

**CENTER FOR DRUG EVALUATION AND RESEARCH**

**APPROVAL PACKAGE FOR:**

**APPLICATION NUMBER**

**21-184**

**Chemistry Review(s)**



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**Memorandum**

Date September 25, 2000  
From William C. Timmer, Ph.D.  
Subject Addendum to Chemistry Review #2;  
NDA 21-184: TAZORAC (tazarotene) Cream, 0.05%, 0.1%  
To The File

The following changes and clarifications for Chemistry Review #2 are made:

- Chemistry review #2 requested a Phase IV commitment to perform a Photostability *Condition-of-Use* Study.
- The sponsor noted that photostability data was included in the NDA.
- Examination of the study by the reviewer indicated several ambiguities; a teleconference was arranged.
- Discussions during the teleconference revealed that there was about a ~~loss~~ loss of tazarotene (the drug substance) at the end of the photostability study.

Since the tazarotene loss was determined -- which was the rationale for performing the *conditions-of-use* photostudy -- it is not necessary for the Phase IV commitment to be honored. That is, *the sponsor is not requested to perform the Conditions-of-Use-Photostability study.*

/s/

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William C. Timmer, Ph.D.  
Review Chemist, HFD-540/830

cc:

Original NDA 21-184  
HFD-540/Division File  
HFD-540/DD/JWilkin  
HFD-540/ChemTL/WHDeCamp w/ 9/25/00  
HFD-540/PM/KBhatt

HFD-540/Pharm-TL/AJacobs  
HFD-540/Pharm/ANostrandt  
HFD-540/Chem/WCTimmer  
HFD-540/MO-TL/MOkun  
HFD-540/MO/HKo

U.S. FOOD and DRUG ADMINISTRATION

OFFICE OF NEW DRUG CHEMISTRY

DIVISION OF DERMATOLOGIC AND DENTAL DRUG PRODUCTS  
--Review of Chemistry, Manufacturing, and Controls--

NDA #: 21-184      CHEM.REVIEW #: 2      REVIEW DATE: August 29, 2000

<u>SUBMISSION/TYPE</u>	<u>DOCUMENT DATE</u>	<u>CDER DATE</u>	<u>ASSIGNED DATE</u>
ORIGINAL	30-SEP-99	30-SEP-99	30-SEP-99
BC	07-MAR-00	09-MAR-00	09-MAR-00

NAME & ADDRESS OF APPLICANT:  
Allergan, Inc.  
2525 Dupont Drive  
P.O. Box 19534  
Irvine, CA 92623-9534

Trudy A. Rumbaugh, M.D.  
Director  
Global Regulatory Affairs  
(714) 246-4292

DRUG PRODUCT NAME:

<u>Proprietary:</u>	Tazorac
<u>Nonproprietary/USAN:</u>	Tazarotene
<u>Code Names/#'s:</u>	AGN190168
<u>Chemical Type:</u>	3
<u>Therapeutic Class:</u>	S

PHARMACOLOGICAL INDICATION: Once daily treatment of plaque psoriasis.

<u>DOSAGE FORM:</u>	cream
<u>STRENGTHS:</u>	0.05% <del>          </del>
<u>ROUTE OF ADMINISTRATION:</u>	topical
<u>DISPENSED:</u>	<input checked="" type="checkbox"/> R <input type="checkbox"/> OTC

CHEMICAL NAME, STRUCTURAL FORMULA, MOLC. FORMULA & WT: Refer to Review #1.

<u>SUPPORTING DOCUMENTS:</u>	Refer to Review #1.
<u>RELATED DOCUMENTS:</u>	None
<u>CONSULTS:</u>	None

CONCLUSIONS & RECOMMENDATIONS:

Stability is revised to provide for a Phase IV commitment. The application is recommended for APPROVAL under section 505 of the FFD&C Act.

/s/

William C. Timmer, Ph.D.  
Review Chemist, HFD-540/830

cc:

Original NDA 21-184

HFD-540/Division File

HFD-540/DD/JWilkin

HFD-540/Chem/WCTimmer

HFD-540/ChemTL/WHDeCamp *WLS 8/29/00*

HFD-540/PM/KBhatt

HFD-540/MO-TL/MOkun

HFD-540/MO/HKo

HFD-540/Pharm-TL/AJacobs

HFD-540/Pharm/ANostrandt

HFD-540/Biopharm/SLee

HFD-540/Biopharm-TL/EDBashaw

HFD-725/Stat/SThompson

HFD-725/Stat-TL/MAlosh

HFD-160/Micro/NSweeney

File Name: nda21184\_org.doc

APPEARS THIS WAY  
ON ORIGINAL

**THIS SECTION  
WAS  
DETERMINED  
NOT  
TO BE  
RELEASABLE**

*one page*

**U.S. FOOD and DRUG ADMINISTRATION**

**OFFICE OF NEW DRUG CHEMISTRY**

**DIVISION OF DERMATOLOGIC AND DENTAL DRUG PRODUCTS**  
**—Review of Chemistry, Manufacturing, and Controls—**

**NDA #:** 21-184      **CHEM.REVIEW #:** 1      **REVIEW DATE:** July 26, 2000

<u>SUBMISSION/TYPE</u>	<u>DOCUMENT DATE</u>	<u>CDER DATE</u>	<u>ASSIGNED DATE</u>
ORIGINAL	30-SEP-99	30-SEP-99	30-SEP-99
BC	07-MAR-00	09-MAR-00	09-MAR-00

**JUL 26 2000**

**NAME & ADDRESS OF APPLICANT:**

Allergan, Inc.  
 2525 Dupont Drive  
 P.O. Box 19534  
 Irvine, CA 92623-9534

Trudy A. Rumbaugh, M.D.  
 Director  
 Global Regulatory Affairs  
 (714) 246-4292

**DRUG PRODUCT NAME**

<u>Proprietary:</u>	Tazorac
<u>Nonproprietary/USAN:</u>	Tazarotene
<u>Code Names/#'s:</u>	AGN190168
<u>Chemical Type:</u>	3
<u>Therapeutic Class:</u>	S

**PATENT STATUS:**

U.S. Patent No. 5,089,509(1992)

**PHARMACOLOGICAL INDICATION:**

Once daily treatment of plaque psoriasis.

**DOSAGE FORM:**

cream

**STRENGTHS:**

0.05%

**ROUTE OF ADMINISTRATION:**

topical

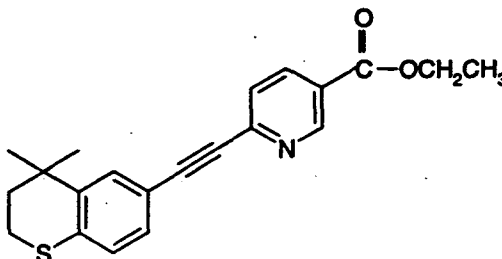
**DISPENSED:**

X R.      OTC

**CHEMICAL NAME, STRUCTURAL FORMULA, MOLC. FORMULA & WT:**

Ethyl 6-[(4,4-dimethylthiochroman-6-yl)ethynyl]nicotinate; C<sub>21</sub>H<sub>21</sub>NO<sub>2</sub>S

CAS number: 302-79-4



SUPPORTING DOCUMENTS:

IND                    Tazarotene Cream,            0.05%, 0.1%. Allergan, Inc., Waco, CA.  
NDA    20,600            Tazarotene Topical Gel, 0.05%, 0.1%. Allergan, Inc., Irvine, CA.

08-May-95.

RELATED DOCUMENTS:            None

CONSULTS:                            Information Request(s):            Section 5A

CONCLUSIONS & RECOMMENDATIONS:

The application is recommended for APPROVAL under section 505 of the FFD&C Act.

/S/

William C. Timmer, Ph.D.  
Review Chemist, HFD-540/830

cc:

Original NDA 21-184  
HFD-540/Division File  
HFD-540/DD/JWilkin  
HFD-540/Chem/WCTimmer  
HFD-540/ChemTL/WHDeCamp  
HFD-540/PM/KBhatt  
HFD-540/MO-TL/MOkun  
HFD-540/MO/HKo

/S/

/S/

/S/

HFD-540/Pharm-TL/AJacobs  
HFD-540/Pharm/ANostrandt  
HFD-540/Biopharm/SLee  
HFD-540/Biopharm-TL/EDBashaw  
HFD-725/Stat/SThompson  
HFD-725/Stat-TL/MAlosh  
HFD-160/Micro/NSweeney  
File Name: nda21184\_org.doc

8/15/00

**THIS SECTION  
WAS  
DETERMINED  
NOT  
TO BE  
RELEASABLE**

*15 pages*



11-MAY-2000

FDA CDER EES  
ESTABLISHMENT EVALUATION REQUEST  
SUMMARY REPORT

Page 1 of 2

Application: NDA 21184/000 Priority: Org Code: 540  
Stamp: 30-SEP-1999 Regulatory Due: 31-JUL-2000 Action Goal: District Goal: 01-JUN-2000  
Applicant: ALLERGAN Brand Name: TAZORAC(TAZOROTENE)0.05%/0.1%  
2525 DUPONT DR TOPICAL CR  
IRVINE, CA 926239534  
Established Name:  
Generic Name: TAZAROTENE  
Dosage Form: CRM (CREAM)  
Strength: 0.05% AND 0.1%

FDA Contacts: K. BHATT (HFD-540) 301-827-2020 , Project Manager  
W. TIMMER (HFD-540) 301-827-2048 , Review Chemist  
W. DECAMP II (HFD-540) 301-827-2041 , Team Leader

Overall Recommendation:

ACCEPTABLE on 11-MAY-2000 by S. FERGUSON (HFD-324) 301-827-0062

Establishment: 1643525  
ALLERGAN INC  
8301 MARS DR  
WACO, TX 76712

DMF No:  
AADA No:

Profile: OIN OAI Status: NONE  
Last Milestone: OC RECOMMENDATION  
Milestone Date: 11-MAY-2000  
Decision: ACCEPTABLE  
Reason: DISTRICT RECOMMENDATION

Responsibilities: FINISHED DOSAGE  
MANUFACTURER  
FINISHED DOSAGE OTHER TESTER  
FINISHED DOSAGE PACKAGER

Establishment: 9610728  
ALLERGAN PHARMACEUTICALS IR  
WESTPORT, COUNTY MAYO, EI

DMF No:  
AADA No:

Profile: CTL OAI Status: NONE  
Last Milestone: OC RECOMMENDATION  
Milestone Date: 22-NOV-1999  
Decision: ACCEPTABLE  
Reason: BASED ON PROFILE

Responsibilities: FINISHED DOSAGE STABILITY  
TESTER

Establishment: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DMF No:  
AADA No:

Profile: CSN OAI Status: NONE  
Last Milestone: OC RECOMMENDATION  
Milestone Date: 22-NOV-1999

Responsibilities: \_\_\_\_\_  
\_\_\_\_\_

11-MAY-2000

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FDA CDER EES  
ESTABLISHMENT EVALUATION REQUEST  
SUMMARY REPORT

Page 2 of 2

Decision: **ACCEPTABLE**  
Reason: **BASED ON PROFILE**

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APPEARS THIS WAY  
ON ORIGINAL