506152658 07/14/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT6199390

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
RICHARD MORGAN	09/25/2017
KEVIN FRIEDMAN	09/25/2017

RECEIVING PARTY DATA

Name:	BLUEBIRD BIO, INC.	
Street Address:	60 BINNEY STREET	
City:	CAMBRIDGE	
State/Country:	MASSACHUSETTS	
Postal Code:	02142	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16837610

CORRESPONDENCE DATA

Fax Number: (202)842-7899

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: 2064528700

Email: sclingerman@cooley.com, zPatDCDocketing@cooley.com

Correspondent Name: **COOLEY LLP**

Address Line 1: 1299 PENNSYLVANIA AVE, NW, SUITE 700 Address Line 2: ATTN: PATENT DEPT/MARK E. ROGEL

Address Line 4: WASHINGTON, D.C. 20004

ATTORNEY DOCKET NUMBER:	BLBD-043/07US 315698-3168
NAME OF SUBMITTER:	MARK E. ROGEL
SIGNATURE:	/Mark E. Rogel/
DATE SIGNED:	07/14/2020
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 5

source=BLBD043_07US_Assign#page1.tif source=BLBD043_07US_Assign#page2.tif source=BLBD043 07US Assign#page3.tif

> **PATENT REEL: 053204 FRAME: 0339** 506152658

source=BLBD043_07US_Assign#page4.tif source=BLBD043_07US_Assign#page5.tif

PATENT REEL: 053204 FRAME: 0340

COMBINED DECLARATION AND ASSIGNMENT

As below named inventors, **Richard MORGAN** and **Kevin FRIEDMAN**, (each referred to as "Assignor") having made an invention(s) (the "Invention(s)") set forth in an application for patent of the United States, entitled <u>BCMA CHIMERIC ANTIGEN RECEPTORS</u>, and which is a:

(1)	provision	al application			
	(a)	to be filed herewith; or			
	(b)	bearing Application No.	, and filed o	n;	
(2)	non-provi	sional application			
	(a)	to be filed herewith; or			
	(b)	bearing Application No.	15/535,365, ar	nd filed	on June
		12, 2017; or			
(3)	PCT appl	ication			
	(a)	bearing Application No.	, and filed o	n.	

WHEREAS, bluebird bio, Inc., a corporation duly organized under and pursuant to the laws of Delaware, and having its principal place of business at 60 Binney St., Cambridge, MA 02142, its successors, legal representatives and assigns, (the "Assignee") is desirous of acquiring the entire right, title, and interest in and to said Invention; the application for patent identified above; the right to file applications for patent of the United States or other countries on the Invention; any application for patent of the United States or other countries claiming priority to these applications; any provisional or other right to recover damages, including royalties, for prior infringements of these applications; and any patent of the United States or other countries that may be granted therefor or thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, and to the extent that the Assignor has not done so already via a prior agreement with the Assignee, or if the Assignor has already done so via a prior agreement with the Assignee then in confirmation of any obligation to do so in said prior agreement, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns, the Assignor's entire right, title, and interest in:

- (a) the Invention(s);
- (b) the application for patent identified in paragraph (1), (2) and/or (3);
- (c) the right to file applications for patent of the United States or other countries on the Invention(s), including all rights under the Hague Convention, the Paris Convention for the Protection of Industrial Property and under the Patent Cooperation Treaty;

PATENT REEL: 053204 FRAME: 0341

- (d) any application(s) for patent of the United States or other countries claiming the Invention(s);
- (e) any application(s) for patent of the United States or other countries claiming priority to the application for patent identified in paragraph (1), (2) and/or (3) or any application(s) for patent claiming the Invention(s), including any division(s), continuation(s), and continuation(s)-in-part; and
- (f) any provisional or other right to recover damages, including royalties, for prior infringements of any application for patent identified in the preceding paragraphs (b)-(e); and
- (g) any patent(s) of the United States or other countries that may be granted for or on any application for patent identified in the preceding paragraphs (b) (e), including any reissue(s) and extension(s) of said patent(s).

The above-granted rights, titles, and interests are to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made.

The Assignor hereby represents to the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, or if applicable, at such time said prior agreement was executed, the Assignor is a lawful owner of an undivided interest in the entire right, title, and interest in and to the Invention(s), that the Invention(s) are unencumbered, except, if applicable, by obligation to assign in accordance with said prior agreement, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth herein.

The Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that the Assignor will sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done in connection with any and all proceedings for the procurement, maintenance, enforcement and defense of the Invention(s), said applications, and said patents, including interference proceedings, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns.

The Assignor hereby authorizes and requests the attorneys of COOLEY LLP to insert in the spaces provided above the filing date, the application number, and the attorney docket number of the application identified in paragraph (1), (2) and/or (3) when known.

The Assignor hereby requests the Commissioner of Patents to issue said patents of the United States to the Assignee for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns. I hereby declare that the above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

Date: 25 Sept 2017

-

Name: Richard MORGAN

Mailing Address: PO Box 1254

Center Harbor, NH 03226-1254

State of <u>Massachuse HS</u>)
County of Suffork) ss.
On September 25, 2017 before me. Alease L. Higgins.
Notary Public, personally appeared,
who proved to me on the basis of satisfactory evidence, to be the person(s) whose
name(s) is/are subscribed to the within instrument and acknowledged to me that
he/she/they executed the same in his/her/their authorized capacity(ies), and that by
his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of
which the person(s) acted, executed the instrument.
WITNESS my hand and official seal.
aleasa S.Ussin
Signature of Notary Public O Place Notary Seal Above
My Commission Expires: June 22,2023 ALEASE L. HIGGINS
Hotsey Public Hotsey Public Processed Barry P
Significant Committee Comm

June 22, 2023

I hereby declare that the above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

Date: 9/13	<i>5/17</i>	By:	
		Name: Kevin FRIEDMAN	
		Mailing Address:	
		4 Clover Circle	
		Melrose, MA 02176	

County of Siffe Soll before me, Mease L. Higgins, Notary Public, personally appeared County Fried In and Signature of Notary Public Place Notary Public Place Notary Public Place Notary Seal Above	State of Mussachusetts
Notary Public, personally appeared	County of $\frac{S_1/S_0/K}{N}$.
Notary Public, personally appeared	On September 25, 2017 before me, Please L. Higgins,
name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. WITNESS my hand and official seal. Signature of Notary Public Place Notary Seal Above	
name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. WITNESS my hand and official seal. Signature of Notary Public Place Notary Seal Above	who proved to me on the basis of satisfactory evidence, to be the person(s) whose
he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. WITNESS my hand and official seal. Signature of Notary Public Place Notary Seal Above	name(s) is/are subscribed to the within instrument and acknowledged to me that
his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. WITNESS my hand and official seal. Signature of Notary Public Place Notary Seal Above	
which the person(s) acted, executed the instrument. WITNESS my hand and official seal. Signature of Notary Public Place Notary Seal Above	
WITNESS my hand and official seal. Signature of Notary Public Place Notary Seal Above	
Signature of Notary Public Place Notary Seal Above	• • • • • • • • • • • • • • • • • • • •
	WITNESS my hand and official seal.
	Allen J. Heri
	Signature of Notary Public / Place Notary Seal Above
My Commission Expires: TOOR 22 2023	organism or result from the first results
My Commission Expires: VIOR 22 2023	
my Commission Expires. 1011 C 1707 E 200	My Commission Expires: 1000 20, 2023
ALEASE L HIGGIN	ALEASE L. HIGGIN

WOMMEALTH OF WASSACHUSETTS My Commission Expires June 22, 2023 Attorney Docket No.: BLBD-043/02US 315698-2591

Date: 5 (pt. 25, 2017

By:

Vame:/ Jason Cole

Title: Chief Legal Officer Company: bluebird bio, Inc.

State of Mussachuse Hs

County of VHO

on <u>September 25 2017</u>, before me,

Notary Public, personally appeared Sason Cole, who proved to me on the basis of satisfactory evidence, to be the person(s) whose

name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

• • •

WITNESS my hand and official seal.

Signature of Notary Public

Place Notary Seal Above

My Commission Expires: \(\square\) \(\frac{100e 20,202}{}\)

ALEASE L. HIGGINS
Notary Public
COMMONWEATH OF MASSACHUSETTS
My Commission Expires
June 22, 2023