addition to the analytical comparisons provided, the supplement includes updated control documents, as well as an \_\_\_\_\_ procedure for the chemical

\_\_\_\_\_. Also, during a telephone conversation held on December 17, 1997 between Dr. William Berlin (reviewing chemist, Division of Metabolic and Endocrine Drug Products) and Donna Kapples (Novartis Pharmaceuticals Corporation), an agreement was made that stability would be reported on \_\_\_\_\_ batches of drug substance derived from purchased \_\_\_\_\_. Three month stability data on these batches will be provided as an amendment to this supplement early in 1998. It was also agreed that drug product stability would not be specifically required at this time due to the nature of the proposed change.

Due to the high demand of Lescol Capsules, the availability of Fluvastatin Sodium in the United States, using the currently approved synthesis, is \_\_\_\_\_

\_\_\_\_\_. We look forward to working with the Agency to respond to any questions in an expeditious manner.

A certified copy of this NDA supplement is being provided to our local office in compliance with the preapproval inspection requirements.

If you have any questions or comments, please contact me at (973) 503-6929.

Sincerely,

*Donna Kapples*

Donna Kapples

Chemistry, Manufacturing and Controls  
Drug Regulatory Affairs

/ajm-cw

Attachments

Submitted in duplicate

Desk copy: Regina Brown, New Jersey District Office, North Brunswick Resident Post

REVIEWS COMPLETED	
CSO ACTION:	
<input checked="" type="checkbox"/> LETTER	<input type="checkbox"/> N.A.I. <input type="checkbox"/> MEMO
MAS AP	4/23/98
CSO INITIALS	DATE