## 505527553 06/17/2019

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
SUNGCHAN CHO	06/05/2019
MIRI CHOI	06/05/2019
JOO YOUN LEE	06/03/2019

## **RECEIVING PARTY DATA**

Name:	KOREA RESEARCH INSTITUTE OF BIOSCIENCE AND BIOTECHNOLOGY
Street Address:	125, GWAHAK-RO, YUSEONG-GU
City:	DAEJEON
State/Country:	KOREA, REPUBLIC OF
Postal Code:	34141
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Street Address:	141, GAJEONG-RO, YUSEONG-GU
City:	DAEJEON
State/Country:	KOREA, REPUBLIC OF
Postal Code:	34114

## **PROPERTY NUMBERS Total: 1**

Property Type	Number	
Application Number:	16470014	

### CORRESPONDENCE DATA

**Fax Number:** (612)332-9081

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**Phone:** 6123325300

**Email:** kwebber@merchantgould.com

Correspondent Name: RYAN C. SMITH Address Line 1: P.O. BOX 2903

Address Line 4: MINNEAPOLIS, MINNESOTA 55402-0903

ATTORNEY DOCKET NUMBER:	09983.0197FPWO
NAME OF SUBMITTER:	RYAN C. SMITH
SIGNATURE:	/Ryan C. Smith/

PATENT 505527553 REEL: 049481 FRAME: 0202

DATE SIGNED:	06/17/2019
Total Attachments: 4	
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source=2019-06-14_Signed-Assignment_09983-0197FPWO#page2.tif	
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source=2019-06-14_Signed-Assignment_09983-0197FPWO#page4.tif	

PATENT REEL: 049481 FRAME: 0203

INSTRUCTIONS	ASSIGNMENT TO CORPORATION
	WHEREAS,
	<ol> <li>CHO, Sungchan residing at 125. Gwahak-ro, Yuseong-gu, Daejeon 34141, Republic of Korea.</li> <li>CHOI, Miri residing at 125. Gwahak-ro, Yuseong-gu, Daejeon 34141, Republic of Korea.</li> <li>LEE, Joo Youn residing at Korea Research Institute Of Chemical Technology, 141. Gajeong-ro, Yuseong-gu, Daejeon 34114, Republic of Korea;</li> </ol>
Check the appropriate box and fill in the requested information:	(herein called "THE UNDERSIGNED") have made an invention and have executed an application for Letters Patent of the United States entitled
<ul> <li>select the first check box if the application is a national stage of a PCT application and provide the international application number and filing date before sending the assignment for execution;</li> <li>select the second check box if the application will be filed without the executed assignment is executed and the serial number and filing date of the U.S. application are known, provide this information before recordation;</li> <li>select the third check box if the application was previously filed and provide the serial number and filing date before sending the assignment for execution; or</li> <li>select the fourth check box if the application will be filed with the application.</li> </ul>	is the national stage application of International Application No. filed on
Name of Corporation	AND KOREA RESEARCH INSTITUTE OF BIOSCIENCE AND BIOTECHNOLOGY, a corporation organized under the laws of the Republic of Korea, and having an office and place of business at 125, Gwahak-ro, Yuseong-gu, Daejeon 34141, Republic of Korea; and KOREA RESEARCH INSTITUTE OF CHEMICAL TECHNOLOGY, a citizen of the Republic of Korea, and having an address of 141, Gajeong-ro, Yuseong-gu, Daejeon 34114, Republic of Korea; (herein called "ASSIGNEES")
	wishes to acquire the entire right, title and interest in and to said invention and patent application and any Letters Patent to be obtained therefor,

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NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, THE UNDERSIGNED hereby sell, assign and transfer to the ASSIGNEES, their successors and assigns, the entire right, title and interest for all countries in and to the invention disclosed in the aforesaid application and all the right(s) to claim priority thereto, and in and to the said application, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in all countries for Letters Patent on the said invention including as assignment of all rights under the provisions of the International Convention, and all Letters Patent of all countries which may be granted therefrom; and THE UNDERSIGNED hereby authorize and request the Commissioner of Patents to issue any and all United States Letters Patent for the aforesaid invention to the ASSIGNEES of the entire right, title and interest in and to the same, for the use of the ASSIGNEES, their successors and assigns.

THE UNDERSIGNED hereby agree that THE UNDERSIGNED, their executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEES) any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said ASSIGNEES, their successors and representatives all facts known to THE UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEES, their successors or assigns the entire right, title and interest in and to the said invention, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

THE UNDERSIGNED represent and agree with said ASSIGNEES their successors and assigns, that no assignment grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by THE UNDERSIGNED, and that full right to convey the same as herein expressed is possessed by THE UNDERSIGNED.

Each inventor must sign & date Note: No legalization or other witness required IN TESTIMONY WHEREOF, THE UNDERSIGNED have hereunto set their hand on the dates indicated below.

Name: CHO, Sungehan	Signature: Sinycher Cho	Date: Time 5th, >0/3
Name: CHOI, Miri	Signature:	Date: June, 5th, 2019
Name: LEE, Joo Youn	Signature:	Date:

INSTRUCTIONS	ASSIGNMENT TO CORPORATION	
	WHEREAS,	
	CHO, Sungchan residing at 125, Gwahak-ro, Yuseong-gu, Daejeon 34141, Republic of Korea.     CHOI, Miri residing at 125, Gwahak-ro, Yuseong-gu, Daejeon 34141, Republic of Korea.     LEE, Joo Youn residing at Korea Research Institute Of Chemical Technology, 141, Gajeong-ro, Yuseong-gu, Daejeon 34114, Republic of Korea.	
Check the appropriate box and fill in the requested information:	(herein called "THE UNDERSIGNED") have made an invention and have executed an application for Letters Patent of the United States entitled	
<ul> <li>select the first check box if the application is a national stage of a PCT application and provide the international application number and filing date before sending the assignment for execution;</li> <li>select the second check box if the application will be filed without the executed assignment once the assignment is executed and the serial number and filing date of the U.S. application are known, provide this information before recordation;</li> <li>select the third check box if the application was previously filed and provide the serial number and filing date before sending the assignment for execution; or</li> <li>select the fourth check box if the application will be filed with the application.</li> </ul>	is the national stage application of International Application No. filed on	
Name of Corporation	AND KOREA RESEARCH INSTITUTE OF BIOSCIENCE AND BIOTECHNOLOGY, a corporation organized under the laws of the Republic of Korea, and having an office and place of business at 125, Gwahak-to, Yuseong-gu, Daejeon 34141, Republic of Korea; and KOREA RESEARCH INSTITUTE OF CHEMICAL TECHNOLOGY, a citizen of the Republic of Korea, and having an address of 141, Gajeong-to, Yuseong-gu, Daejeon 34114, Republic of Korea; (herein called "ASSIGNEES")	
	wishes to acquire the entire right, title and interest in and to said invention and patent application and any Letters Patent to be obtained therefor,	

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Name: LEE, Joo Youn	Signature:	Date: 06/03/2013
Name: CHOI, Miri	Signature:	Date:
Name: CHO, Sungchan	Signature:	Date:
Each inventor must sign & date Note: No legalization or other witness required	IN TESTIMONY WHEREOF, THE UNDERSIGNED have hereunto set their hand on the dates indicated below.	
	all countries in and to the invention disclosed the right(s) to claim priority thereto, and in a divisions, continuations, or renewals thereof, granted therefrom, and all reissues or extensi any and all applications which have been or Letters Patent on the said invention including the provisions of the International Conventio countries which may be granted therefrom; a authorize and request the Commissioner of P States Letters Patent for the aforesaid inventinght, title and interest in and to the same, for successors and assigns.  THE UNDERSIGNED hereby agree that TH executors and legal representatives will make charge but at the expense of the ASSIGNEE writing including any and all further applicat and other documents, and will communicate successors and representatives all facts know relating to said invention and the history ther proceedings and generally do all things whice vest the ASSIGNEES, their successors or assinterest in and to the said invention, application benefits, privileges and advantages hereby so intended so to be.  THE UNDERSIGNED represent and agree we successors and assigns, that no assignment gragreement affecting the rights and property hunde to others by THE UNDERSIGNED, ar as herein expressed is possessed by THE UNDERSIGNED, and as herein expressed is possessed by THE UNDERSIGNED.	In the aforesaid application and all and to the said application, all all Letters Patent which may be sons of such patents, and in and to shall be filed in all countries for g as assignment of all rights under an, and all Letters Patent of all and THE UNDERSIGNED hereby ratents to issue any and all United ion to the ASSIGNEES of the entire of the use of the ASSIGNEES, their are the use of the ASSIGNEES, their and all other instruments in ion papers, affidavits, assignments to said ASSIGNEES, their are to THE UNDERSIGNED reof and will testify in all legal h may be necessary or desirable to signs the entire right, title and ions, Letters Patent, rights, titles, old, assigned and conveyed, or with said ASSIGNEES their rant, mortgage, license or other herein conveyed has been or will be and that full right to convey the same IDERSIGNED.
	NOW, THEREFORE, to all whom it may co and valuable consideration, the receipt and so acknowledged, THE UNDERSIGNED hereb ASSIGNEES, their successors and assigns, the	ufficiency of which is hereby by sell, assign and transfer to the he entire right, title and interest for