### 11/13/2020 506354207

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6400961

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
HEATHER MARIE CHRISTENSEN	04/19/2018
NATHAN DAVID COLES	04/20/2018
OLGA DANILEVSKAYA	10/05/2018
JEFFREY HABBEN	04/20/2018
MARY RUPE	04/20/2018
JEFFREY R SCHUSSLER	04/20/2018
BO SHEN	04/19/2018
BENJAMIN P WEERS	04/19/2018
JINGRUI WU	04/19/2018

## **RECEIVING PARTY DATA**

Name:	PIONEER HI-BRED INTERNATIONAL, INC.	
Street Address:	7100 NW 62ND AVENUE	
City:	JOHNSTON	
State/Country:	IOWA	
Postal Code:	50131-1014	

## **PROPERTY NUMBERS Total: 1**

Property Type	Number	
Application Number:	17047589	

## **CORRESPONDENCE DATA**

Fax Number: (515)535-6883

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 515-535-4827

Email: ipsupport@pioneer.com

PIONEER HI-BRED INTERNATIONAL, INC. **Correspondent Name:** 

Address Line 1: 7250 NW 62ND AVENUE

Address Line 2: PO BOX 552

Address Line 4: JOHNSTON, IOWA 50131-0552

ATTORNEY DOCKET NUMBER:	7768-US-PCT
NAME OF SUBMITTER:	SENDIL DEVADAS

SIGNATURE:	/Sendil Devadas/
DATE SIGNED:	11/13/2020
Total Attachments: 9	
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WORLDWIDE ASSIGNMENT	
I, the undersigned HEATHER MARIE CHRISTENSEN, hereby declare that I am an inventor of an invention ent	
CONSTRUCTS AND MAIZE EVENT DP-202216-6 the subject matter of which is described in the application for pate	nt (Attorney
Docket No: 7768-US-PSP )	
declaration executed on	
United States Of America Patent Application Serial No. 62/659579 , filed on April 18, 2018	
PCT Application Serial No. filed on	
which claim(s) its earliest priority to Application Serial No. , filed on	
For valuable consideration, the receipt and adequacy of which is hereby acknowledged, and in fulfillment of m	pre-existing
obligation of assignment to assignee, which is hereby acknowledged, I hereby:	
I. Sell, assign, and transfer unto PIONEER HI-BRED INTERNATIONAL, INC., a corporation organized and existing under the	e laws of the
State of Iowa in the United States of America and having its principal place of business at 7100 NW 62 <sup>nd</sup> Avenue, P.	O. Box 1014,
Johnston, Iowa 50131-1014, herein referred to as the assignee, and to assignee's successors and assigns,	
(A) the entire right, title, and interest in and to: (1) the aforesaid application(s) for Letters Patent ("Patent"), (2	
rights derived from such aforesaid application(s) for Patent by virtue of the International Convention for the Protection	
Property ("International Convention") and any other treaty or understanding for intellectual property for any and	
countries of the International Convention or other treaty or understanding, including rights in any and all provisional	
(3) any and all of my inventions, whether joint or sole, disclosed in such aforesaid application(s) for Patent, and/or	
arising out of such aforesaid application(s) for Patent ("Inventions"), (4) any and all applications for Patent for any such as a substitute continued as a substitute continu	
in any country whatsoever, including all provisional, non-provisional, divisional, renewal, substitute, continuation, continuation, continuation, and in whatsoever, including all provisional, non-provisional, divisional, renewal, substitute, continuation, continuation	
part, international and convention applications based in whole or in part upon such aforesaid application(s) for Patent Inventions, (5) any and all patents for any such Inventions in any country whatsoever, including any and all reexams,	
extensions of any patent based in whole or in part upon such aforesaid application(s) for Letters Patent and/or such In	
the entire right to (1) file such applications in its name or in my name, (2) file such applications under the aforesaid	
Convention or any other treaty or understanding, (3) have said patents granted in its name or mine, the Commission	
and Trademarks of the United States of America and any counterpart in any other patent office being hereby authorize	
transfer all of said patents to said assignee in accordance herewith, and (4) enforce said patents and to sue for and re	
and damages for any and all infringements thereof, whether past, present or future, to the full end of the term or ter	
said patents may be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned	without this
assignment;	
II. Agree, whenever assignee asks, without further compensation but at assignee's expense for actual and reasonable co	sts incurred,
(A) to communicate to said assignee, its successors, assigns, and legal representatives, any facts known to me res	pecting such
Inventions or the rights described above, (B) to testify in any legal proceeding respecting such Inventions or the right	
above, the location of that testimony to be in the country in which I reside or in the nearest country in which such testi	
should my country of residence prohibit such testimony, (C) to execute all applications, papers or instruments necessar	
by said assignee, its successors, assigns and legal representatives, to carry into effect any of the provisions of this	
including petitions, specifications, oaths, assignments, disclaimers, and lawful affidavits in form and substance w	nich may be
requested by said assignee and (D) generally to do everything possible to aid said assignee, its successors, assign	is, and legal
representatives to obtain, maintain, defend and enforce patent protection for such Inventions and/or secure title to such	n inventions
with assignee;  III. Represent, warrant and covenant that I have the full right and lawful authority to make this assignment, that such a	ecianed right
is not pre-dated by any grant, license, or other right heretofore given by me to any party other than the assignee hereto	
IV. Agree that my grants and obligations herein shall also bind all of my heirs, executors, administrators, legal represe	, ntatives, and
assigns; and	incacio con anta
V. Agree that an authorized representative of assignee is hereby granted the power to insert in this assignment	any further
identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office	or the patent
office of any other country for recordation of this Assignment, including the power to insert on this assignment	information
regarding application number and filing date when known.	
In Witness Whereof, I have executed this Worldwide Assignment on the date indicated by my hand and agree that the	s Worldwide
Assignment shall be effective as of the earliest priority date for the aforesaid application(s) for Letters Patent.	
Additional 20 direction as of the damest priority and for the are additional apprication (e)	
HEATHER MARIE CHRISTENSEN  HEATHER MARIE CHRISTENSEN  HEATHER MARIE CHRISTENSEN  HEATHER MARIE CHRISTENSEN	1,
Name of Inventor 1 Signature of Inventor Date	

		WORLDWIDE ASSIGN	<u>IMENT</u>		
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MAIZE !	<u>VENT DP-202216-6</u> the subject m	natter of which is described in the	application for pa	itent (Attorney Docke	et No: <u>7768-US-PSP</u>
) 					
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	United States Of America	Patent Application Serial No.	62/659579	, filed on <u>April 18</u>	, 2018
	PCT Application Serial No.	filed on			
which	claim(s) its earliest priority to Ap		***************************************	, filed on	
		receipt and adequacy of which is i		ged, and in fulfillmen	t of my pre-existing
and Marie Toward	a da la constantina de la constantina d	ich is hereby acknowledged, I here : HI-BRED INTERNATIONAL, INC., a	anna 🐧 lang - Angli langa - Angli Angli	ni saitsiva bac bacia	dae tha lawe of tha
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		red to as the assignee, and to assi			
		st in and to: (1) the aforesaid ap		1000-000000000000000000000000000000000	"), (2) any priority
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		or in part upon such aforesaid as			
the ent	re right to (1) file such application	ons in its name or in my name, (	2) file such applic	ations under the afor	resaid International
		rstanding, (3) have said patents g			
		America and any counterpart in a			
		ee in accordance herewith, and			
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	and the control of th	e, its successors, assigns, and lega			
Invention	ons or the rights described above	e, (8) to testify in any legal proc	eeding respecting	such inventions or t	the rights described
		be in the country in which I reside			
		such testimony, (C) to execute all			
		and legal representatives, to co			
		s, assignments, disclaimers, and nerally to do everything possibl			
		and and enforce patent protection			
with as:					
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		other right heretofore given by m		ta and an artist of the second	
11 1000 1000	Control of the Contro	s herein shall also bind all of my l	neirs, executors, a	dministrators, legal r	epresentatives, and
assigns;					
		tative of assignee is hereby gran	100000 100 100 100 100 100 100 100 100	500000 500	
	announced the second for the second	r desirable to comply with the ru ation of this Assignment, includ			
	ng application number and filing o		ing one proves se	, make an ama aman	Zennese managemen
		is Worldwide Assignment on the	date indicated by	my hand and agree	that this Worldwide
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	NATHAN DAVID COLES		Reserved to the second	4/20/19	8
	Name of Inventor 2	Signature of seventor		Date	**************************************

PATENT

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WORLDWIDE ASSIGNMENT

i, the u	ndersigned OLGA DANILEYSKAYA	hereby declare that I am an in	ventor of an inv	ention entitled <u>GENES, CONSTRI</u>	JCTS AND
MAIZE	EVENT DP-202216-6 the subject m	atter of which is described in the	application for	patent (Attorney Docket No: 276	58-US-PSP
) [	4. 4				
띮	declaration executed on	Patent Application Serial No.	ET/GEOETO	, filed on April 18, 2018	
쩓	United States Of America		62/0393/9	, med on April 18, 2010	2
LJ.,	PCT Application Serial No.	filed on		, filed on	
which	i claim(s) its earliest priority to App For valuable consideration, the re	olication Serial No.	sarahu sebanud		ro-avistimo
ahlisat	For valuable consideration, the ri ion of assignment to assignee, while			sages, and it is million or my pr	c canarag
Sall :	issign, and transfer unto PIONEER	HI-BRED INTERNATIONAL INC.		ganized and existing under the k	ws of the
State o	f lowa in the United States of Am	erica and having its principal pl	ace of business	at 7100 NW 62 <sup>nd</sup> Avenue, P.O.	Box 1014,
Johnsto	on, lowa 50131-1014, herein referr	ed to as the assignee, and to assi	gnee's successo	rs and assigns,	
(A)	the entire right, title, and interes	it in and to: (1) the aforesaid ap	plication(s) for	Letters Patent ("Patent"),  (2) ai	ny priority
rights o	lerived from such aforesald applica	ation(s) for Patent by virtue of th	e International	Canvention for the Protection of	Industrial
Proper	ty ("International Convention") ar	nd any other treaty or underst	anding for intel	lectual property for any and al	i member
countri	es of the International Convention	or other treaty or understands	ng, including ng	nts in any and all provisional ap	piications,
(3) an	y and all of my inventions, whethe out of such aforesaid application(s	er joint of sole, disclosed in SUC Afar datast (") migrations") (4)	n atoresatu app anu and all ann	lications) for Patern, and/or rea lications for Datent for any such I	accu cu us Inventions
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part, ir	ternational and convention applic	ations based in whole or in part	upon such afor	esaid application(s) for Patent ar	id/or such
Inventi	ons, (5) any and all patents for ar	ny such Inventions in any countr	y whatsoever, i	scluding any and all reexams, rei	issues and
extensi	ons of any patent based in whole	or in part upon such aforesaid a	oplication(s) for	Letters Patent and/or such Inver	itions; (B)
the en	ire right to (1) file such applicatio	ins in its name or in my name, (	<ol><li>file such app</li></ol>	lications under the aforesaid Int	emational
Conver	ition or any other treaty or under	standing, (3) have said patents (	granted in its na	me or mine, the Commissioner	of Patents
and Tr	demarks of the United States of A	imerica and any counterpart in a	ny otner pateni (4) anforca cold	cornice being nereby authorized in	war arafits
transre	r all of said patents to said assigne mages for any and all infringemen	e in accordance herewith, and to thereof whather each preser	(4) emurce som d or future to t	has full and of the term or terms	for which
anu ua	tents may be granted, as fully and	is diereor, whether past, prescr Lentirals at the came would has	re heen held an	d enjoyed by the undersigned w	ithout this
assignt		Charles as the same woold have			
II. Agn	ee, whenever assignee asks, withou	it further compensation but at a	ssignee's expens	ie for actual and reasonable cost:	incurred,
(A	) to communicate to said assignee	, its successors, assigns, and leg	al representativ	es, any facts known to me respe	cting such
Inventi	ons or the rights described above	, (B) to testify in any legal proc	eeding respecti	ng such inventions or the rights	described
above,	the location of that testimony to b	ne in the country in which I resid	e or in the near	est country in which such testimo	iny is legal
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repres	entatives to obtain, maintain, defe	nd and enforce patent protection	n for such Inven	tions and/or secure title to such	Inventions
	signee;	•			
	present, warrant and covenant tha				gned right
	re-dated by any grant, license, or o				·
	ree that my grants and obligations	herein shall also bind all of my	heirs, executors	, administrators, legal representa	atives, and
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	ree that an authorized represent ication which may be necessary or				
	of any other country for records				
	ing application number and filing d		<b>.</b>	9	
	ness Whereof, I have executed this		date indicated	by my hand and agree that this '	Worldwide
	ment shall be effective as of the ear				
		a. M		in 1 - 1 0	. 0
	OLGA DANILEVSKAYA	<u> </u>	/\1	<u> </u>	18
	Name of Inventor 3	Signature of Inventor	,	Date/	

WORLDWIDE ASSIGNMENT			
I, the undersigned <u>JEFFREY HABBEN</u> , hereby declare that I am an inventor of an invention entitled <u>GENES, CONSTRUCTS AND MAIZE</u> <u>EVENT DP-202216-6</u> the subject matter of which is described in the application for patent (Attorney Docket No: <u>7768-US-PSP</u> )			
declaration executed on			
United States Of America Patent Application Serial No. 62/659579 , filed on April 18, 2018 ,			
PCT Application Serial No. filed on			
which claim(s) its earliest priority to Application Serial No, filed on			
For valuable consideration, the receipt and adequacy of which is hereby acknowledged, and in fulfillment of my pre-existing			
obligation of assignment to assignee, which is hereby acknowledged, I hereby:			
I. Sell, assign, and transfer unto PIONEER HI-BRED INTERNATIONAL, INC., a corporation organized and existing under the laws of the			
State of lowa in the United States of America and having its principal place of business at 7100 NW 62 <sup>nd</sup> Avenue, P.O. Box 1014,			
Johnston, Iowa 50131-1014, herein referred to as the assignee, and to assignee's successors and assigns,			
(A) the entire right, title, and interest in and to: (1) the aforesaid application(s) for Letters Patent ("Patent"), (2) any priority			
rights derived from such aforesaid application(s) for Patent by virtue of the International Convention for the Protection of Industrial			
Property ("International Convention") and any other treaty or understanding for intellectual property for any and all member			
countries of the International Convention or other treaty or understanding, including rights in any and all provisional applications,			
(3) any and all of my inventions, whether joint or sole, disclosed in such aforesaid application(s) for Patent, and/or related to or			
arising out of such aforesaid application(s) for Patent ("Inventions"), (4) any and all applications for Patent for any such Inventions			
in any country whatsoever, including all provisional, non-provisional, divisional, renewal, substitute, continuation, continuations-in-			
part, international and convention applications based in whole or in part upon such aforesaid application(s) for Patent and/or such Inventions, (5) any and all patents for any such Inventions in any country whatsoever, including any and all reexams, reissues and			
extensions of any patent based in whole or in part upon such aforesaid application(s) for Letters Patent and/or such Inventions; (B)			
the entire right to (1) file such applications in its name or in my name, (2) file such applications under the aforesaid International			
Convention or any other treaty or understanding, (3) have said patents granted in its name or mine, the Commissioner of Patents			
and Trademarks of the United States of America and any counterpart in any other patent office being hereby authorized to issue or			
transfer all of said patents to said assignee in accordance herewith, and (4) enforce said patents and to sue for and recover profits			
and damages for any and all infringements thereof, whether past, present or future, to the full end of the term or terms for which			
said patents may be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned without this			
assignment;			
II. Agree, whenever assignee asks, without further compensation but at assignee's expense for actual and reasonable costs incurred,			
(A) to communicate to said assignee, its successors, assigns, and legal representatives, any facts known to me respecting such			
Inventions or the rights described above, (B) to testify in any legal proceeding respecting such Inventions or the rights described			
above, the location of that testimony to be in the country in which I reside or in the nearest country in which such testimony is legal			
should my country of residence prohibit such testimony, (C) to execute all applications, papers or instruments necessary or required			
by said assignee, its successors, assigns and legal representatives, to carry into effect any of the provisions of this instrument,			
including petitions, specifications, oaths, assignments, disclaimers, and lawful affidavits in form and substance which may be			
requested by said assignee and (D) generally to do everything possible to aid said assignee, its successors, assigns, and legal			
representatives to obtain, maintain, defend and enforce patent protection for such Inventions and/or secure title to such Inventions			
with assignee; III. Represent, warrant and covenant that I have the full right and lawful authority to make this assignment, that such assigned right			
is not pre-dated by any grant, license, or other right heretofore given by me to any party other than the assignee hereto;			
IV. Agree that my grants and obligations herein shall also bind all of my heirs, executors, administrators, legal representatives, and			
assigns; and			
V. Agree that an authorized representative of assignee is hereby granted the power to insert in this assignment any further			
identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office or the patent			
office of any other country for recordation of this Assignment, including the power to insert on this assignment information			
regarding application number and filing date when known.			
In Witness Whereof, I have executed this Worldwide Assignment on the date indicated by my hand and agree that this Worldwide			
Assignment shall be effective as of the earliest priority date for the aforesaid application(s) for Letters Patent.			
160 bar Hallhan 1 12 22/12			
JEFFREY HABBEN JOY OF AU TO			
Name of Inventor 4 Signature of Inventor Date			
J V v			

	<u> UWIDE ASSIGIVIVI</u>		
I, the undersigned MARY RUPE, hereby declare that I a EVENT DP-202216-6 the subject matter of which is describ			
declaration executed on			
	ication Serial No. <u>6</u>	. fil	led on April 18, 2018 ,
PCT Application Serial No.	filed on		
which claim(s) its earliest priority to Application Serial N	٥.		, filed on
For valuable consideration, the receipt and adeq			nd in fulfillment of my pre-existing
obligation of assignment to assignee, which is hereby acki			
I. Sell, assign, and transfer unto PIONEER HI-BRED INTERN	IATIONAL, INC., a co	orporation organized	and existing under the laws of the
State of Iowa in the United States of America and havin			
Johnston, Iowa 50131-1014, herein referred to as the assi			
(A) the entire right, title, and interest in and to: (1)	the aforesaid appli	ication(s) for Letters	Patent ( Patent ), (2) any priority
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Property ("International Convention") and any other tricountries of the International Convention or other treats	eaty or understant	ing tot intellectual	property for any and an member
<ul><li>(3) any and all of my inventions, whether joint or sole,</li></ul>	disclosed in such a	, moluumg ognus m a Morecold annlicationi	s) for Patent and/or related to or
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extensions of any patent based in whole or in part upon	such aforesaid appl	lication(s) for Letters	Patent and/or such inventions; (8)
the entire right to (1) file such applications in its name	or in my name, (2)	file such applications	under the aforesaid international
Convention or any other treaty or understanding, (3) ha	ve said patents grai	inted in its name or r	nine, the Commissioner of Patents
and Trademarks of the United States of America and any	counterpart in any	other patent office b	peing hereby authorized to issue or
transfer all of said patents to said assignee in accordance	e herewith, and (4)	enforce said patents	and to sue for and recover profits
and damages for any and all infringements thereof, whe	ther past, present c	or future, to the full (	and of the term or terms for which
said patents may be granted, as fully and entirely as the	same would have I	been held and enjoys	ed by the undersigned without this
assignment;			a de la compania del compania del compania de la compania del la compania de la compania del la compania de la compania del la compania de
II. Agree, whenever assignee asks, without further compa	ensation but at assig	gnee's expense for ac	tual and reasonable costs incurred,
(A) to communicate to said assignee, its successors.	assigns, and legal r	representatives, any	racts known to me respecting such
Inventions or the rights described above, (B) to testify i	n any legal proceed	aing respecting such	to the which cuch testimony is local
above, the location of that testimony to be in the country	/ in which i reside o	or in the nearest coun	instruments necessary or required
should my country of residence prohibit such testimony,	(C) to execute an ap	ppiicaubiis, papers or	the applicance of this instrument
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representatives to obtain, maintain, defend and enforce	natant protection for	or such inventions an	d/or secure title to such Inventions
with assignee;	becare bracerons w	Gr Sasti htterieseris eri	
III. Represent, warrant and covenant that I have the full	right and lawful aut	thority to make this a	ssignment, that such assigned right
is not pre-dated by any grant, license, or other right here	tofore given by me	to any party other tha	an the assignee hereto;
IV. Agree that my grants and obligations herein shall als	o bind all of my he	irs, executors, admin	istrators, legal representatives, and
assigns; and	, , , , , , , , , , , , , , , , , , , ,	•	
V. Agree that an authorized representative of assigni	e is hereby grants	ed the power to ins	ert in this assignment any further
identification which may be necessary or desirable to co	imply with the rule:	s of the U.S. Patent a	ind Trademark Office or the patent
office of any other country for recordation of this As	signment, including	g the power to inse	rt on this assignment information
regarding application number and filing date when know	n,		
In Witness Whereof, I have executed this Worldwide A	ssignment on the da	ate indicated by my l	and and agree that this Worldwide
Assignment shall be effective as of the earliest priority da			
			e s
MARY RUPE	Mann "	7-2,00	4/20/2018
Many of Inventor C	7///// nature of Inventor	time to the state of the state	Date
Name of Inventor 5 Sig	wine a menin		AUSSIN .

WORLDWIDE ASSIGNMENT
I, the undersigned IEFFREY R SCHUSSLER, hereby declare that I am an inventor of an invention entitled GENES, CONSTRUCTS AND
MAIZE EVENT DP-202216-6 the subject matter of which is described in the application for patent (Attorney Docket No: 7768-US-PSI
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PCT Application Serial Nofiled on
which claim(s) its earliest priority to Application Serial No, filed on  For valuable consideration, the receipt and adequacy of which is hereby acknowledged, and in fulfillment of my pre-existing
obligation of assignment to assignee, which is hereby acknowledged, I hereby:
I. Sell, assign, and transfer unto PIONEER HI-BRED INTERNATIONAL, INC., a corporation organized and existing under the laws of the
State of lowa in the United States of America and having its principal place of business at 7100 NW 62 <sup>nd</sup> Avenue, P.O. Box 1014
Johnston, lowa S0131-1014, herein referred to as the assignee, and to assignee's successors and assigns,
(A) the entire right, title, and interest in and to: (1) the aforesaid application(s) for Letters Patent ("Patent"), (2) any priority
rights derived from such aforesaid application(s) for Patent by virtue of the International Convention for the Protection of Industria
Property ("international Convention") and any other treaty or understanding for intellectual property for any and all member
countries of the International Convention or other treaty or understanding, including rights in any and all provisional applications (3) any and all of my inventions, whether joint or sole, disclosed in such aforesaid application(s) for Patent, and/or related to or
arising out of such aforesaid application(s) for Patent ("inventions"), (4) any and all applications for Patent for any such inventions
in any country whatsoever, including all provisional, non-provisional, divisional, renewal, substitute, continuation, continuations-in
part, international and convention applications based in whole or in part upon such aforesaid application(s) for Patent and/or such
Inventions, (5) any and all patents for any such inventions in any country whatsoever, including any and all reexams, reissues and
extensions of any patent based in whole or in part upon such aforesaid application(s) for Letters Patent and/or such inventions; (B
the entire right to (1) file such applications in its name or in my name, (2) file such applications under the aforesaid international
Convention or any other treaty or understanding, (3) have said patents granted in its name or mine, the Commissioner of Patents
and Trademarks of the United States of America and any counterpart in any other patent office being hereby authorized to issue of
transfer all of said patents to said assignee in accordance herewith, and (4) enforce said patents and to sue for and recover profit:
and damages for any and all infringements thereof, whether past, present or future, to the full end of the term or terms for which
said patents may be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned without this
assignment;
II. Agree, whenever assignee asks, without further compensation but at assignee's expense for actual and reasonable costs incurred
(A) to communicate to said assignee, its successors, assigns, and legal representatives, any facts known to me respecting such
Inventions or the rights described above, (B) to testify in any legal proceeding respecting such inventions or the rights described
above, the location of that testimony to be in the country in which I reside or in the nearest country in which such testimony is legal
should my country of residence prohibit such testimony, (C) to execute all applications, papers or instruments necessary or required by said assignee, its successors, assigns and legal representatives, to carry into effect any of the provisions of this instrument
including petitions, specifications, oaths, assignments, disclaimers, and lawful affidavits in form and substance which may be
requested by said assignee and (D) generally to do everything possible to aid said assignee, its successors, assigns, and legal
representatives to obtain, maintain, defend and enforce patent protection for such inventions and/or secure title to such invention
with assignee;
III. Represent, warrant and covenant that I have the full right and lawful authority to make this assignment, that such assigned righ
is not pre-dated by any grant, license, or other right heretofore given by me to any party other than the assignee hereto;
IV. Agree that my grants and obligations herein shall also bind all of my heirs, executors, administrators, legal representatives, and
assigns; and
V. Agree that an authorized representative of assignee is hereby granted the power to insert in this assignment any further
identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office or the patent
office of any other country for recordation of this Assignment, including the power to insert on this assignment information
regarding application number and filing date when known.
In Witness Whereof, I have executed this Worldwide Assignment on the date indicated by my hand and agree that this Worldwide
Assignment shall be effective as of the earliest priority date for the aforesaid application(s) for Letters Patent.
And In the contract of
JEFFREY R SCHUSSLER JAMES Achieve 04/20/2018
Name of Inventor 6 Sanature of Inventor Date

# **WORLDWIDE ASSIGNMENT**

	e that I am an inventor of an invention entitle described in the application for patent (Attori						
declaration executed on	and the second s	A CONTROL MANAGEMENT					
✓ United States Of America	Patent Application Serial No. 62/659579	filed on April 18, 2018					
which deireld its addict priority to Applic	filed on	filad an					
Sor valuable specification the rece	ation Serial No. Pipt and adequacy of which is hereby acknow	leidend and in fulfillment of my ore existing					
obligation of assignment to assignee, which		eugen, and a communication by pre-existing					
	BRED INTERNATIONAL, INC., a corporation o	rankizad and avietian under the land of the					
	ica and having its principal place of business						
	to as the assignee, and to assignee's successo						
	n and to: (1) the aforesaid application(s) for						
	on(s) for Patent by virtue of the International						
•	any other treaty or understanding for inte						
	r other treaty or understanding, including rig						
	joint or sale, disclosed in such aforesaid app						
	or Patent ("inventions"), (4) any and all app						
	visional, non-provisional, divisional, renewal,						
· ·	ons based in whole or in part upon such afor						
	such Inventions in any country whatsoever, i						
	in part upon such aforesaid application(s) for						
· · · · · · · · · · · · · · · · · · ·	in its name or in my name, (2) file such app						
	nding, (3) have said patents granted in its na						
	erica and any counterpart in any other paten						
	in accordance herewith, and (4) enforce said						
and damages for any and all infringements	thereof, whether past, present or future, to	the full end of the term or terms for which					
	ntirely as the same would have been held an						
assignment;							
	orther compensation but at assignee's expen	se for actual and reasonable costs incurred,					
(A) to communicate to said assignee, it	s successors, assigns, and legal representativ	es, any facts known to me respecting such					
Inventions or the rights described above, (	B) to testify in any legal proceeding respecti	ng such inventions or the rights described					
above, the location of that testimony to be	in the country in which I reside or in the near	est country in which such testimony is legal					
should my country of residence prohibit suc	h testimony, (C) to execute all applications, p	apers or instruments necessary or required					
	nd legal representatives, to carry into effect						
	issignments, disclaimers, and lawful affidav						
	ally to do everything possible to aid said a						
representatives to obtain, maintain, defend	and enforce patent protection for such Inver	itions and/or secure title to such inventions					
with assignee;							
•	have the full right and lawful authority to ma						
	er right heretofore given by me to any party						
	erein shall also bind all of my heirs, executors	s, administrators, legal representatives, and					
assigns; and							
	ve of assignee is hereby granted the powe						
identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office or the patent office of any other country for recordation of this Assignment, including the power to insert on this assignment information							
		to insert on this assignment information					
regarding application number and filing date							
In Witness Whereof, I have executed this V	Vorldwide Assignment on the date indicated	by my hand and agree that this Worldwide					
Assignment shall be effective as of the earlie	st priority date for the aforesaid application(s)	for Letters Patent.					
	17 //	11/2/2 .0					
BO SHEN	SA WALA	4/19/2018					
Name of Inventor 7	Signature of Inventor	Date					
A ANTONE OF THE ASSESSMENT	existing in sec. sex siste since pie	61, 323.0					

### WORLDWIDE ASSIGNMENT

	ersigned <u>BENJAMIN P WEERS</u> , I NT DP-202216-6 the subject ma		entor of an inven		
)	<u></u>			•	
	declaration executed on				
$\overline{\boxtimes}$	United States Of America	Patent Application Serial No.	62/659579	, filed on	April 18, 2018 ,
_	PCT Application Serial No.	filed on		<del></del>	
	aim(s) its earliest priority to Appl			, filed	on .
	or valuable consideration, the re-		ereby acknowled	ged, and in f	ulfillment of my pre-existing
	of assignment to assignee, which				,,
	gn, and transfer unto PIONEER F				
	wa in the United States of Ame				2 <sup>nd</sup> Avenue, P.O. Box 1014,
	lowa 50131-1014, herein referre	_		_	
	e entire right, title, and interest				
_	ved from such aforesaid applicat	•			
	"International Convention") and				
	of the International Convention and all of my inventions, whether				
	of such aforesaid application(s)	<del>-</del>			
_	ntry whatsoever, including all pr				
•	national and convention applica	•	•	•	•
-	, (5) any and all patents for any		•		
extensions	of any patent based in whole o	r in part upon such aforesaid ap	plication(s) for Le	tters Patent	and/or such Inventions; (B)
the entire	right to (1) file such application	ns in its name or in my name, (2	2) file such application	ations under	the aforesaid International
	n or any other treaty or underst				
	marks of the United States of Ar				
	of said patents to said assigned				· · · · · · · · · · · · · · · · · · ·
_	ges for any and all infringements				
-	ts may be granted, as fully and	entirely as the same would hav	e been neid and e	enjoyed by ti	ne undersigned without this
assignmen	whenever assignee asks, without	further compensation but at as	signae's evnense	for actual an	d reasonable costs incurred
	communicate to said assignee,				
	or the rights described above,				
	location of that testimony to be				_
	country of residence prohibit su				
	signee, its successors, assigns a				
	petitions, specifications, oaths,	<del>=</del>			•
	by said assignee and (D) gene				
-	atives to obtain, maintain, defen	d and enforce patent protection	for such Inventio	ns and/or se	cure title to such Inventions
with assign	-	about the state of			
	ent, warrant and covenant that dated by any grant, license, or of				
•	that my grants and obligations I				•
assigns; an		referr shar also bille all of my i	ielis, executors, a	ullillisti atoi	s, iegai representatives, and
	that an authorized representa	tive of assignee is hereby gran	ited the power to	o insert in t	his assignment any further
•	ion which may be necessary or		•		- ,
	any other country for recordat				•
regarding a	application number and filing da	te when known.			
In Witness	Whereof, I have executed this	Worldwide Assignment on the	date indicated by	my hand an	d agree that this Worldwide
Assignmen	nt shall be effective as of the earl	iest priority date for the aforesaid	d application(s) for	r Letters Pate	ent.
		O.O.		•	
BE	ENJAMIN P WEERS	Degin The	eno	41	19/2018
N	lame of Inventor 8	Signature of Inventor		Date	

	WORLDWIDE ASSIGN	<u>IMENT</u>		
I, the undersigned <u>JINGRUI WU</u> , hereby of <u>EVENT DP-202216-6</u> the subject matter of				
declaration executed on				
☐ United States Of America	Patent Application Serial No.	62/659579	, filed on	April 18, 2018 ,
PCT Application Serial No.	filed on		<u> </u>	
which claim(s) its earliest priority to Appl			, filed	on .
For valuable consideration, the re		nereby acknowled	<del></del>	
obligation of assignment to assignee, which		•	.600, 0.10	and the pro-
I. Sell, assign, and transfer unto PIONEER I	· · · · · · · · · · · · · · · · · · ·	•	anized and ex	sisting under the laws of the
State of Iowa in the United States of Ame				
Johnston, Iowa 50131-1014, herein referre	d to as the assignee, and to assi	gnee's successors	and assigns,	
(A) the entire right, title, and interest	in and to: (1) the aforesaid ap	plication(s) for Le	tters Patent	("Patent"), (2) any priority
rights derived from such aforesaid application	tion(s) for Patent by virtue of th	e International Co	onvention for	the Protection of Industrial
Property ("International Convention") and	d any other treaty or understa	anding for intelle	ctual proper	ty for any and all member
countries of the International Convention	or other treaty or understanding	ng, including right	s in any and	all provisional applications,
(3) any and all of my inventions, whether	<del>-</del>			
arising out of such aforesaid application(s)				
in any country whatsoever, including all p				
part, international and convention applica	•	•		
Inventions, (5) any and all patents for any	·	•		
extensions of any patent based in whole o	, ,	•		
the entire right to (1) file such application Convention or any other treaty or unders				
•			•	
and Trademarks of the United States of Ar transfer all of said patents to said assigned		•	_	-
and damages for any and all infringement		•		•
said patents may be granted, as fully and				
assignment;	cital cry as the same would hav	c been new and	enjoyed by a	ie undersigned without this
II. Agree, whenever assignee asks, without	t further compensation but at as	signee's expense	for actual an	d reasonable costs incurred
(A) to communicate to said assignee,				
Inventions or the rights described above,		•	-	· · · · · · · · · · · · · · · · · · ·
above, the location of that testimony to be				
should my country of residence prohibit su				
by said assignee, its successors, assigns a	and legal representatives, to ca	arry into effect a	ny of the pr	ovisions of this instrument,
including petitions, specifications, oaths,	assignments, disclaimers, and	lawful affidavits	in form and	d substance which may be
requested by said assignee and (D) gene	erally to do everything possibl	e to aid said ass	ignee, its su	ccessors, assigns, and legal
representatives to obtain, maintain, defen	d and enforce patent protection	n for such Invention	ons and/or se	cure title to such Inventions
with assignee;				
III. Represent, warrant and covenant that	<del>-</del>	•	_	
is not pre-dated by any grant, license, or o				•
IV. Agree that my grants and obligations i	herein shall also bind all of my l	neirs, executors, a	idministrator	s, legal representatives, and
assigns; and	Alice of earlies of the boundary was			literatura de la composição
V. Agree that an authorized representa identification which may be necessary or				
office of any other country for recordat	• •			•
regarding application number and filing da	<del>-</del>	ing the power to	insert on t	nis assignment information
In Witness Whereof, I have executed this		date indicated by	my hand an	d agree that this Worldwide
Assignment shall be effective as of the earl		-	-	_
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JINGRUI WU	_ Sinely	$\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{$	An	117,2,18
Name of Inventor 9	Signature of Inventor	~~~	Date	<del></del>
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**RECORDED: 11/13/2020**