

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT6838797

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
DANIEL H. BYUN	03/10/2021
BYOUNG-KWON CHUN	03/10/2021
MICHAEL O. CLARKE	03/16/2021
PETR JANSA	03/10/2021
RICHARD L. MACKMAN	03/15/2021
DEVAN NADUTHAMBI	03/15/2021
NEIL H. SQUIRES	03/10/2021
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	GILEAD SCIENCES, INC.
<b>Street Address:</b>	333 LAKESIDE DRIVE
<b>City:</b>	FOSTER CITY
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94404
<b>PROPERTY NUMBERS Total: 2</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	17207161
<b>PCT Number:</b>	US2021023252
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(650)522-5575
<i>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.</i>	
<b>Phone:</b>	+1 (650) 522-4279
<b>Email:</b>	kelsey.fajilan@gilead.com
<b>Correspondent Name:</b>	GILEAD SCIENCES, INC.
<b>Address Line 1:</b>	333 LAKESIDE DRIVE
<b>Address Line 4:</b>	FOSTER CITY, CALIFORNIA 94404
<b>ATTORNEY DOCKET NUMBER:</b>	1338-US-NP/WO-PCT
<b>NAME OF SUBMITTER:</b>	ALEXIS N. SIMPSON
<b>SIGNATURE:</b>	/Alexis N. Simpson, Reg. No. 63,686/

**DATE SIGNED:**

07/29/2021

**Total Attachments: 16**

source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page1.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page2.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page3.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page4.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page5.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page6.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page7.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page8.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page9.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page10.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page11.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page12.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page13.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page14.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page15.tif  
source=1338-US-NP\_WO-PCT\_2021-03-17\_Signed Assignment#page16.tif

**ASSIGNMENT BY INVENTORS**

**THIS ASSIGNMENT**, made by Daniel H. Byun; Byoung-Kwon Chun; Michael O. Clarke; Petr Jansa; Richard L. Mackman; Devan Naduthambi; and Neil H. Squires (hereinafter referred to as Assignors), who reside at or have a mailing address at c/o Gilead Sciences, Inc., 333 Lakeside Drive, Foster City, California 94404;

**WHEREAS**, Assignors have invented certain new and useful improvements in PRODRUGS OF 4'-C-SUBSTITUTED-2-HALO-2'-DEOXYADENOSINE NUCLEOSIDES AND METHODS OF MAKING AND USING THE SAME, set forth in a Patent application for Letters Patent of the United States, for which Assignors have filed an application for patent both under the Patent Cooperation Treaty (PCT) and in the United States of America concurrently herewith. Where this Assignment is not filed concurrently with the application, the following identifying information may be added after execution:

U.S. Serial No.: 17/207,161 Filing Date: March 19, 2021

PCT Serial No.: PCT/US2021/023252 Filing Date: March 19, 2021

**WHEREAS**, Gilead Sciences, Inc., a Corporation organized under and pursuant to the laws of Delaware having its principal place of business at 333 Lakeside Drive, Foster City, California 94404 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

**NOW, THEREFORE**, to all whom it may concern, be it known that for good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and applications for

Letters Patent, and in and to any and all direct and indirect provisionals, national stage applications, divisions, continuations, continuations-in-part, substitutions, and reissues of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and assignment not been made.

**AND** for the same consideration, Assignors hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

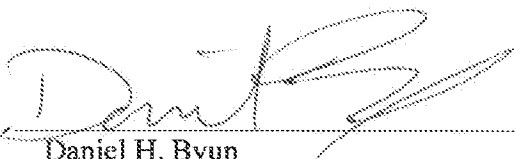
**AND** for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application

for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

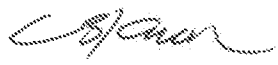
AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

I hereby grant Assignee(s), the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark office for recordation of this document, including the power to insert on this assignment the application number and filing date of said application when known.

Date: March 10, 2021

Signature:   
Daniel H. Byun

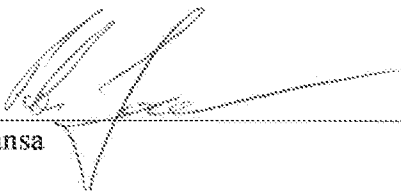
Date: 3/10/2021

Signature:   
Byoung-Kwon Chun

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Michael O. Clarke

Date: 5-10-2021

Signature:   
Petr Jansa

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Richard L. Mackman

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Devan Naduthambi

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Neil H. Squires

**ASSIGNMENT BY INVENTORS**

**THIS ASSIGNMENT**, made by Daniel H. Byun; Byoung-Kwon Chun; Michael O. Clarke; Petr Jansa; Richard L. Mackman; Devan Naduthambi; and Neil H. Squires (hereinafter referred to as Assignors), who reside at or have a mailing address at c/o Gilead Sciences, Inc., 333 Lakeside Drive, Foster City, California 94404;

**WHEREAS**, Assignors have invented certain new and useful improvements in PRODRUGS OF 4'-C-SUBSTITUTED-2-HALO-2'-DEOXYADENOSINE NUCLEOSIDES AND METHODS OF MAKING AND USING THE SAME, set forth in a Patent application for Letters Patent of the United States, for which Assignors have filed an application for patent both under the Patent Cooperation Treaty (PCT) and in the United States of America concurrently herewith. Where this Assignment is not filed concurrently with the application, the following identifying information may be added after execution:

U.S. Serial No.: 17/207,161 Filing Date: March 19, 2021

PCT Serial No.: PCT/US2021/023252 Filing Date: March 19, 2021

**WHEREAS**, Gilead Sciences, Inc., a Corporation organized under and pursuant to the laws of Delaware having its principal place of business at 333 Lakeside Drive, Foster City, California 94404 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

**NOW, THEREFORE**, to all whom it may concern, be it known that for good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and applications for

Letters Patent, and in and to any and all direct and indirect provisionals, national stage applications, divisions, continuations, continuations-in-part, substitutions, and reissues of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and assignment not been made.

**AND** for the same consideration, Assignors hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

**AND** for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application



for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

I hereby grant Assignee(s), the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark office for recordation of this document, including the power to insert on this assignment the application number and filing date of said application when known.

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Daniel H. Byun

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Byoung-Kwon Chun

Date: 3/16/21

Signature:   
Michael O. Clarke

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Petr Jansa

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Richard L. Mackman

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Devan Naduthambi

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Neil H. Squires

**ASSIGNMENT BY INVENTORS**

**THIS ASSIGNMENT**, made by Daniel H. Byun; Byoung-Kwon Chun; Michael O. Clarke; Petr Jansa; Richard L. Mackman; Devan Naduthambi; and Neil H. Squires (hereinafter referred to as Assignors), who reside at or have a mailing address at c/o Gilead Sciences, Inc., 333 Lakeside Drive, Foster City, California 94404;

**WHEREAS**, Assignors have invented certain new and useful improvements in PRODRUGS OF 4'-C-SUBSTITUTED-2-HALO-2'-DEOXYADENOSINE NUCLEOSIDES AND METHODS OF MAKING AND USING THE SAME, set forth in a Patent application for Letters Patent of the United States, for which Assignors have filed an application for patent both under the Patent Cooperation Treaty (PCT) and in the United States of America concurrently herewith. Where this Assignment is not filed concurrently with the application, the following identifying information may be added after execution:

U.S. Serial No.: 17/207,161 Filing Date: March 19, 2021

PCT Serial No.: PCT/US2021/023252 Filing Date: March 19, 2021

**WHEREAS**, Gilead Sciences, Inc., a Corporation organized under and pursuant to the laws of Delaware having its principal place of business at 333 Lakeside Drive, Foster City, California 94404 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

**NOW, THEREFORE**, to all whom it may concern, be it known that for good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and applications for

Letters Patent, and in and to any and all direct and indirect provisionals, national stage applications, divisions, continuations, continuations-in-part, substitutions, and reissues of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and assignment not been made.

**AND** for the same consideration, Assignors hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

**AND** for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application

for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.


I hereby grant Assignee(s), the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark office for recordation of this document, including the power to insert on this assignment the application number and filing date of said application when known.

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Daniel H. Byun

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Byoung-Kwon Chun

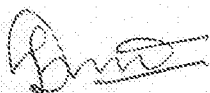
Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Michael O. Clarke

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Petr Jansa

Date: 3/15/21 Signature:   
Richard L. Mackman

Date: 03-15-2021

Signature: \_\_\_\_\_



Devan Naduthambi

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Neil H. Squires

**ASSIGNMENT BY INVENTORS**

**THIS ASSIGNMENT**, made by Daniel H. Byun; Byoung-Kwon Chun; Michael O. Clarke; Petr Jansa; Richard L. Mackman; Devan Naduthambi; and Neil H. Squires (hereinafter referred to as Assignors), who reside at or have a mailing address at c/o Gilead Sciences, Inc., 333 Lakeside Drive, Foster City, California 94404;

**WHEREAS**, Assignors have invented certain new and useful improvements in PRODRUGS OF 4'-C-SUBSTITUTED-2-HALO-2'-DEOXYADENOSINE NUCLEOSIDES AND METHODS OF MAKING AND USING THE SAME, set forth in a Patent application for Letters Patent of the United States, for which Assignors have filed an application for patent both under the Patent Cooperation Treaty (PCT) and in the United States of America concurrently herewith. Where this Assignment is not filed concurrently with the application, the following identifying information may be added after execution:

U.S. Serial No.: 17/207,161 Filing Date: March 19, 2021

PCT Serial No.: PCT/US2021/023252 Filing Date: March 19, 2021

**WHEREAS**, Gilead Sciences, Inc., a Corporation organized under and pursuant to the laws of Delaware having its principal place of business at 333 Lakeside Drive, Foster City, California 94404 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

**NOW, THEREFORE**, to all whom it may concern, be it known that for good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and applications for

Letters Patent, and in and to any and all direct and indirect provisionals, national stage applications, divisions, continuations, continuations-in-part, substitutions, and reissues of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and assignment not been made.

**AND** for the same consideration, Assignors hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

**AND** for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application



for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

I hereby grant Assignee(s), the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark office for recordation of this document, including the power to insert on this assignment the application number and filing date of said application when known.

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Daniel H. Byun

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Byoung-Kwon Chun

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Michael O. Clarke

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Petr Jansa

Date: \_\_\_\_\_


Signature: \_\_\_\_\_

Richard L. Mackman

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Devan Naduthambi

Date: Mar 10, 2021

Signature:  \_\_\_\_\_  
Neil H. Squires