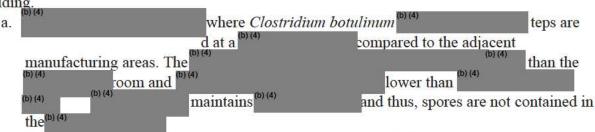
	ENT OF HEALTH AND HUMA OOD AND DRUG ADMINISTRATION			
DISTRICT ADDRESS AND PHONE NUMBER CDER/OPQ/OPMA/DBM, Attn: Zhihao Peter Qiu, Ph.D., Director		DATE(S) OF INSPECTION		
10903 New Hampshire Avenue; White Oak Building 22, Room 5112		08/12/2021-08/20/2021		
Silver Spring, MD 20993		FEINUMBER		
E-mail: OPFBLAInspection483Responses@fda.hhs.gov		3012163998		
NAME AND TITLE OF INDIVIDUAL TO WHOM REPORT ISSUED				
Sangjun Cho, Head of Quality				
FIRM NAME	STREET ADDR	STREET ADDRESS		
Hugel, Inc.	23, Geod	23, Geodudanji 1-gil, Dongnae-myeon		
CITY, STATE, ZIP CODE, COUNTRY	TYPE ESTABLE	TYPE ESTABLISHMENT INSPECTED		
Chuncheon, Gangwon, Korea 24398	Drug Sub	Drug Substance and Drug Product manufacturing		
This document lists observations made by the EDA representa-	tive(s) during the inspection	of your facility. They are inspectional observations, and do not		

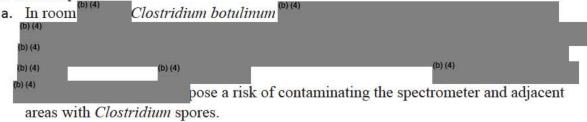
This document lists observations made by the FDA representative(s) during the inspection of your facility. They are inspectional observations, and do not represent a final Agency determination regarding your compliance. If you have an objection regarding an observation, or have implemented, or plan to implement, corrective action in response to an observation, you may discuss the objection or action with the FDA representative(s) during the inspection or submit this information to FDA at the address above. If you have any questions, please contact FDA at the phone number and address above.

DURING AN INSPECTION OF YOUR FIRM WE OBSERVED:

1. Clostridium botulinum spore containment in the drug substance manufacturing areas is inadequate to mitigate spore cross contamination risk of other manufacturing areas. The drug substance and drug product are manufactured in the same Geodu building.



- b. There is no procedure control to prevent personnel entering the drug product manufacturing area after exiting the drug substance area.
- 2. Decontamination of *Clostridium botulinum* spores and toxin in the drug substance manufacturing areas is inadequate.



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DEPARTMENT OF HEALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION				
DISTRICT ADDRESS AND PHONE NUMBER		DATE(S) OF INSPECTION		
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FIRM NAME	STREET ADDRESS			
Hugel, Inc.	23, Geodudanji 1-gil, Dongnae-myeon			
CITY, STATE, ZIP CODE, COUNTRY	TYPE ESTABLISHMENT INSPECTED			
Chuncheon, Gangwon, Korea 24398	Drug Substance and Drug Product manufacturing			

- b. The disinfectant qualification study did not demonstrate that the disinfectants used in the manufacturing facility can effectively decontaminate *Clostridium* spores and toxin (ALC15011-P-01 and ALC15011-R).
- Environmental monitoring is insufficient to ensure that the drug product manufacturing areas are not contaminated with *Clostridium botulinum* spores as *Clostridium* spores are not monitored as part of environmental monitoring (AWLS-FE-039-29).
- 4. Investigation of out-of-specification (OOS) DV19-019 for identification and purity by SDS-PAGE is inadequate. The OOS report concluded that the root cause for level of impurity exceeding the acceptance criteria was because of the physical stress on the protein by during the extra sampling. Re-test of the sample was not conducted to confirm the presumed root cause, and the lot was rejected.
- 5. The SOP for logbooks preparation and management (SOP # AWLS-QA-015:F05) was not updated in a timely manner to include adequate controls to prevent the loss of logbooks (DV19-035). Specifically, in November 22, 2019 the firm discovered that twelve logbooks that document the use of incubators went missing in 2016 and 2017 and as a result, SOP # AWLS-QA-015:F05 was not revised until January 29, 2020 to mitigate the problem.
- 6. The working cell bank (WCB) lot # used to manufacture the drug substance lots and submitted in submitted in substance during inspection. In addition, comparability data are not available to demonstrate that the critical product quality attributes of drug substance manufactured using new WCB lot # is comparable to the drug substance manufactured using WBC lot #

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SEE REVERSE OF THIS PAGE	EMPLOYEE(S) SIGNATURE		EMPLOYEE(S) NAME AND TITLE (Print or Type)	DATE ISSUED
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	Mekonnen Lemmadechassa	Digitally signed by Mekennen Lemmadechassa - S DN: C=US, G=US , Government, ou=HHS, ou=F0A, ou=Pople, -S 0.9.2242.19200300.100.1.1=2001897504, cn=Mekennen Lemmadechassa - S Date: 2021.08.19 22.11.37 -04007	Mekonnen Lemma Dechassa, Ph.D., BIOLOGIST	08/20/2021
FORM FDA 483 (09/08)	PREVIOUS EDITION	OBSOLETE INSI	PECTIONAL OBSERVATIONS	Page 2 OF 3

DEPARTMENT OF HEALTH AND HUMAN SERVICES					
FOOD AND DRUG ADMINISTRAT DISTRICT ADDRESS AND PHONE NUMBER			DATE(S) OF INSPECTION		
CDER/OPQ/OPMA/DBM, Attn: Zhihao Peter Qiu, Ph.D., Director 10903 New Hampshire Avenue; White Oak Building 22, Room 5112 Silver Spring, MD 20993 E-mail: OPFBLAInspection483Responses@fda.hhs.gov			08/12/2021-08/20/2021		
			FEI NUMBER 3012163998		
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Hugel, Inc.	STREET ADDRESS 23, Geodudanji 1-gil, Dongnae-myeon				
CITY, STATE, ZIP CODE, COU		TYPE ESTABLISHMENT INSPECTED		facturing	
Citationeon, Gang	gworf, Rolea 24336	Drug Substance and Drug Product manufacturing			
Chuncheon, Gangwon, Korea 24398 Drug Substance and Drug Product manufacturing for to the specified filling time and the time validated by the media fill product stacking breaks were identified as initial root cause for this deviation (DV21-066).					
	EMPLOYEE(S) SIGNATURE	EMPLOYEE(S) NAM	ME AND TITLE (Print or Type)	DATE ISSUED	
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FORM FDA 483 (09/08)

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