## CENTER FOR DRUG EVALUATION AND RESEARCH

# APPLICATION NUMBER: 200534Orig1s000

# ADMINISTRATIVE and CORRESPONDENCE DOCUMENTS

### **EXCLUSIVITY SUMMARY**

NDA # 200534	SUPPL#	HFD i	# 170
Trade Name N/A			
Generic Name Oxycodone I	Hydrochloride Capsules, 5 mg		
Applicant Name LeHigh Va	alley Technologies, Inc.		
Approval Date, If Known O	Oct. 20, 2010		
PART I IS AN EXCL	USIVITY DETERMINATION N	NEEDED?	
1. An exclusivity determination will be made for all original applications, and all efficacy supplements. Complete PARTS II and III of this Exclusivity Summary only if you answer "yes" to one or more of the following questions about the submission.			
a) Is it a 505(b)(1), 5	05(b)(2) or efficacy supplement?	YES 🖂	NO 🗌
If yes, what type? Specify 50	5(b)(1), 505(b)(2), SE1, SE2, SE3,	SE4, SE5, SE6, S	SE7, SE8
505 (b)(2)			
, <u>*</u>	eview of clinical data other than to s fety? (If it required review only of		_
<b>,</b> ,		YES	NO 🔀
not eligible for exclu	because you believe the study is a basivity, EXPLAIN why it is a bioang with any arguments made by the ity study.	availability study	, including your
	s a bioavailability study becaus points. There is no disagreement w		
If it is a supplement	requiring the review of clinical d	lata but it is not	an effectiveness

supplement, describe the change or claim that is supported by the clinical data:

d) Did the applicant request exclusivity?	_	
	YES 🔛	NO 🖂
If the answer to (d) is "yes," how many years of exclusivity	did the application	ant request?
e) Has pediatric exclusivity been granted for this Active M	oiety?	NO 🖂
If the answer to the above question in YES, is this approval a response to the Pediatric Written Request?	esult of the stud	dies submitted in
IF YOU HAVE ANSWERED "NO" TO <u>ALL</u> OF THE ABOVE QUE THE SIGNATURE BLOCKS AT THE END OF THIS DOCUME		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).	O THE SIGNA	TURE BLOCKS
PART II FIVE-YEAR EXCLUSIVITY FOR NEW CHE! (Answer either #1 or #2 as appropriate)	MICAL ENTI	TIES
1. Single active ingredient product.		
Has FDA previously approved under section 505 of the Act any dractive 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 contract approved. Answer "no" if the compound requires madeesterification of an esterified form of the drug) to produce an all	e active moiety n previously ap (including salts omplex, chelate etabolic conver	(including other oproved, but this with hydrogen or e, or clathrate) has esion (other than
	YES 🔀	NO 🗌
If "yes," identify the approved drug product(s) containing the active #(s).	moiety, and, if	known, the NDA

(p) (4

#### 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	YES		NO	$\times$
----------	-----	--	----	----------

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

NDA#

NDA#

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, summary for that investigation.	do not	comple	te remainder of	
summary for that investigation.	YES		NO 🔀	
IF "NO," GO DIRECTLY TO THE SIGNATURE BLOCKS ON PAGE 8.				
2. A clinical investigation is "essential to the approval" if the Agency could not have approved the application or supplement without relying on that investigation. Thus, the investigation is not essential to the approval if 1) no clinical investigation is necessary to support the supplement or application in light of previously approved applications (i.e., information other than clinical trials such as bioavailability data, would be sufficient to provide a basis for approval as an ANDA or 505(b)(2) application because of what is already known about a previously approved product), or 2) there are published reports of studies (other than those conducted or sponsored by the applicant) or other publicly available data that independently would have been sufficient to support approval of the application, without reference to the clinical investigation submitted in the application.			estigation is not e supplement or in clinical trials, as an ANDA or d product), or 2) the applicant) or port approval of	
(a) In light of previously approved applications, is a clinical by the applicant or available from some other source, incl necessary to support approval of the application or supplem	uding t	he publ		
If "no," state the basis for your conclusion that a clinical tri AND GO DIRECTLY TO SIGNATURE BLOCK ON PAC		t necessa	ary for approval	
The product is currently marketed, but not approved.				
(b) Did the applicant submit a list of published studies relevant to the safety and effectiveness of this drug product and a statement that the publicly available data would not independently support approval of the application?  YES NO				
(1) If the answer to 2(b) is "yes," do you personally with the applicant's conclusion? If not applicable, a	know o			
	YES [		NO 🗌	
If yes, explain:				
(2) If the answer to 2(b) is "no," are you aware of published studies not conducted or sponsored by the applicant or other publicly available data that could independently demonstrate the safety and effectiveness of this drug product?				
	YES [		NO 🗌	

If yes, explain:					
	(c)	If the answers to (b)(1) and (b)(2) were both "no," id submitted in the application that are essential to the	•	al investigations	
	-	ring two products with the same ingredient(s) are courpose of this section.	onsidered to be	e bioavailability	
3. In addition to being essential, investigations must be "new" to support exclusivity. The agency interprets "new clinical investigation" to mean an investigation that 1) has not been relied on by the agency to demonstrate the effectiveness of a previously approved drug for any indication and 2) does not duplicate the results of another investigation that was relied on by the agency to demonstrate the effectiveness of a previously approved drug product, i.e., does not redemonstrate something the agency considers to have been demonstrated in an already approved application.					
	relied o	ach investigation identified as "essential to the appronute of the agency to demonstrate the effectiveness of the investigation was relied on only to supply different drug, answer "no.")	of a previously	approved drug	
	Investig	ation #1	YES 🗌	NO 🗌	
	Investig	ation #2	YES 🗌	NO 🗌	
If you have answered "yes" for one or more investigations, identify each such investigation and the NDA in which each was relied upon:					
b) For each investigation identified as "essential to the approval", does the investigation duplicate the results of another investigation that was relied on by the agency to support the effectiveness of a previously approved drug product?					
	Investig	ation #1	YES 🗌	NO 🗌	
	Investig	ation #2	YES 🗌	NO 🗌	

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?

Investigation #1

!
IND #

YES 
! NO 
! Explain:

Investigation #2

!
IND #

YES 
! NO 
!
Explain:

(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	!		
YES   Explain:	! ! NO [] ! Explain:		
Investigation #2 YES  Explain:	! ! ! NO [] ! Explain:		
the applicant should n (Purchased studies may drug are purchased (no	answer of "yes" to (a) or (b), are not be credited with having "co or not be used as the basis for exclution to the studies on the drug), the and the studies sponsored or conductions.	nducted or spon usivity. However oplicant may be c	sored" the study? r, if all rights to the considered to have
If yes, explain:		1123	NO []
	:======================================	:========	
Name of person completing for Title: Senior Regulatory Proje Date: Oct. 12, 2010			
Name of Office/Division Director Title: Deputy Director	ctor signing form: ODE II/DAA	P/Sharon Hertz,	MD
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/		
TANYA D CLAYTON 10/19/2010		
SHARON H HERTZ 10/19/2010		

Reference ID: 2852259



## Lehigh Valley Technologies, Inc.

514 North 12th Street • Allentown, PA 18102 Phone: 610-782-9780 • Fax: 610-782-9781

#### DEBARMENT CERTIFICATION

Pursuant to Section 306(k)(1) of the Federal Food, Drug and Cosmetic Act, as amended by the Generic Drug Enforcement Act of 1992. Lehigh Valley Technologies, Inc. hereby certifies that it did not and will not use, in any capacity, the services of any person debarred under subsection (a) or (b) of the Generic Drug Enforcement Act of 1992 in connection with this NDA. This certification is based upon the list of debarred individuals available on the FDA website (http://www.fda.gov/ora/compliance\_ref/debar/default.htm), last updated on 15 September 2009.

Debarment certifications from the study site are included with the individual study reports.

William Reightler

Director QA/Regulatory Affairs Lehigh Valley Technologies, Inc.

Data

## **ACTION PACKAGE CHECKLIST**

APPLICATION INFORMATION <sup>1</sup>						
NDA # 200534 BLA #	NDA # 200534   NDA Supplement # BLA STN #   If NDA, Efficacy		If NDA, Efficacy Suppleme	ent Type:		
	ne: Oxycodone Hydrochloride psule, 5 mg		Applicant: LeHigh Valley Technology Agent for Applicant (if applicable):			
RPM: Tanya Clayton			Division: 170			
NDAs: NDA Application Type Efficacy Supplement:	:		505(b)(2) Original NDAs and 505(b)(2) NDA supplements: Listed drug(s) relied upon for approval (include NDA #(s) and drug name(s)):			
(A supplement can be e	either a (b)(1) or a (b)(2)	Roxicodo	ne Tablets			
or a (b)(2). Consult pag		Provide a drug.	brief explanation of how this	product is d	ifferent fror	n the listed
Checklist.)	endix to this Action Package	Different	Dosage form, Capsules			
Checkinst.)		⊠ T □ T	d drug, explain. This application relies on litera This application relies on a fin Other (explain)		ograph.	
		Two months prior to each action, review the information in the 505(b)(2) Assessment and submit the draft to CDER OND IO for clearance. Finalize the 505(b)(2) Assessment at the time of the approval action.				
		On the day of approval, check the Orange Book again for any new patents or pediatric exclusivity.				
		☑ No changes ☐ Updated Date of check: 10/20/10				
1			ric exclusivity has been gran ng of the listed drug change ion needs to be added to or	ed, determin	e whether	pediatric
* Actions						
<ul> <li>Proposed action</li> <li>User Fee Goal Date is Oct. 22, 2010</li> </ul>		⊠ AP	□ТА	□CR		
<ul> <li>Previous actions (specify type and date for each action taken)</li> </ul>		None None				
❖ If accelerated approval or approval based on efficacy studies in animals, were promotional materials received?  Note: Promotional materials to be used within 120 days after approval must have been submitted (for exceptions, see <a href="http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/GuidanceSucm069965.pdf">http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/GuidanceSucm069965.pdf</a> ). If not submitted, explain		☐ Receiv	ed			

<sup>&</sup>lt;sup>1</sup> 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 Characteristics <sup>2</sup>	
	Review priority:  Standard  Priority Chemical classification (new NDAs only): 7	
	☐ 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	rated approval (21 CFR 601.41) cted distribution (21 CFR 601.42) val based on animal studies
	Submitted in response to a Pediatric Written Request ETASU	le ication Plan ot required
*	BLAs only: Ensure <i>RMS-BLA Product Information Sheet for TBP</i> and <i>RMS-BLA Facility Information Sheet for TBP</i> have been completed and forwarded to OPI/OBI/DRM (Vicky Carter)	Yes, dates
*	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
	<ul> <li>Press Office notified of action (by OEP)</li> </ul>	☐ Yes ⊠ No
	Indicate what types (if any) of information dissemination are anticipated	<ul> <li>None</li> <li>HHS Press Release</li> <li>FDA Talk Paper</li> <li>CDER Q&amp;As</li> <li>Other</li> </ul>

<sup>&</sup>lt;sup>2</sup> Answer all questions in all sections in relation 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 application is a pending BLA supplement, then a new *RMS-BLA Product Information Sheet for TBP* must be completed.

*	Exclusivity	
	• Is 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 Information (NDAs only)	
	<ul> <li>Patent Information:         Verify that form FDA-3542a was submitted for patents that claim the drug for which approval is sought. If the drug is an old antibiotic, skip the Patent Certification questions.     </li> </ul>	<ul><li>✓ Verified</li><li>☐ Not applicable because drug is an old antibiotic.</li></ul>
	<ul> <li>Patent Certification [505(b)(2) applications]:         Verify that a certification was submitted for each patent for the listed drug(s) in the Orange Book and identify the type of certification submitted for each patent.     </li> </ul>	21 CFR 314.50(i)(1)(i)(A)  ☐ Verified  21 CFR 314.50(i)(1)  ☐ (ii) ☐ (iii)
	• [505(b)(2) applications] If the application includes a <b>paragraph III</b> certification, it cannot be approved until the date that the patent to which the certification pertains expires (but may be tentatively approved if it is otherwise ready for approval).	No paragraph III certification     Date patent will expire      Output     Description
	• [505(b)(2) applications] For <b>each paragraph IV</b> certification, verify that the applicant notified the NDA holder and patent owner(s) of its certification that the patent(s) is invalid, unenforceable, or will not be infringed (review documentation of notification by applicant and documentation of receipt of notice by patent owner and NDA holder). (If the application does not include any paragraph IV certifications, mark "N/A" and skip to the next section below (Summary Reviews)).	<ul><li>N/A (no paragraph IV certification)</li><li>Verified</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 d to patent infringement litigation.	due	
Answer the following questions for <b>each</b> paragraph IV certification:		
(1) Have 45 days passed since the patent owner's receipt of the applicant's notice of certification?	S Yes	□ No
(Note: The date that the patent owner received the applicant's notice of certification can be determined by checking the application. The application required to amend its 505(b)(2) application to include documentation this date (e.g., copy of return receipt or letter from recipient acknowledging its receipt of the notice) (see 21 CFR 314.52(e))).	cant	
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 licens 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)?	see) Yes	□ No
If "Yes," there is no stay of approval based on this certification. Analyze the paragraph IV certification in the application, if any. If there are no other paragraph IV certifications, skip the rest of the patent questions.	next	
If "No," continue with question (3).		
(3) Has the patent owner, its representative, or the exclusive patent license filed a lawsuit for patent infringement against the applicant?	ee 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 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 Division in writing whenever an action has been filed within this 45-day period (see 21 CFR 314.107(f)(2))).	or or f the	
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 waiv 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.	ve e	
(4) Did the patent owner (or NDA holder, if it is an exclusive patent licens 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)?	see)	□ No
If "Yes," there is no stay of approval based on this certification. Analyze the paragraph IV certification in the application, if any. If there are no other paragraph IV certifications, skip to the next section below (Summary Review)		
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.	
	CONTENTS OF ACTION PACKAGE	
*	Copy of this Action Package Checklist <sup>3</sup>	Oct. 21, 2010
	Officer/Employee List	
*	List of officers/employees who participated in the decision to approve this application and consented to be identified on this list (approvals only)	⊠ Included
	Documentation of consent/non-consent by officers/employees	
	Action Letters	
*	Copies of all action letters (including approval letter with final labeling)	Action(s) and date(s) Oct. 20, 2010
	Labeling	
*	Package Insert (write submission/communication date at upper right of first page of PI)	
	<ul> <li>Most recent draft labeling. If it is division-proposed labeling, it should be in track-changes format.</li> </ul>	Oct. 2010
	Original applicant-proposed labeling	Dec. 22. 2009
	Example of class labeling, if applicable	N/A

<sup>&</sup>lt;sup>3</sup> Fill in blanks with dates of reviews, letters, etc.

*	Medication Guide/Patient Package Insert/Instructions for Use/Device Labeling (write submission/communication date at upper right of first page of each piece)	<ul> <li>☐ Medication Guide</li> <li>☐ Patient Package Insert</li> <li>☐ Instructions for Use</li> <li>☐ Device Labeling</li> <li>☒ None</li> </ul>
	<ul> <li>Most-recent draft labeling. If it is division-proposed labeling, it should be in track-changes format.</li> </ul>	
	Original applicant-proposed labeling	
	Example of class labeling, if applicable	
*	Labels ( <b>full color</b> carton and immediate-container labels) (write submission/communication date on upper right of first page of each submission)	
	Most-recent draft labeling	Dec. 22, 2009
*	Proprietary Name  • Acceptability/non-acceptability letter(s) (indicate date(s))  • Review(s) (indicate date(s))	None Submitted
*	Labeling reviews (indicate dates of reviews and meetings)	□ RPM □ DMEPA Oct. 19, 2010 □ DRISK □ DDMAC Oct. 13, 2010 □ CSS Oct. 6, 2010 □ Other reviews
	Administrative / Regulatory Documents	
*	Administrative Reviews (e.g., RPM Filing Review <sup>4</sup> /Memo of Filing Meeting) (indicate	
* *	date of each review) All NDA (b)(2) Actions: Date each action cleared by (b)(2) Clearance Cmte NDA (b)(2) Approvals Only: 505(b)(2) Assessment (indicate date)	☐ Not a (b)(2) ☐ Not a (b)(2) Oct. 12 2010
*	NDAs only: Exclusivity Summary (signed by Division Director)	
*	Application Integrity Policy (AIP) Status and Related Documents <a href="http://www.fda.gov/ICECI/EnforcementActions/ApplicationIntegrityPolicy/default.htm">http://www.fda.gov/ICECI/EnforcementActions/ApplicationIntegrityPolicy/default.htm</a>	
	Applicant is on the AIP	☐ Yes ⊠ No
	This application is on the AIP	☐ Yes ⊠ No
	o If yes, Center Director's Exception for Review memo (indicate date)	
	<ul> <li>If yes, OC clearance for approval (indicate date of clearance communication)</li> </ul>	☐ Not an AP action
*	Pediatrics (approvals only)  • Date reviewed by PeRC Oct. 13, 2010  If PeRC review not necessary, explain:  • Pediatric Page/Record (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 U.S. agent (include certification)	○ Verified, statement is acceptable
*	Outgoing communications (letters (except action letters), emails, faxes, telecons)	Emails, faxes, filing letter

 $<sup>^4</sup>$  Filing reviews for scientific disciplines should be filed behind the respective discipline tab. Version: 8/25/10

*	Internal memoranda, telecons, etc.			
*	Minutes of Meetings			
	Regulatory Briefing (indicate date of mtg)	No mtg     ■ No mtg		
	• If not the first review cycle, any end-of-review meeting (indicate date of mtg)	N/A or no mtg		
	Pre-NDA/BLA meeting (indicate date of mtg)	☐ No mtg March 31, 2009		
	• EOP2 meeting (indicate date of mtg)	No mtg     ■ No mtg		
	• Other milestone meetings (e.g., EOP2a, CMC pilots) (indicate dates of mtgs)	PIND Dec. 6, 2007		
*	Advisory Committee Meeting(s)	No AC meeting		
	• Date(s) of Meeting(s)			
	• 48-hour alert or minutes, if available (do not include transcript)			
	Decisional and Summary Memos			
*	Office Director Decisional Memo (indicate date for each review)	⊠ None		
	Division Director Summary Review (indicate date for each review)	None Deputy, Sharon Hertz, Oct. 20, 2010		
	Cross-Discipline Team Leader Review (indicate date for each review)	⊠ None		
	PMR/PMC Development Templates (indicate total number)  None 2 PREA, 1 Clin			
	Clinical Information <sup>5</sup>			
*	Clinical Reviews			
*	Clinical Reviews  • Clinical Team Leader Review(s) (indicate date for each review)	N/A no clinical studies		
*		N/A no clinical studies		
*	Clinical Team Leader Review(s) (indicate date for each review)	N/A no clinical studies  None		
*	<ul> <li>Clinical Team Leader Review(s) (indicate date for each review)</li> <li>Clinical review(s) (indicate date for each review)</li> <li>Social scientist review(s) (if OTC drug) (indicate date for each review)</li> <li>Financial Disclosure reviews(s) or location/date if addressed in another review</li> </ul>	<ul><li>☑ None</li><li>See Sharon Hertz's Memo Oct. 20,</li></ul>		
	<ul> <li>Clinical Team Leader Review(s) (indicate date for each review)</li> <li>Clinical review(s) (indicate date for each review)</li> <li>Social scientist review(s) (if OTC drug) (indicate date for each review)</li> </ul>	None     Non		
	Clinical Team Leader Review(s) (indicate date for each review)     Clinical review(s) (indicate date for each review)     Social scientist review(s) (if OTC drug) (indicate date for each review)  Financial Disclosure reviews(s) or location/date if addressed in another review OR  If no financial disclosure information was required, check here □ and include a	<ul><li>☑ None</li><li>See Sharon Hertz's Memo Oct. 20,</li></ul>		
*	Clinical Team Leader Review(s) (indicate date for each review)     Clinical review(s) (indicate date for each review)     Social scientist review(s) (if OTC drug) (indicate date for each review)  Financial Disclosure reviews(s) or location/date if addressed in another review OR  If no financial disclosure information was required, check here □ and include a review/memo explaining why not (indicate date of review/memo)  Clinical reviews from immunology and other clinical areas/divisions/Centers (indicate)	<ul><li>None</li><li>See Sharon Hertz's Memo Oct. 20, 2010</li></ul>		
*	Clinical Team Leader Review(s) (indicate date for each review)     Clinical review(s) (indicate date for each review)     Social scientist review(s) (if OTC drug) (indicate date for each review)  Financial Disclosure reviews(s) or location/date if addressed in another review OR  If no financial disclosure information was required, check here □ and include a review/memo explaining why not (indicate date of review/memo)  Clinical reviews from immunology and other clinical areas/divisions/Centers (indicate date of each review)  Controlled Substance Staff review(s) and Scheduling Recommendation (indicate date of	<ul> <li>None</li> <li>See Sharon Hertz's Memo Oct. 20, 2010</li> <li>None</li> </ul>		

 $<sup>^5</sup>$  Filing reviews should be filed with the discipline reviews. Version: 8/25/10

	Clinical Microbiology None		
*	Clinical Microbiology Team Leader Review(s) (indicate date for each review)	☐ None	
	Clinical Microbiology Review(s) (indicate date for each review)	None	
	Biostatistics None		
*	Statistical Division Director Review(s) (indicate date for each review)	None	
	Statistical Team Leader Review(s) (indicate date for each review)	None	
	Statistical Review(s) (indicate date for each review)	None	
	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	
	Clinical Pharmacology review(s) (indicate date for each review)	☐ None Oct. 12, 2010	
*	DSI Clinical Pharmacology Inspection Review Summary (include copies of DSI letters)	☐ None Oct. 1, 2010	
	Nonclinical 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 Sept. 17, 2010	
*	Review(s) by other disciplines/divisions/Centers requested by P/T reviewer (indicate date for each review)	None     Non	
*	Statistical review(s) of carcinogenicity studies (indicate date for each review)	No carc	
*	ECAC/CAC report/memo of meeting	None Included in P/T review, page	
*	DSI Nonclinical Inspection Review Summary (include copies of DSI letters)	None requested None requested	
	Product Quality None		
*	Product Quality Discipline Reviews		
	ONDQA/OBP Division Director Review(s) (indicate date for each review)	None None	
	Branch Chief/Team Leader Review(s) (indicate date for each review)	☑ None Oct. 18, 2010	
	<ul> <li>Product quality review(s) including ONDQA biopharmaceutics reviews (indicate date for each review)</li> </ul>	⊠ None Aug. 29, 2010	
*	Microbiology Reviews  NDAs: Microbiology reviews (sterility & pyrogenicity) (OPS/NDMS) (indicate date of each review)  BLAs: Sterility assurance, microbiology, facilities reviews (DMPQ/MAPCB/BMT) (indicate date of each review)	Not needed     Not needed	
*	Reviews by other disciplines/divisions/Centers requested by CMC/quality reviewer (indicate date of each review)	☐ None	

NDA/BLA# Page 9

*	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)	CMC Review, Oct. 15, 2010
	Review & FONSI (indicate date of review)	
	Review & Environmental Impact Statement (indicate date of each review)	
*	Facilities Review/Inspection	
	NDAs: Facilities inspections (include EER printout) (date completed must be within 2 years of action date) (only original NDAs and supplements that include a new facility or a change that affects the manufacturing sites <sup>6</sup> )	Date completed: Jan. 7, 2010
	☐ BLAs: TB-EER (date of most recent TB-EER must be within 30 days of action date) (original and supplemental BLAs)	Date completed: Acceptable Withhold recommendation
*	NDAs: Methods Validation (check box only, do not include documents)	☐ Completed ☐ Requested ☐ Not yet requested ☐ Not needed (per review)

<sup>&</sup>lt;sup>6</sup> I.e., a new facility or a change in the facility, or a change in the manufacturing process in a way that impacts the Quality Management Systems of the facility.

Version: 8/25/10

#### **Appendix 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.

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/s/
TANYA D CLAYTON 10/21/2010

Reference ID: 2853310

## 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.

 	·····	 <del></del>

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).

TO BE COMPLETED BY APPLICANT

Please mark the applicable checkbox.

	3	
with this study to the	h the listed clinical investigators (enter names of c s form) whereby the value of compensation to the industrial dy as defined in 21 CFR 54.2(a). I also certify that the sponsor whether the investigator had a proprie	I have not entered into any financial arrangement linical investigators below or attach list of names to ovestigator could be affected by the outcome of the each listed clinical investigator required to disclose tary interest in this product or a significant equity in isclose any such interests. I further certify that no nents of other sorts as defined in 21 CFR 54.2(f).
galors	See attached list	

galors	See attached list	
al Invest		
Clinica		

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

NAME William Reightler		TITLE Director QA/Regi	ulatory Affairs
FIRM / ORGANIZATION Lehigh Valley Tech	• • •		
SIGNATURE	Livilian Limited		DATE 10/5/09

#### 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

## FORM FDA 3454 List of Clinical Investigators (continued)



From: Greeley, George
To: Clayton, Tanya;
cc: Salis, Olga;

**Subject:** NDA"s 200-534 & 200-535 Oxycodone HCL **Date:** Wednesday, October 20, 2010 1:40:05 PM

Attachments: 1 Pediatric Record CAPSULE.pdf

1 Pediatric Record SOLUTION.pdf

#### Hi Tanya,

The Oxycodone deferral and plan was reviewed by the PeRC PREA Subcommittee on October 13, 2010.

The Division presented a deferral and plan for patients ages birth through sixteen years because the product is ready for approval in adults.

The PeRC agreed with the Division to grant a deferral for this product. The pediatric record is attached reflecting the PeRC review for Oxycodone HCL.

## Thank you.

George Greeley Regulatory Health Project Manager Pediatric and Maternal Health Staff FDA/CDER/OND 10903 New Hampshire Avenue Bldg. 22, Room 6467 Silver Spring, MD 20993-0002

Phone: 301.796.4025

Email: george.greeley@fda.hhs.gov

**U** Please consider the environment before printing this e-mail.

A D CLAYTON /2010

Reference ID: 2852744



## Food and Drug Administration Center for Drug Evaluation and Research Office of Drug Evaluation II

#### **FACSIMILE TRANSMITTAL SHEET**

• ,	
To: Bill Reightler	Tanya Clayton, SRPM
-	From:
Company: Lehigh Valley Technologies, Inc.	Division of Anesthesia and Analgesia Products
Fax number:	Fax number:
Phone number:	Phone number: 301-796-0871

**Subject: Information Request** 

DATE: Sep 23, 2010

Total no. of pages including

cover: 3

Comments: Please provide complete response to NDA 200534 by Sep 28, 2010, and to NDA 200535 by Oct 4, 2010.

Document to be mailed: YES x NO

THIS DOCUMENT IS INTENDED ONLY FOR THE USE OF THE PARTY TO WHOM IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL, AND PROTECTED FROM DISCLOSURE UNDER APPLICABLE LAW.

If you are not the addressee, or a person authorized to deliver this document to the addressee, you are hereby notified that any review, disclosure, dissemination, copying, or other action based on the content of this communication is not authorized. If you have received this document in error, please notify us immediately by telephone at (301) 796-0871. Thank you.

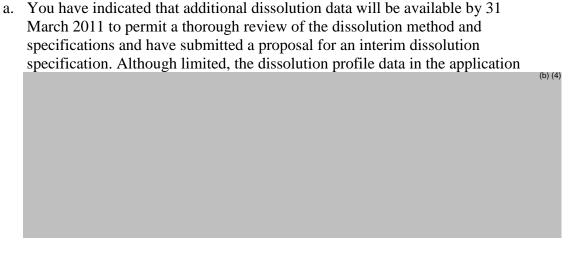
Please refer to your new drug applications (NDA) dated December 22, 2009, received December 22, 2009, submitted pursuant to section 505(b)(2) of the Federal Food, Drug, and Cosmetic Act, for Oxycodone Hydrochloride Capsules, 5 mg.

We also refer to the teleconference held today, Sep 23, 2010.

#### NDA 200-534

1.	Submit revised regulatory drug substance specification sheet as discussed during teleconference, with data-based acceptance criteria for particle size distribution with compared to the conference of the confere
2.	Submit revised regulatory drug product specification sheet with method and acceptance criteria for microbial limits and heavy metals. Also, tighten the acceptance criteria for total impurities, interim dissolution and include revised description for individual impurities, as discussed during teleconference.

3. Provide detailed program for the improvement of the dissolution method and proposing final, data-based specifications for drug product dissolution. Include the submission date for the prior approval supplement which will satisfactorily address all the outstanding issues from the following comments:



b. You have indicated that additional dissolution data will be available by 31 March 2011 to permit a thorough review of the dissolution method and specifications and have submitted a proposal for an interim dissolution specification. Although limited, the dissolution profile data in the application (b) (4)



4. Submit updated stability data for the market-representative drug product batches, with actual impurity results

LOQ, please report the actual LOQ numerical value for the used analytical method.

If you have any questions, please contact Tanya Clayton, Senior Regulatory Project Manager, at 301-796-0871.

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/s/				
TANYA D CLAYTON 09/28/2010				

Reference ID: 2842173



### Food and Drug Administration Center for Drug Evaluation and Research Office of Drug Evaluation II

#### **FACSIMILE TRANSMITTAL SHEET**

To:	Tanya Clayton, SRPM
	From:
Company: Lehigh Valley Technologies, Inc.	Division of Anesthesia and Analgesia Products
Fax number:	<b>Fax number:</b> 301-796-
Phone number:	<b>Phone number:</b> 301-796-0871
C. I. L. C. C. D. C.	•

**Subject: Information Request** 

**DATE: July 22, 2010** 

Total no. of pages including

cover: 3

Comments: Please provide a response to the request by Aug 16, 2010.

Document to be mailed: YES x NO

THIS DOCUMENT IS INTENDED ONLY FOR THE USE OF THE PARTY TO WHOM IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL, AND PROTECTED FROM DISCLOSURE UNDER APPLICABLE LAW.

If you are not the addressee, or a person authorized to deliver this document to the addressee, you are hereby notified that any review, disclosure, dissemination, copying, or other action based on the content of this communication is not authorized. If you have received this document in error, please notify us immediately by telephone at (301) 796-. Thank you.

Please refer to your new drug application (NDA) dated December 22, 2009, received December 22, 2009, submitted pursuant to section 505(b)(2) of the Federal Food, Drug, and Cosmetic Act, for Oxycodone Hydrochloride Capsules, 5 mg.

We also refer to your submissions dated March 29, and Apr 5, 2010.

- 1. Submit revised regulatory drug substance specification sheet with <u>data-based</u> acceptance criteria and provide supportive batch data. The impurity profile should include a full list of individual impurities as requested in our letter dated March 5, 2010, and per your agreement in submissions dated March 29, and April 5, 2010. All unidentified impurities at, or above have to be listed in the table with the corresponding RRT values, and for all identified impurities a list of full chemical names and structures need to be attached to the table, as requested. Also, include testing for polymorphic forms and particle size distribution with ranges, content of heavy metals and microbial limits.
- 2. Submit revised regulatory drug product specification sheet with <u>data-based</u> acceptance criteria and provide supportive batch data with justification. Include testing for microbial limits and revise other tested attributes as follow.
  - a. Upgrade the analytical method for drug product dissolution to demonstrate dissolution profile acceptable as a base for control of capsules' quality, as discussed during teleconference on July 12, 2010. The establishing of adequate dissolution method for controlling quality is particularly important due to the lack of formal compatibility studies for drug product ingredients. Due to the limit data available during the response submission you may want to propose an interim

    (a) Dissolution acceptance criteria, e.g.,

    (b) (4) Dissolution acceptance criteria, e.g.,

    (c) of the labeled amount dissolved in 30 min, and additional testing for Dissolution Profile with data reported at method-derived intervals, e.g., 10, 15, 30 and 45 min. Also, specify, in a footnote, the final date by which adequate amount of data will be submitted for re-evaluation of the interim acceptance criteria.
  - b. In view of the lack of controls for the blend uniformity tighten the proposed acceptance criteria for Assay to reflect the current data and assure future product quality.
  - c. Revise the acceptance criteria for (b) (4) to express it as a range, based on observed data. Include a mean/target value for the currently manufactured batches.
  - d. Revise the impurity profile to include a full list of individual impurities as requested in our letter dated March 5, 2010, and per your agreement in submissions dated March 29, and April 5, 2010. All unidentified impurities

at, or above have to be listed in the table, with the corresponding RRT values, and for all identified impurities a list of full chemical names and structures need to be attached to the table, as requested.

3. Submit updated release and stability data for the market-representative drug product batches, reported in the revised format as requested above.

If you have any questions, please contact Tanya Clayton, Senior Regulatory Project Manager, at 301-796-0871.

Application Type/Number	Submission Type/Number	Submitter Name	Product Name
NDA-200534	ORIG-1	Lehigh Valley Technologies, Inc. 514 N. 12th Street, Allentown, PA 18105	OXYCODONE HCL CAPSULES

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/s/

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DANAE D CHRISTODOULOU 07/23/2010 CMC IR Signature for Jean Nashed

PRASAD PERI 07/23/2010 I concur

DEPARTMENT OF HEALTH AND HUMAN SERVICES PUBLIC HEALTH SERVICE FOOD AND DRUG ADMINISTRATION		REQUEST FOR CONSULTATION					
TO (Office/Division): CSS, Corinne Moody		FROM (Name, Office/Division, and Phone Number of Requestor): Tanya Clayton, Project Manager, DAAP					
DATE June 9, 2010	9, 2010 IND NO. NDA NO. 200534, 200535		TYPE OF DOCUMENT NDA		Dec. 22, 2		
NAME OF DRUG Oxycodone Capsules and Oral Solution ( 20mg/ml)	Oxycodone Capsules (5mg) and Oral Solution ( Standard		CLASSIFICATION OF Pain	DRUG	DESIRED COL August 22	MPLETION DATE 2, 2010	
NAME OF FIRM: LeHigh	Valley To	echnologi	es				
			REASON FO	OR REQUEST			
			I. GEN	NERAL			
□ NEW PROTOCOL       □ PRE-NDA MEETING         □ PROGRESS REPORT       □ END-OF-PHASE 2a MEE         □ NEW CORRESPONDENCE       □ END-OF-PHASE 2 MEE         □ DRUG ADVERTISING       □ RESUBMISSION         □ ADVERSE REACTION REPORT       □ SAFETY / EFFICACY         □ MANUFACTURING CHANGE / ADDITION       □ PAPER NDA         □ MEETING PLANNED BY       □ CONTROL SUPPLEMEN			TING		G PONDENCE		
II. BIOMETRICS							
☐ PRIORITY P NDA REVIEW ☐ END-OF-PHASE 2 MEETING ☐ CONTROLLED STUDIES ☐ PROTOCOL REVIEW ☐ OTHER (SPECIFY BELOW):			☐ CHEMISTRY REVIEW ☐ PHARMACOLOGY ☐ BIOPHARMACEUTICS ☐ OTHER (SPECIFY BELOW):				
III. BIOPHARMACEUTICS							
☐ DISSOLUTION ☐ BIOAVAILABILTY STUDIES ☐ PHASE 4 STUDIES			☐ DEFICIENCY LETTER RESPONSE ☐ PROTOCOL - BIOPHARMACEUTICS ☐ IN-VIVO WAIVER REQUEST				
IV. DRUG SAFETY							
☐ PHASE 4 SURVEILLANCE/EPIDEMIOLOGY PROTOCOL ☐ DRUG USE, e.g., POPULATION EXPOSURE, ASSOCIATED DIAGNOSES ☐ CASE REPORTS OF SPECIFIC REACTIONS (List below) ☐ COMPARATIVE RISK ASSESSMENT ON GENERIC DRUG GROUP			<ul> <li>□ REVIEW OF MARKETING EXPERIENCE, DRUG USE AND SAFETY</li> <li>□ SUMMARY OF ADVERSE EXPERIENCE</li> <li>□ POISON RISK ANALYSIS</li> </ul>				
V. SCIENTIFIC INVESTIGATIONS							
☐ CLINICAL			☐ NONCLINICAL				
COMMENTS / SPECIAL INSTRUCTIONS: We are requesting reviews for two NDAs, Oxycodone HCL Oral Solution (Composition (Composi							
signature of requestor Tanya D. Clayton				METHOD OF DELIVE  ☐ DFS ☐ 1		☐ MAIL	☐ HAND
PRINTED NAME AND SIGNA	TURE OF RI	ECEIVER		PRINTED NAME AND	SIGNATURE O	F DELIVERER	

Application Type/Number	Submission Type/Number	Submitter Name	Product Name
NDA-200534	ORIG-1	Lehigh Valley Technologies, Inc. 514 N. 12th Street, Allentown, PA 18105	OXYCODONE HCL CAPSULES
NDA-200535	ORIG-1	Lehigh Valley Technologies, 514 North 12th Street, Allentown PA	OXYCODONE ORAL SOLUTION (b) (4) 20mg/mL

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/s/

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TANYA D CLAYTON 06/09/2010

## DSI CONSULT Request for Biopharmaceutical Inspections

**DATE:** May 21, 2010

**TO:** Associate Director for Bioequivalence

Division of Scientific Investigations, HFD-48

**THROUGH**: Bob Rappaport, DAAP, HFD-170

**FROM:** Tanya Clayton, Regulatory Project Manager, Division of Anesthesia and Analgesics,

HFD-170

**SUBJECT:** Request for Biopharmaceutical Inspections

NDA 200534 and 200535

Oxcycodone Hydrochloride Capsules, 5 mg and Oxycodone Hydrochloride Oral Solution

USP ( (b) (4) 20 mg/mL) Lehigh Valley Technologies

### **Study/Site Identification:**

As discussed with you, the following studies/sites pivotal to approval (OR, raise question regarding the quality or integrity of the data submitted and) have been identified for inspection:

Study #	Clinical Site (name, address, phone, fax, contact person, if available)	Analytical Site (name, address, phone, fax, contact person, if available)
UPN1189	Decision Line Clinical Research Corporation, 720 King Street, West, Suite 700, Toronto, Ontario, Canada M5V 2T3 416-963-5602	(b) (4)

NDA 200534 and 200535 Request for Biopharmaceutical Inspection Page 2

# **International Inspections:**

(Please note: International inspections require sign-off by the ORM Division Director or DPE Division Director.)

We have requested an international inspection because:

\_\_\_\_X There is a lack of domestic data that solely supports approval;

Other (please explain):

# **Goal Date for Completion:**

We request that the inspections be conducted and the Inspection Summary Results be provided by **September 1, 2010**. We intend to issue an action letter on this application by **October 22, 2010**.

Should you require any additional information, please contact Tanya Clayton, Senior Regulatory Project Manager at 301-796-0871.

Concurrence: (Optional)

Name Medical Team Leader: Ellen Fields Biopharm Team Leader: Suresh Doddapaneni

Biopharm Reviewer: Wei Qui

Application Type/Number	Submission Type/Number	Submitter Name	Product Name
NDA-200534	ORIG-1	Lehigh Valley Technologies, Inc. 514 N. 12th Street, Allentown, PA 18105	OXYCODONE HCL CAPSULES
NDA-200535	ORIG-1	Lehigh Valley Technologies, 514 North 12th Street, Allentown PA	OXYCODONE ORAL SOLUTION (b) (4) 20mg/mL

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/s/

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TANYA D CLAYTON 05/25/2010

BOB A RAPPAPORT 05/25/2010

SURESH DODDAPANENI 05/26/2010

ELLEN W FIELDS 05/26/2010

DEPARTMENT OF HEALTH AND HUMAN SERVICES PUBLIC HEALTH SERVICE FOOD AND DRUG ADM NISTRATION		REQUEST FOR CONSULTATION			
TO (Division/Office): Mail: OSE				FROM: Tanya Clayton, Project Manager, DAAP	
DATE April 6, 2010	IND NO.		NDA NO. 200534, 200535	TYPE OF DOCUMENT Labeling	DATE OF DOCUMENT Dec. 22, 2009
Oral Solution ( (b) 20mg/ml)	Oxycodone Capsules (5mg) and Oral Solution ( Standard		ONSIDERATION	CLASSIFICATION OF DRUG Pain	DESIRED COMPLETION DATE September 3, 2010
NAME OF FIRM: LeHigh Valley Tech	nnologies		DEACONEO	DD DEGUECT	
				or request Neral	
□ PROGRESS REPORT         □ EN           □ NEW CORRESPONDENCE         □ RE           □ DRUG ADVERTISING         □ SA           □ ADVERSE REACTION REPORT         □ PA		PRENDA MEETING END OF PHASE II MEETING RESUBMISSION SAFETY/EFFICACY PAPER NDA CONTROL SUPPLEMENT	□ RESPONSE TO DEFICIENCY LETTER □ FINAL PRINTED LABELING □ LABELING REVISION □ ORIGINAL NEW CORRESPONDENCE □ FORMULATIVE REVIEW ■ OTHER (SPECIFY BELOW): Labeling Review		
			II. BION	METRICS	
STATISTICAL EVALUATION BRAN	СН			STATISTICAL APPLICATION BRANCH	
☐ TYPE A OR B NDA REVIEW ☐ END OF PHASE II MEETING ☐ CONTROLLED STUDIES ☐ PROTOCOL REVIEW ☐ OTHER (SPECIFY BELOW):			☐ CHEMISTRY REVIEW ☐ PHARMACOLOGY ☐ BIOPHARMACEUTICS ☐ OTHER (SPECIFY BELOW):		
III. BIOPHARMACEUTICS					
☐ DISSOLUTION ☐ BIOAVAILABILTY STUDIES ☐ PHASE IV STUDIES		☐ DEFICIENCY LETTER RESPONSE☐ PROTOCOL-BIOPHARMACEUTICS☐ IN-VIVO WAIVER REQUEST			
IV. DRUG EXPERIENCE					
<ul> <li>□ PHASE IV SURVEILLANCE/EPIDEMIOLOGY PROTOCOL</li> <li>□ DRUG USE e.g. POPULATION EXPOSURE, ASSOCIATED DIAGNOSES</li> <li>□ CASE REPORTS OF SPECIFIC REACTIONS (List below)</li> <li>□ COMPARATIVE RISK ASSESSMENT ON GENERIC DRUG GROUP</li> </ul>				☐ REVIEW OF MARKETING EXPERIENCE, DRUG USE AND SAFETY ☐ SUMMARY OF ADVERSE EXPERIENCE ☐ POISON RISK ANALYSIS	
			V. SCIENTIFIC II	NVESTIGATIONS	
☐ CLINICAL				□ PRECLINICAL	
We are requesting labeling reviews for two NDAs, Oxycodone HCL Oral Solution (					

SIGNATURE OF REQUESTER Tanya D. Clayton, 60871	METHOD OF DELIVERY (Check one)  MAIL  HAND
SIGNATURE OF RECEIVER	SIGNATURE OF DELIVERER

Application Type/Number	Submission Type/Number	Submitter Name	Product Name
NDA-200534	ORIG-1	Lehigh Valley Technologies, Inc. 514 N. 12th Street, Allentown, PA 18105	OXYCODONE HCL CAPSULES
•		electronic record s the manifestation	that was signed n of the electronic
/s/ 			
TANYA D CLAYT 04/06/2010	ON		



Food and Drug Administration Silver Spring, MD 20993

NDA 200534

#### FILING COMMUNICATION

Lehigh Valley Technologies, Inc. 514 North 12<sup>th</sup> Street Allentown, PA 18102

Dear Mr. Reightler:

Please refer to your new drug application (NDA) dated December 22, 2009, received December 22, 2009, submitted pursuant to section 505(b)(2) of the Federal Food, Drug, and Cosmetic Act, for Oxycodone Hydrochloride Capsules, 5 mg.

We also refer to your submissions dated January 8 and February 23, 2010.

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 October 22, 2010.

We are reviewing your application according to the processes described in the Guidance for Review Staff and Industry: Good Review Management Principles and Practices for PDUFA Products. Therefore, we have established internal review timelines as described in the guidance, which includes the timeframes for FDA internal milestone meetings (e.g., filing, planning, midcycle, team and wrap-up meetings). Please be aware that the timelines described in the guidance are flexible and subject to change based on workload and other potential review issues (e.g., submission of amendments). We will inform you of any necessary information requests or status updates following the milestone meetings or at other times, as needed, during the process. If major deficiencies are not identified during the review, we plan to communicate proposed labeling and, if necessary, any postmarketing commitment requests by September 29, 2010.

During our filing review of your application, we identified the following potential review issues:

- 1. The proposed drug substance impurity specification for 6-α-oxycodol (exceeds the ICHQ3A(R2) qualification threshold of NMT 0.15%. Either this specification must be tightened to NMT 0.15% or you must provide adequate safety qualification for this impurity. As noted in the preNDA meeting minutes March 31, 2009, adequate qualification of an impurity must include:
  - a. Minimal genetic toxicology screen (two in vitro genetic toxicology studies, e.g., one point mutation assay and one chromosome aberration assay) with the isolated impurity, tested up to the limit dose for the assay.

- b. Repeat dose toxicology of appropriate duration to support the proposed indication. For a chronic indication, a study of at least 90-days is appropriate.
- 2. The proposed drug product specification for the ICHQ3B(R2) qualification threshold of NMT 0.2% for a drug product with a maximum daily dose of >100 mg to 2 g. Unless you can provide adequate clinical use data to document that these products will not be used at a maximum daily dose that exceeds 100 mg/day, either this specification must be tightened to NMT 0.2% or you must provide adequate safety qualification for this impurity. As noted in the preNDA meeting minutes March 31, 2009, adequate qualification of an impurity must include:
  - a. Minimal genetic toxicology screen (two in vitro genetic toxicology studies, e.g., one point mutation assay and one chromosome aberration assay) with the isolated impurity, tested up to the limit dose for the assay.
  - b. Repeat dose toxicology of appropriate duration to support the proposed indication. For a chronic indication, a study of at least 90-days is appropriate.
- 3. Resubmit drug substance specifications to include reporting of each impurity occurring at, or above (b) (4), with corresponding RRT or name if known. Tighten the proposed acceptance criteria for 6-α-oxycodol or qualify this impurity as specified in request number 2. Along with the specification sheet, provide a complete list of identified impurities with the chemical names and structures.
- 4. Provide data on compatibility studies for the proposed commercial drug product formulation. Alternatively, provide specific references to the appropriate sections of the US-approved reference drug product(s).
- 5. Provide detailed description of the dissolution method to include testing apparatus and exact experimental conditions, in addition to a reference to USP chapter <711>. Justify the adequacy of the selected dissolution conditions and provide dissolution profiles obtained during release and stability testing of the commercial formulation of the capsules. Submit adequate data for commercial formulation to support the proposed acceptance criteria for capsule dissolution.
- 6. Submit revised drug product specifications to include controls for blend uniformity, moisture content, residual solvents, and microbial limits for the drug product. Note that each impurity occurring in the drug product at, or above needs to be reported with RRT value or name if known, and each impurity at, or above qualified. Refer to request number 2 in this letter. Along with the specification sheet, provide a complete list of identified impurities with chemical names and structures.
- 7. Resubmit batch analyses data to include testing for all drug product attributes as requested in request number 6, including results for individual and total impurities.

8. Provide updated stability data for the commercial drug product formulation to support the requested expiry period. Submit revised stability specifications, as requested for the drug product in request number 5. Provide data collected according to the revised protocol for each testing interval.

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

If you have not already done so, you must submit the content of labeling [21 CFR 314.50(l)(1)(i)] in structured product labeling (SPL) format as described at <a href="http://www.fda.gov/ForIndustry/DataStandards/StructuredProductLabeling/default.htm">http://www.fda.gov/ForIndustry/DataStandards/StructuredProductLabeling/default.htm</a>. The content of labeling must be in the Prescribing Information (physician labeling rule) format.

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.

# REQUIRED PEDIATRIC ASSESSMENTS

Under the Pediatric Research Equity Act (PREA) (21 U.S.C. 355c), all applications for new active ingredients, new indications, new dosage forms, new dosing regimens, or new routes of administration are required to contain an assessment of the safety and effectiveness of the product for the claimed indication in pediatric patients unless this requirement is waived, deferred, or inapplicable.

Pediatric studies conducted under the terms of section 505B of the Federal Food, Drug, and Cosmetic Act (the Act) may also qualify for pediatric exclusivity under the terms of section 505A of the Act. If you wish to qualify for pediatric exclusivity please consult the Division of Anesthesia, Analgesia and Rheumatology Products. Please note that satisfaction of the requirements in section 505B of the Act alone may not qualify you for pediatric exclusivity under 505A of the Act

We acknowledge receipt of your request for a full deferral of pediatric studies for this application. Once we have reviewed your request, we will notify you if the full deferral request is denied.

If you have any questions, call Tanya Clayton, Senior Regulatory Project Manager, at (301) 796-0871.

Sincerely,

{See appended electronic signature page}

Bob A. Rappaport, M.D. Director Division of Anesthesia, Analgesia and Rheumatology Products Office of Drug Evaluation II Center for Drug Evaluation and Research

Application Type/Number	Submission Type/Number	Submitter Name	Product Name
NDA-200534	ORIG-1	Lehigh Valley Technologies, Inc. 514 N. 12th Street, Allentown, PA 18105	OXYCODONE HCL CAPSULES
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/s/ 			
BOB A RAPPAPO 03/05/2010	DRT		

	FROM: (Name/Title, Office/Division/Phone number of requestor)  Tanya Clayton, RPM, ODEII, DAARP, 60871			
NDA/BLA NO. 200534/200535	TYPE OF DOCUMENTS (PLEASE CHECK OFF BELOW)			
Onsideration	CLASSIFICATION OF DRUG Pain	DESIRED COMPLETION DATE (Generally 1 week before the wrap-up meeting)  August 9, 2010		
	PDUFA Date: Oct. 22, 2010			
TYPE OF LABE	L TO REVIEW			
TYPE OF LABELING: (Check all that apply)  ■ ORIGINAL NDA/BLA □ IND □ PACKAGE INSERT (PI) □ PATIENT PACKAGE INSERT (PPI) ■ CARTON/CONTAINER LABELING □ MEDICATION GUIDE □ INSTRUCTIONS FOR USE(IFU)  TYPE OF APPLICATION/SUBMISSION ■ ORIGINAL NDA/BLA □ INITIAL PROPOSED LABELING □ LABELING REVISION □ LABELING REVISION □ LABELING SUPPLEMENT □ PLR CONVERSION				
Mid-Cycle Meeting: [May 21, 2010]				
Wrap-Up Meeting: [Pending, week of Aug. 22, 2010]				
	METHOD OF DELIVERY (Check one) ■eMAIL	□ HAND		
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Application Type/Number	Submission Type/Number	Submitter Name	Product Name
NDA-200534	ORIG-1	Lehigh Valley Technologies, Inc. 514 N. 12th Street, Allentown, PA 18105	OXYCODONE HCL CAPSULES
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/s/ 			
TANYA D CLAYT 02/23/2010	ON		



Food and Drug Administration Silver Spring MD 20993

NDA 200534

#### NDA ACKNOWLEDGMENT

Lehigh Valley Technologies, Inc. 514 North 12<sup>th</sup> Street Allentown, PA 18102

Dear Mr. Reightler:

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

Name of Drug Product: Oxycodone Hydrochloride Capsules, 5 mg

Date of Application: December 22, 2009

Date of Receipt: December 22, 2009

Our Reference Number: NDA 200534

Unless we notify you within 60 days of the receipt date that the application is not sufficiently complete to permit a substantive review, we will file the application on February 20, 2010 in accordance with 21 CFR 314.101(a).

If you have not already done so, promptly submit the content of labeling [21 CFR 314.50(l)(1)(i)] in structured product labeling (SPL) format as described at <a href="http://www.fda.gov/ForIndustry/DataStandards/StructuredProductLabeling/default.htm">http://www.fda.gov/ForIndustry/DataStandards/StructuredProductLabeling/default.htm</a>. 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 conform to the content and format requirements of revised 21 CFR 201.56-57.

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 Anesthesia, Analgesia and Rheumatology 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

 $\underline{http://www.fda.gov/Drugs/DevelopmentApprovalProcess/FormsSubmissionRequirements/DrugMasterFilesDMFs/ucm073080.htm}$ 

If you have any questions, call Tanya Clayton, Senior Regulatory Health Project Manager, at (301) 796-0871.

Sincerely,

{See appended electronic signature page}

Tanya D. Clayton Senior Regulatory Health Project Manager Division of Anesthesia, Analgesia and Rheumatology Products Office of Drug Evaluation II Center for Drug Evaluation and Research

Application Type/Number	Submission Type/Number	Submitter Name	Product Name
NDA-200534	ORIG-1	Lehigh Valley Technologies, Inc. 514 N. 12th Street, Allentown, PA 18105	OXYCODONE HCL CAPSULES
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/s/			
TANYA D CLAYT 01/08/2010	ON		

#### SPONSOR MEETING AGENDA

**MEETING DATE:** 

March 31, 2009

TIME:

1 PM

**LOCATION:** 

FDA White Oak Campus

APPLICATION:

IND 78,623 and IND 78,624

STATUS OF APPLICATION:

Active

**PRODUCT:** 

Oxycodone Hydrochloride Capsules, 5mg and Oxycodone

Hydrochloride Oral Solution.

**INDICATION:** 

Moderate to severe pain

**SPONSOR:** 

Glenmark Generics, Inc.

TYPE OF MEETING:

В

**MEETING CHAIR:** 

Ellen Fields, MD, Division of Anesthesia, Analgesia and

Rheumatology Products (DAARP)

**MEETING RECORDER:** 

Christopher Hilfiger, Regulatory Project Manager

FDA Attendees	Title
Bob A Rappaport, MD	Division Director
Sharon Hertz, MD	Deputy Division Director
Ellen Fields, MD	Clinical Team Leader
Elizabeth Kilgore, MD	Medical Officer
Carlic Huynh, PhD	Pharm/Tox Reviewer
Dan Mellon, PhD	Pharm/Tox Team Leader
Ali Al-Hakim, PhD	ONDQA Branch Chief
Danae Christodoulou, PhD	CMC Reviewer
Glenmark Attendees	Title
William McIntyre, PhD	Executive Vice President, Regulatory Affairs
Anthony Maffia, III	Director, Regulatory Affairs
(b) (·	Consultant, Managing Director
	Clinical Pharmacology Consultant
	Chemistry Consultant
	Project Manager
	Chemistry Consultant

Question 1.

Glenmark would like the FDA's feedback regarding the proposed specifications for the drug substance and drug product, especially as they relate to the tightened specifications for low in the drug substance and absence of a specified limit for this impurity in the drug product.

# FDA Response:

The drug substance and the drug product specifications will be assessed at the time of NDA submission as per ICH Guidelines Q3A and Q3B. The total daily exposure of impurities with structural alerts for mutagenicity should be limited to NMT 1.5 mcg.

Question 2.

Is this plan acceptable to FDA?

# FDA Response:

No. You must include primary stability data on drug product batch(es) manufactured with low API in your NDA submission. Provide comparative batch analysis data on release and stability for drug product manufactured from high and low API.

Question 3.

Is the extent and type of overall stability data for the commercial and other NDA batches of drug product sufficient to support filing of the NDA? Is the plan for providing updated stability information during the course of the review acceptable?

#### **FDA Response:**

Regarding the 5-mg capsules, you must include primary stability data on drug product manufactured with low API. See response to Question 2.

The expiration dating will be assessed at the time of NDA review, based on ICH Q1E guidelines, i.e., real time stability data on primary and supporting NDA batches, and statistical analysis evaluation, as applicable.

Question 4.

Is the extent and type of overall stability data for the registration batches of drug product sufficient to support filing of the NDA? Is the plan for providing updated stability information during the course of the review acceptable?

#### **FDA Response:**

We strongly recommend that you submit the maximum available stability data for your primary stability batches at the time of NDA submission, or at least in the early part of the review cycle (first three months for a standard priority submission). While every effort

will be made to review any stability amendments to the NDA, their review will depend on the timeliness of submission, extent of submitted data, and available resources. Therefore, per GRMP guidelines, we may not be able to review amendments submitted to the NDA during the review cycle.

Question	5

(b) (4)

# **FDA Response:**

- If there are existing patents or exclusivity for a product referenced in a 505(B)(2) application, we may not be able to approve the application until such patents or exclusivity expire.
- The indication as the immediate-release oxycodone reference product unless you can provide additional support for any differences.
- The (b) (4) oral solution (20 mg/mL) is not appropriate for use as the first opioid or in non-opioid-tolerant patients. Therefore, this must be reflected in the indication.
- The ISE must include a discussion of why reliance on the reference product is adequate to support the efficacy of your product.

Question 6.

Does the Division agree that the plan for restricting comprehensive search of the worldwide literature for safety information to that published after August 2000, the date of the most recently approved Roxicodone® label?

FDA Response: Yes

Question 7.

Does the Division agree that no pediatric studies are needed in support of the planned NDA?

#### **FDA Response:**

No. The requirements for pediatric studies based on PREA state that, as of April 1, 1999, all applications for new active ingredients, new dosage forms, new indications, new routes of

administration, and new dosing regimens are required to contain an assessment of the safety and effectiveness of the product in pediatric patients unless this requirement is waived or deferred. (63 FR 66632) Your products represent new dosage forms.

Single- and multiple-dose PK, efficacy and safety studies in the appropriate pediatric age groups will be required.

#### **Additional Clinical Pharmacology Comments:**

- It appears that you have assessed the (1) relative bioavailability of the 5-mg capsules and 20-mg/mL solution products to (b) (4) Roxicodone® (b) (4) and (2) effect of food on the 5-mg capsules. However, data were not submitted in the meeting package and we are unable to assess if appropriate bridging has been established between your products and the products you will rely upon for the 505 (b)(2) linkage. As stated during the pre-IND meeting, additional clinical/PK studies may be required if the relative bioavailability data does not establish an appropriate bridge between your products to the reference products.
- We remind you that if you are planning to seek a submit (b) (4): in the NDA with all supportive information.
- The effect of food was determined only with your capsule product. If you think that this information also applies to the solution formulations, provide justification in the NDA.

#### **Additional CMC Comments:**

For the oral solution, provide a leachables/extractables evaluation of your container/closure system with the drug product in the NDA, with characterization and assay of any new impurities and degradants. With regards to extractables and leachables testing, consult the FDA Guidance document "Container Closure Systems for Packaging Human Drugs and Biologics," USP <661>, and the PQRI leachables/extractables recommendations to the FDA found at <a href="http://www.pqri.org/pdfs/LE">http://www.pqri.org/pdfs/LE</a> Recommendations to FDA 09-29-06.pdf. Refer to the non-clinical comments regarding the safety evaluation of your leachables/extractables.

Provide a list of all manufacturing facilities, in alphabetical order, statement about their cGMP status and whether they are ready for inspections. For all foreign sites, provide a name contact with telephone number at the site. Clearly specify the responsibilities of each facility, and which sites are intended to be primary or alternate sites. Note that facilities with unacceptable cGMP compliance may risk approvability of the NDA.

#### **Non-clinical Comments:**

• Adequate safety qualification should be provided for any new excipients. Please refer to Guidance for Industry: Nonclinical Studies for Safety Evaluation of Pharmaceutical

Excipients (May 2005) which is available on the CDER web page at the following address: http://www.fda.gov/cder/guidance/5544fnl.pdf.

- For the NDA submission, any impurity or degradation product that exceeds ICH thresholds must be adequately qualified for safety as per ICHQ3A(R2) and ICHQ3B(R2).
  - Adequate qualification must include:
    - Minimal genetic toxicology screen (two *in vitro* genetic toxicology studies, e.g., one point mutation assay and one chromosome aberration assay) with the isolated impurity, tested up to the limit dose for the assay.
    - Repeat dose toxicology of appropriate duration to support the proposed indication.
  - Potentially genotoxic impurities or degradation products pose an additional risk; therefore, a specification of NMT 1.5 mcg/day must be set for genotoxic or potentially genotoxic impurities unless otherwise justified.
  - It is noted that you have listed a specification of

    (b) (4) for potentially genotoxic impurities or degradation products throughout the meeting package. The correct specification for potentially genotoxic impurities or degradation products is NMT 1.5 mcg/day.
- The NDA submission must contain information on potential leachables and extractables from the drug container closure system. Provide a toxicological evaluation of those substances identified as leachables and extractables to determine the safe level of exposure via the labeled specified route of administration. The approach for toxicological evaluation of the safety of extractables must be based on good scientific principles and take into account the specific container closure system, drug product formulation, dosage form, route of administration, and dose regimen (chronic or short-term dosing).
- The Division recommends that sponsors considering the submission of an application through the 505(b)(2) pathway consult the Agency's regulations at 21 CFR 314.54, and the October 1999 Draft Guidance for Industry "Applications Covered by Section 505(b)(2)" available at <a href="http://www.fda.gov/cder/guidance/2853dft.pdf">http://www.fda.gov/cder/guidance/2853dft.pdf</a>. In addition, FDA has explained the background and applicability of section 505(b)(2) in its October 14, 2003, response to a number of citizen petitions challenging the Agency's interpretation of this statutory provision (see Dockets 2001P-0323, 2002P-0447, and 2003P-0408 (available at <a href="http://www.fda.gov/ohrms/dockets/dailys/03/oct03/102303/02p-0447-pdn0001-vol1.pdf">http://www.fda.gov/ohrms/dockets/dailys/03/oct03/102303/02p-0447-pdn0001-vol1.pdf</a>).
- If you intend to submit a 505(b)(2) application that relies for approval on FDA's finding of safety and/or effectiveness for one or more listed drugs, you must establish that such reliance is scientifically appropriate, and must submit data necessary to support any aspects of the proposed drug product that represent modifications to the listed drug(s). You should establish a "bridge" (e.g., via comparative bioavailability data) between your proposed drug product and each listed drug upon which you propose to rely to demonstrate that such reliance is scientifically justified. If you intend to rely on

literature or other studies for which you have no right of reference but that are necessary for approval, you also must establish that reliance on the studies described in the literature is scientifically appropriate.

# **Regulatory Comment:**

You must submit a separate NDA for each formulation of oxycodone. However, you may combine the labels for each product into one label. For further information please refer to Guidance for Industry Submitting Separate Marketing Applications and Clinical Data for Purposes of Assessing User Fees <a href="http://www.fda.gov/cder/guidance/5469fnl.htm">http://www.fda.gov/cder/guidance/5469fnl.htm</a>.

Linked Applications	Sponsor Name	Drug Name / Subject	
IND 78623	GLENMARK GENERICS INC USA	OXYCODONE HCL CAPSULES	
IND 78624	GLENMARK GENERICS INC USA	OXYCODONE HCL SOLUTION	
This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.			
/s/			

03/31/2009



# DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration Rockville, MD 20857

PIND (b) (4) PIND (b) (4) PIND 78,623 PIND 78,624

Glenmark Pharmaceuticals, Inc., USA 750 Corporate Drive Mahwah, NJ 07430

Attention: William McIntyre, Ph.D.

Executive Vice President, Regulatory Affairs

Dear Dr. McIntyre:

Please refer to your Pre-Investigational New Drug Applications (PINDs) for your morphine sulfate tablets and solution, and oxycodone HCl capsules and solution products.

We also refer to the Type B, Pre-IND meeting between representatives of your firm and FDA on December 6, 2007. The purpose of the meeting was to provide you with feedback on the questions in your October 25, 2007 meeting package, which were specifically related to your preparations for submission on an IND for your product.

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, call me at 301-796-1191.

#### Sincerely,

{See appended electronic signature page}

Kimberly Compton, R.Ph.
Regulatory Project Manager
Division of Anesthesia, Analgesia and
Rheumatology Products
Office of Drug Evaluation II
Center for Drug Evaluation and Research

Enclosure

Page 2

#### **MEETING MINUTES**

Meeting Date: December 6, 2007

**Time:** 3:00 PM EST **Location**: Teleconference

**Applications**: PIND (b) (4); (b) (4); 78,623; and 78,624

Regulatory Status: Presubmission

**Products:** - Morphine sulfate tablets and solution (PIND (b) (4), PIND (b) (4))
- Oxycodone HCl capsules and solution (PIND 78,623, PIND 78,624)

**Proposed Indication:** Treatment of moderate-to-severe pain

**Sponsor**: Glenmark Pharmaceuticals, Inc. **Type of Meeting**: Type B- Pre-IND (PIND)

Meeting Chair: Sharon Hertz, M.D., Deputy Director

Division of Anesthesia, Analgesia and Rheumatology Products (DAARP)

Minutes Recorder: Kimberly Compton, Project Manager, DAARP

Industry Representatives	Title
William McIntyre, Ph.D.	Executive Vice President, Regulatory Affairs, Glenmark Pharmaceuticals, Inc.
Anthony Maffia, III	Senior Manager, Regulatory Affairs, Glenmark Pharmaceuticals, Inc.
	(b) (4)
FDA	Title
Bob Rappaport, M.D.	Director, DAARP
Sharon Hertz, M.D.	Deputy Director, DAARP
Mary Purucker, MD, PhD	Medical Team Leader, DAARP
Belinda Hayes, Ph.D.	Pharmacology/Toxicology Reviewer, DAARP
Dan Mellon, Ph.D.	Supervisory Pharmacologist, DAARP
David Lee, Ph.D.	Clinical Pharmacology Reviewer, Office of Clinical Pharmacology (OCP)
Danae Christodoulou, Ph.D.	Pharmaceutical Assessment Lead (PAL), Office of New Drug Quality
	Assessment (ONDQA)
Janice Weiner, J.D., M.P.H.	Regulatory Counsel, Office Of Regulatory Policy
Tanya Clayton	Regulatory Project Manager, DAARP
Kim Compton	Regulatory Project Manager, DAARP

#### **Meeting Objective:**

The purpose of the meeting was to provide the sponsor with feedback on questions from their October 25, 2007, meeting package, which were specifically related to their preparations for submission of an IND for these products.



#### Background:

On December 4, 2007 (prior to the December 6, 2007 meeting) the Agency forwarded to the firm the comments and responses to the questions posed by the sponsor in their October 25, 2007, meeting package. The sponsor requested further discussion of Morphine Question 6/ Oxycodone Question 7, Morphine and Oxycodone Questions 8, 9, and 10 as well as the both the Additional Regulatory Comments for Oxycodone and the Regulatory Comments for both Morphine and Oxycodone at the meeting.

Presented below are the Agency comments related to the sponsor's background material and responses to questions in the background meeting package. The sponsor's questions are listed in *italics*, with Agency responses and comments in **bold**.

As the discussions consisted of one on-going discussion of basic underlying issues surrounding these applications, all Discussion which took place at the meeting is captured in one location following the "Regulatory Comments for both Morphine and Oxycodone" below.

#### Meeting:

# **Chemistry Questions**

Morphine and Oxycodone Question 1

Does the Division agree that the information to be submitted in the IND appears adequate to support the proposed trial?

#### FDA Response (Morphine and Oxycodone)

Yes. Refer to Additional Chemistry Comments below for further information.

#### Discussion

There was no further discussion of this issue.

#### Oxycodone Question 2

Do the tentative tests and specifications for the drug substances appear adequate?

#### FDA Response (Oxycodone)

Yes. As you proposed, the specifications for impurities should be tightened at the time of the NDA.

Harmonize your acceptance specifications for the drug substance, with your supplier's specifications. Refer to the ICH Q3A Guidance to establish limits for impurities in the drug substance. Structural alerts for mutagenicity, i.e., (b) (4)

should be limited to NMT 1.5 mcg/day, as per the EMEA

Guideline.

#### Discussion

There was no further discussion of this issue.

Morphine Question 2/ Oxycodone Question 3

Do the tentative tests and specifications for the two drug products appear adequate?

# FDA Response (Morphine and Oxycodone)

No. Specifications for the drug products should include impurities/degradants at release and on stability. Monitor, identify and qualify any new degradents in the drug products. Refer to ICH Q3B Guidance and the EMEA Guideline for structural alerts, as discussed above.

Include (b) (4) in the specifications of the Oral Solutions.

Oxycodone is known to exhibit multiple polymorphs. Monitor the polymorphic form in the drug product during development of your solid oral formulation. Provide crystallographic data to support suitability of the morphic form for the manufacturability and performance of the drug product.

#### **Discussion**

There was no further discussion of this issue.

#### **Additional Chemistry Comment**

Provide a DMF reference and LoA (if applicable) for the non-pharmacopeial excipients D&C Yellow #10 and Natural/Artificial Berry Flavor. Include the supplier and specifications/CoAs in your INDs.

Also, please refer to the Nonclinical comments below for further information regarding novel excipients.

#### Discussion

There was no further discussion of this issue.

#### **Nonclinical Questions**

Morphine Question 3/Oxycodone Question 4

Is Glenmark's plan [whereby the sponsor refers to their intent to rely on the Agency's prior judgment of safety as well as on publicly available information for nonclinical support of their applications] acceptable to the Agency?

# FDA Response (Morphine and Oxycodone)

Yes, you may rely upon studies not conducted by or for you and to which you have not obtained a right of reference or use (i.e., published literature or the Agency's finding of safety and/or effectiveness for a listed drug) to support your nonclinical development program. Please also see Additional Regulatory Comments following the Response to Question 10.

#### Discussion

There was no further discussion of this issue.

Morphine Question 4/Oxycodone Question 5
Does the Agency agree that no additional toxicology studies will be required for approval?

# FDA Response (Morphine and Oxycodone)

In principal, yes. Include copies of all referenced literature citations your NDA submission.

- Adequate safety qualification must be provided for any new excipients. Refer to Guidance for Industry: Nonclinical Studies for Safety Evaluation of Pharmaceutical Excipients (May 2005) which is available on the CDER web page at the following <a href="http://www.fda.gov/cder/guidance.htm">http://www.fda.gov/cder/guidance.htm</a>.
- Regarding Impurities
  - Opioid drug products derived from thebaine (phenanthrene-derivatives) may contain impurities, such as , containing an , containing an mutagenicity. The specification of this impurity in the drug substance may not exceed the acceptable specifications of NMT 1.5 mcg/day in an opioid tolerant patient. If it exceeds this specification, adequate safety qualification should be provided. Adequate qualification would include:
    - Minimal genetic toxicology screen (two in vitro genetic toxicology studies, e.g., one point mutation assay and one chromosome aberration assay) with the isolated impurity, tested up to the limit dose for the assay.
    - Repeat-dose toxicology of 90-day duration in the most appropriate species to support the proposed chronic indication.
    - Should this qualification produce positive or equivocal results, the impurity specification must be set at NMT 1.5 mcg/day, or otherwise justified. Justification may require an assessment for carcinogenic potential in either a standard 2-year rodent bioassay or in an appropriate transgenic mouse model.
- Your NDA/IND submission should contain information on potential leachables and extractables from the drug delivery system. Provide your

justification for the safety of potential exposure to the study subjects, supporting data/literature references. Complete characterization of leachables and extractables should be submitted with the NDA

# Discussion

There was no further discussion of this issue.

# **Clinical Pharmacology Questions**

Morphine Question 5/Oxycodone Question 6

Is the design of the proposed study [whereby the sponsor refers to single-dose bioavailability/bioequivalence studies for each product comparing the proposed products to an approved reference products] acceptable?

# FDA Response (Morphine and Oxycodone) Yes.

#### Discussion

There was no further discussion of this issue.

Morphine Question 6/Oxycodone Question 7
Does the Agency agree that no additional pharmacokinetic studies are needed?

#### FDA Response (Morphine tablet)

Whether additional PK studies are required will be based on a review of data obtained with the formulation, including *in vitro* release and dissolution.

See Response to Morphine Questions #7 and 10, and the Regulatory Comments related to Morphine below.

FDA Response (Morphine and Oxycodone solutions)	
Clarify whether you plan to request a	(b) (4)
. If so, provide justification.	(b) (4)

For further discussion, see the Regulatory Comments related to Oxycodone following Question # 10 below.

#### Discussion

See discussion following "Regulatory Comments for both Morphine and Oxycodone" below.

Morphine Question /	•	
		(b) (4)

(b) (4)

#### Discussion

There was no further discussion of this issue.

# **Clinical Questions**

Morphine and Oxycodone Question 8

Is the design of the study [whereby the sponsor refers to their plan]

b) (4)

(b) (4)

adequate to demonstrate efficacy?

### FDA Response (Morphine and Oxycodone)

The proposed study design does appear adequate to support a finding of efficacy. The full protocol must be reviewed before final comments can be provided.

However, you may wish to explore the labeling for the products you plan to reference for your 505(b)(2) application to see whether there is adequate information to support the labeling for your products. Additional clinical efficacy studies may not be necessary unless you wish to support a claim or dosing regimen not present in the referenced product labeling.

#### Discussion

See discussion following "Regulatory Comments for both Morphine and Oxycodone" below.

Morphine and Oxycodone Question 9

Does the Agency agree that no additional clinical studies will be required to demonstrate efficacy?

#### FDA Response (Morphine and Oxycodone)

As long as you do not seek to support claims for which the Agency has not previously made a finding of efficacy or safety, oxycodone clinical efficacy or safety studies are not required.

#### Discussion

See discussion following "Regulatory Comments for both Morphine and Oxycodone" below.

(b) (4)	Morphine Question 10

# Additional Regulatory Comments for Oxycodone

A 505(b)(2) application would be an acceptable approach for these Oxycodone products at this time based on the information provided.

Your pre-IND briefing package suggests that you are proposing to reference information from the Summary Basis of Approval (SBA) or FDA reviewers' public summaries for [b] (4] Roxycodone (NDA 21-011), Roxycodone SR (NDA 20-932; listed in the discontinued section of the Orange Book), Combunox (NDA 21-378), and Percodan (NDA 07-337) for support of safety and/or efficacy. We note that a 505(b)(2) applicant that seeks to rely upon the Agency's finding of safety and/or effectiveness for a listed drug, may rely only on that finding as is reflected in the approved labeling for the listed drug.

# Regulatory Comments for both Morphine and Oxycodone

The Division recommends that sponsors considering the submission of an application through the 505(b)(2) pathway consult the Agency's regulations at 21 CFR 314.54, and the October 1999 Draft *Guidance for Industry: Applications Covered by Section 505(b)(2)* available at <a href="http://www.fda.gov/cder/guidance/index.htm">http://www.fda.gov/cder/guidance/index.htm</a>. In addition, FDA has explained the background and applicability of section 505(b)(2) in its October 14, 2003, response to a number of citizen petitions challenging the Agency's interpretation of this statutory provision (see Dockets 2001P-0323, 2002P-0447, and 2003P-0408 (available at <a href="http://www.fda.gov/ohrms/dockets/dailys/03/oct03/102303/02p-0447-pdn0001-vol1.pdf">http://www.fda.gov/ohrms/dockets/dailys/03/oct03/102303/02p-0447-pdn0001-vol1.pdf</a>).

If you intend to submit a 505(b)(2) application that relies for approval on FDA's finding of safety and/or effectiveness for one or more listed drugs, you must establish that such

reliance is scientifically appropriate, and must submit data necessary to support any aspects of the proposed drug product that represent modifications to the listed drug(s). You should establish a "bridge" (e.g., via comparative bioavailability data) between your proposed drug product and each listed drug upon which you propose to rely to demonstrate that such reliance is scientifically justified. If you intend to rely on literature or other studies for which you have no right of reference but that are necessary for approval, you also must establish that reliance on the studies described in the literature is scientifically appropriate.

If you intend to rely on the Agency's finding of safety and/or effectiveness for a listed drug(s) or published literature describing a listed drug(s), you should identify the listed drug(s) in accordance with the Agency's regulations at 21 CFR 314.54. It should be noted that the regulatory requirements for a 505(b)(2) application (including, but not limited to, an appropriate patent certification or statement) apply to each listed drug upon which a sponsor relies.

Please be advised that circumstances could change that would render a 505(b)(2) application for this product no longer appropriate. For example, if a pharmaceutically equivalent product were approved before your application is submitted, such that your proposed product would be a duplicate of that drug and eligible for approval under section 505(j) of the act, we may refuse to file your application as a 505(b)(2) application (21 CFR 314.101(d)(9)). In such a case, the appropriate submission would be an ANDA that cites the duplicate product as the reference listed drug.

#### **Post Meeting Note**

With reference to the above discussion, it also should be noted that a filed 505(b)(2) application under review may be subject to any (unexpired) exclusivity granted to a subsequently approved NDA.

#### Discussion

Dr. Hertz stated that unless the sponsor wanted to support specific labeling language with their proposed (b) (4) studies, such studies would not be necessary. The sponsor can rely upon the Agency's finding of safety and/or effectiveness for the and then provide dosing information based upon appropriate sources such as published literature. If the sponsor wishes to use information from other products (b) (4) then they will need to identify the products as additional listed drugs relied upon and comply with applicable regulatory requirements.

Dr. Hertz stated that the firm will need to establish a link or "bridge" to demonstrate the appropriateness of reliance on any referenced product(s) with a relative bioavailability (BA) study.

Dr. Hertz clarified that, although the Division does not make exclusivity determinations, only applications which require new clinical studies to support approval are eligible for 3-year exclusivity. The proposed clinical studies are not required for approval.

Ms. Weiner clarified that a 505(b)(2) application which relies on the Agency's finding of safety and/or effectiveness for a listed drug may rely on that finding as described in product labeling, but may not rely upon the summary basis of approval or an FDA reviewer's summary for the listed drug even if publicly available. A sponsor may rely upon the Agency's finding of safety and/or effectiveness for a listed drug to the extent that they demonstrate that such reliance is scientifically appropriate, which is why bridging studies are necessary. It is the sponsor's responsibility to provide any necessary data to support the differences between the listed drug relied upon and the proposed drug product.

Dr. Hertz stated that the firm should provide information to demonstrate why referenced safety labeling is relevant to their product (e.g., relative BA study) and, therefore, why they feel the Agency's prior findings are relevant to the product(s) in question.

Ms. Weiner stated that the sponsor will need to provide a bridge supporting the scientific appropriateness of reliance for each listed drug or published literature used to support elements of their proposed 505(b)(2) applications.

Dr. Hertz stated that if the firm relies on a modified-release dosing formulation, then they will need to specify which portions of those applications they wish to rely on. Justification would be needed to support not conducting a relative BA study and she noted that it would be difficult to establish such a link for these products by providing a scientific rationale in lieu of a relative BA study. The best approach would be to conduct a relative BA study.

Dr. Rappaport stated that if the sponsor wanted to use information from immediate-release and extended-release products in their proposed product labels, they could conduct one three-arm study comparing the three formulations. Dr. Hertz clarified that the firm would need a relative BA study, not a bioequivalence study, noting the difference between the two terms. There is an expectation that the pharmacokinetics for these products would look different from the (b) (4) extended-release formulations.

Regarding the oxycodone preparations, Dr. Hertz stated that there are both oral immediate-release and extended-release preparations approved, but noted that the path for relative BA would be the same as that discussed above for morphine. The sponsor would need to comply with applicable regulatory requirements, including an appropriate patent certification, for each listed drug relied upon.

Dr. Rappaport noted that the only indication which could be granted to these applications would be for the treatment of moderate to severe pain with no other language included in the indication.

Ms. Weiner stated that if there is a pharmaceutically equivalent product, the sponsor would need to identify the product as one of their referenced drugs, noting that the sponsor has selected a pharmaceutical alternative (capsule), so it appears acceptable as the referenced product.

With reference to the last paragraph of the Regulatory Comments for both Morphine and Oxycodone, Dr. Hertz stated that the Division would not refuse to file an application because another application for a pharmaceutically equivalent product was under review but had not yet been approved. Since all applications are confidential, the Agency could not even acknowledge that another application was in-house. Dr. Hertz also noted that sponsors of 505(b)(2) applications pay user fees, but was unsure if the user fee would be refunded if a pharmaceutically equivalent product was approved after the 505(b)(2) application had been submitted, but before a filing decision had been made. She referred the sponsor to the user fee office for clarification of this issue.

#### **Additional Clinical Comments**

- 1. As a Schedule II drug under the CSA, all Schedule II regulations and procedures regarding manufacture, distribution, dispensing, storage, recordkeeping, and disposal of study drug must be in place and strictly followed during any clinical studies conducted.
- 2. To provide information and data related to abuse, misuse, diversion and overdose of the product, submit descriptions of all reports and details, including narratives, of an incident of abuse, overuse, or overdose (intentional or unintentional), or drug that is lost, stolen, missing or unaccounted for in all clinical studies. Additionally, provide any available epidemiological data on abuse, misuse, diversion and overdose on their currently marketed morphine and Oxycodone products.

#### Discussion

There was no further discussion of this issue.

# The sponsor summarized their understanding of the meeting as follows (includes action items)

- 1. The sponsor understands that no clinical trials are needed if appropriate bridging to approved products is established (such as with a relative BA study).
- 2. If a relative BA study is completed, comparing the products to (b) (4) extended-release formulation, the sponsor is limited to using the information in those labels to support approval of their proposed product and in their labeling.
- 3. The sponsor understands that they will be allowed to reference information in the labels of approved products only if a link (e.g., relative BA study) is established.
- 4. The sponsor understands that utilizing a scientific rationale in lieu of a relative BA study is highly unlikely to be a path to approval of these products.
- 5. The sponsor understands that, provided there are no other pharmaceutically equivalent products approved as of the day of submission of their applications, new 505(b)(2) applications will be accepted for submission, however applications that were already in-

house may still be approved after new applications are accepted and before a filing decision is made.

Linked Applications	Sponsor Name	Drug Name
IND (b) (4)	GLENMARK PHARMS	MORPHINE SULFATE IR TABLETS
IND (b) (4)	GLENMARK PHARMA	MORPHINE SULFATE ORAL SOLUTION
IND 78623	GLENMARK PHARMS INC	OXYCODONE HCL CAPSULES
IND 78624	GLENMARK PHARMS INC	OXYCODONE HCL SOLUTION

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/s/

TANYA D CLAYTON 01/04/2008 signing for Kimberly Compton