DEPARTMENT OF HEALTH AND HUMAN SERVICES
FOOD AND DRUG ADMINISTRATION

APPLICATION TO MARKET A NEW DRUG, BIOLOGIC, OR AN ANTIBIOTIC DRUG FOR HUMAN USE

(Title 21, Code of Federal Regulations, 314 & 601)

Form Approved: OMB No. 0910-0338
Expiration Date: April 30, 2000
See OMB Statement on page 2.

FOR FDA USE ONLY

APPLICATION NUMBER

APPLICANT INFORMATION

NAME OF APPLICANT
Novartis Consumer Health, Inc.

DATE OF SUBMISSION
May 27, 1998

TELEPHONE NO. *(Include Area Code)*
908-598-7816

FACSIMILE (FAX) Number *(Include Area Code)*
908-273-2869

APPLICANT ADDRESS *(Number, Street, City, State, Country, ZIP Code or Mail Code, and U.S. License number if previously issued):*
560 Morris Avenue
Summit, NJ 07901-1312

AUTHORIZED U.S. AGENT NAME & ADDRESS *(Number, Street, City, State, ZIP Code, telephone & FAX number)* IF APPLICABLE

PRODUCT DESCRIPTION

NEW DRUG OR ANTIBIOTIC APPLICATION NUMBER, OR BIOLOGICS LICENSE APPLICATION NUMBER (If previously issued)

ESTABLISHED NAME *(e.g., Proper name, USP/USAN name)*
terbinafine hydrochloride cream, 1%

PROPRIETARY NAME *(trade name)* IF ANY
not available

CHEMICAL/BIOCHEMICAL/BLOOD PRODUCT NAME *(If any)*
terbinafine hydrochloride

CODE NAME *(If any)*

DOSAGE FORM:
cream

STRENGTHS:
1%

ROUTE OF ADMINISTRATION:
topical

(PROPOSED) INDICATION(S) FOR USE: interdigital tinea pedis (athlete's foot), tinea cruris (jock itch) and tinea corporis (ringworm)

APPLICATION INFORMATION

APPLICATION TYPE (check one)
☒ NEW DRUG APPLICATION (21 CFR 314.50) ☐ ABBREVIATED APPLICATION (ANDA, AADA, 21 CFR 314.94)
☐ BIOLOGICS LICENSE APPLICATION (21 CFR part 601)

IF AN NDA, IDENTIFY THE APPROPRIATE TYPE ☒ 505 (b) (1) ☐ 505 (b) (2) ☐ 507

IF AN ANDA, OR AADA, IDENTIFY THE REFERENCE LISTED DRUG PRODUCT THAT IS THE BASIS FOR THE SUBMISSION
Name of Drug Holder of Approved Application

TYPE OF SUBMISSION (check one)
☐ ORIGINAL APPLICATION ☒ AMENDMENT TO A PENDING APPLICATION ☐ RESUBMISSION
☐ PRESUBMISSION ☐ ANNUAL REPORT ☐ ESTABLISHMENT DESCRIPTION SUPPLEMENT ☐ SUPAC SUPPLEMENT
☐ EFFICACY SUPPLEMENT ☐ LABELING SUPPLEMENT ☐ CHEMISTRY MANUFACTURING AND CONTROLS SUPPLEMENT ☐ OTHER

REASON FOR SUBMISSION
GCP statements

PROPOSED MARKETING STATUS (check one) ☐ PRESCRIPTION PRODUCT (Rx) ☒ OVER THE COUNTER PRODUCT (OTC)

NUMBER OF VOLUMES SUBMITTED one

THIS APPLICATION IS ☒ PAPER ☐ PAPER AND ELECTRONIC ☐ ELECTRONIC

ESTABLISHMENT INFORMATION

Provide locations of all manufacturing, packaging and control sites for drug substance and drug product (continuation sheets may be used if necessary). Include name, address, contact, telephone number, registration number (CFN), DMF number, and manufacturing steps and/or type of testing (e.g. Final dosage form, Stability testing) conducted at the site. Please indicate whether the site is ready for inspection or, if not, when it will be ready.

Cross References (list related License Applications, INDs, NDAs, PMAs, 510(k)s, IDEs, BMFs, and DMFs referenced in the current application)

This application contains the following items: *(Check all that apply)*	
n/a	1. Index
n/a	2. Labeling (check one) ☐ Draft Labeling ☐ Final Printed Labeling
n/a	3. Summary (21 CFR 314.50 (c))
n/a	4. Chemistry section
	A. Chemistry, manufacturing, and controls information (e.g. 21 CFR 314.50 (d) (1), 21 CFR 601.2)
	B. Samples (21 CFR 314.50 (e) (1), 21 CFR 601.2 (a)) (Submit only upon FDA's request)
	C. Methods validation package (e.g. 21 CFR 314.50 (e) (2) (i), 21 CFR 601.2)
n/a	5. Nonclinical pharmacology and toxicology section (e.g. 21 CFR 314.50 (d) (2), 21 CFR 601.2)
n/a	6. Human pharmacokinetics and bioavailability section (e.g. 21 CFR 314.50 (d) (3), 21 CFR 601.2)
n/a	7. Clinical Microbiology (e.g. 21 CFR 314.50 (d) (4))
n/a	8. Clinical data section (e.g. 21 CFR 314.50 (d) (5), 21 CFR 601.2)
n/a	9. Safety update report (e.g. 21 CFR 314.50 (d) (5) (vi) (b), 21 CFR 601.2)
n/a	10. Statistical section (e.g. 21 CFR 314.50 (d) (6), 21 CFR 601.2)
n/a	11. Case report tabulations (e.g. 21 CFR 314.50 (f) (1), 21 CFR 601.2)
n/a	12. Case reports forms (e.g. 21 CFR 314.50 (f) (2), 21 CFR 601.2)
n/a	13. Patent information on any patent which claims the drug (21 U.S.C. 355 (b) or (c))
n/a	14. A patent certification with respect to any patent which claims the drug (21 U.S.C 355 (b) (2) or (j) (2) (A))
n/a	15. Establishment description (21 CFR Part 600, if applicable)
n/a	16. Debarment certification (FD&C Act 306 (k)(1))
n/a	17. Field copy certification (21 CFR 314.50 (k) (3))
n/a	18. User Fee Cover Sheet (Form FDA 3397)
X	19. OTHER (Specify) GCP statements

CERTIFICATION

I agree to update this application with new safety information about the product that may reasonably affect the statement of contraindications, warnings, precautions, or adverse reactions in the draft labeling. I agree to submit safety update reports as provided for by regulation or as requested by FDA. If this application is approved, I agree to comply with all applicable laws and regulations that apply to approved applications, including, but not limited to the following:

1. Good manufacturing practice regulations in 21 CFR 210 and 211, 606, and/or 820.
2. Biological establishment standards in 21 CFR Part 600.
3. Labeling regulations in 21 CFR 201, 606, 610, 660 and/or 809.
4. In the case of a prescription drug or biological product, prescription drug advertising regulations in 21 CFR 202.
5. Regulations on making changes in application in 21 CFR 314.70, 314.71, 314.72, 314.97, 314.99, and 601.12.
6. Regulations on reports in 21 CFR 314.80,314.81, 600.80 and 600.81.
7. Local, state and Federal environmental impact laws.

If this application applies to a drug product that FDA has proposed for scheduling under the Controlled Substances Act I agree not to market the product until the Drug Enforcement Administration makes a final scheduling decision.
The data and information in this submission have been reviewed and, to the best of my knowledge are certified to be true and accurate.
Warning: a willfully false statement is a criminal offense, U.S. Code, title 18, section 1001.

SIGNATURE OF RESPONSIBLE OFFICIAL OR AGENT	TYPED NAME AND TITLE	DATE
Christine Babiuk	Christine Babiuk, PhD Associate Director, Regulatory Affairs	5/27/98

ADDRESS *(Street, City, State, and ZIP Code)*	Telephone Number
Novartis Consumer Health, Inc. 560 Morris Ave., Summit, NJ 07901-1312	(908) 598-7816

Public reporting burden for this collection of information is estimated to average 40 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to:

DHHS, Reports Clearance Officer
Paperwork Reduction Project (0910-0338)
Hubert H. Humphrey Building, Room 531-H
200 Independence Avenue, S.W.
Washington, DC 20201

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

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FORM FDA 356h (7/97)

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

Tel 973 781 8300

NOVARTIS

Lamisil® Cream study 2-1 was performed in accordance to standards of the sponsor (formerly Sandoz) which respected the following:

- ***Either*** Directive 91/507/EEC: The Rules Governing Medicinal Products in the European Community ***Or*** US Code of Federal Regulations dealing with clinical studies (21 CFR, including parts 50 and 56 concerning informed consent and IRB regulations).
- Declaration of Helsinki, concerning medical research in humans ('Recommendations Guiding Physicians in Biomedical Research Involving Human Subjects', Helsinki 1964, amended Tokyo 1975, Venice 1983 and Hong Kong 1989).

Susan Hilss
Sr. Clinical Research Scientist
Clinical Development & Regulatory Affairs
Therapeutic Area: Dermatology/Transplantation/Immunology/Infectious Disease

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

Tel 973 781 8300

NOVARTIS

Lamisil® Cream study 2-2 was performed in accordance to standards of the sponsor (formerly Sandoz) which respected the following:

- ***Either*** Directive 91/507/EEC: The Rules Governing Medicinal Products in the European Community ***Or*** US Code of Federal Regulations dealing with clinical studies (21 CFR, including parts 50 and 56 concerning informed consent and IRB regulations).
- Declaration of Helsinki, concerning medical research in humans ('Recommendations Guiding Physicians in Biomedical Research Involving Human Subjects', Helsinki 1964, amended Tokyo 1975, Venice 1983 and Hong Kong 1989).

Susan Hilss
Sr. Clinical Research Scientist
Clinical Development & Regulatory Affairs
Therapeutic Area: Dermatology/Transplantation/Immunology/Infectious Disease

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

Tel 973 781 8300

NOVARTIS

Lamisil® Cream study 2508-01 was performed in accordance to standards of the sponsor (formerly Sandoz) which respected the following:

- ***Either*** Directive 91/507/EEC: The Rules Governing Medicinal Products in the European Community ***Or*** US Code of Federal Regulations dealing with clinical studies (21 CFR, including parts 50 and 56 concerning informed consent and IRB regulations).
- Declaration of Helsinki, concerning medical research in humans ('Recommendations Guiding Physicians in Biomedical Research Involving Human Subjects', Helsinki 1964, amended Tokyo 1975, Venice 1983 and Hong Kong 1989).

Susan Hilss
Sr. Clinical Research Scientist
Clinical Development & Regulatory Affairs
Therapeutic Area: Dermatology/Transplantation/Immunology/Infectious Disease

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

Tel 973 781 8300

NOVARTIS

Lamisil® Cream study 3-2 was performed in accordance to standards of the sponsor (formerly Sandoz) which respected the following:

- ***Either*** Directive 91/507/EEC: The Rules Governing Medicinal Products in the European Community ***Or*** US Code of Federal Regulations dealing with clinical studies (21 CFR, including parts 50 and 56 concerning informed consent and IRB regulations).
- Declaration of Helsinki, concerning medical research in humans ('Recommendations Guiding Physicians in Biomedical Research Involving Human Subjects', Helsinki 1964, amended Tokyo 1975, Venice 1983 and Hong Kong 1989).

Susan Hilss
Sr. Clinical Research Scientist
Clinical Development & Regulatory Affairs
Therapeutic Area: Dermatology/Transplantation/Immunology/Infectious Disease

NOVARTIS
PHARMACEUTICALS CORPORATION

Novartis Pharmaceuticals Corp.
560 Morris Avenue
Building F, Room 1014
Summit, NJ 07901-1512

The Lamisil® Cream study SF 0040 was performed in accordance to the high standards of the sponsor (formerly Sandoz Pharmaceuticals Corporation) which respected the following:

- Declaration of Helsinki, concerning medical research in humans ("Recommendations Guiding physicians in Biomedical Research involving human Subjects", Helsinki 1964, amended Tokoyo 1975, Venice 1983 and Hong Kong 1989).

David Crowder B.Pharm., Ph.D., M.R. Pharm.S.
Head of Medical Administration

NOVARTIS
PHARMACEUTICALS CORPORATION

Novartis Pharmaceuticals Corp.
560 Morris Avenue
Building F, Room 1014
Summit, NJ 07901-1312

The Lamisil® Cream study SF 0029 was performed in accordance to the high standards of the sponsor (formerly Sandoz Pharmaceuticals Corporation) which respected the following:

- Declaration of Helsinki, concerning medical research in humans ("Recommendations Guiding physicians in Biomedical Research involving human Subjects", Helsinki 1964, amended Tokoyo 1975, Venice 1983 and Hong Kong 1989).

David Crowder B.Pharm., Ph.D., M.R. Pharm.S.
Head of Medical Administration

NOVARTIS
PHARMACEUTICALS CORPORATION

Novartis Pharmaceuticals Corp.
560 Morris Avenue
Building F, Room 1014
Summit, NJ 07901-1312

The Lamisil® Cream study SF 2003 was performed in accordance to the high standards of the sponsor (formerly Sandoz Pharmaceuticals Corporation) which respected the following:

- Declaration of Helsinki, concerning medical research in humans
  ("Recommendations Guiding physicians in Biomedical Research involving human Subjects", Helsinki 1964,
  amended Tokoyo 1975, Venice 1983 and Hong Kong 1989).

David Crowder B.Pharm., Ph.D., M.R. Pharm.S.
Head of Medical Administration

NOVARTIS
PHARMACEUTICALS CORPORATION

Novartis Pharmaceuticals Corp.
550 Morris Avenue
Building F, Room 1014
Summit, NJ 07901-1312

The Lamisil® Cream study SF 2030 was performed in accordance to the high standards of the sponsor (formerly Sandoz Pharmaceuticals Corporation) which respected the following:

- Declaration of Helsinki, concerning medical research in humans ("Recommendations Guiding physicians in Biomedical Research involving human Subjects", Helsinki 1964, amended Tokoyo 1975, Venice 1983 and Hong Kong 1989).

David Crowder B.Pharm., Ph.D., M.R. Pharm.S.
Head of Medical Administration

Christine Babiuk, Ph.D.
Associate Director, R.A.

Novartis Consumer Health, Inc.
560 Morris Avenue
Summit, NJ 07901-1312

Tel 908 598 7816
Fax 908 273 2869

NOVARTIS

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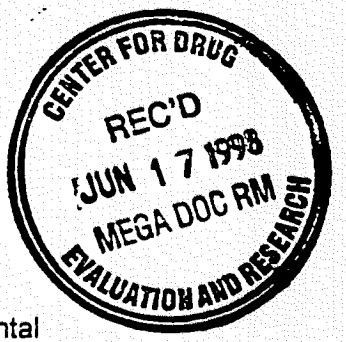
ORIG AMENDMENT

ORIGINAL



June 15, 1998

Jonathan Wilkin, MD
Director
Division of Dermatologic and Dental
Drug Products/HFD-540
Office of Drug Evaluation V
Attn: Document Control Room 12B-30
Center for Drug Evaluation and Research
5600 Fishers Lane
Rockville, Maryland 20857

NDA #20-980
Terbinafine Hydrochloride
Cream, 1%

Amendment to a Pending Application

Dear Dr. Wilkin:

Reference is made to the Novartis Consumer Health, Inc. pending New Drug Application for sale without prescription of terbinafine hydrochloride cream, 1%, and to conversations between Mr. Frank Cross and the undersigned on April 30, and May 14, 1998, and with Dr. Cynthia Psaras of NCHI on May 18, 1998. The following documentation is being submitted in this amendment:

i) Proposal for Stability Study
A stability proposal is being submitted to inform the Agency of the specifics of the stability study for qualifying the new tube sealant which will be initiated in June 1998.

ii) Current Labeling for the Prescription Product
Labeling for the currently approved prescription product Lamisil® Cream, 1%, is being provided, in order to comply with Dr. De Camp's request. Duplicate desk copies are enclosed per Mr. Cross' request.

iii) Electronic Copy of Proposed OTC Labeling Text
Files containing the proposed OTC labeling have been converted to Adobe Acrobat format. Since some of the files are larger than 1.44 MB (floppy disk capacity), they have been compressed. The software to unzip or "decompress" these files has also been provided. A paper copy of the propsed OTC labeling is resubmitted for the reviewers' convenience.

iv) Rationale for Acceptability of Foreign Clinical Data

In response to Dr. Steve Aurecchia's inquiry about the relevance of foreign data, from the disease and microbiological perspective, a position paper presenting the rationale for the applicability of the foreign data to the US population is submitted.

v) SAS Data Set for Study SF2003

The reconstructed electronic SAS data set and corresponding code book for study SF2003 are attached. The data set was recreated from data listings in the final study report.

Novartis Consumer Health, Inc. is currently completing the typing of clinical protocols for studies 2508-01, SF0040, SF2003, SF0029 and SF2030 into WordPerfect 6.1 format in order to satisfy Dr. Vaughan's request and will be forwarding these to the Agency by the end of June.

Should additional clarification be required, please contact me at 908-598-7816.

Sincerely,

Christine Babiuk

Christine Babiuk, Ph.D.
Associate Director, Regulatory Affairs
Novartis Consumer Health, Inc.

Attachments:

Submitted in Duplicate
Desk Copies: Dr. Aurecchia and Dr. Vaughan; (SAS data for SF 2003 only)
Dr. De Camp and OTC CMC Reviewer; (Rx labeling and Stability study proposal only)
cc: Cover letter by facsimile to Frank Cross, CSO Derm Division (301-827-2091)

Christine Babiuk, Ph.D.
Associate Director, R.A.

Novartis Consumer Health, Inc.
560 Morris Avenue
Summit, NJ 07901-1312

Tel 908 598 7816
Fax 908 273 2869

NOVARTIS

BM

ORIGINAL

June 24, 1998

Jonathan Wilkin, MD
Director
Division of Dermatologic and Dental
Drug Products/HFD-540
Office of Drug Evaluation V
Attn: Document Control Room 12B-30
Center for Drug Evaluation and Research
5600 Fishers Lane
Rockville, Maryland 20857

NDA #20-980
Terbinafine Hydrochloride
Cream, 1%

Amendment to a Pending
Application

Dear Dr. Wilkin:

Reference is made to the Novartis Consumer Health, Inc. pending New Drug Application for sale without prescription of terbinafine hydrochloride cream, 1%, and to our commitment to provide Dr. Vaughan with an electronic copy of clinical protocols for studies 2508-01, SF0040, SF2003, SF0029 and SF2030 in WordPerfect 6.1 format. For the Reviewer's convenience, a hard copy of the electronic document is also enclosed herein.

I can be reached at 908-598-7816 if there are any questions.

Sincerely,

Christine Babiuk

Christine Babiuk, Ph.D.
Associate Director, Regulatory Affairs
Novartis Consumer Health, Inc.

Attachments:

Submitted in Duplicate

cc: Cover letter by facsimile to Frank Cross, CSO Derm Division (301-827-2091)

Christine Babiuk, Ph.D.
Associate Director

Novartis Consumer Health, Inc.
560 Morris Avenue
Summit, NJ 07901-1312

Tel 908 598 7816
Fax 908 273 2869

NOVARTIS

ORIGINAL

This is the same letter, i.e., two different subjects/ codes FHC

September 3, 1998

Jonathan Wilkin, MD
Director
Division of Dermatological and Dental
Drug Products/HFD-540
Office of Drug Evaluation V
Attn: Document Control Room
Center for Drug Evaluation and Research
5600 Fishers Lane
Rockville, MD 20857

NDA No. 20-980
Terbinafine Hydrochloride Cream, 1%

Amendment to a Pending Application:
Rationale for Retaining Moccasin
Indication Rx

Dear Dr. Wilkin:

Reference is made to the Novartis Consumer Health, Inc. pending New Drug Application for sale without prescription of terbinafine hydrochloride cream, 1%, and to the telephone conference on July 14, 1998, among representatives from FDA, Novartis Pharmaceuticals Corporation and Novartis Consumer Health, Inc. (NCHI). The medical rationale for retaining the plantar tinea pedis (moccasin type) indication is enclosed.

NCHI hereby requests a meeting with the Division of Dermatologic and Dental Drug Products to discuss the Novartis reasons for retaining the moccasin indication under prescriptive status.

Sincerely,

Christine Babiuk

Christine Babiuk, Ph.D.
Associate Director, Regulatory Affairs

Attachments
Submitted in Duplicate

cc: Frank Cross and Sandi Childs by facsimile (301-827-2091)