# CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER: 22-386

# ADMINISTRATIVE and CORRESPONDENCE DOCUMENTS

Department of Health and Human Services Food and Drug Administration

# PATENT INFORMATION SUBMITTED WITH THE FILING OF AN NDA, AMENDMENT, OR SUPPLEMENT

For Each Patent That Claims a Drug Substance (Active Ingredient), Drug Product (Formulation and Composition) and/or Method of Use

Form Approved: OMB No. 0910-0513 Expiration Date: 7/31/06 See OMB Statement on Page 3.

NDA NUMBER

22-232

NAME OF APPLICANT/NDA HOLDER

Novo Nordisk Inc.

The following is provided in accordance with S	Section 505(b) and (c) of the Fe	deral Food, Drug, and Cosmetic Act.
TRADE NAME (OR PROPOSED TRADE NAME)		
PrandiMet		
ACTIVE INGREDIENT(S)	STRENGTH(S)	
repaglinide/metformin HCI	1 mg/500 mg; 2 mg/50	0 mg
•		
DOSAGE FORM		
Tablets	· 	
This patent declaration form is required to be submit amendment, or supplement as required by 21 CFR 314 Within thirty (30) days after approval of an NDA or sup declaration must be submitted pursuant to 21 CFR 314 or supplement. The information submitted in the declar upon by FDA for listing a patent in the Orange Book.	.53 at the address provided in 2 plement, or within thirty (30) da 4.53(c)(2)(ii) with all of the requi	CFR 314.53(d)(4). /s of issuance of a new patent, a new patent red information based on the approved NDA
For hand-written or typewriter versions (only) of the that does not require a "Yes" or "No" response), please	is report: If additional space is attach an additional page refere	required for any narrative answer (i.e., one noting the question number.
FDA will not list patent information if you submit a patent is not eligible for listing.	n incomplete patent declarati	on or the patent declaration indicates the
For each patent submitted for the pending NDA, a information described below. If you are not submitted complete above section and sections 5 and 6.	amendment, or supplement re itting any patents for this po	ferenced above, you must submit all the ending NDA, amendment, or supplement,
1. GENERAL		
a. United States Patent Number	b. Issue Date of Patent	c. Expiration Date of Patent
U.S. 6,677,358	01/13/2004	06/12/2018
d. Name of Patent Owner	Address (of Patent Owner)	
Novo Nordisk A/S	Novo Alle	
	City/State	
	2880 Bagsvaerd, Denmark	
	ZIP Code	FAX Number (if available)
	Telephone Number (454) 444-8888	E-Mail Address (if available)
<ul> <li>Name of agent or representative who resides or maintains a place of business within the United States authorized to receive notice of patent certification under section 505(b)(3) and (j)(2)(B) of the Federal Food, Drug, and Cosmetic Act</li> </ul>	Address (of agent or representative	e named in 1.e.)
and 21 CFR 314.52 and 314.95 (if patent owner or NDA applicant/holder does not reside or have a place of	City/State	
business within the United States)	ZIP Code	FAX Number (if available)
	Telephone Number	E-Mail Address (if available)
f. Is the patent referenced above a patent that has been submapproved NDA or supplement referenced above?	itted previously for the	☐ Yes
g. If the patent referenced above has been submitted previous date a new expiration date?	ly for listing, is the expiration	T Yes T No

2. Drug Substance (Active	Ingredier	<b>O</b>	in the state of th	a waling of pea
2.1 Does the patent claim the d described in the pending NE	rug substan DA, amendn	ce that is the active ingredient in the drug product nent, or supplement?	✓ Yes	No
		that is a different polymorph of the active A, amendment, or supplement?	Yes	<b></b> ✓ No
data demonstrating that a de product described in the ND	rug product DA? The type	o you certify that, as of the date of this declaration, you have test containing the polymorph will perform the same as the drug e of test data required is described at 21 CFR 314.53(b).	Yes	No
2.4 Specify the polymorphic for	m(s) claime	d by the patent for which you have the lest results described in 2.3	3.	
•				
				**
.5 Does the patent claim only a	a metabolite	of the active ingredient pending in the NDA or supplement?		
(Complete the information in drug product to administer the	n section 4 b he metaboli	elow if the patent claims a pending method of using the pending e.)	Yes	<b></b> √ No
.6 Does the patent claim only a			Yes	No
.7 If the patent referenced in 2 patent novel? (An answer is	1.1 is a prode required or	uct-by-process patent, is the product claimed in the ly if the patent is a product-by-process patent.)	Yes	No
Drug Product (Composit	tion/Form	ılation)		
3.1 Does the patent claim the dr amendment, or supplement?	rug product, ?	as defined in 21 CFR 314.3, in the pending NDA,	' 🗸 Yes	☐ No
.2 Does the patent claim only a	in intermedi	ate?	Yes	<b></b> ✓ No
.3 If the patent referenced in 3 patent novel? (An answer is	.1 is a produ required on	oct-by-process patent, is the product claimed in the ly if the patent is a product-by-process patent.)	Yes	□No
. Method of Use		A STATE OF THE STA		
ponsors must submit the in roduct for which approval is	formation being soug	in section 4 separately for each patent claim claiming a n thit. For each method of use claim referenced, provide the foll	nethod of using to owing information	he pending drug n:
.1 Does the patent claim one of the pending NDA, amendme	r more metr int, or suppl	ods of use for which approval is being sought in ement?	<b>✓</b> Yes	□No
.2 Claim Number (as listed in the	he patent)	Does the patent claim referenced in 4.2 claim a pending method of use for which approval is being sought in the pending NDA, amendment, or supplement?	<b>☑</b> Yes	□No
.2a If the answer to 4.2 is	Use: (Sub	mit indication or method of use information as identified specifical	<del></del> :	
"Yes," identify with speci- ficity the use with refer- ence to the proposed labeling for the drug product.	NN4440 is mellitus w Important diabetic ke	s indicated as an adjunct to diet and exercise to improve glycemic of then treatment with dual repaglinide and metformin therapy is appro- limitations for use: NN4440 should not be used in patients with type etoacidosis or patients with known hypersensitivity to repaglinide, r gredients in NN4440.	control in patients wo opriate.	ith type 2 diabete
No Relevant Patents			1.12.133	
ug product (tottituization of comp	position) or i ent could re:	ment, there are no relevant patents that claim the drug substance nethod(s) of use, for which the applicant is seeking approvat and v asonably be asserted if a person not licensed by the owner of the p duct.	ith romont to	☐ Yes

6. 1	Declaration Castification		The state of the s			
	The undersigned declares that this is an accurate amendment, or supplement pending under sec sensitive patent information is submitted pursuith the requirement is true and correct.  Warning: A willfully and knowingly false statements.	tion 505 of the Federal Food, Drug, and cuant to 21 CFR 314.53. I attest that I am fits of the regulation. I verify under penalty nent is a criminal offense under 18 U.S.C	nformation for the NDA, Cosmetic Act. This time- amiliar with 21 CFR 314.53 and of perjury that the foregoing			
6.2	Authorized Signature of NDA Applicant/Holder or Patent other Authorized Official) (Provide Information below)	Owner (Attorney, Agent, Representative or	Date Signed			
	huli hu Elling 1 8/15/07					
NOT	E: Only an NDA applicant/holder may submit this of er is authorized to sign the declaration but may not s	declaration directly to the FDA. A patent ow submit it directly to FDA. 21 CFR 314.53(c)(4) a	ner who is not the NDA applicant/ and (d)(4).			
Che	ck applicable box and provide information below.					
	☐ NDA Applicant/Holder	NDA Applicant's/Holder's Attorney, A Authorized Official	gent (Representative) or other			
	Patent Owner	Patent Owner's Attorney, Agent (Rep Official	and the second s			
	Name Mary Ann McElligott  Mary Ann McElligott		Committee Control of the Control of			
	Address 100 College Road West	City/State Princeton, NJ				
	ZIP Code 08540	Telephone Number (609) 987-5831	The Company			
	FAX Number (if available) (609) 919-7799	E-Mail Address (if available) MAMC@novonordisk.com				
	public reporting burden for this collection of information ructions, searching existing data sources, gathering and main uments regarding this burden estimate or any other aspect of thi	RANNING THE DATA DEEDED and completing and soulant	inn de 11 1 1 1			

Food and Drug Administration CDER (HFD-007) 5600 Fishers Lane Rockville, MD 20857

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.

# **INFORMATION AND INSTRUCTIONS FOR FORM 3542a**

# PATENT INFORMATION SUBMITTED WITH THE FILING OF AN NDA, AMENDMENT OR SUPPLEMENT

#### General Information

- To submit patent information to the agency the appropriate patent declaration form must be used. Two forms are available for patent submissions. The approval status of your New Drug Application will determine which form you should use.
- Form 3542a should be used when submitting patent information with original NDA submissions, NDA amendments and NDA supplements prior to approval.
- Form 3542 should be used after NDA or supplemental approval. This form is to be submitted within 30 days after approval of an application. This form should also be used to submit patent information relating to an approved supplement under 21 CFR 314.53(d) to change the formulation, add a new indication or other condition of use, change the strength, or to make any other patented change regarding the drug, drug product, or any method of use.
- Form 3542 is also to be used for patents issued after drug approval. Patents issued after drug approval are required to be submitted within 30 days of patent issuance for the patent to be considered "timely filed."
- Only information from form 3542 will be used for Orange Book Publication purposes.
- Forms should be submitted as described in 21 CFR 314.53. An additional copy of form 3542 to the Orange Book Staff will expedite patent publication in the Orange Book. The Orange Book Staff address (as of July 2003) is: Orange Book Staff, Office of Generic Drugs OGD/HFD-610, 7500 Standish Place, Rockville, MD 20855.
- The receipt date is the date that the patent information is date stamped in the central document room. Patents are considered listed on the date received.
- Additional copies of these forms may be downloaded from the Internet at: http://forms.psc.gov/forms/fdahtm/fdahtm.html.

#### **First Section**

Complete all items in this section.

#### 1. General Section

Complete all items in this section with reference to the patent itself.

- 1c) Include patent expiration date, including any Hatch-Waxman patent extension already granted. Do not include any applicable pediatric exclusivity. The agency will include pediatric exclusivities where applicable upon publication.
- 1d) Include full address of patent owner. If patent owner resides outside the U.S. indicate the country in the zip code block.

1e) Answer this question if applicable. If patent owner and NDA applicant/holder reside in the United States, leave space blank.

### 2. Drug Substance (Active Ingredient)

Complete all items in this section if the patent claims the drug substance that is the subject of the pending NDA, amendment, or supplement.

- 2.4) Name the polymorphic form of the drug identified by the patent.
- 2.5) A patent for a metabolite of the approved active ingredient may not be submitted. If the patent claims an approved method of using the approved drug product to administer the metabolite, the patent may be submitted as a method of use patent depending on the responses to section 4 of this form.
- 2.7) Answer this question only if the patent is a product-by-process patent.

#### 3. Drug Product (Composition/Formulation)

Complete all items in this section if the patent claims the drug product that is the subject of the pending NDA, amendment, or supplement.

3.3) An answer to this question is required only if the referenced patent is a product-by-process patent.

#### 4. Method of Use

Complete all items in this section if the patent claims a method of use of the drug product that is the subject of the pending NDA, amendment, or supplement.

- 4.2) Identify by number each claim in the patent that claims the use(s) of the drug for which approval is being sought. Indicate whether or not each individual claim is a claim for a method(s) of use of the drug for which approval is being sought.
- 4.2a) Specify the part of the proposed drug labeling that is claimed by the patent.

#### 5. No Relevant Patents

Complete this section only if applicable.

#### 6. Declaration Certification

Complete all items in this section.

6.2) Authorized signature. Check one of the four boxes that best describes the authorized signature. Department of Health and Human Services Food and Drug Administration

# PATENT INFORMATION SUBMITTED WITH THE FILING OF AN NDA, AMENDMENT, OR SUPPLEMENT

For Each Patent That Claims a Drug Substance (Active Ingredient), Drug Product (Formulation and Composition) and/or Method of Use Form Approved: OMB No. 0910-0513 Expiration Date: 7/31/06 See OMB Statement on Page 3.

NDA NUMBER

22-232

NAME OF APPLICANT/NDA HOLDER

Novo Nordisk Inc. 100 College Road West Princeton, NJ 08540

The following is provided in accordance with S	Section 505(b) and (c) of the	Federal Food, Drug, and Cosmetic Act.
TRADE NAME (OR PROPOSED TRADE NAME)		
Prandimet		
ACTIVE INGREDIENT(S)	STRENGTH(S)	
repaglinide/metformin HCl	1 mg/500 mg; 2 mg/	/500 ma
	·	
DODAGE FORM		
DOSAGE FORM Tablets		
This patent declaration form is required to be submit amendment, or supplement as required by 21 CFR 314 Within thirty (30) days after approval of an NDA or supplement must be submitted pursuant to 21 CFR 31 or supplement. The information submitted in the declar upon by FDA for listing a patent in the Orange Book.	.53 at the address provided in plement, or within thirty (30) of 4.53(c)(2)(ii) with all of the red	21 CFR 314.53(d)(4). days of issuance of a new patent, a new patent
For hand-written or typewriter versions (only) of that does not require a "Yes" or "No" response), please	nis report: If additional space attach an additional page refe	is required for any narrative answer (i.e., one rencing the question number.
FDA will not list patent information if you submit a patent is not eligible for listing.	ın incomplete patent declara	ation or the patent declaration indicates the
For each patent submitted for the pending NDA, a information described below. If you are not submomplete above section and sections 5 and 6.	amendment, or supplement uitting any patents for this	referenced above, you must submit all the pending NDA, amendment, or supplement,
1. GENERAL		
a. United States Patent Number	b. Issue Date of Patent	c. Expiration Date of Patent
U.S. RE37,035 E	01/30/2001	03/14/2009
d. Name of Patent Owner	Address (of Patent Owner)	
Boehringer Ingelheim Pharma GmbH & Co. KG	Bingerstrasse	
	City/State 55216 Ingelheim, Germany	
	ZIP Code	FAX Number (if available)
		(490) 613-2773
	Telephone Number	E-Mail Address (if available)
	(490) 613-2770	presse@boehringer.ingelheim.de
<ul> <li>Name of agent or representative who resides or maintains a place of business within the United States authorized to</li> </ul>	Address (of agent or representation	live named in 1.e.)
receive notice of patent certification under section 505(b)(3)		
and (j)(2)(B) of the Federal Food, Drug, and Cosmetic Act	City/State	
and 21 CFR 314.52 and 314.95 (if patent owner or NDA applicant/holder does not reside or have a place of	Olly/State	
business within the United States)	ZIP Code	FAX Number (if available)
		Traction (a arangolo)
	Telephone Number	E-Mail Address (if available)
f. Is the patent referenced above a patent that has been subm	itted previously for the	
approved NDA or supplement referenced above?	mod promodory to: 410	Yes Z No
g. If the patent referenced above has been submitted previous		
3. " The parent references above has been sublimited previous	y for listing, is the expiration	

2. Drug Substance (Active ingradic	int)		" Secretary		•
<ol> <li>Does the patent claim the drug substa described in the pending NDA, amend</li> </ol>	ince that is the active ingredient iment, or supplement?	t in the drug product		Yes	No
2.2 Does the patent claim a drug substance ingredient described in the pending NI	ce that is a different polymorph DA, amendment, or supplement	of the active t?		Yes	✓ No
2.3 If the answer to question 2.2 is "Yes," data demonstrating that a drug produc	ct containing the polymorph will	perform the same as the dr	have test		
product described in the NDA? The ty	pe of test data required is descr	ribed at 21 CFR 314,53(b).		Yes	No
.4 Specify the polymorphic form(s) claim	ed by the patent for which you	have the test results descri	bed in 2.3.		
					er e
			i i	•	
.5 Does the patent claim only a metabolit	le of the active ingredient pendi	na in the NDA or supplemen	nt?		
(Complete the information in section 4 drug product to administer the metabo	below if the patent claims a per lite.)	nding method of using the p	ending	Yes	<b>☑</b> No
.6 Does the patent claim only an intermed				Yes	<b></b> ✓ No
.7 If the patent referenced in 2.1 is a pro- patent novel? (An answer is required of	duct-by-process patent, is the ponly if the patent is a product-by	product claimed in the process patent.)		Yes	☐ No
Drug Product (Composition/Form		A A			
1 Does the patent claim the drug product amendment, or supplement?		n the pending NDA,		<b></b> ✓ Yes	□ No
2 Does the patent claim only an intermed				Yes	✓ No
3 If the patent referenced in 3.1 is a proc patent novel? (An answer is required o	fuct-by-process patent, is the purply if the patent is a product-by-	product claimed in the process patent.)		Yes	No
Method of Use	1 Tay.				
ponsors must submit the information roduct for which approval is being sou	gnic roi each method of use	claim referenced, provide	ning a meth	od of using the	e pending dr
<ol> <li>Does the patent claim one or more met the pending NDA, amendment, or supp</li> </ol>	thods of use for which approval	is being sought in		Yes	<b></b> ✓ No
2 Claim Number (as listed in the patent)	Does the patent claim referen	nced in 4.2 claim a pending	method		
	of use for which approval is b amendment, or supplement?	peing sought in the pending	ÑDA,	Yes	☐ No
2a If the answer to 4.2 is "Yes," identify with specificity the use with refer-	bmit indication or method of use	e information as identified s	pecifically in	the proposed lab	eling.)
ence to the proposed labeling for the drug	•	<u>.</u>			
product.					
No Relevant Patents		· · · · · · · · · · · · · · · · · · ·			
NO Melevant Palenie	Name is	Ø			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
r this pending NDA, amendment, or suppl		<del></del>	<del></del>		

6.	Declaration Certification	and the second			×45
	The undersigned declares that this is an accuramendment, or supplement pending under se sensitive patent information is submitted purs this submission complies with the requirement is true and correct.	ction 505 of th suant to 21 CF ots of the regu	ne Federal Food, Drug, and R 314.53. I attest that I am i lation. I verify under penalt	information for the NDA, Cosmetic Act. This time- familiar with 21 CFR 314.53 and by of perjury that the foregoing	1
	Warning: A willfully and knowingly false state	ment is a crim	inal offense under 18 U.S.(	2. 1001.	
6.2	Authorized Signature of NDA Applicant/Holder or Paten other Authorized Official) (Provide Information below)	t Owner (Attorne	ey, Agent, Representative or	Date Signed	
	Juh Mu Ellegott		· · · · · · · · · · · · · · · · · · ·	8/16/07	
NOT	E: Only an NDA applicant/holder may submit this ler is authorized to sign the declaration but may not	declaration dir submit it directi	ectly to the FDA. A patent or ly to FDA. 21 CFR 314.53(c)(4)	wner who is not the NDA applicar and (d)(4).	nt/
Che	ck applicable box and provide information below.	_			
	NDA Applicant/Holder	✓ NDA	A Applicant's/Holder's Attorney, A horized Official	Agent (Representative) or other	
	Patent Owner	☐ Pate Office	ent Owner's Attorney, Agent (Re cial	presentative) or Other Authorized	
	Name				
	Mary Ann McElligott				
	Address 100 College Road West		City/State Princeton, NJ		
	ZIP Code Telephone Number				
	08540		(609) 987-5831		
	FAX Number (if available)		E-Mail Address (if available)		
	(609) 919-7799		MAMC@novonordisk.com		
276			.1		=

The public reporting burden for this collection of information has been estimated to average 9 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:

Food and Drug Administration CDER (HFD-007) 5600 Fishers Lane Rockville, MD 20857

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.

# **INFORMATION AND INSTRUCTIONS FOR FORM 3542a**

# PATENT INFORMATION SUBMITTED WITH THE FILING OF AN NDA, AMENDMENT OR SUPPLEMENT

#### **General Information**

- To submit patent information to the agency the appropriate patent declaration form must be used. Two forms are available for patent submissions. The approval status of your New Drug Application will determine which form you should use.
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### First Section

Complete all items in this section.

#### 1. General Section

Complete all items in this section with reference to the patent itself.

- 1c) Include patent expiration date, including any Hatch-Waxman patent extension already granted. Do not include any applicable pediatric exclusivity. The agency will include pediatric exclusivities where applicable upon publication.
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# 2. Drug Substance (Active Ingredient)

Complete all items in this section if the patent claims the drug substance that is the subject of the pending NDA, amendment, or supplement.

- 2.4) Name the polymorphic form of the drug identified by the patent.
- 2.5) A patent for a metabolite of the approved active ingredient may not be submitted. If the patent claims an approved method of using the approved drug product to administer the metabolite, the patent may be submitted as a method of use patent depending on the responses to section 4 of this form.
- 2.7) Answer this question only if the patent is a product-by-process patent.

# 3. Drug Product (Composition/Formulation)

Complete all items in this section if the patent claims the drug product that is the subject of the pending NDA, amendment, or supplement.

3.3) An answer to this question is required only if the referenced patent is a product-by-process patent.

#### 4. Method of Use

Complete all items in this section if the patent claims a method of use of the drug product that is the subject of the pending NDA, amendment, or supplement.

- 4.2) Identify by number each claim in the patent that claims the use(s) of the drug for which approval is being sought. Indicate whether or not each individual claim is a claim for a method(s) of use of the drug for which approval is being sought.
- 4.2a) Specify the part of the proposed drug labeling that is claimed by the patent.

#### 5. No Relevant Patents

Complete this section only if applicable.

### 6. Declaration Certification

Complete all items in this section.

6.2) Authorized signature. Check one of the four boxes that best describes the authorized signature. NN4440 Repaglinide/Metformin Tablets NDA 22-386

Module 1.3.5.2
Patent Certification

Date: Version: Status: Page: 21 May 2008 0.1 Final 1 of 1

Novo Nordisk

# **Patent Certification**

In the opinion and to the best knowledge of Novo Nordisk Inc., there are no patents that claim the drug or drugs on which investigations that are relied upon in this application were conducted or that claim a use of such drug or drugs

Lewis R. Pollack (on behalf of M. McElligott

Digitally signed by Lewis R. Pollack on behalf of M. McElligott DN: cn=Lewis R. Pollack on behalf of M. McElligott, c=US, o=Novo Nordisk, Inc., 03x3Eqqu|atory Affairs, email=TEMP@novonordisk.com Date: 2008.05.23 10:21:25

Mary Ann McElligott, Ph.D. Associate Vice President, Regulatory Affairs NN4440 Repaglinide/Metformin Tablets NDA 22-232 Module 1.3.5.2 Patent Certification Date: Version: Status: Page: 11 April 2008 | Novo Nordisk 0.1 Final 1 of 1

# **Patent Certification**

In the opinion and to the best knowledge of Novo Nordisk Inc., there are no patents that claim the drug or drugs on which investigations that are relied upon in this application were conducted or that claim a use of such drug or drugs

Mary Ann McElligott

Digitally signed by Mary Ann McElligott
DN: cn=Mary Ann McElligott, c=US,
v=Novo Nordisk, ou=Regulatory Affairs,
emai=MAMC@NovoNordisk.com
Date: 2008.04.11 17:16:59 -04'00'

Mary Ann McElligott, Ph.D. Associate Vice President, Regulatory Affairs

# **EXCLUSIVITY SUMMARY**

•			
NDA # 22-386	SUPPL # N/A	HFD # 510	
Trade Name PrandiMet			
Generic Name repaglinide/met	tformin HCl fixed dose comb	ination tablets	
Applicant Name Novo Nordish	k, Inc.		
Approval Date, If Known June	23, 2008		
PART I IS AN EXCLUS	SIVITY DETERMINATION	N NEEDED?	
1. An exclusivity determination supplements. Complete PARTS one or more of the following quarter	ion will be made for all or S II and III of this Exclusivity sestions about the submission	Summary only if vo	, and all efficacy ou answer "yes" to
a) Is it a 505(b)(1), 505(	(b)(2) or efficacy supplement	? YES ⊠	NO 🗌
If yes, what type? Specify 505(b	o)(1), 505(b)(2), SE1, SE2, SI	E3,SE4, SE5, SE6,	SE7, SE8
505(b)(2)			•
c) Did it require the revious labeling related to safety data, answer "no.")	ew of clinical data other than ? (If it required review only	to support a safety of bioavailability of	claim or change in or bioequivalence
		YES 🔀	NO 🗌
not eligible for exclusiv	cause you believe the study is a trity, EXPLAIN why it is a builth any arguments made by	pioavailability stud	v. including your

If it is a supplement requiring the review of clinical data but it is not an effectiveness supplement, describe the change or claim that is supported by the clinical data:

simply a bioavailability study.

	·	•
d) Did the applicant request exclusivity?	YES [	NO 🖂
If the answer to (d) is "yes," how many years of exclusivit	y did the applic	cant request?
e) Has pediatric exclusivity been granted for this Active M	foiety? YES [	NO 🖂
If the answer to the above question in YES, is this approval a response to the Pediatric Written Request?	result of the stu	idies submitted in
IF YOU HAVE ANSWERED "NO" TO <u>ALL</u> OF THE ABOVE QUE THE SIGNATURE BLOCKS AT THE END OF THIS DOCUM	UESTIONS, GO ENT.	O DIRECTLY TO
2. Is this drug product or indication a DESI upgrade?	YES [	NO 🖾
IF THE ANSWER TO QUESTION 2 IS "YES," GO DIRECTLY TO ON PAGE 8 (even if a study was required for the upgrade).	TO THE SIGNA	ATURE BLOCKS
PART II FIVE-YEAR EXCLUSIVITY FOR NEW CHE (Answer either #1 or #2 as appropriate)	MICAL ENT	ITIES
1. Single active ingredient product.		
Has FDA previously approved under section 505 of the Act any dactive moiety as the drug under consideration? Answer "yes" if the esterified forms, salts, complexes, chelates or clathrates) has been particular form of the active moiety, e.g., this particular ester or salt coordination bonding) or other non-covalent derivative (such as a continuous provided approved. Answer "no" if the compound requires madeesterification of an esterified form of the drug) to produce an all	te active moiety on previously a (including salts complex, chelaty etabolic conve	y (including other pproved, but this s with hydrogen or e, or clathrate) has rsion (other than
	YES 🗌	NO 🗌
If "yes," identify the approved drug product(s) containing the active #(s).	e moiety, and, if	known, the NDA

NDA#

NDA#

NDA#

### 2. Combination product.

If the product contains more than one active moiety(as defined in Part II, #1), has FDA previously approved an application under section 505 containing <u>any one</u> of the active moieties in the drug product? If, for example, the combination contains one never-before-approved active moiety and one previously approved active moiety, answer "yes." (An active moiety that is marketed under an OTC monograph, but that was never approved under an NDA, is considered not previously approved.)

YES NO \

If "yes," identify the approved drug product(s) containing the active moiety, and, if known, the NDA #(s).

NDA# 20-741

Prandin (repaglinide) Tablets

NDA# 20-357

Glucophage (metformin hydrochloride) Tablets

NDA#

IF THE ANSWER TO QUESTION 1 OR 2 UNDER PART II IS "NO," GO DIRECTLY TO THE SIGNATURE BLOCKS ON PAGE 8. (Caution: The questions in part II of the summary should only be answered "NO" for original approvals of new molecular entities.) IF "YES," GO TO PART III.

# PART III THREE-YEAR EXCLUSIVITY FOR NDAs AND SUPPLEMENTS

To qualify for three years of exclusivity, an application or supplement must contain "reports of new clinical investigations (other than bioavailability studies) essential to the approval of the application and conducted or sponsored by the applicant." This section should be completed only if the answer to PART II, Question 1 or 2 was "yes."

1. Does the application contain reports of clinical investigations? (The Agency interprets "clinical investigations" to mean investigations conducted on humans other than bioavailability studies.) If the application contains clinical investigations only by virtue of a right of reference to clinical investigations in another application, answer "yes," then skip to question 3(a). If the answer to 3(a) is "yes" for any investigation referred to in another application, do not complete remainder of

summary for that investigation.	YES	$\boxtimes$	NO 🗍
IF "NO," GO DIRECTLY TO THE SIGNATURE BLOCKS ON			140
, and a second belocked on	i i i GL (	, .	
2. A clinical investigation is "essential to the approval" if the Age application or supplement without relying on that investigation essential to the approval if 1) no clinical investigation is necessa application in light of previously approved applications (i.e., infor such as bioavailability data, would be sufficient to provide a bas 505(b)(2) application because of what is already known about a pre there are published reports of studies (other than those conducted other publicly available data that independently would have been studies application, without reference to the clinical investigation substitute that the provided investigation is the application, without reference to the clinical investigation substitute.	Thus, ry to support to	the inverted the proval approval or to supprove the provention of the provent to supprove the provent	vestigation is no ne supplement of an clinical trials as an ANDA of ed product), or 2 the applicant) of poort approval of the applicant of the approval of the
(a) In light of previously approved applications, is a clinical by the applicant or available from some other source, inc necessary to support approval of the application or suppler	luding t nent?	he pub	lished literature
	YES	$\boxtimes$	NO 🗌
If "no," state the basis for your conclusion that a clinical tr AND GO DIRECTLY TO SIGNATURE BLOCK ON PAR	ial is no GE 8:	t neces	sary for approval
(b) Did the applicant submit a list of published studies releva of this drug product and a statement that the publicly availab support approval of the application?	ant to the ale data v	would r	and effectiveness not independently NO 🔯
(1) If the answer to 2(b) is "yes," do you personally with the applicant's conclusion? If not applicable, a	know o inswer l	f any re VO.	cason to disagree
	YES [		NO 🗌
If yes, explain:			
(2) If the answer to 2(b) is "no," are you aware of pul sponsored by the applicant or other publicly availabl demonstrate the safety and effectiveness of this drug	e data th	at cou	not conducted or ld independently
	YES [		NO 🖂

If y	es, expla	in:		•				
			ers to (b)(1) and the application				nical investigati	ons
		AGE	E053					
Studies studies	s compar for the p	ing two pro- urpose of th	ducts with the	e same ingred	lient(s) are o	considered to	be bioavailabi	lity
interpro agency not dup effectiv	ets "new of to demon plicate the veness of	clinical invenstrate the effection of a contract of a cont	stigation" to r fectiveness of nother investi	nean an invest f a previously gation that wa rug product,	stigation that approved dr as relied on b i.e., does no	1) has not be ug for any ind by the agency of redemonstr	sivity. The agesten relied on by lication and 2) do to demonstrate rate something.	the oes the
	relied or product?	i by the age	ency to demon vestigation w	nstrate the ef	fectiveness	of a previous	investigation be sly approved d ty of a previou	rug
	Investiga	ition #1				YES 🖂	NO 🗌	
	Investiga	ation #2				YES 🗌	NO 🗌	
	If you ha and the l	ve answered NDA in which	l "yes" for one ch each was r	e or more invelied upon:	estigations, i	dentify each	such investigat	ion
	A	GEE053 - 1	NDA 20-741	Prandin (repa	glinide) Tab	lets		
	duplicate	the results	ation identific of another inversions	estigation that	t was relied	proval", does on by the age	the investigate the three to support	ion the

YES 🗌

YES 🗌

NO 🛛

NO 🗌

Investigation #1

Investigation #2

If you have answered "yes" for one or more investigation, identify the NDA in which a similar investigation was relied on:

- c) If the answers to 3(a) and 3(b) are no, identify each "new" investigation in the application or supplement that is essential to the approval (i.e., the investigations listed in #2(c), less any that are not "new"):
- 4. To be eligible for exclusivity, a new investigation that is essential to approval must also have been conducted or sponsored by the applicant. An investigation was "conducted or sponsored by" the applicant if, before or during the conduct of the investigation, 1) the applicant was the sponsor of the IND named in the form FDA 1571 filed with the Agency, or 2) the applicant (or its predecessor in interest) provided substantial support for the study. Ordinarily, substantial support will mean providing 50 percent or more of the cost of the study.
  - a) For each investigation identified in response to question 3(c): if the investigation was carried out under an IND, was the applicant identified on the FDA 1571 as the sponsor?

(b) For each investigation not carried out under an IND or for which the applicant was not identified as the sponsor, did the applicant certify that it or the applicant's predecessor in interest provided substantial support for the study?

	investigation #1	<u>!</u>		
	YES Explain:	! ! NO [] ! Explain:		
	Investigation #2	!		
	YES  Explain:	! ! NO [] ! Explain:		
	(c) Notwithstanding an answer of "y the applicant should not be credite (Purchased studies may not be used a drug are purchased (not just studies sponsored or conducted the studies sponsored the studies sponsored or conducted the studies sponsored the sponsored the studies sponsored the sponsor	ed with having "cond as the basis for exclus on the drug), the app	lucted or spons ivity. However, licant may be c	sored" the study?, if all rights to the onsidered to have
			YES 🗌	NO 🖂
	If yes, explain:			
				<del></del>
Title:	of person completing form: Julie Ma Regulatory Project Manager June 10, 2008	rchick, MPH	•	
Name Title:	of Office/Division Director signing for Clinical Team Leader	orm: Hylton Joffe, M	ID, MMSc	
			•	

Form OGD-011347; Revised 05/10/2004; formatted 2/15/05

This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.

/s/

Hylton Joffe 6/25/2008 10:22:25 AM

# PEDIATRIC PAGE (Complete for all filed original applications and efficacy supplements)

NDA/BLA#: 22-386 (formerly	Supplement Number: N/A	NDA Supplement Type (e.g. SE5): <u>N/A</u>
22-232)		
Division Name: <u>Division of</u> <u>Metabolism and Endocrinology</u> <u>Products</u>	PDUFA Goal Date: <u>June 15,</u> 2008	Stamp Date: August 15, 2007
Proprietary Name: <u>PrandiMet</u>		
Established/Generic Name: repaglin	ide/metformin fixed dose comb	<u>ination</u>
Dosage Form: <u>Tablets</u>		
Applicant/Sponsor: Novo Nordisk, I	nc.	
Indication(s) <u>previously approved</u> (ple (1) (2) (3) (4)	ase complete this question for s	supplements and Type 6 NDAs only):
Q1: Is this application in response to a	a PREA PMC? Yes ☐ C	continue
•	No 🛛 P	lease proceed to Question 2.
If Yes, NDA/BLA#:		PMC #:
Does the division agree that th	is is a complete response to the	PMC?
Yes. Skip to signat		
		ne Pediatric Page, as applicable.
<b>Q2:</b> Does this application provide for ( question):	If yes, please check all categor	ies that apply and proceed to the next
(a) NEW ☐ active ingredient(s); ☐ ir administration?*	ndication(s); ⊠ dosage form; □	dosing regimen; or $\square$ route of
(b) No. PREA does not apply. Skip	to signature block.	
* Note for CDER: SE5, SE6, and SE	7 submissions may also trigg	er PREA.
Pediatric use for each pediatric subpoapplication under review. A Pediatric	pulation must be addressed for Page must be completed for ea	each indication covered by current ch indication.
Number of indications for this pending (Attach a completed Pediatric Page for	application(s): <u>1</u> r <u>each</u> indication in current app	lication.)
Indication: As an adjunct to diet and mellitus who are already treated with a meglitinide alone or metformin alone.	exercise to improve glycemic co a meglitinide and metformin or v	ontrol in adults with type 2 diabetes who have inadequte glycemic control on a
Q3: Does this indication have orphan	designation?	
☐ Yes. PREA does not apply	Skip to signature block.	
No. Please proceed to the	next question.	

NDA/BLA# 22-386 (formerly

<u>22-232)</u> Page 2
Q4: Is there a full waiver for all pediatric age groups for this indication (check one)?
☐ No: Please check all that apply:
☐ Partial Waiver for selected pediatric subpopulations (Complete Sections B)
☐ Deferred for the remaining pediatric subpopulations (Complete Sections C)
☐ Completed for some or all pediatric subpopulations (Complete Sections D)
Appropriately Labeled for some or all pediatric subpopulations (Complete Sections E)
Extrapolation in One or More Pediatric Age Groups (Complete Section F)
(Please note that Section F may be used alone or in addition to Sections C, D, and/or E.)
Section A: Fully Waived Studies (for all pediatric age groups)
Reason(s) for full waiver: (check, and attach a brief justification)
☐ Necessary studies would be impossible or highly impracticable because:
☐ Disease/condition does not exist in children
Too few children with disease/condition to study check here
Other (e.g., patients geographically dispersed):
Product does not represent a meaningful therapeutic benefit over existing therapies for pediatric patients AND is not likely to be used in a substantial number of pediatric patients.
Evidence strongly suggests that product would be ineffective or unsafe in all pediatric subpopulations ( <i>Note: if studies are fully waived on this ground, this information must be included in the labeling.</i> )
If studies are fully waived, then pediatric information is complete for this indication. If there is another indication, please complete another Pediatric Page for each indication. Otherwise, this Pediatric Page is complete and should be signed and entered into DFS.
PrandiMet is a fixed dose combination of two approved active ingredients: repaglinide and metformin.
Metformin Metformin is the only major oral agent approved for the treatment of type 2 diabetes that causes weight loss. Because obesity is a common feature of type 2 diabetes, particularly in children, metformin is considered to be the treatment of choice. Unlike insulin and the insulin secretagogues, metformin does not cause hypoglycemia. Pediatric studies with metformin have been completed and form the basis of labeling for pediatric patients on metformin.
Repaglinide Repaglinide should not be used in pediatric patients for the following reasons:
1. Obesity is a predominant feature of type 2 diabetes mellitus in children. In the 4-5 month comparison of

IF THERE ARE QUESTIONS, PLEASE CONTACT THE CDER PMHS VIA EMAIL OR AT 301-796-0700.

metformin to repaglinide in the current label, there was a mean weight loss of 0.90 kg in patients treated with netformin compared to a mean gain of 3.0 kg in patients treated with repaglinide. Based on this result, there is

concern that treatment of pediatric patients with repaglinide will exacerbate the obesity.

- 2. A study in pediatric patients with type 2 diabetes mellitus showed more favorable results with metformin than with the sulfonylurea, glimepiride. Of particular importance was the apparently greater risk of weight gain and hypoglycemia with glimeperide. Repaglinide and glimeperide are both insulin secretagogs and are both associated with hypoglycemia and weight gain. It appears likely that use of repaglinide in pediatric patients with type 2 diabetes mellitus would also cause weight gain and hypoglycemia in comparison to metformin.
- 3. As reflected in the current label for Prandin, there appears to be a greater risk of serious cardiovascular events in patients treated with repaglinide than comparators.

# Repaglinide/ Metformin HCl Fixed Dose Combination Tablets

There is evidence suggesting that the drug would be unsafe in all pediatric age groups and offers no advantage over other available agents approved for this indication in the pediatric population. Repaglinide is associated with hypoglycemia and weight gain. It appears likely that use of repaglinide in pediatric patients with type 2 diabetes mellitus would also cause greater weight gain and hypoglycemia in comparison to metformin. In addition, as reflected in the current label for Prandin (repaglinide) Tablets, there may be a greater risk of serious cardiovascular events in patients treated with repaglinide than comparators, especially in combination with insulin.

The addition of repaglinide to metformin may likely offset the benefit observed with metformin.

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<del>-</del>	
Section B: Partially Waived Studies (for selected pediatric subpopulations)	

Check subpopulation(s) and reason for which studies are being partially waived (fill in applicable criteria below): Note: If Neonate includes premature infants, list minimum and maximum age in "gestational age" (in weeks).

				Reason (see below for further detail):				
		minimum	maximum	Not feasible#	Not meaningful therapeutic benefit*	Ineffective or unsafe <sup>†</sup>	Formulation failed <sup>Δ</sup>	
	Neonate	wk mo.	wk mo.					
	Other	yr mo.	yr mo.					
	Other	yr mo.	yr mo.					
	Other	yr mo.	yr mo.					
	Other	yr mo.	yr mo.					
Are	Are the indicated age ranges (above) based on weight (kg)?							
	Are the indicated age ranges (above) based on Tanner Stage?    No; Yes.							
Reason(s) for partial waiver ( <b>check reason</b> corresponding to the category checked above, and <b>attach a brief justification</b> ):								
#	# Not feasible:							
{	☐ Necessary studies would be impossible or highly impracticable because:							
. [	Disease	condition does	not exist in child	ren				
- 1	Too few	children with dis	sease/condition	to study				
[	Dther (e	.g., patients geo	graphically disp	ersed):				
*	Not meaning	gful therapeutic	benefit:					
[	patients	does not repres in this/these pec patients in this/	diatric subpopula	ation(s) AND	benefit over existing is not likely to be used in (s).	g therapies for peo sed in a substantia	diatric al number of	
† Ine	effective or u	unsafe:						
[	Evidence strongly suggests that product would be ineffective or unsafe in this/these pediatric population(s) (Note: if studies are partially waived on this ground, this information must be included in the labeling.)							
Δ Ε	ormulation	failed:						
	Applicant can demonstrate that reasonable attempts to produce a pediatric formulation necessary for this/these pediatric subpopulation(s) have failed. (Note: A partial waiver on this ground may only cover the pediatric subpopulation(s) requiring that formulation. An applicant seeking a partial waiver on this ground must submit documentation detailing why a pediatric formulation cannot be developed. This submission will be posted on FDA's website if waiver is granted.)							
	ustification a							
For	hose pedia	tric subpopulatio	ons for which stu	dies have n	ot been waived, there	e must be (1) corr	esponding	
study plans that have been deferred (if so, proceed to Sections C and F and complete the PeRC Pediatric Plan								

For those pediatric subpopulations for which studies have not been waived, there must be (1) corresponding study plans that have been deferred (if so, proceed to Sections C and F and complete the PeRC Pediatric Plan Template); (2) submitted studies that have been completed (if so, proceed to Sections D and F and complete the PeRC Pediatric Assessment form); and/or (3) additional studies in other age groups that are not needed because the drug is appropriately labeled in one or more pediatric subpopulations (if so, proceed to Sections E and F). Note that more than one of these options may apply for this indication to cover <u>all</u> of the pediatric subpopulations.

Section C: Deferred Studies (for remaining pediatric subpopulations). Complete Section F on Extrapolation.

Check pediatric subpopulation for which pediatric studies are being deferred (and fill in applicable reason below):

Deferrals (for each or all age groups):				Applicant Certification				
Рор	ulation	minimum	maximum	Ready for Approval in Adults	Need Additional Adult Safety or Efficacy Data	Other Appropriate Reason (specify below)*	Yes	No
	Neonate	wk mo.	wk mo.					
	Other	yr mo.	yr mo.					
	Other	yr mo.	yr mo.					
	Other	yr mo.	yr mo.					
	Other	yr mo.	yr mo.					
	All Pediatric Populations	0 yr. 0 mo.	16 yr. 11 mo.					
Date studies are due (mm/dd/yy):								
Are	Are the indicated age ranges (above) based on weight (kg)?    No;  Yes.							
Are	Are the indicated age ranges (above) based on Tanner Stage?   No;  Yes.							
* Oth	ner Reason:							

† Note: Studies may only be deferred if an <u>applicant submits a certification of grounds</u> for deferring the studies, a description of the planned or ongoing studies, evidence that the studies are being conducted or will be conducted with due diligence and at the earliest possible time, and a timeline for the completion of the studies. If studies are deferred, on an annual basis applicant must submit information detailing the progress made in conducting the studies or, if no progress has been made, evidence and documentation that such studies will be conducted with due diligence and at the earliest possible time. This requirement should be communicated to the applicant in an appropriate manner (e.g., in an approval letter that specifies a required study as a post-marketing commitment.)

If all of the pediatric subpopulations have been covered through the partial waivers and deferrals, proceed to Section F. For those pediatric subpopulations for which studies have been completed, proceed to Sections D and F and complete the PeRC Pediatric Assessment form. For those pediatric subpopulations for which additional studies are not needed because the drug is appropriately labeled in one or more pediatric subpopulations, proceed to Sections E and F.

Section D: Completed Studies (for some or all pediatric subpopulations). Complete Section F on Extrapolation.

Pediatric subpopulation(s) in which studies have been completed (check below):						
	Population	minimum	maximum		atric Assessment form attached?.	
	Neonate	wk mo.	wk mo.	Yes 🗌	No 🗌	
	Other	yr mo.	yr mo.	Yes 🗌	No 🗌	
	Other	yr mo.	yr mo.	Yes 🗌	No 🗌	
	Other	yr mo.	yr mo.	Yes 🗌	No 🗌	
	Other	yr mo.	yr mo.	Yes 🗌	No 🗌	
	All Pediatric Subpopulations	0 yr. 0 mo.	16 yr. 11 mo.	Yes 🗌	No 🗌	
Are the indicated age ranges (above) based on weight (kg)? No; No; Yes.  Are the indicated age ranges (above) based on Tanner Stage? No; Yes.  Note: For those pediatric subpopulations for which additional studies are not needed because the drug is appropriately labeled in one or more pediatric subpopulations, proceed to Sections E and F. If there are no further pediatric subpopulations to cover based on the partial waivers, deferrals and completed studies, go to Section F.						
Sect	ion E: Drug Appropriately Lab	eled (for some or	all pediatric subp	opulations): (Co	mplete section F)	
	ional pediatric studies are not opriately labeled for the indicat			subpopulation(	s) because product is	
Popu	lation		minimum		maximum	
	Neonate	wk.	mo.	wk.	mo.	
	Other	yr	yr mo.		yr mo.	
, · <u></u>	Other	yr	_ mo.	yr	mo.	
	Other	yr	_ mo.	yr.	mo.	
			mo.			
	All Pediatric Subpopulation	ons	0 yr. 0 mo.		16 yr. 11 mo.	
Are the indicated age ranges (above) based on weight (kg)?						
Are the indicated age ranges (above) based on Tanner Stage?						
If studies are not needed because efficacy is being extrapolated from other adult and/or pediatric studies, proceed to Section F. Otherwise, this Pediatric Page is complete and should be signed and entered into DFS.						

# Section F: Extrapolation from Other Adult and/or Pediatric Studies (for deferred and completed studies)

Note: Pediatric efficacy can be extrapolated from adequate and well-controlled studies in adults and/or other pediatric subpopulations if (and only if) (1) the course of the disease/condition <u>AND</u> (2) the effects of the product are sufficiently similar between the reference population and the target pediatric subpopulation needing studies. Extrapolation of efficacy from studies in adults and/or other children usually requires supplementation with other information obtained from the target pediatric subpopulation, such as pharmacokinetic and safety studies.

Pediatric studies are not necessary in the following pediatric subpopulation(s) because efficacy can be						
extra	apolated from adequate and	vell-controlled stu	dies in adults and	l/or other pediatric su	bpopulations:	
				Extrapolated from:		
	Population	minimum	maximum	Adult Studies?	Other Pediatric Studies?	
	Neonate	wk mo.	wk mo.			
	Other	yr mo.	yr mo.			
	Other	yr mo.	yr mo.			
	Other	yr mo.	yr mo.			
	Other	yr mo.	yr mo.			
	All Pediatric Subpopulations	0 yr. 0 mo.	16 yr. 11 mo.			
Are t	Are the indicated age ranges (above) based on weight (kg)?					
Are t	he indicated age ranges (abo	ove) based on Tai	nner Stage?	☐ No; ☐ Yes.		
Note: If extrapolating data from either adult or pediatric studies, a description of the scientific data supporting the extrapolation must be included in any pertinent reviews for the application.						
If there are additional indications, please complete the attachment for each one of those indications. Otherwise, this Pediatric Page is complete and should be signed and entered into DFS.						
This page was completed by:						
{See appended electronic signature page}						
Regulatory Project Manager						
(Rev	(Revised: 4/2008)					
NOT	NOTE II. I II. II. II. II. II. II. II. II.					

NOTE: If you have no other indications for this application, you may delete the attachments from this document.

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#### Attachment A

(This attachment is to be completed for those applications with multiple indications only.) Indication #2: Q1: Does this indication have orphan designation? Yes. PREA does not apply. Skip to signature block. No. Please proceed to the next question. Q2: Is there a full waiver for all pediatric age groups for this indication (check one)? Yes: (Complete Section A.) ☐ No: Please check all that apply: Partial Waiver for selected pediatric subpopulations (Complete Sections B) ☐ Deferred for the remaining pediatric subpopulations (Complete Sections C) Completed for some or all pediatric subpopulations (Complete Sections D) ☐ Appropriately Labeled for some or all pediatric subpopulations (Complete Sections E) Extrapolation in One or More Pediatric Age Groups (Complete Section F) (Please note that Section F may be used alone or in addition to Sections C, D, and/or E.) Section A: Fully Waived Studies (for all pediatric age groups) Reason(s) for full waiver: (check, and attach a brief justification) Necessary studies would be impossible or highly impracticable because: Disease/condition does not exist in children ☐ Too few children with disease/condition to study Other (e.g., patients geographically dispersed): Product does not represent a meaningful therapeutic benefit over existing therapies for pediatric patients AND is not likely to be used in a substantial number of pediatric patients. Evidence strongly suggests that product would be ineffective or unsafe in all pediatric subpopulations (Note: if studies are fully waived on this ground, this information must be included in the labeling.) Justification attached. If studies are fully waived, then pediatric information is complete for this indication. If there is another

indication, please complete another Pediatric Page for each indication. Otherwise, this Pediatric Page is

complete and should be signed and entered into DFS.

Section B: Partially Waived Studies	(for selected pediatric subpopulations)
-------------------------------------	---

Check subpopulation(s) and reason for which studies are being partially waived (fill in applicable criteria below): Note: If Neonate includes premature infants, list minimum and maximum age in "gestational age" (in weeks).

•							
					Reason (see below	w for further detail	):
·		minimum	maximum	Not feasible <sup>#</sup>	Not meaningful therapeutic benefit*	Ineffective or unsafe <sup>†</sup>	Formulation failed <sup>Δ</sup>
	Neonate	wk mo.	wk mo.				
	Other	yr mo.	yr mo.				
	Other	yr mo.	yr mo.				
	Other	yr mo.	yr mo.				
	Other	yr mo.	yr mo.				
Are Rea <b>just</b> #     	<ul> <li>☐ Necessary studies would be impossible or highly impracticable because:</li> <li>☐ Disease/condition does not exist in children</li> <li>☐ Too few children with disease/condition to study</li> <li>☐ Other (e.g., patients geographically dispersed):</li> </ul>						
t Ind			these pediatric s	suppopulatio	11(5).		
. [	Ineffective or unsafe: Evidence strongly suggests that product would be ineffective or unsafe in this/these pediatric population(s) (Note: if studies are partially waived on this ground, this information must be included in the labeling.)						
ΔĘ	-ormulation						
Applicant can demonstrate that reasonable attempts to produce a pediatric formulation necessary for this/these pediatric subpopulation(s) have failed. (Note: A partial waiver on this ground may only cover the pediatric subpopulation(s) requiring that formulation. An applicant seeking a partial waiver on this ground must submit documentation detailing why a pediatric formulation cannot be developed. This submission will be posted on FDA's website if waiver is granted.)							
J	Justification attached.						
stud Tem	For those pediatric subpopulations for which studies have not been waived, there must be (1) corresponding study plans that have been deferred (if so, proceed to Sections C and F and complete the PeRC Pediatric Plan Template); (2) submitted studies that have been completed (if so, proceed to Sections D and F and complete the PeRC Pediatric Association Appearance to the percentage of the						

For those pediatric subpopulations for which studies have not been waived, there must be (1) corresponding study plans that have been deferred (if so, proceed to Sections C and F and complete the PeRC Pediatric Plan Template); (2) submitted studies that have been completed (if so, proceed to Sections D and F and complete the PeRC Pediatric Assessment form); and/or (3) additional studies in other age groups that are not needed because the drug is appropriately labeled in one or more pediatric subpopulations (if so, proceed to Sections E and F). Note that more than one of these options may apply for this indication to cover <u>all</u> of the pediatric subpopulations.

Section C: Deferred Studies (for remaining pediatric subpopulations). Complete Section F on Extrapolation.

Check pediatric subpopulation for which pediatric studies are being deferred (and fill in applicable reason below):

Deferrals (for each or all age groups):				Applicant Certification				
Pop	ulation	minimum	maximum	Ready for Approval in Adults	Need Additional Adult Safety or Efficacy Data	Other Appropriate Reason (specify below)*	Yes	No
	Neonate	wk mo.	wk mo.			. 🔲		
	Other	yr mo.	yr mo.					
	Other	yr mo.	yr mo.					
	Other	yr mo.	yr mo.					
	Other	yr mo.	yr mo.					
	All Pediatric Populations	0 yr. 0 mo.	16 yr. 11 mo.					
Date studies are due (mm/dd/yy):								
Are the indicated age ranges (above) based on weight (kg)?								
Are the indicated age ranges (above) based on Tanner Stage?   No; Yes.								
* Oth	ner Reason:							

† Note: Studies may only be deferred if an <u>applicant submits a certification of grounds</u> for deferring the studies, a description of the planned or ongoing studies, evidence that the studies are being conducted or will be conducted with due diligence and at the earliest possible time, and a timeline for the completion of the studies. If studies are deferred, on an annual basis applicant must submit information detailing the progress made in conducting the studies or, if no progress has been made, evidence and documentation that such studies will be conducted with due diligence and at the earliest possible time. This requirement should be communicated to the applicant in an appropriate manner (e.g., in an approval letter that specifies a required study as a post-marketing commitment.)

If all of the pediatric subpopulations have been covered through the partial waivers and deferrals, proceed to Section F. For those pediatric subpopulations for which studies have been completed, proceed to Sections D and F and complete the PeRC Pediatric Assessment form. For those pediatric subpopulations for which additional studies are not needed because the drug is appropriately labeled in one or more pediatric subpopulations, proceed to Sections E and F.

Other

Other

All Pediatric Subpopulations

22-232)

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Section D: Completed Studies (for some or all pediatric subpopulations). Complete Section F on Extrapolation. Pediatric subpopulation(s) in which studies have been completed (check below): PeRC Pediatric Assessment form Population minimum maximum attached?. Neonate wk. mo. Yes  $\square$ wk. mo. No 🗌 Other yr. \_\_ mo. Yes 🗌 No  $\square$ yr. mo. Other yr. \_\_\_ mo. Yes 🗌 No 🗌 yr. \_\_ mo. Other \_\_ yr. \_\_ mo. Yes 🗌 \_ yr. \_\_ mo. No  $\square$ Other \_ yr. \_\_ mo. \_ yr. \_\_ mo. Yes 🗌 No 🗔 All Pediatric Subpopulations 0 yr. 0 mo. 16 yr. 11 mo. Yes 🗌 No 🗌 Are the indicated age ranges (above) based on weight (kg)? ☐ No; ☐ Yes. Are the indicated age ranges (above) based on Tanner Stage? □ No: □ Yes. Note: For those pediatric subpopulations for which additional studies are not needed because the drug is appropriately labeled in one or more pediatric subpopulations, proceed to Sections E and F. If there are no further pediatric subpopulations to cover based on the partial waivers, deferrals and completed studies, go to Section F. Section E: Drug Appropriately Labeled (for some or all pediatric subpopulations): (Complete section F) Additional pediatric studies are not necessary in the following pediatric subpopulation(s) because product is appropriately labeled for the indication being reviewed: Population minimum maximum Neonate wk. mo. \_\_ wk. \_\_ mo*.* Other yr. \_\_ mo. \_ yr. \_\_\_ mo. Other

Are the indicated age ranges (above) based on weight (kg)?	☐ No; ☐ Yes.
Are the indicated age ranges (above) based on Tanner Stage?	☐ No; ☐ Yes.

If studies are not needed because efficacy is being extrapolated from other adult and/or pediatric studies. proceed to Section F. Otherwise, this Pediatric Page is complete and should be signed and entered into DFS.

yr.

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yr. \_\_\_ mo.

16 vr. 11 mo.

\_\_ yr. \_\_ mo.

# Section F: Extrapolation from Other Adult and/or Pediatric Studies (for deferred and completed studies)

Note: Pediatric efficacy can be extrapolated from adequate and well-controlled studies in adults and/or other pediatric subpopulations if (and only if) (1) the course of the disease/condition <u>AND</u> (2) the effects of the product are sufficiently similar between the reference population and the target pediatric subpopulation needing studies. Extrapolation of efficacy from studies in adults and/or other children usually requires supplementation with other information obtained from the target pediatric subpopulation, such as pharmacokinetic and safety studies.

Stud	ies.		·			
Pediatric studies are not necessary in the following pediatric subpopulation(s) because efficacy can be extrapolated from adequate and well-controlled studies in adults and/or other pediatric subpopulations:						
				Extrapolated from:		
	Population	minimum maximum	Adult Studies?	Other Pediatric Studies?		
	Neonate	wk mo.	wk mo.			
	Other	yr mo.	yr mo.			
	Other	yr mo.	yr mo.			
	Other	yr mo.	yr mo.			
	Other	yr mo.	yr mo.			
	All Pediatric Subpopulations	0 yr. 0 mo.	16 yr. 11 mo.			
Note: If extrapolating data from either adult or pediatric studies, a description of the scientific data supporting the extrapolation must be included in any pertinent reviews for the application.  If there are additional indications, please copy the fields above and complete pediatric information as directed. If there are no other indications, this Pediatric Page is complete and should be entered into DFS.						
This	page was completed by:					
{See appended electronic signature page}						
Julie Marchick, MPH Regulatory Project Manager						
FOR QUESTIONS ON COMPLETING THIS FORM CONTACT THE PEDIATRIC AND MATERNAL HEALTH STAFF at 301-796-0700						
(Rev	ised: 4/2008)					

IF THERE ARE QUESTIONS, PLEASE CONTACT THE CDER PMHS VIA EMAIL OR AT 301-796-0700.

This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.

/s/

Julie Marchick 6/23/2008 03:21:22 PM

NDA 22-232 Repaglinide/metformin HCl Fixed Dose Combination Tablets (1/500 and 2/500)

Debarment Statement

Date: Version: Status: August 2007

07 | Novo Nordisk

Final

Page:

Page 1 of 1

### **Debarment Statement**

Novo Nordisk Inc. hereby certifies that it did not and will not use in any capacity, the services of any person debarred under Section 306 of the Federal Food, Drug and Cosmetic Act in connection with this application.

Mary Ann McElligott, Ph.D.

Associate Vice President, Regulatory Affairs

DEPARTMENT OF HEALTH AND HUMAN SERVICES Food and Drug Administration

# CERTIFICATION: FINANCIAL INTERESTS AND ARRANGEMENTS OF CLINICAL INVESTIGATORS

Form Approved: OMB No. 0910-0396 Expiration Date: April 30, 2009

#### TO BE COMPLETED BY APPLICANT

With respect to all covered clinical studies (or specific clinical studies listed below (if appropriate)) submitted in support of this application, I certify to one of the statements below as appropriate. I understand that this certification is made in compliance with 21 CFR part 54 and that for the purposes of this statement, a clinical investigator includes the spouse and each dependent child of the investigator as defined in 21 CFR 54.2(d).

Please mark the applicable checkbox. (1) As the sponsor of the submitted studies, I certify that I have not entered into any financial arrangement with the listed clinical investigators (enter names of clinical investigators below or attach list of names to this form) whereby the value of compensation to the investigator could be affected by the outcome of the study as defined in 21 CFR 54.2(a). I also certify that each listed clinical investigator required to disclose to the sponsor whether the investigator had a proprietary interest in this product or a significant equity in the sponsor as defined in 21 CFR 54.2(b) did not disclose any such interests. I further certify that no listed investigator was the recipient of significant payments of other sorts as defined in 21 CFR 54.2(f). See investigator lists in Module 5 Investigator (2) As the applicant who is submitting a study or studies sponsored by a firm or party other than the applicant, I certify that based on information obtained from the sponsor or from participating clinical investigators, the listed clinical investigators (attach list of names to this form) did not participate in any financial arrangement with the sponsor of a covered study whereby the value of compensation to the investigator for conducting the study could be affected by the outcome of the study (as defined in 21 CFR 54.2(a)); had no proprietary interest in this product or significant equity interest in the sponsor of the covered study (as defined in 21 CFR 54.2(b)); and was not the recipient of significant payments of other sorts (as defined in 21 CFR 54.2(f)). (3) As the applicant who is submitting a study or studies sponsored by a firm or party other than the applicant, I certify that I have acted with due diligence to obtain from the listed clinical investigators (attach list of names) or from the sponsor the information required under 54.4 and it was not possible

NAME Karsten Wassermann	TITLE Project Director
FIRM/ORGANIZATION Novo Nordisk Inc.	
SIGNATURE HASSELLUAUUU	DATE 7/18/07

to do so. The reason why this information could not be obtained is attached.

#### **Paperwork Reduction Act Statement**

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. Public reporting burden for this collection of information is estimated to average 1 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the necessary data, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information to the address to the right:

Department of Health and Human Services Food and Drug Administration 5600 Fishers Lane, Room 14C-03 Rockville, MD 20857



### DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration Rockville, MD 20857

NDA 22-386

#### NDA ACKNOWLEDGMENT

Novo Nordisk Inc. Attention: Mary Ann McElligott, Ph.D. Associate Vice President, Regulatory Affairs 100 College Road West Princeton, New Jersey 08540

Dear Dr. McElligott:

We have received your new drug application (NDA) submitted pursuant to section 505(b)(2) of the Federal Food, Drug, and Cosmetic Act for the following:

Name of Drug Product:

PrandiMet (repaglinide/metformin HCl fixed dose combination)

**Tablets** 

Date of Application:

May 23, 2008

Date of Receipt:

May 23, 2008

Our Reference Number: NDA 22-386

We acknowledge that this NDA was submitted to comply with section 505(b)(4)(A) of the Food, Drug, & Cosmetic Act (FD&C Act), added by the Medicare Modernization Act.

If you have not already done so, promptly submit the content of labeling [21 CFR 314.50(1)(1)(i)] in structured product labeling (SPL) format as described http://www.fda.gov/oc/datacouncil/spl.html. Failure to submit the content of labeling in SPL format may result in a refusal-to-file action under 21 CFR 314.101(d)(3). The content of labeling must be in the Prescribing Information (physician labeling rule) format.

The NDA number provided above should be cited at the top of the first page of all submissions to this application. Send all submissions, electronic or paper, including those sent by overnight mail or courier, to the following address:

Food and Drug Administration Center for Drug Evaluation and Research Division of Metabolism and Endocrinology Products 5901-B Ammendale Road Beltsville, MD 20705-1266

All regulatory documents submitted in paper should be three-hole punched on the left side of the page and bound. The left margin should be at least three-fourths of an inch to assure text is not obscured in the fastened area. Standard paper size (8-1/2 by 11 inches) should be used; however, it may occasionally be necessary to use individual pages larger than standard paper size. Non-standard, large pages should be folded and mounted to allow the page to be opened for review without disassembling the jacket and refolded without damage when the volume is shelved. Shipping unbound documents may result in the loss of portions of the submission or an unnecessary delay in processing which could have an adverse impact on the review of the submission. For additional information, please see <a href="http://www.fda.gov/cder/ddms/binders.htm">http://www.fda.gov/cder/ddms/binders.htm</a>.

If you have any questions, please call me at (301) 796-1280.

Sincerely,

{See appended electronic signature page} .

Julie Marchick, MPH
Regulatory Project Manager
Division of Metabolism and Endocrinology Products
Office of Drug Evaluation II
Center for Drug Evaluation and Research

/s/

Julie Marchick 6/4/2008 03:37:46 PM

# Page(s) Withheld

Trade Secret / Confidential (b4)
Draft Labeling (b4)
Draft Labeling (b5)
Deliberative Process (b5)

Withheld Track Number: Administrative-\_\_\_\_

/s/

Julie Marchick 8/20/2007 11:40:03 AM

### **ACTION PACKAGE CHECKLIST**

	APPLICATE	ON I	NEORMATION: **	
NDA# 22-386 BLA# N/A	NDA Supplement # N/A BLA STN # N/A		If NDA, Efficacy Suppleme	ent Type: N/A
Proprietary Name: PrandiMet Established/Proper Name: repaglinide/metformin fixed dose combination Dosage Form: Tablets			Applicant: Novo Nordisk, Agent for Applicant (if appl	
RPM: Julie Marchick			Division: Division of Meta	bolism and Endocrinology Products
NDAs: NDA Application Type Efficacy Supplement:	☐ 505(b)(1) ☐ 505(b)(2)	Liste NDA	b)(2) Original NDAs and 505d drug(s) referred to in 505(b /ANDA #(s) and drug name(s)	)(2) application (include s)):
	wither a (b)(1) or a (b)(2) regardless NDA was a (b)(1) or a (b)(2).	NDA	20-357 Glucophage (metfori	min HCl) Tablets
Consult page 1 of the N	IDA Regulatory Filing Review for endix A to this Action Package	listed	ide a brief explanation of how I drug. ed-dose combination of repag	this product is different from the
			f no listed drug, check here ar	
		prov check exclusion B of	ided in Appendix B to the R king the Orange Book for an assivity. If there are any charty the OND ADRA immediate the Regulatory Filing Revied No changes Date of check: June 2, 200 diatric exclusivity has been amation in the labeling of the	Updated 8
		On t	_	ne Orange Book again for any new
<ul> <li>User Fee Goal Date (</li> <li>Action Goal Date (</li> </ul>				June 15, 2008
❖ Actions				
• Proposed				AP ☐ TA ☐ AE     NA ☐ CR
Previous :	actions (specify type and date for each	h actio	n taken)	None
<ul> <li>Advertising (approximate)         Note: If accelerate submitted and reviews     </li> </ul>	ovals only) ed approval (21 CFR 314.510/601.41) ewed (indicate dates of reviews)	, adver	tising MUST have been	Requested in AP letter Received and reviewed

The Application Information section is (only) a checklist. The Contents of Action Package section (beginning on page 5) lists the documents to be included in the Action Package.

*	Application <sup>2</sup> Characteristics	
	Review priority: Standard Priority Chemical classification (new NDAs only): 4	
	☐ Fast Track ☐ Rx-to-OTC full switch ☐ Rolling Review ☐ Rx-to-OTC partial switch ☐ Orphan drug designation ☐ Direct-to-OTC	
	Restricted distribution (21 CFR 314.520) Subpart I Subpart H	erated approval (21 CFR 601.41) cted distribution (21 CFR 601.42) eval based on animal studies
	☐ Submitted in response to a PMR ☐ Submitted in response to a PMC	
	Comments:	
*	Application Integrity Policy (AIP) <a href="http://www.fda.gov/ora/compliance_ref/aip_page.html">http://www.fda.gov/ora/compliance_ref/aip_page.html</a>	
	Applicant is on the AIP	☐ Yes ⊠ No
	This application is on the AIP	☐ Yes ⊠ No
)	<ul> <li>If yes, exception for review granted (file Center Director's memo in Administrative/Regulatory Documents section, with Administrative Reviews)</li> </ul>	☐ Yes
	<ul> <li>If yes, OC clearance for approval (file communication in Administrative/Regulatory Documents section with Administrative Reviews)</li> </ul>	Yes Not an AP action
*	Date reviewed by PeRC (required for approvals only)  If PeRC review not necessary, explain:	May 28, 2008
*	BLAs only: RMS-BLA Product Information Sheet for TBP has been completed and forwarded to OBPS/DRM (approvals only)	Yes, date
*	BLAs only: is the product subject to official FDA lot release per 21 CFR 610.2 (approvals only)	☐ Yes ☐ No
*	Public communications (approvals only)	
	Office of Executive Programs (OEP) liaison has been notified of action	☐ Yes ☐ No
	Press Office notified of action	⊠ Yes □ No
	Indicate what types (if any) of information dissemination are anticipated	☐ None ☐ HHS Press Release ☐ FDA Talk Paper ☐ CDER Q&As ☐ Other

<sup>&</sup>lt;sup>2</sup> All questions in all sections pertain to the pending application, i.e., if the pending application is an NDA or BLA supplement, then the questions should be answered in relation to that supplement, not in relation to the original NDA or BLA. For example, if the pending BLA supplement, then a new RMS-BLA Product Information Sheet for TBP must be completed.

*	Exclusivit	у	
	• I	s approval of this application blocked by any type of exclusivity?	⊠ No ☐ Yes
		NDAs and BLAs: Is there existing orphan drug exclusivity for the "same" drug or biologic for the proposed indication(s)? Refer to 21 CFR 316.3(b)(13) for the definition of "same drug" for an orphan drug (i.e., active moiety). This definition is NOT the same as that used for NDA chemical classification.	No ☐ Yes If, yes, NDA/BLA # and date exclusivity expires:
	•	(b)(2) NDAs only: Is there remaining 5-year exclusivity that would bar effective approval of a 505(b)(2) application)? (Note that, even if exclusivity remains, the application may be tentatively approved if it is otherwise ready for approval.)	No ☐ Yes If yes, NDA # and date exclusivity expires:
	•	(b)(2) NDAs only: Is there remaining 3-year exclusivity that would bar effective approval of a 505(b)(2) application? (Note that, even if exclusivity remains, the application may be tentatively approved if it is otherwise ready for approval.)	☑ No ☐ Yes If yes, NDA # and date exclusivity expires:
		(b)(2) NDAs only: Is there remaining 6-month pediatric exclusivity that would bar effective approval of a 505(b)(2) application? (Note that, even if exclusivity remains, the application may be tentatively approved if it is otherwise ready for approval.)	No ☐ Yes If yes, NDA # and date exclusivity expires:
	•	NDAs only: Is this a single enantiomer that falls under the 10-year approval limitation of 505(u)? (Note that, even if the 10-year approval limitation period has not expired, the application may be tentatively approved if it is otherwise ready for approval.)	No ☐ Yes If yes, NDA # and date 10- year limitation expires:
			•
*	Patent Info	ormation (NDAs only)	
*	P   V   w	exact Information:  atent Information:  erify that form FDA-3542a was submitted for patents that claim the drug for hich approval is sought. If the drug is an old antibiotic, skip the Patent ertification questions.	<ul> <li>✓ Verified</li> <li>☐ Not applicable because drug is an old antibiotic.</li> </ul>
*	• Provided to the provided to	atent Information: erify that form FDA-3542a was submitted for patents that claim the drug for hich approval is sought. If the drug is an old antibiotic, skip the Patent	Not applicable because drug is an old antibiotic.  21 CFR 314.50(i)(1)(i)(A)  ✓ Verified  21 CFR 314.50(i)(1)
*	• Power of the second of the s	atent Information: erify that form FDA-3542a was submitted for patents that claim the drug for hich approval is sought. If the drug is an old antibiotic, skip the Patent ertification questions.  atent Certification [505(b)(2) applications]: erify that a certification was submitted for each patent for the listed drug(s) in	Not applicable because drug is an old antibiotic.  21 CFR 314.50(i)(1)(i)(A)  ✓ Verified
*	Power Company of the power of t	atent Information: erify that form FDA-3542a was submitted for patents that claim the drug for hich approval is sought. If the drug is an old antibiotic, skip the Patent ertification questions.  atent Certification [505(b)(2) applications]: erify that a certification was submitted for each patent for the listed drug(s) in e Orange Book and identify the type of certification submitted for each patent.  605(b)(2) applications] If the application includes a paragraph III certification, cannot be approved until the date that the patent to which the certification ertains expires (but may be tentatively approved if it is otherwise ready for	<ul> <li>Not applicable because drug is an old antibiotic.</li> <li>21 CFR 314.50(i)(1)(i)(A)</li> <li>✓ Verified</li> <li>21 CFR 314.50(i)(1)</li> <li>✓ (ii) ☐ (iii)</li> <li>☐ No paragraph III certification</li> </ul>

[505(b)(2) applications] For <b>each paragraph IV</b> certification, based on the questions below, determine whether a 30-month stay of approval is in effect due to patent infringement litigation.		٠	
Answer the following questions for each paragraph IV certification:	:		
(1) Have 45 days passed since the patent owner's receipt of the applicant's notice of certification?	☐ Yes	□ No	
(Note: The date that the patent owner received the applicant's notice of certification can be determined by checking the application. The applicant is required to amend its 505(b)(2) application to include documentation of this date (e.g., copy of return receipt or letter from recipient acknowledging its receipt of the notice) (see 21 CFR 314.52(e))).		·	
If "Yes," skip to question (4) below. If "No," continue with question (2).			
(2) Has the patent owner (or NDA holder, if it is an exclusive patent licensee) submitted a written waiver of its right to file a legal action for patent infringement after receiving the applicant's notice of certification, as provided for by 21 CFR 314.107(f)(3)?	☐ Yes	□ No	
If "Yes," there is no stay of approval based on this certification. Analyze the next paragraph IV certification in the application, if any. If there are no other paragraph IV certifications, skip the rest of the patent questions.			
If "No," continue with question (3).			
(3) Has the patent owner, its representative, or the exclusive patent licensee filed a lawsuit for patent infringement against the applicant?	☐ Yes	☐ No	
(Note: This can be determined by confirming whether the Division has received a written notice from the (b)(2) applicant (or the patent owner or its representative) stating that a legal action was filed within 45 days of receipt of its notice of certification. The applicant is required to notify the Division in writing whenever an action has been filed within this 45-day period (see 21 CFR 314.107(f)(2))).		·	
If "No," the patent owner (or NDA holder, if it is an exclusive patent licensee) has until the expiration of the 45-day period described in question (1) to waive its right to bring a patent infringement action or to bring such an action. After the 45-day period expires, continue with question (4) below.			
(4) Did the patent owner (or NDA holder, if it is an exclusive patent licensee) submit a written waiver of its right to file a legal action for patent infringement within the 45-day period described in question (1), as provided for by 21 CFR 314.107(f)(3)?	☐ Yes	☐ No	
If "Yes," there is no stay of approval based on this certification. Analyze the next paragraph IV certification in the application, if any. If there are no other paragraph IV certifications, skip to the next section below (Summary Reviews).			
If "No," continue with question (5).			
·			
·			

		(5) Did the patent owner, its representative, or the exclusive patent licensee bring suit against the (b)(2) applicant for patent infringement within 45 days of the patent owner's receipt of the applicant's notice of certification?	☐ Yes ☐ No
		(Note: This can be determined by confirming whether the Division has received a written notice from the (b)(2) applicant (or the patent owner or its representative) stating that a legal action was filed within 45 days of receipt of its notice of certification. The applicant is required to notify the Division in writing whenever an action has been filed within this 45-day period (see 21 CFR 314.107(f)(2)). If no written notice appears in the NDA file, confirm with the applicant whether a lawsuit was commenced within the 45-day period).	
		If "No," there is no stay of approval based on this certification. Analyze the next paragraph IV certification in the application, if any. If there are no other paragraph IV certifications, skip to the next section below (Summary Reviews).	
		If "Yes," a stay of approval may be in effect. To determine if a 30-month stay is in effect, consult with the OND ADRA and attach a summary of the response.	
		EQUITERTS OF ACTION PACKAGE	18 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
*	Copy o	f this Action Package Checklist <sup>3</sup>	June 25, 2008
		Officer/Employee List	
*	List of consent	officers/employees who participated in the decision to approve this application and ed to be identified on this list (approvals only)	⊠ Included
	Docum	entation of consent/nonconsent by officers/employees	
		Action Letters	
*	Copies	of all action letters (including approval letter with final labeling)	AP – June 23, 2008
		Labeling	
<b>*</b>	Package	Insert (write submission/communication date at upper right of first page of PI)	
	*	Most recent division-proposed labeling (only if generated after latest applicant submission of labeling)	N/A
	*	Most recent submitted by applicant labeling (only if subsequent division labeling does not show applicant version)	N/A
	*	Original applicant-proposed labeling	August 15, 2007
	*	Other relevant labeling (e.g., most recent 3 in class, class labeling), if applicable	N/A
*	Medicat submiss	ion Guide/Patient Package Insert/Instructions for Use (write ion/communication date at upper right of first page of each piece)	Medication Guide Patient/Package Insert Mistructions for Use None
	_	Mark manual Principal Control of the	The state of the s
	*	Most-recent division-proposed labeling (only if generated after latest applicant submission of labeling)	N/A

Fill in blanks with dates of reviews, letters, etc. Version: 5/19/08

	Most recent submitted by applicant labeling (only if subsequent division labeling does not show applicant version)	N/A
	<ul> <li>Original applicant-proposed labeling</li> </ul>	N/A
	Other relevant labeling (e.g., most recent 3 in class, class labeling), if applicable	N/A
*	Labels (full color carton and immediate-container labels) (write submission/communication date at upper right of first page of each submission)	
	<ul> <li>Most-recent division proposal for (only if generated after latest applicant submission)</li> </ul>	N/A
	❖ Most recent applicant-proposed labeling	June 20, 2008
*	Labeling reviews (indicate dates of reviews and meetings)	<ul> <li>☑ RPM Sept. 26, 2007</li> <li>☑ DMEDP May 28, 2008,</li> <li>November 16, 2007</li> <li>☐ DRISK</li> <li>☑ DDMAC June 13, 2008</li> <li>☐ CSS</li> <li>☐ Other reviews</li> </ul>
	Administrative / Regulatory Documents	
*	Administrative Reviews (e.g., RPM Filing Review <sup>4</sup> /Memo of Filing Meeting) (indicate date of each review)	October 17, 2008
*	NDAs only: Exclusivity Summary (signed by Division Director)	☐ Included
*	AIP-related documents	Not on AIP N/A N/A
<u>}</u>	Pediatric Page (approvals only, must be reviewed by PERC before finalized)	
*	Debarment certification (original applications only): verified that qualifying language was not used in certification and that certifications from foreign applicants are cosigned by	<ul><li>✓ Included</li><li>✓ Verified, statement is</li></ul>
	U.S. agent (include certification)	acceptable
*	Postmarketing Requirement (PMR) Studies	None     Non
	Outgoing communications (if located elsewhere in package, state where located)	
	Incoming submissions/communications	
*	Postmarketing Commitment (PMC) Studies	None     Non
	<ul> <li>Outgoing Agency request for postmarketing commitments (if located elsewhere in package, state where located)</li> </ul>	
	<ul> <li>Incoming submission documenting commitment</li> </ul>	
*	Outgoing communications (letters (except previous action letters), emails, faxes, telecons)	August 20, 2007, September 12, 2007, September 24, 2007, October 15, 2007, November 4, 2007, January 1, 2008, January 3, 2008, January 29, 2008, February 27, 2008, March 7, 2008, March 14, 2008, March 24, 2008, May 19, 2008, June 4, 2008 (2)
*	Internal memoranda, telecons, etc.	N/A
*	Minutes of Meetings	

Filing reviews for other disciplines should be filed behind the discipline tab. Version: 5/19/08

	Pre-Approval Safety Conference (indicate date; approvals only)	Not applicable     Not
	Regulatory Briefing (indicate date)	☑ No mtg
	Pre-NDA/BLA meeting (indicate date)	☑ No mtg
	EOP2 meeting (indicate date)	☑ No mtg
<u> </u>	Other (e.g., EOP2a, CMC pilot programs)	PIND - March 24, 2006
*	Advisory Committee Meeting(s)	No AC meeting     ■
	• Date(s) of Meeting(s)	N/A
2011022	48-hour alert or minutes, if available	N/A
	Decisional and Summary Memos	
*	Office Director Decisional Memo (indicate date for each review)	⊠ None
	Division Director Summary Review (indicate date for each review)	☐ None June 23, 2008
	Cross-Discipline Team Leader Review (indicate date for each review)	⊠ None
	Clinical Information 1	
*	Clinical Reviews	
	Clinical Team Leader Review(s) (indicate date for each review)	N/A
	Clinical review(s) (indicate date for each review)	June 8, 2008
	Social scientist review(s) (if OTC drug) (indicate date for each review)	⊠ None
*	Safety update review(s) (indicate location/date if incorporated into another review)	June 8, 2008, Page 21-23
*	Financial Disclosure reviews(s) or location/date if addressed in another review OR	June 8, 2008, Page 10
	If no financial disclosure information was required, review/memo explaining why not	N/A
*	Clinical reviews from other clinical areas/divisions/Centers (indicate date of each review)	⊠ None
*	Safety update review(s) (indicate location/date if incorporated into another review)	Noted above
	Controlled Substance Staff review(s) and Scheduling Recommendation (indicate date of each review)	Not needed     Not needed
*	REMS	⊠ None
,	<ul> <li>REMS Document and Supporting Statement (indicate date(s) of submission(s))</li> <li>Review(s) and recommendations (including those by OSE and CSS) (indicate location/date if incorporated into another review)</li> </ul>	12.1
*	DSI Inspection Review Summary(ies) (include copies of DSI letters to investigators)	☐ None requested
	Clinical Studies	N/A
	Bioequivalence Studies	May 29, 2008
	Clinical Pharmacology Studies	N/A
	es e a caracter de la company	
*	Clinical Microbiology Team Leader Review(s) (indicate date for each review)	None
	Clinical Microbiology Review(s) (indicate date for each review)	☐ None
	Biostatistics A Ref. None	

Filing reviews should be filed with the discipline reviews. Version: 5/19/08

	·	
*	Statistical Division Director Review(s) (indicate date for each review)	⊠ None
	Statistical Team Leader Review(s) (indicate date for each review)	None     Non
	Statistical Review(s) (indicate date for each review)	☐ None June 2, 2008
	Clinical Pharmacology None"	
*	Clinical Pharmacology Division Director Review(s) (indicate date for each review)	⊠ None
	Clinical Pharmacology Team Leader Review(s) (indicate date for each review)	None     Non
	Clinical Pharmacology review(s) (indicate date for each review)	None May 30, 2008, September 26, 2007
*	DSI Clinical Pharmacology Inspection Review Summary	☐ None May 29, 2008
	Nonclinical 2. None	
*	Pharmacology/Toxicology Discipline Reviews	
	ADP/T Review(s) (indicate date for each review)	None     Non
	Supervisory Review(s) (indicate date for each review)	⊠ None
	<ul> <li>Pharm/tox review(s), including referenced IND reviews (indicate date for each review)</li> </ul>	☐ None May 20, 2008, September 26, 2007
*	Review(s) by other disciplines/divisions/Centers requested by P/T reviewer (indicate date for each review)	⊠ None
*	Statistical review(s) of carcinogenicity studies (indicate date for each review)	⊠ No carc
*	ECAC/CAC report/memo of meeting	
· ·	DSI Nonclinical Inspection Review Summary	
	CMC/Quality * : post of the None	
*	CMC/Quality Discipline Reviews	
	<ul> <li>ONDQA/OBP Division Director Review(s) (indicate date for each review)</li> </ul>	None     Non
	Branch Chief/TeamLeader Review(s) (indicate date for each review)	⊠ None
	CMC/product quality review(s) (indicate date for each review)	None May 23, 2008, June 18, 2008, May 7, 2008, September 26, 2007
	BLAs only: Facility information review(s) (indicate dates)	None     Non
*	<ul> <li>Microbiology Reviews</li> <li>NDAs: Microbiology reviews (sterility &amp; pyrogenicity) (indicate date of each review)</li> <li>BLAs: Sterility assurance, product quality microbiology</li> </ul>	Not needed
*	Reviews by other disciplines/divisions/Centers requested by CMC/quality reviewer (indicate date for each review)	⊠ None
*	Environmental Assessment (check one) (original and supplemental applications)	
	☐ Categorical Exclusion (indicate review date)(all original applications and all efficacy supplements that could increase the patient population)	May 7, 2008, Page 90
	Review & FONSI (indicate date of review)	
	Review & Environmental Impact Statement (indicate date of each review)	
*	Facilities Review/Inspection	

NDA/BLA	#22-386
Page 9	

	n	ithin 2	Facilities inspections (include EER printout) (date completed must be years of action date)	Date completed: June 18, 2008  Acceptable  Withhold recommendation
	• B	BLAs:	TBP-EER  Compliance Status Check (approvals only, both original and all supplemental applications except CBEs) (date completed must be within 60 days prior to AP)	Date completed: Acceptable Withhold recommendation Date completed: Requested Accepted Hold
*	NDAs: M	ethods	Validation	Completed Requested Not yet requested Not needed

### Appendix A to Action Package Checklist

An NDA or NDA supplemental application is likely to be a 505(b)(2) application if:

- (1) It relies on published literature to meet any of the approval requirements, and the applicant does not have a written right of reference to the underlying data. If published literature is cited in the NDA but is not necessary for approval, the inclusion of such literature will not, in itself, make the application a 505(b)(2) application.
- (2) Or it relies for approval on the Agency's previous findings of safety and efficacy for a listed drug product and the applicant does not own or have right to reference the data supporting that approval.
- (3) Or it relies on what is "generally known" or "scientifically accepted" about a class of products to support the safety or effectiveness of the particular drug for which the applicant is seeking approval. (Note, however, that this does not mean any reference to general information or knowledge (e.g., about disease etiology, support for particular endpoints, methods of analysis) causes the application to be a 505(b)(2) application.)

Types of products for which 505(b)(2) applications are likely to be submitted include: fixed-dose combination drug products (e.g., heart drug and diuretic (hydrochlorothiazide) combinations); OTC monograph deviations(see 21 CFR 330.11); new dosage forms; new indications; and, new salts.

An efficacy supplement can be either a (b)(1) or a (b)(2) regardless of whether the original NDA was a (b)(1) or a (b)(2).

An efficacy supplement is a 505(b)(1) supplement if the supplement contains all of the information needed to support the approval of the change proposed in the supplement. For example, if the supplemental application is for a new indication, the supplement is a 505(b)(1) if:

- (1) The applicant has conducted its own studies to support the new indication (or otherwise owns or has right of reference to the data/studies).
- (2) And no additional information beyond what is included in the supplement or was embodied in the finding of safety and effectiveness for the original application or previously approved supplements is needed to support the change. For example, this would likely be the case with respect to safety considerations if the dose(s) was/were the same as (or lower than) the original application.
- (3) And all other "criteria" are met (e.g., the applicant owns or has right of reference to the data relied upon for approval of the supplement, the application does not rely for approval on published literature based on data to which the applicant does not have a right of reference).

An efficacy supplement is a 505(b)(2) supplement if:

- (1) Approval of the change proposed in the supplemental application would require data beyond that needed to support our previous finding of safety and efficacy in the approval of the original application (or earlier supplement), and the applicant has not conducted all of its own studies for approval of the change, or obtained a right to reference studies it does not own. For example, if the change were for a new indication AND a higher dose, we would likely require clinical efficacy data and preclinical safety data to approve the higher dose. If the applicant provided the effectiveness data, but had to rely on a different listed drug, or a new aspect of a previously cited listed drug, to support the safety of the new dose, the supplement would be a 505(b)(2).
- (2) Or the applicant relies for approval of the supplement on published literature that is based on data that the applicant does not own or have a right to reference. If published literature is cited in the supplement but is not necessary for approval, the inclusion of such literature will not, in itself, make the supplement a 505(b)(2) supplement.
- (3) Or the applicant is relying upon any data they do not own or to which they do not have right of reference.

If you have questions about whether an application is a 505(b)(1) or 505(b)(2) application, consult with your ODE's ADRA.

/s/

Julie Marchick 6/25/2008 01:14:59 PM

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\_\_\_\_\_ Trade Secret / Confidential (b4)
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\_\_\_\_\_ Draft Labeling (b5)
\_\_\_\_\_ Deliberative Process (b5)

/s/

Julie Marchick 6/9/2008 01:35:55 PM CSO

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Draft Labeling (b5)
Deliberative Process (b5)

/s/

Julie Marchick 6/4/2008 03:21:34 PM MEMORANDUM

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
FOOD AND DRUG ADMINISTRATION
CENTER FOR DRUG EVALUATION AND RESEARCH

DATE:

May 28, 2008

FROM:

Jacqueline A. O'Shaughnessy, Ph.D.

Hyojong Kwon, Ph.D. Mark J. Seaton, Ph.D.

Division of Scientific Investigations

Through:

C.T. Viswanathan, Ph.D.

Associate Director (Bioequivalence)
Division of Scientific Investigations

TO:

Mary H. Parks, M.D., Director

Division of Metabolism and Endocrinology Products

SUBJECT:

Review of EIRs Covering NDA 22-232, PrandiMet (repaglinide/metformin hydrochloride fixed dose combination) Tablets, 1 mg/500 mg and 2 mg/500 mg,

Sponsored by Novo Nordisk, Inc.

At the request of the Division of Metabolism and Endocrinology Products (DMEP), the Division of Scientific Investigations (DSI) audited the clinical (pharmacokinetic) and analytical portions of the following study:

Study # NN4440-1753: A Randomized, Single-Blind, Three-Period Crossover Study Examining the Single-Dose Pharmacokinetics of Concomitantly Administered Repaglinide and Metformin Versus Combination Tablet Dosing (NN4440) in Fed Healthy Volunteers.

The objective of this study was to evaluate the pharmacokinetic (PK), bioequivalence, and dose proportionality of concomitantly administered Repaglinide and Metformin and combination tablet dosing. This memorandum discusses the audit of the clinical (pharmacokinetic) portion of the study at [

and

the analytical inspection at 🕇

### Clinical (Pharmacokinetic) Inspection

Following the inspection at (3/24-28/08) there was no form FDA 483, Inspectional Observations issued. Of the 93 subjects dosed according to the study protocol, 55

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Page 2 - NDA 22-232, PrandiMet (repaglinide/metformin hydrochloride fixed dose combination) Tablets, 25 mg, 50 mg and 100 mg

completed all three periods of the study. The inspection confirmed that the high drop out rate was attributable to unexpected serious adverse events (hypoglycemia) that occurred in 26 of 44 subjects dosed on June 14, 2006. Those 26 subjects had glucose levels less than 56 mg/dl starting approximately 1 hour to 1.5 hours after dosing. As a result of these unexpected results, the sponsor put the study on hold while the sponsor reviewed the issue and amended the protocol. The revised protocol included several measures to avoid hypoglycemia, including infusion of dextrose (D10) 10 minutes after dosing, additional glucose monitoring timepoints, and the addition of a midnight snack. According to the site, the delay in completion of the study caused most of the original subjects to withdraw from the study. The study resumed with a second dosing on July 6, 2006.

### Analytical Inspection

Following the inspection at  $\Gamma$  (12/17-19/2007) form FDA 483 was issued (Attachment 1). The objectionable items and our evaluation follows:

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1. Integration parameters were changed multiple times without documenting the interim changes made.

Although it is objectionable that details of integration parameter changes were not maintained, the chromatography software audit trail was enabled and captured the identity of the sample used as the basis for the change. At our request, the firm applied the default integration parameters to several repaglinide runs during the inspection; comparison of the concentration results obtained with the default and modified integration methods found no significant difference and did not affect run acceptance. In their response dated February 4, 2008, the firm stated that they retrained staff to assure that the audit trail for future studies is configured to capture the parameter changes.

2. Incomplete documentation to verify a sample switch for subject 44 in metformin batch 14 and repaglinide batch 14.

Although it is objectionable that the firm's documentation was not contemporaneous with the event, the sample sequence could be verified post-injection because the firm recorded the injection sequence on the sample tubes received from the clinic.

Page 3 - NDA 22-232, PrandiMet (repaglinide/metformin hydrochloride fixed dose combination) Tablets, 25 mg, 50 mg and 100 mg

3. Several samples in metformin batch 26 had a lower than expected internal standard (IS) response.

The internal standard response in the affected samples was approximately of the mean IS response for the calibration standards in the batch. Although the firm claimed that the IS decrease occurred r

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there is no documentation to support their claim. However, because an IS was used, it is less likely that the lower than expected IS response should significantly impact the quantitation of metformin in these samples.

With regard to items 2 and 3 above, responded that staff training was conducted to address complete and timely documentation.

b(4)

#### Conclusions:

DSI concludes that data from the clinical and analytical portions of Study NN4440-1753 are acceptable for the Agency's review. After you have reviewed this transmittal memo, please append it to the original NDA submission.

Jacqueline A. O'Shaughnessy, Ph.D.

Hyojong Kwon, Ph.D.

Mark J. Seaton, Ph.D.

CC:

DSI/Vaccari

DSI/GLPBB/Seaton/Patague/O'Shaughnessy/Kwon/CF

DCP2/Vaidyanathan/Choe

DMEP/Marchick/NDA 22-232

HFR-SW1575/Lorenz

HFR-CE150/Rashti

Draft: MJS 5/9/08; JAO 5/22/08 Edit: SS 5/23/08; MKY 5/28/08

DSI: BE-5813; O:\bioequiv\EIRCover\22232.nov.pra.doc

FACTS: 891398

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 Draft Labeling (b5)
 Deliberative Process (b5)

/s/

Jacqueline OShaughnessy 5/29/2008 01:45:48 PM PHARMACOLOGIST Also on behalf of Dr. Kwon

Mark Seaton 5/29/2008 01:48:04 PM CSO

Martin Yau 5/29/2008 01:53:23 PM CSO

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\_\_\_\_\_ Draft Labeling (b5)

Deliberative Process (b5)

/s/

Julie Marchick 5/23/2008 09:14:53 AM CSO

From:

Marchick, Julie

To:

"SSIK (Sabina Sheikh)";

CC:

Subject:

NDA 22-232 Additional Carton and Container Label Comment

Date:

Monday, March 24, 2008 1:40:45 PM

**Attachments:** 

Sabina,

In addition to the comments I emailed to you on March 14, 2008, regarding your proposed carton and container labels, we also have the following comment:

The established name (repaglinide/metformin HCI) should be in parentheses on the carton and container labels.

Please let me know if you have any questions.

Thanks, Julie

Julie Marchick
Regulatory Project Manager
Division of Metabolism and Endocrinology Products
Center for Drug Evaluation and Research
Food and Drug Administration
301-796-1280 (phone)
301-796-9712 (fax)
julie.marchick@fda.hhs.gov

/s/

Julie Marchick 3/24/2008 01:42:41 PM CSO From:

Marchick, Julie

To:

"SSIK (Sabina Sheikh)";

CC:

Subject:

NDA 22-232 Carton and Container Label Comments

Date:

Friday, March 14, 2008 8:49:40 AM

**Attachments:** 

Carton and Container Label Review Comments.doc

Good Morning Sabina,

Please see the attached document containing comments regarding your proposed carton and container labels.

Please contact me if you have any questions.

Julie Marchick
Regulatory Project Manager
Division of Metabolism and Endocrinology Products
Center for Drug Evaluation and Research
Food and Drug Administration
301-796-1280 (phone)
301-796-9712 (fax)
julie.marchick@fda.hhs.gov

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Deliberative Process (b5)

/s/

Julie Marchick 3/14/2008 08:53:45 AM CSO

Food and Drug Administration Rockville, MD 20857

b(4)

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NDA 22-232

### INFORMATION REQUEST LETTER

Novo Nordisk Inc. Attention: Mary Ann McElligott, Ph.D. Associate Vice President, Regulatory Affairs 100 College Road West Princeton, NJ 08540

Dear Dr. McElligott:

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We also refer to your submission dated February 15, 2008.

We are reviewing the clinical section of your submission and have the following comments and information requests. We request a prompt written response in order to continue our evaluation of your NDA.

b(4)

If you have any questions, call Julie Marchick, Regulatory Project Manager, at (301) 796-1280.

Sincerely,

{See appended electronic signature page}

Mary H. Parks, M.D.
Director
Division of Metabolism and Endocrinology Products
Office of Drug Evaluation II
Center for Drug Evaluation and Research

/s/

Mary Parks 2/27/2008 03:09:24 PM

Food and Drug Administration Rockville, MD 20857

NDA 22-232

### INFORMATION REQUEST LETTER

Novo Nordisk Inc. Attention: Mary Ann McElligott, Ph.D. Associate Vice President, Regulatory Affairs 100 College Road West Princeton, NJ 08540

Dear Dr. McElligott:

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Γ

b(4)

We are reviewing the clinical section of your submission and have the following comments and information requests. We request a prompt written response in order to continue our evaluation of your NDA.

b(4)

If you have any questions, call Julie Marchick, Regulatory Project Manager, at (301) 796-1280.

Sincerely,

{See appended electronic signature page}

Mary H. Parks, M.D.
Director
Division of Metabolism and Endocrinology Products
Office of Drug Evaluation II
Center for Drug Evaluation and Research

/s/

Mary Parks 1/29/2008 08:42:55 AM



### **DEPARTMENT OF HEALTH & HUMAN SERVICES**

Food and Drug Administration Rockville, MD 20857

NDA 22-232

#### INFORMATION REQUEST LETTER

Novo Nordisk Inc. Attention: Mary Ann McElligott, Ph.D. Associate Vice President, Regulatory Affairs 100 College Road West Princeton, NJ 08540

Dear Dr. McElligott:

Τ"

b(4)

We also refer to your submission dated December 21, 2007.

We are reviewing the Chemistry, Manufacturing and Controls section of your submission and have the following comments and information requests. We request a prompt written response in order to continue our evaluation of your NDA.

While you have provided justification for your dissolution method in your amendment dated December 21, 2007, the acceptance criteria are too high. The acceptance criteria, based on USP criteria for repaglinide and metformin HCl tablets, do not justify using these limits for Prandi*Met* tablets since the proposed fixed-dose tablet is not a one-active-ingredient USP product. Moreover, the dissolution profiles that were provided showed essentially 100% dissolution of the active ingredients after 15 minutes. Therefore, you should change the acceptance criteria to Q=— for both active ingredients, after 15 minutes or justify the currently proposed acceptance criteria.

If you have any questions, call Julie Marchick, Regulatory Project Manager, at (301) 796-1280.

Sincerely,

{See appended electronic signature page}

Mary H. Parks, M.D.
Director
Division of Metabolism and Endocrinology Products
Office of Drug Evaluation II
Center for Drug Evaluation and Research

b(4)

/s/

Mary Parks 1/3/2008 04:49:18 PM





## DEPARTMENT OF HEALTH & HUMAN SERVICES

Food and Drug Administration Rockville, MD 20857

NDA 22-232

## INFORMATION REQUEST LETTER

Novo Nordisk Inc. Attention: Mary Ann McElligott, Ph.D., Associate Vice President, Regulatory Affairs 100 College Road West Princeton, NJ 08540

Dear Dr. McElligott:

b(4)

b(4)

We are reviewing the Chemistry, Manufacturing and Controls section of your submission and have the following comments and information request. We request a prompt written response in order to continue our evaluation of your NDA.

- 1. In your proposed stability specifications for PrandiMet, the shelf life limits for the sums for Related Impurities are higher than the release limits \( \bigcup \) (shelf life) for repaglinide and \( \bigcup \) (shelf life) for metformin]. However, all of the provided stability data, under all storage conditions, show no increase in these Related Impurities with ageing. Accordingly, you should either lower the shelf life limits to match the release limits for the sum of these related impurities for repaglinide and metformin or justify the higher shelf life limits.
- 2. Your firm did not disclose the "internal procedures" used for batches that fall outside of product specifications. Accordingly, you should make the following post-approval agreement using the following or similar appropriate wording:

Novo Nordisk Inc. makes an agreement with the Agency that any batch stored under the approved conditions which falls outside the approved specifications will be withdrawn from the market, or the deviation will be discussed with the Agency if Novo Nordisk believes that the deviation does not affect the safety or efficacy of the drug product. If you have any questions, call Julie Marchick, Regulatory Project Manager, at (301) 796-1280.

Sincerely,

{See appended electronic signature page}

Mary H. Parks, M.D.
Director
Division of Metabolism and Endocrinology Products
Office of Drug Evaluation II
Center for Drug Evaluation and Research

/s/

Mary Parks 1/1/2008 06:01:43 PM





# DEPARTMENT OF HEALTH & HUMAN SERVICES

Food and Drug Administration Rockville, MD 20857

NDA 22-232

#### INFORMATION REQUEST LETTER

Novo Nordisk Inc. Attention: Mary Ann McElligott, Ph.D., Associate Vice President, Regulatory Affairs 100 College Road West Princeton, NJ 08540

Dear Dr. McElligott:

1

b(4)

b(4)

We are reviewing the Chemistry, Manufacturing and Controls section of your submission and have the following comments and information requests. We request a prompt written response in order to continue our evaluation of your NDA.

The metformin HCl impurity \( \) \( \) which may be present as \( \) \( \) could conceivably be in your initial drug product or formed as a degradant during the storage time of PrandiMet tablets. If \( \) \( \) were present, they would not be detected by your HPLC method since they are not UV active. Accordingly, justify (with experimental data if necessary) your lack of a specification for this impurity for both the release of the tablets and as part of your stability protocol.

If you have any questions, call Julie Marchick, Regulatory Project Manager, at (301) 796-1280.

Sincerely,

{See appended electronic signature page}

Mary H. Parks, M.D.
Director
Division of Metabolism and Endocrinology Products
Office of Drug Evaluation II
Center for Drug Evaluation and Research

/s/

Mary Parks 11/4/2007 07:57:20 PM

## NDA REGULATORY FILING REVIEW

(Including Memo of Filing Meeting)

NDA # 22-232 Suppler	nent#	N/A	Efficacy Supplement Type SE- N/A
Proprietary Name: Prandi <i>Met</i> Established Name: repaglinide/metfor Strengths: 1 mg/500 mg; 2 mg/500 mg		l fixed do	se combination Tablet
Applicant: Novo Nordisk Inc. Agent for Applicant (if applicable): N	/A		
Date of Application: August 15, 2007 Date of Receipt: August 15, 2007 Date clock started after UN: N/A Date of Filing Meeting: September 26 Filing Date: October 14, 2007			Have Fran Card Dates - Law 15, 2000
Action Goal Date (optional): June 12	2, 2008		User Fee Goal Date: June 15, 2008
Indication(s) requested: As an adjunct diabetes mellitus when treatment with	to diet a dual rep	and exerc aglinide	ise to improve glycemic control in patients with type 2 and metformin therapy is appropriate.
Type of Original NDA: AND (if applicable)	(b)(1)		(b)(2) 🖂
Type of Supplement:	(b)(1)		(b)(2)
Appendix A. A supplement car	ı be eith	er a (b)(1	tion is a 505(b)(1) or 505(b)(2) application, see ) or a (b)(2) regardless of whether the original NDA ficacy supplement is a (b)(2), complete Appendix B.
Review Classification: S Resubmission after withdrawal? Chemical Classification: (1,2,3 etc.) Other (orphan, OTC, etc.)			P
Form 3397 (User Fee Cover Sheet) sub	mitted:		YES 🛛 NO 🗌
User Fee Status:	Paid Waive	ed (e.g., s	Exempt (orphan, government)  mall business, public health)
NOTE: If the NDA is a 505(b)(2) appl	lication,	and the c	applicant did not pay a fee in reliance on the $505(b)(2)$

NOTE: If the NDA is a 505(b)(2) application, and the applicant did not pay a fee in reliance on the 505(b)(2) exemption (see box 7 on the User Fee Cover Sheet), confirm that a user fee is not required by contacting the User Fee staff in the Office of Regulatory Policy. The applicant is required to pay a user fee if: (1) the product described in the 505(b)(2) application is a new molecular entity or (2) the applicant claims a new indication for a use that that has not been approved under section 505(b). Examples of a new indication for a use include a new indication, a new dosing regime, a new patient population, and an Rx-to-OTC switch. The best way to determine if the applicant is claiming a new indication for a use is to compare the applicant's proposed labeling to labeling that has already been approved for the product described in the application. Highlight the differences between the proposed and approved labeling. If you need assistance in determining if the applicant is claiming a new indication for a use, please contact the User Fee staff.

Version 6/14/2006

•	Is there any 5-year or 3-year exclusivity on this active moiety in any approapplication?  If yes, explain:	ved (b)( YES	1) or (b)(2	P) NO	$\boxtimes$
Note: I	If the drug under review is a 505(b)(2), this issue will be addressed in detail Does another drug have orphan drug exclusivity for the same indication?	in appei YES	ndix B.	NO	
•	If yes, is the drug considered to be the same drug according to the orphan of [21 CFR 316.3(b)(13)]?	rug def	inition of s	samen	ess
	[21 C1 R 310.3(0)(13)]:	YES		NO	$\boxtimes$
	If yes, consult the Director, Division of Regulatory Policy II, Office of Reg	ulatory	Policy (H	FD-00	17).
•	Is the application affected by the Application Integrity Policy (AIP)? If yes, explain:	YES		NO	$\boxtimes$
•	If yes, has OC/DMPQ been notified of the submission?  N/A	YES		NO	
•	Does the submission contain an accurate comprehensive index? If no, explain:	YES	$\boxtimes$	NO	
•	Was form 356h included with an authorized signature?  If foreign applicant, both the applicant and the U.S. agent must sign.	YES		NO	
• .	Submission complete as required under 21 CFR 314.50? If no, explain:	YES		NO	
•	Answer 1, 2, or 3 below (do not include electronic content of labeling as an submission).	partial	electronic		
1.	This application is a paper NDA	YES			
2.	This application is an eNDA or combined paper + eNDA  This application is:  All electronic Combined paper - CTD format Combined NDA and CTD formats	YES - eNDA			
	Does the eNDA, follow the guidance? (http://www.fda.gov/cder/guidance/2353fnl.pdf)	YES		NO	
	If an eNDA, all forms and certifications must be in paper and require a	ı signat	ure.		
	If combined paper + eNDA, which parts of the application were submitted	in electr	onic form	at?	
	Additional comments:				
3.	This application is an eCTD NDA.  If an eCTD NDA, all forms and certifications must either be in paper a electronically signed.	YES nd sign	  ed or be		

	Additional comments:
•	Patent information submitted on form FDA 3542a? YES NO
•	Exclusivity requested? YES, Years NO \ \overline{\times} NOTE: An applicant can receive exclusivity without requesting it; therefore, requesting exclusivity is not required.
•	Correctly worded Debarment Certification included with authorized signature? YES NO If foreign applicant, both the applicant and the U.S. Agent must sign the certification.
	<b>NOTE:</b> Debarment Certification should use wording in FD&C Act section 306(k)(1) i.e., "[Name of applicant] hereby certifies that it did not and will not use in any capacity the services of any person debarred under section 306 of the Federal Food, Drug, and Cosmetic Act in connection with this application." Applicant may not use wording such as "To the best of my knowledge"
•	Are the required pediatric assessment studies and/or deferral/partial waiver/full waiver of pediatric studies (or request for deferral/partial waiver/full waiver of pediatric studies) included?  YES NO
•	If the submission contains a request for deferral, partial waiver, or full waiver of studies, does the application contain the certification required under FD&C Act sections 505B(a)(3)(B) and (4)(A) and (B)?  YES NO
•,	Is this submission a partial or complete response to a pediatric Written Request? YES NO
	If yes, contact PMHT in the OND-IO
•	Financial Disclosure forms included with authorized signature?  (Forms 3454 and/or 3455 must be included and must be signed by the APPLICANT, not an agent.)  NOTE: Financial disclosure is required for bioequivalence studies that are the basis for approval.
• .	Field Copy Certification (that it is a true copy of the CMC technical section) YES \( \subseteq \) NO \( \subseteq \)
•	PDUFA and Action Goal dates correct in tracking system? YES NO If not, have the document room staff correct them immediately. These are the dates EES uses for calculating inspection dates.
•	Drug name and applicant name correct in COMIS? If not, have the Document Room make the corrections. Ask the Doc Rm to add the established name to COMIS for the supporting IND if it is not already entered.
•	List referenced IND numbers: IND 70,959
•	Are the trade, established/proper, and applicant names correct in COMIS? YES NO If no, have the Document Room make the corrections.
•	End-of-Phase 2 Meeting(s)? Date(s) NO If yes, distribute minutes before filing meeting.
•	Pre-NDA Meeting(s)? Date(s) NO If yes, distribute minutes before filing meeting.

Version 6/14/2006

•	Any SPA agreements? Date(s)  If yes, distribute letter and/or relevant minutes before filing meeting.		<u></u>	NO	$\boxtimes$
Projec	et Management			٠	
•	If Rx, was electronic Content of Labeling submitted in SPL format? If no, request in 74-day letter.	YES	$\boxtimes$	NO	
•	If Rx, for all new NDAs/efficacy supplements submitted on or after 6/30/06 Was the PI submitted in PLR format?	5: YES		NO	
	If no, explain. Was a waiver or deferral requested before the application was submission? If before, what is the status of the request:	as recei	ved or in t	he	
•	If Rx, all labeling (PI, PPI, MedGuide, carton and immediate container label DDMAC?	ls) has YES	been cons	ulted t NO	to
•	If Rx, trade name (and all labeling) consulted to OSE/DMETS?	YES	$\boxtimes$	NO	
•	If Rx, MedGuide and/or PPI (plus PI) consulted to ODE/DSRCS?  N/A	YES	$\boxtimes$	NO	
• ,	Risk Management Plan consulted to OSE/IO? N/A	YES		NO	
•	If a drug with abuse potential, was an Abuse Liability Assessment, including scheduling submitted?  NA	g a pro YES	posal for	NO	
If Rx-t	o-OTC Switch or OTC application:				
•	Proprietary name, all OTC labeling/packaging, and current approved PI cor OSE/DMETS?  N/A	sulted :		NO	
•	If the application was received by a clinical review division, has N/A DNPCE been notified of the OTC switch application? Or, if received by DNPCE, has the clinical review division been notified?	YES		NO	
Clinic	<u>al</u>				
•	If a controlled substance, has a consult been sent to the Controlled Substance N/A	e Staff YES	?	NO	
Chem	<u>istry</u>				
•	Did applicant request categorical exclusion for environmental assessment? If no, did applicant submit a complete environmental assessment? If EA submitted, consulted to EA officer, OPS?	YES YES YES		NO NO NO	
•	Establishment Evaluation Request (EER) submitted to DMPQ?	YES		NO	

• If a parenteral product, consulted to Microbiology Team? N/A YES NO	C	
---	---	--

#### **ATTACHMENT**

#### MEMO OF FILING MEETING

DATE: September 26, 2007

NDA #: 22-232

DRUG NAMES: PrandiMet (repaglinide/metformin fixed dose combination) Tablets

APPLICANT: Novo Nordisk

BACKGROUND: PrandiMet is a fixed dose combination of repaglinide and metformin. Repaglinide is a meglitinide approved as an adjunct to diet and exercise to lower blood glucose in patients with type 2 diabetes mellitus whose hyperglycemia cannot be controlled satisfactorily by diet and exercise alone. Repaglinide is also indicated for combination therapy use (with metformin and thiazolidinediones) to lower blood glucose in patients whose hyperglycemia cannot be controlled by diet and exercise plus monotherapy with any of the following agents: metformin, sulfonylureas, repaglinide, or thiozolidinediones.

The proposed indication for PrandiMet is as an adjunct to diet and exercise to improve glycemic control in patients with type 2 diabetes mellitus where treatment with dual repaglinide and metformin therapy is appropriate. The Sponsor's application includes doses of 1 mg repaglinide/500 mg metformin and 2 mg repaglinide/500 mg metformin.

ATTENDEES: Mary Parks, Hylton Joffe, Japo Choudhury, Todd Sahlroot, Indra Antonipillai, Karen Davis-Bruno, Su Tran, Sheldon Markofsky, Andrea Slavin, Julie Marchick

ASSIGNED REVIEWERS (including those not present at filing meeting):

<u>Discipline/Organization</u>	Reviewer
Medical:	Robert Misbin
Secondary Medical:	Hylton Joffe
Statistical:	Japo Choudhury
Pharmacology:	Indra Antonipillai
Statistical Pharmacology:	N/A
Chemistry:	Su Tran/Sheldon Markofsky
Environmental Assessment (if needed):	Su Tran/Sheldon Markofsky
Biopharmaceutical:	Jaya Vaidyanathan
Microbiology, sterility:	N/A
Microbiology, clinical (for antimicrobial products only):	· N/A
DSI:	Andrea Slavin
OPS:	N/A
Regulatory Project Management:	Julie Marchick
Other Consults:	SEALD Labeling Team
Per reviewers, are all parts in English or English translat If no, explain:	ion? YES 🛛 NO 🗌
CLINICAL	FILE REFUSE TO FILE
Version 6/14/2006	

	·						NDA Re	gulatory Fil		view age 6
•	Clinical site audit(s) If no, explain:	needed?					YES		NO	
•	Advisory Committee	e Meeting ne	eded?	YES	, date if kn	own _		<del></del>	NO	$\boxtimes$
•	If the application is a whether or not an exnecessity or public h	ception to the	e AIP s	hould be g						
					N/A	$\boxtimes$	YES		NO	
CLINICA	L MICROBIOLOGY	N/A	$\boxtimes$	FILE			REFUSE	TO FILE		
STATIST	ICS	N/A		FILE	$\boxtimes$		REFUSE	TO FILE		
ВІОРНАІ	RMACEUTICS			FILE			REFUSE	TO FILE		
•	Biopharm. study site YES	audits(s) ne	eded?						NO	
PHARMA	ACOLOGY/TOX	N/A		FILE	$\boxtimes$		REFUSE	TO FILE		
•	GLP audit needed?					YES	S		NO	
CHEMIST	ΓRY			FILE	$\boxtimes$		REFUSE	TO FILE		
•.	Establishment(s) read Sterile product? If yes, was microb			· validation		N/A	YES YES		NO NO	
						accorr.	YES		NO	
ELECTRO Any comm	ONIC SUBMISSION: nents:									
	TORY CONCLUSION 21 CFR 314.101(d) for									
	The application is	s unsuitable	for filin	ıg. Explaii	n why:					
$\boxtimes$	The application, appears to be sui			to be well-	organized	and inc	dexed. Th	e applicati	on	
	1	No filing issu	es have	e been ider	ntified.					
	⊠ F	Filing issues	to be co	ommunicat	ed by Day	74. Li	ist (option	al):		
ACTION	ITEMS:									
	nsure that the review an assification codes (e.g.,							nent		
2. [] If	RTF, notify everybody	who already	receiv	ed a consu	ilt request	of RTF	action. C	ancel the I	EER.	

3.	If filed and the application is under the AIP, prepare a letter either granting (for signature by Center Director) or denying (for signature by ODE Director) an exception for review.
4. 🛛	If filed, complete the Pediatric Page at this time. (If paper version, enter into DFS.)
5.🖂	Convey document filing issues/no filing issues to applicant by Day 74.

Julie Marchick, MPH Regulatory Project Manager

### Appendix A to NDA Regulatory Filing Review

NOTE: The term "original application" or "original NDA" as used in this appendix denotes the NDA submitted. It does not refer to the reference drug product or "reference listed drug."

An original application is likely to be a 505(b)(2) application if:

- (1) it relies on published literature to meet any of the approval requirements, and the applicant does not have a written right of reference to the underlying data. If published literature is cited in the NDA but is not necessary for approval, the inclusion of such literature will not, in itself, make the application a 505(b)(2) application,
- (2) it relies for approval on the Agency's previous findings of safety and efficacy for a listed drug product and the applicant does not own or have right to reference the data supporting that approval, or
- (3) it relies on what is "generally known" or "scientifically accepted" about a class of products to support the safety or effectiveness of the particular drug for which the applicant is seeking approval. (Note, however, that this does not mean *any* reference to general information or knowledge (e.g., about disease etiology, support for particular endpoints, methods of analysis) causes the application to be a 505(b)(2) application.)

Types of products for which 505(b)(2) applications are likely to be submitted include: fixed-dose combination drug products (e.g., heart drug and diuretic (hydrochlorothiazide) combinations); OTC monograph deviations(see 21 CFR 330.11); new dosage forms; new indications; and, new salts.

An efficacy supplement can be either a (b)(1) or a (b)(2) regardless of whether the original NDA was a (b)(1) or a (b)(2).

An efficacy supplement is a 505(b)(1) supplement if the supplement contains all of the information needed to support the approval of the change proposed in the supplement. For example, if the supplemental application is for a new indication, the supplement is a 505(b)(1) if:

- (1) The applicant has conducted its own studies to support the new indication (or otherwise owns or has right of reference to the data/studies),
- (2) No additional information beyond what is included in the supplement or was embodied in the finding of safety and effectiveness for the original application or previously approved supplements is needed to support the change. For example, this would likely be the case with respect to safety considerations if the dose(s) was/were the same as (or lower than) the original application, and.
- (3) All other "criteria" are met (e.g., the applicant owns or has right of reference to the data relied upon for approval of the supplement, the application does not rely for approval on published literature based on data to which the applicant does not have a right of reference).

An efficacy supplement is a 505(b)(2) supplement if:

(1) Approval of the change proposed in the supplemental application would require data beyond that needed to support our previous finding of safety and efficacy in the approval of the

original application (or earlier supplement), and the applicant has not conducted all of its own studies for approval of the change, or obtained a right to reference studies it does not own. For example, if the change were for a new indication AND a higher dose, we would likely require clinical efficacy data and preclinical safety data to approve the higher dose. If the applicant provided the effectiveness data, but had to rely on a different listed drug, or a new aspect of a previously cited listed drug, to support the safety of the new dose, the supplement would be a 505(b)(2),

- (2) The applicant relies for approval of the supplement on published literature that is based on data that the applicant does not own or have a right to reference. If published literature is cited in the supplement but is not necessary for approval, the inclusion of such literature will not, in itself, make the supplement a 505(b)(2) supplement, or
- (3) The applicant is relying upon any data they do not own or to which they do not have right of reference.

If you have questions about whether an application is a 505(b)(1) or 505(b)(2) application, consult with your ODE's Office of Regulatory Policy representative.

# Appendix B to NDA Regulatory Filing Review Questions for 505(b)(2) Applications

1. Does the application reference a listed drug (approved drug)?	YES	$\boxtimes$	NO							
If "No," skip to question 3.										
2. Name of listed drug(s) referenced by the applicant (if any) and NDA/ANDA # hydrochloride, NDA 20-357 (Note: applicant did not reference this drug in the app	(s): met olication	tformin 1)								
3. Is this application for a drug that is an "old" antibiotic (as described in the draft guidance implementing the 1997 FDAMA provisions? (Certain antibiotics are not entitled to Hatch-Waxman patent listing and exclusivity benefits.)										
	YES		NO							
If "Yes," skip to question 7.										
4. Is this application for a recombinant or biologically-derived product?	YES		NO	$\boxtimes$						
If "Yes "contact your ODE's Office of Regulatory Policy representative.										
5. The purpose of the questions below (questions 5 to 6) is to determine if there is product that is equivalent or very similar to the product proposed for approval a listed drug in the pending application.	s an app that sho	proved dr puld be re	ug ference	d as						
(a) Is there a pharmaceutical equivalent(s) to the product proposed in the 505( already approved?	b)(2) ap	plication	that is							
	YES		NO	$\boxtimes$						
(Pharmaceutical equivalents are drug products in identical dosage forms that: (1) the identical active drug ingredient, i.e., the same salt or ester of the same therapet modified release dosage forms that require a reservoir or overage or such forms as residual volume may vary, that deliver identical amounts of the active drug ingredience; (2) do not necessarily contain the same inactive ingredients; and (3) meet of other applicable standard of identity, strength, quality, and purity, including potentic content uniformity, disintegration times, and/or dissolution rates. (21 CFR 320.1(cm))	tic moie prefilled ient over the ident	ety, or, in d syringes r the ident rical comm	the case of where ical dosing	of						
If "No," to (a) skip to question 6. Otherwise, answer part (b and (c)).										
(b) Is the pharmaceutical equivalent approved for the same indication for which the 505(b)(2) application is seeking approval?	YES		NO							
(c) Is the approved pharmaceutical equivalent(s) cited as the listed drug(s)?	YES		NO							
If "Yes," (c), list the pharmaceutical equivalent(s) and proceed to question 6.										
If "No," to (c) list the pharmaceutical equivalent and contact your ODE's Office representative.  Pharmaceutical equivalent(s):	e of Reg	ulatory I	Policy							

		·				
6.	(a)	Is there a pharmaceutical alternative(s) already approved?	YES		NO	$\boxtimes$
		(Pharmaceutical alternatives are drug products that contain the identical theraped not necessarily in the same amount or dosage form or as the same salt or ester. Easindividually meets either the identical or its own respective compendial or other a strength, quality, and purity, including potency and, where applicable, content unit and/or dissolution rates. (21 CFR 320.1(d)) Different dosage forms and strengths single manufacturer are thus pharmaceutical alternatives, as are extended-release immediate- or standard-release formulations of the same active ingredient.)	ch such pplicable formity, within	drug pro e standar disinteg a produc	duct d of ident ration tim t line by a	ity, es
If '	'No,	" to (a) skip to question 7. Otherwise, answer part (b and (c)).	, .			
	<i>(b)</i>	Is the pharmaceutical alternative approved for the same indication for which the 505(b)(2) application is seeking approval?	YES		NO	
	(c)	Is the approved pharmaceutical alternative(s) cited as the listed drug(s)?	YES		NO	
Į	f "Y	es," to (c), proceed to question 7.				
NC Re	TE: gulai	If there is more than one pharmaceutical alternative approved, consult yo tory Policy representative to determine if the appropriate pharmaceutical a	ur ODI lternati	E's Offi ves are	ce of reference	ed.
r	f "N epre	$m{lo}$ ," to (c), list the pharmaceutical alternative(s) and contact your ODE's C sentative. Proceed to question 7.	Office of	Regula	tory Poli	су
Pha	ırma	ceutical alternative(s):				
7.	(a) pro	Does the application rely on published literature necessary to support the preduct (i.e. is the published literature necessary for the approval)?	roposed	approv	al of the	drug
	•	i i i i i i i i i i i i i i i i i i i	YES		NO	$\boxtimes$
If'	No,	" skip to question 8. Otherwise, answer part (b).				
yes	(b) , the	Does any of the published literature cited reference a specific (e.g. brand no applicant will be required to submit patent certification for the product, see	ame) pr e questic	oduct? l on 12.	Note that	if
8.	app	scribe the change from the listed drug(s) provided for in this (b)(2) application provides for a new indication, otitis media" or "This application programs from capsules to solution").	on (for ovides f	exampl for a cha	e, "This inge in	
9.	sect	the application for a duplicate of a listed drug and eligible for approval under ion 505(j) as an ANDA? (Normally, FDA may refuse-to-file such NDAs 21 CFR 314.101(d)(9)).	YES		NO	$\boxtimes$
10.	tha ava (Se	the application for a duplicate of a listed drug whose only difference is at the extent to which the active ingredient(s) is absorbed or otherwise made allable to the site of action less than that of the reference listed drug (RLD) ee 314.54(b)(1)). If yes, the application may be refused for filing under CFR 314.101(d)(9)).	YES		NO	

11.	that the ra available t	olication for a duplicate of a listed drug whose only difference is ate at which the product's active ingredient(s) is absorbed or made to the site of action is unintentionally less than that of the RLD (see application may be refused for filing under 21 CFR 314.101(d)(9).	YES 21 CFR	314.54(b	NO (2))?	$\boxtimes$
12.	Book for	certifications for each of the patents listed in the Orange the listed drug(s) referenced by the applicant (see question #2)? Ifferent from the patent declaration submitted on form FDA 3542 and	YES d 3542a	.)	NO	$\boxtimes$
13.	Which of identify the	the following patent certifications does the application contain? (Chae patents to which each type of certification was made, as appropria	neck all t nte.)	that apply	/ and	
		Not applicable (e.g., solely based on published literature. See questi	on # 7			
		21 CFR 314.50(i)(1)(i)(A)(1): The patent information has not bee (Paragraph I certification) Patent number(s):	n submi	itted to F	DA.	
		21 CFR 314.50(i)(1)(i)(A)(2): The patent has expired. (Paragraph Patent number(s):	ı II certii	fication)		
		21 CFR 314.50(i)(1)(i)(A)(3): The date on which the patent will exertification) Patent number(s):	expire. (	Paragrapl	h III	
	· ,	21 CFR 314.50(i)(1)(i)(A)(4): The patent is invalid, unenforceable by the manufacture, use, or sale of the drug product for which the (Paragraph IV certification)  Patent number(s):	e, or wil applicat	ll not be i ion is sul	nfringe omitted.	d
		<b>NOTE:</b> IF FILED, and if the applicant made a "Paragraph IV" of 314.50(i)(1)(i)(A)(4)], the applicant must <b>subsequently</b> submit a state that the NDA holder and patent owner(s) were notified the NDA with 314.52(b)]. The applicant must also submit documentation showing patent owner(s) received the notification [21 CFR 314.52(e)]. ON that this documentation was received.	igned ce vas filed ng that t	rtificatio [21 CFR he NDA l	n stating holder a	and
		21 CFR 314.50(i)(3): Statement that applicant has a licensing agrowner (must also submit certification under 21 CFR 314.50(i)(1)(i) Patent number(s):	eement ()(A)(4)	with the pabove).	atent	
		Written statement from patent owner that it consents to an immediapproval of the application.  Patent number(s):	ate effe	ctive date	upon	
		21 CFR 314.50(i)(1)(ii): No relevant patents.	•			
•.		21 CFR 314.50(i)(1)(iii): The patent on the listed drug is a method labeling for the drug product for which the applicant is seeking applications that are covered by the use patent as described in the coordinate Book. Applicant must provide a statement that the method claim any of the proposed indications. (Section viii statement)	proval d orrespon	oes not inding use	nclude a code in	iny the

14. Di	d the applicant:		•								
•	• Identify which parts of the application rely on the finding of safety and effectiveness for a listed drug or published literature describing a listed drug or both? For example, pharm/tox section of application relies on finding of preclinical safety for a listed drug.										
							YES		NO	$\boxtimes$	
	If "Yes," what is the listed drug product(s) and which sections of the 505(b)(2) application rely on the finding of safety and effectiveness or on published literature about that listed drug										
•	Was this li	sted drug product(	(s) referen	ced by the a	pplicant	? (see q	uestion ( YES	# 2)	NO		
• Submit a bioavailability/bioequivalence (BA/BE) study comparing the proposed product to the listed drug(s)?											
					N/A		YES	$\boxtimes$	NO		
15. (a) Is there unexpired exclusivity on this listed drug (for example, 5 year, 3 year, orphan or pediatric exclusivity)? Note: this information is available in the Orange Book.											
							YES		NO	$\boxtimes$	
If "Yes," p	lease list:										
Application	No.	Product No.		Exclusivity	Code		Exclus	ivity Ex	piration		
· · · · · · · · · · · · · · · · · · ·											
<u> </u>											

Appears This Way
On Original

/s/

Julie Marchick 10/17/2007 08:29:52 AM CSO



#### DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration Rockville, MD 20857

#### FILING COMMUNICATION

NDA 22-232

Novo Nordisk Inc. Attention: Mary Ann McElligott, Ph.D. Associate Vice President, Regulatory Affairs 100 College Road West Princeton, NJ 08540

Dear Dr. McElligott:

Please refer to your new drug application (NDA) dated August 15, 2007, received August 15, 2007, submitted pursuant to section 505(b)(2) of the Federal Food, Drug, and Cosmetic Act, for Prandi*Met* (repaglinide/metformin fixed dose combination) Tablets.

We have completed our filing review and have determined that your application is sufficiently complete to permit a substantive review. Therefore, in accordance with 21 CFR 314.101(a), this application is considered filed 60 days after the date we received your application. The review classification for this application is **Standard**. Therefore, the user fee goal date is **June 15, 2008**.

During our filing review of your application, we identified several potential review issues. We request that you submit the following information:

- 1. Submit subgroup analyses for study AGEE-3017.
- 2. Because the fixed dose combination tablet is a new product, the compendial dissolution criteria for repaglinide tablets and metformin HCl tablets are not applicable. Provide a justification for the proposed dissolution criteria as per ICH Q6A guidelines. If we find your justification inadequate, a revised test method and/or criteria may be required.
- 3. Provide updated data from your drug product stability studies at least 4 months before the user fee goal date for this application. Your update should include additional stability data for the bridging batches SBBN068, SBBN069, and SBBN083.

4. Regarding the Yellow (	1 Red T
d excipients	provide letters of authorization from
the manufacturers to allow us access to	information in the appropriate Drug Master Files.

We are providing the above comments to give you preliminary notice of <u>potential</u> review issues. Our filing review is only a preliminary evaluation of the application and is not indicative of

b(4)

deficiencies that may be identified during our review. Issues may be added, deleted, expanded upon, or modified as we review the application.

Please respond only to the above requests for additional information. While we anticipate that any response submitted in a timely manner will be reviewed during this review cycle, such review decisions will be made on a case-by-case basis at the time of receipt of the submission.

If you have any questions, call Julie Marchick, Regulatory Project Manager, at (301) 796-1280.

Sincerely,

{See appended electronic signature page}

Lina AlJuburi, Pharm.D., M.S. Chief, Project Management Staff Division of Metabolism and Endocrinology Products Office of Drug Evaluation II Center for Drug Evaluation and Research

/s/

Julie Marchick 10/15/2007 09:41:36 AM Signing for Lina AlJuburi Approved: OMB No. 0910 - 0297 Expiration Date: January 31, 2010 See instructions for OMB Statement, below.

# FOOD AND DRUG ADMINISTRATION

# PARTMENT OF HEALTH AND HUMAN SERVICES PRESCRIPTION DRUG USER FEE COVERSHEET

A completed form must be signed and accompany each new drug or biologic product application and each new supplement. See exceptions on the reverse side. If payment is sent by U.S. mail or courier, please include a copy of this completed form with payment. Payment instructions and fee rates can be found on CDER's website: http://www.fda.gov/cder/pdufa/default.htm

1. APPLICANT'S NAME AND ADDRESS

4. BLA SUBMISSION TRACKING NUMBER (STN) / NDA NUMBER

NOVO NORDISK PHARMACEUTICALS INC Sabina Sheikh 100 COLLEGE ROAD WEST Princeton NJ 08536 บร

NDA 22-232

2. TELEPHONE NUMBER 609-9875420

5. DOES THIS APPLICATION REQUIRE CLINICAL DATA FOR APPROVAL?

IXI YES II NO

IF YOUR RESPONSE IS "NO" AND THIS IS FOR A SUPPLEMENT, STOP HERE AND SIGN THIS FORM. IF RESPONSE IS "YES", CHECK THE APPROPRIATE RESPONSE BELOW:

[X] THE REQUIRED CLINICAL DATA ARE CONTAINED IN THE APPLICATION

[] THE REQUIRED CLINICAL DATA ARE SUBMITTED BY REFERENCE TO:

3. PRODUCT NAME

PrandiMet ( repaglinide/metformin fixed dose combination tablet )

6. USER FEE I.D. NUMBER

PD3007453

7. IS THIS APPLICATION COVERED BY ANY OF THE FOLLOWING USER FEE EXCLUSIONS? IF SO, CHECK THE APPLICABLE EXCLUSION.

11 A LARGE VOLUME PARENTERAL DRUG PRODUCT APPROVED UNDER SECTION 505 OF THE FEDERAL FOOD, DRUG, AND COSMETIC ACT BEFORE 9/1/92 (Self Explanatory)

[] A 505(b)(2) APPLICATION THAT DOES NOT REQUIRE A FEE

[] THE APPLICATION QUALIFIES FOR THE ORPHAN EXCEPTION UNDER SECTION 736(a)(1)(E) of the Federal Food, Drug, and Cosmetic Act

[] THE APPLICATION IS SUBMITTED BY A STATE OR FEDERAL GOVERNMENT ENTITY FOR A DRUG THAT IS NOT DISTRIBUTED COMMERCIALLY

8. HAS A WAIVER OF AN APPLICATION FEE BEEN GRANTED FOR THIS APPLICATION? [] YES [X] NO

#### **OMB Statement:**

Public reporting burden for this collection of information is estimated to average 30 minutes 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:

Department of Health and Human Services Food and Drug Administration CBER, HFM-99 1401 Rockville Pike Rockville, MD 20852-1448

Food and Drug Administration CDER, HFD-94 12420 Parklawn Drive, Room 3046 Rockville, MD 20852

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.

SIGNATURE OF AUTHORIZED COMPANY REPRESENTATIVE

Mary Ann McElligott Digitally signed by Mary Ann McElligott DN: cn=Mary Ann McElligott DN: cn=Mary Ann McElligott Cn=US, o=Novo Nordisk, ougRegulatory Affairs, email=MAMC@NovoNordisk.com Date: 2007.08.15 11:48:13 -04:00

Mary Ann McElligott, PhD, Associate VP, Regulatory Affairs DATE

08/15/2007

ER FEE PAYMENT AMOUNT FOR THIS APPLICATION \$896,200.00

n Approved: OMB No. 0910 - 0297 Expiration Date: January 31, 2010 See instructions for OMB Statement, below.

# FOOD AND DRUG ADMINISTRATION

# PRESCRIPTION DRUG USER FEE COVERSHEET

A completed form must be signed and accompany each new drug or biologic product application and each new supplement. See exceptions on the reverse side. If payment is sent by U.S. mail or courier, please include a copy of this completed form with payment. Payment instructions and fee rates can be found on CDER's website: http://www.fda.gov/cder/pdufa/default.htm

1. APPLICANT'S NAME AND ADDRESS

4. BLA SUBMISSION TRACKING NUMBER (STN) / NDA NUMBER

NOVO NORDISK PHARMACEUTICALS INC Sabina Sheikh 100 COLLEGE ROAD WEST

22-386

Princeton NJ 08536

2. TELEPHONE NUMBER 609-9875420

5. DOES THIS APPLICATION REQUIRE CLINICAL DATA FOR APPROVAL?

[X] YES [] NO

IF YOUR RESPONSE IS "NO" AND THIS IS FOR A SUPPLEMENT, STOP HERE AND SIGN THIS FORM. IF RESPONSE IS "YES", CHECK THE APPROPRIATE RESPONSE BELOW:

[X] THE REQUIRED CLINICAL DATA ARE CONTAINED IN THE APPLICATION

[] THE REQUIRED CLINICAL DATA ARE SUBMITTED BY REFERENCE TO:

3. PRODUCT NAME

PrandiMet ( repaglinide/metformin HCl FDC tablets )

6. USER FEE I.D. NUMBER PD3008381

7. IS THIS APPLICATION COVERED BY ANY OF THE FOLLOWING USER FEE EXCLUSIONS? IF SO, CHECK THE APPLICABLE EXCLUSION.

[] A LARGE VOLUME PARENTERAL DRUG PRODUCT APPROVED UNDER SECTION 505 OF THE FEDERAL FOOD, DRUG, AND COSMETIC ACT BEFORE 9/1/92 (Self Explanatory)

[] A 505(b)(2) APPLICATION THAT DOES NOT REQUIRE A FEE

11 THE APPLICATION QUALIFIES FOR THE ORPHAN EXCEPTION UNDER SECTION 736(a)(1)(E) of the Federal Food, Drug, and Cosmetic Act

[] THE APPLICATION IS SUBMITTED BY A STATE OR FEDERAL GOVERNMENT ENTITY FOR A DRUG THAT IS NOT DISTRIBUTED COMMERCIALLY

8. HAS A WAIVER OF AN APPLICATION FEE BEEN GRANTED FOR THIS APPLICATION? [X] YES [] NO

#### **OMB Statement:**

Public reporting burden for this collection of information is estimated to average 30 minutes 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:

Department of Health and Human Services

Food and Drug Administration CBER, HFM-99

1401 Rockville Pike Rockville, MD 20852-1448 Food and Drug Administration CDER, HFD-94

12420 Parklawn Drive, Room 3046

TITLE

Rockville, MD 20852

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.

SIGNATURE OF AUTHORIZED COMPANY REPRESENTATIVE

Lewis R. Pollack on behalf of M.

Digitally signed by Lewis R. Pollack on behalf of M. McElligo DN: cn=Lewis R. Pollack on behalf of M. McElligott, c=US, o Nordisk, Inc., ou=Regulatory Affair Date: 2008.05.23 10:21:47 -04'00'

DATE

ER FEE PAYMENT AMOUNT FOR THIS APPLICATION

\$.00

McElligott .

From:

Marchick, Julie

To:

"ssik@novonordisk.com";

CC:

Subject:

NDA 22-232 PrandiMet - PLR Format Review

Date:

Monday, September 24, 2007 9:13:55 AM

**Attachments:** 

PLR Format Review Comments.doc

## Sabina,

Please see the attached comments from the PLR format review of your proposed package insert (PI) for PrandiMet. We request that you address the identified issues and submit a revised PI by October 19, 2007.

Thanks, Julie

Julie Marchick
Regulatory Project Manager
Division of Metabolism and Endocrinology Products
Center for Drug Evaluation and Research
Food and Drug Administration
301-796-1280 (phone)
301-796-9712 (fax)
julie.marchick@fda.hhs.gov

# Page(s) Withheld

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/s/

Julie Marchick 9/24/2007 09:17:46 AM CSO

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Deliberative Process (b5)

/s/

Julie Marchick 9/12/2007 01:29:46 PM





Food and Drug Administration Rockville, MD 20857

PIND 70,959

Novo Nordisk Inc. Attention: Mary Ann McElligott, Ph.D., Associate Vice President, Regulatory Affairs 100 College Road West Princeton, NJ 08540

Dear Dr. McElligott:

Please refer to your Pre-Investigational New Drug Application (PIND) submitted on April 20, 2005, for Prandin plus metformin (repaglinide/metformin) Fixed Dose Combination Tablet.

We also refer to the teleconference held between representatives of your firm and the FDA on March 24, 2006. The purpose of the meeting was to discuss and clarify items relevant to the clinical development program for Prandin plus metformin Fixed Dose Combination Tablet used as second line therapy.

The official minutes of that meeting are enclosed. You are responsible for notifying us of any significant differences in understanding regarding the meeting outcomes.

If you have any questions, please call me at 301-796-1168.

Sincerely,

{See appended electronic signature page}

Lina AlJuburi, Pharm.D., M.S. Regulatory Project Manager Division of Metabolism and Endocrinology Products Office of Drug Evaluation II Center for Drug Evaluation and Research

Enclosure: FDA version minutes from teleconference held on March 24, 2006

#### MEMORANDUM OF MEETING MINUTES

**MEETING DATE:** 

Friday, March 24, 2006

TIME:

10:00 to 10:30 am

LOCATION: APPLICATION: Teleconference PIND 70.959

**DRUG NAME:** 

Prandin plus metformin (repaglinide/metformin) Fixed Dose

**Combination Tablet** 

TYPE OF MEETING:

Type C; Guidance

**MEETING CHAIR:** 

Mary Parks, M.D.

MEETING RECORDER: Lina AlJuburi, Pharm.D., M.S.

FDA ATTENDEES: (Title and Office/Division)

Division of Metabolism and Endocrinology Products

Mary Parks, M.D.

**Acting Director** 

Robert Misbin, M.D.

Clinical Reviewer, Diabetes

Lina AlJuburi, Pharm.D.

Regulatory Project Manager

#### **EXTERNAL CONSTITUENT ATTENDEES:**

Novo Nordisk Inc.

Karsten Wassermann

Project Vice-President

Rickey Reinhardt

Senior Director, Clinical Research Diabetes

Campbell Howard

Director, Clinical Research Diabetes

Naum Khutoryansky

Associate Director Biostatistics

Janet Overholt

**Director Regulatory Affairs** 

Sabina Sheikh

Project Manger, Regulatory Affairs

#### **BACKGROUND:**

Prandin (repaglinide) Tablets was approved on December 22, 1997, for the treatment of type 2 diabetes. Repaglinide is approved for use in combination with metformin as second line therapy with frequency of dosing two to three times daily, with meals.

On April 20, 2005, Novo Nordisk Inc. submitted a request for a PIND number and written responses to three questions regarding their Prandin plus metformin (repaglinide/metformin) Fixed Dose Combination Tablet clinical development program. Responses issued in a letter dated June 13, 2005. On November 28, 2005, the Sponsor submitted additional questions for Agency comment. Responses issued in a letter dated February 3, 2006. Based on feedback from Novo Nordisk, it appeared as though the Sponsor needed additional clarification; and therefore, the Division recommended a teleconference.

#### **MEETING OBJECTIVES:**

To discuss and clarify items relevant to the clinical development program for Prandin plus metformin (repaglinide/metformin) Fixed Dose Combination Tablet used as second line therapy.

#### **DISCUSSION POINTS:**

The Sponsor is seeking advice on how they should pursue development to gain a labeled labeled for combination use in the Prandin (repaglinde) Tablets package insert. The Division offers the following recommendation, for second line therapy only and assuming the FDC tablet is not bioequivalent to Prandin and metformin alone: Clinical trial design: A non-inferiority trial design comparing Prandin plus metformin FDC b(4)✓ The primary variable would be HbA1c. The study duration would be 20 to 26 weeks, which includes a titration period. The Sponsor suggests the titration period would be approximately 3 weeks. Potential outcomes:

b(4)

The Sponsor inquires about adding an Avandamet (rosiglitazone maleate/metformin) Fixed Dose Combination Tablet arm to the above mentioned clinical trial design. The Division states that the trial would need to be longer in duration, approximately 48 to 52 weeks as stated in the February 3, 2006, letter issued to the Sponsor, response to Question 2a. If the Sponsor is seeking a superiority claim to a comparator, such as Avandamet, two studies will be required. If the Sponsor chooses to include an Avandamet arm in a study shorter than 48 weeks in duration, a rationale will need to be submitted to and agreed upon by the Division.

The Sponsor will submit a synopsis of the trial for Division review and comment.

Minutes prepared by: Lina AlJuburi Concurrence from: Robert Misbin Mary Parks

/s/

Lina Aljuburi 3/27/2006 03:32:50 PM