506560178 03/17/2021 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6606957

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	SECURITY AGREEMENT SUF	PPLEMENT (REVOLVING)
CONVEYING PARTY DATA		
	Name	Execution Date
RADIUS HEALTH, INC.		01/07/2021
RADIUS PHARMACEUTICALS, I	NC.	01/07/2021

MIDCAP FUNDING IV TRUST, AS AGENT
7255 WOODMONT AVE., SUITE 200
BETHESDA
MARYLAND
20814

PROPERTY NUMBERS Total: 16

Property Type	Number
Application Number:	14724351
Application Number:	14815936
Application Number:	15166476
Application Number:	15253010
Application Number:	15499178
Application Number:	15712515
Application Number:	16870637
Application Number:	16874225
Application Number:	16874300
PCT Number:	US2015032955
PCT Number:	US2016034565
PCT Number:	US2017029843
PCT Number:	US2017052897
PCT Number:	IB2020000365
PCT Number:	IB2020000610
PCT Number:	IB2020000474

CORRESPONDENCE DATA

 Fax Number:
 (703)610-6200

 Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

 PATENT

506560178

using a fax number, if provided;	if tha	t is unsuccessful, it will be sent via US Mail.									
Phone: 7	03610	06100									
Email: b	oxip@	Phoganlovells.com									
Correspondent Name:	RETA	A D. FELDMAN OF HOGAN LOVELLS US LLP									
Address Line 1: 8	350 B	ROAD STREET, 17TH FLOOR									
Address Line 2:	TTN:	BOX INTELLECTUAL PROPERTY									
Address Line 4:	YSON	IS, VIRGINIA 22102									
ATTORNEY DOCKET NUMBER:	C	036639.000111									
NAME OF SUBMITTER:		GRETA D. FELDMAN OF HOGAN LOVELLS US LLP									
SIGNATURE:	/	Greta D. Feldman/									
DATE SIGNED: 03/17/2021											
Total Attachments: 14											
source=IP Security Agreement Supplement - Patents_Revolving Loan#page1.tif											
source=IP Security Agreement Sup	oleme	nt - Patents_Revolving Loan#page2.tif									
source=IP Security Agreement Sup	oleme	nt - Patents_Revolving Loan#page3.tif									
source=IP Security Agreement Sup	oleme	nt - Patents_Revolving Loan#page4.tif									
, , , , , , , , , , , , , , , , , , , ,		nt - Patents_Revolving Loan#page5.tif									
source=IP Security Agreement Sup	oleme	nt - Patents_Revolving Loan#page6.tif									
source=IP Security Agreement Sup	oleme	nt - Patents_Revolving Loan#page7.tif									
		nt - Patents_Revolving Loan#page8.tif									
		nt - Patents_Revolving Loan#page9.tif									
source=IP Security Agreement Sup	oleme	nt - Patents_Revolving Loan#page10.tif									
		nt - Patents_Revolving Loan#page11.tif									
		nt - Patents_Revolving Loan#page12.tif									
		_ • • •									
source=IP Security Agreement Supplement - Patents_Revolving Loan#page13.tif source=IP Security Agreement Supplement - Patents_Revolving Loan#page14.tif											

INTELLECTUAL PROPERTY SECURITY AGREEMENT SUPPLEMENT

This Intellectual Property Security Agreement Supplement is entered into as of the 7th day of January, 2021 by **RADIUS HEALTH, INC.**, a Delaware corporation ("<u>Radius Health</u>") and **RADIUS PHARMACEUTICALS, INC.**, a Delaware corporation ("<u>Radius Pharma</u>", together with Radius Health each, a "<u>Grantor</u>" and collectively, the "<u>Grantors</u>").

RECITALS

A. Grantors are party to that certain Intellectual Property Security Agreement, by and between MidCap Funding IV Trust, a Delaware statutory trust (in such capacity, together with its successors and assigns, "<u>Agent</u>") and the Grantors, dated as of January 10, 2020 (as the same may have been amended, modified or supplemented from time to time prior to the date hereof, the "<u>Existing IP</u> <u>Security Agreement</u>"; capitalized terms used herein are used as defined in the Existing IP Security Agreement);

B. Grantors wish to amend the Existing IP Security Agreement by supplementing the Intellectual Property Collateral therein with the Intellectual Property listed on the exhibits hereto.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of its obligations under the Credit Agreement, each Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

To secure its obligations under the Credit Agreement, each Grantor grants and pledges to Agent, for the ratable benefit of the Lenders, a security interest in all of such Grantor's right, title and interest in, to and under its Intellectual Property (as defined in the Credit Agreement), including, without limitation, the following:

(a) Any and all Copyrights, including without limitation those set forth on <u>Exhibit A</u> attached hereto, as such exhibit may be further amended, modified or supplemented from time to time;

(b) Any and all Patents, including without limitation those set forth on <u>Exhibit B</u> attached hereto, as such exhibit may be further amended, modified or supplemented from time to time);

(e) Any and all Trademarks, including without limitation those set forth on <u>Exhibit C</u> attached hereto, as such exhibit may be further amended, modified or supplemented from time to time;

(f) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

Grantors hereby agree that the Intellectual Property listed on the exhibits hereto shall become a part of the Intellectual Property Collateral in the Existing IP Security Agreement and shall secure all Obligations in accordance with the terms of the Credit Agreement. The exhibits of the Existing IP Security Agreement shall be deemed amended to add the Intellectual Property listed on the exhibits to this IP Security Agreement Supplement. The rights and remedies of the Agent with respect to the security interests granted herein are without prejudice to, and are in addition to those set forth in the Credit Agreement and the Existing IP Security Agreement.

The provisions of the Existing IP Security Agreement regarding choice of law, jurisdiction, venue and jury trial waiver are incorporated herein and shall govern this Intellectual Property Security Agreement Supplement.

[Signature Page Follows]

MidCap / Radius / IP Security Agreement Supplement (Revolving Loan)

\\DC - 036639/000111 - 15906793 v2

IN WITNESS WHEREOF, the Grantors have caused this Intellectual Property Security Agreement Supplement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTORS:

RADIUS HEALTH, INC.

Averi Price By: Averi Price (100 8, 2021 10:11, ES7) Name: <u>Averi Price</u>

Title: General Counsel, CCO, and Secretary

)

RADIUS PHARMACEUTICALS, INC.

Averi Price By: Averi Price I Jan 1, 2014 J. J. 81 J. 833 Name: Averi Price Title: Secretary

MidCap / Radius / IP Security Agreement Supplement (Revolving Loan)

\\DC - 036639/000111 - 15906793 v2

EXHII
BIT B

Patents

				2950424				2015266897						PCT/US15/32955			62/154,660		62/004,495	APPLICATION NO.
				CA 2950424				AU 2015266897						WO 2015/184127						PUBLICATION NO.
								AU2015266897												PATENT NO.
				Canada				Australia						International		States	United	States	United	COUNTRY
				5/28/2015				5/28/2015						5/28/2015			4/29/2015		5/29/2014	FILING DATE
			formulations	Stable cannabinoid			formulations	Stable					Formulations	Stable Cannabinoid	Formulations	Cannabinoid	Stable	Formulations	Cannabidiol	TITLE
				Pending				Granted				6	Stage 11/24/201	Entered National			Expired		Expired	STATUS
(No PWS)	Methods of use for various indications	Lipid formulation	Hydroalcoholic formulation	Aqueous formulation	(No PWS)	indications	Methods of use for various	Hydroalcoholic formulation	(No PWS)	indications	Methods of use for various	Lipid formulation	Hydroalcoholic formulation	Aqueous formulation						COVERAGE

\\DC - 036639/000111 - 15906793 v2

CN 106999998 China 5/28/2015 Stable camabinoid formulations Pending comulations EP 3143589 Erope Europe 5/28/2015 Stable camabinoid formulations Pending camabinoid JP 2017519742 JP6659933B2 Japan 5/28/2015 Stable camabinoid Pending IL 249197 JP6659933B2 Israel 5/28/2015 Stable camabinoid formulations Pending MX 2016/015636 Mexico 5/28/2015 Stable camabinoid formulations Pending NZ 726746 NZ726746 New Zealand 5/28/2015 Stable camabinoid formulations Pending NZ 726746 NZ726746 New Zealand 5/28/2015 Stable camabinoid formulations Pending	APPLICATION NO.	PUBLICATION NO.	PATENT NO.	COUNTRY		TITLE	STATUS	COVERAGE
69EP 3148589Europe5/28/2015Stable canabinoid formulations9911JP 2017519742JP6659933B2Japan5/28/2015Stable canabinoid formulationsGranted canabinoid formulations9911JP 2017519742JP6659933B2Japan5/28/2015Stable canabinoid formulationsGranted canabinoid formulations9911JP 2017519742JP6659933B2Japan5/28/2015Stable canabinoid formulationsGranted canabinoid formulations9536MX 2016/015636Mexico5/28/2015Stable canabinoid formulationsPending canabinoid formulations5636NZ 20746New Zealand5/28/2015Stable canabinoid formulationsPending canabinoid formulations	201580041466	CN 106999598		China	5/28/2015	Stable cannabinoid formulations	Pending	Lipid formulation Methods of use for various indications
69EP 3148589Europe5/28/2015Stable cannabinoid formulationsPending9911JP 2017519742JP6659933B2Japan5/28/2015Stable cannabinoid formulationsGranted cannabinoid formulationsGranted9911JP 2017519742JP6659933B2Japan5/28/2015Stable cannabinoid formulationsGranted9911L 249197L 249197IsraelStael5/28/2015Stable cannabinoid formulationsPending5636MX 2016/015636MexicoS/28/2015Stable cannabinoid formulationsPending5636NZ 726746NZ 726746New ZealandS/28/2015Stable 								(No PWS)
9911 JP 2017519742 JP6659933B2 Japan 5728/2015 Stable cannabinoid formulations Granted cannabinoid formulations 1L 249197 IL 249197 Israel Sf28/2015 Stable cannabinoid formulations Pending formulations 5636 MX 2016/015636 Mexico Sf28/2015 Stable cannabinoid formulations Pending formulations 5636 MX 2016/015636 NZ 726746 New Zealand 5/28/2015 Stable cannabinoid formulations Pending formulations 5636 NZ 726746 NZ 726746 New Zealand 5/28/2015 Stable cannabinoid formulations Pending formulations	15800669	EP 3148589		Europe	5/28/2015	Stable	Pending	Aqueous formulation
9911JP 2017519742JP6659933B2Japan5/28/2015Stable cannabinoid formulationsGranted1L 249197IL 249197IsraelIsrael5/28/2015Stable cannabinoid formulationsPending5636MX 2016/015636Mexico5/28/2015Stable cannabinoid formulationsPending5636MX 2016/015636Mexico5/28/2015Stable cannabinoid formulationsPending5636MX 2016/015636NZ726746New Zealand5/28/2015Stable cannabinoid formulationsPendingNZ 726746NZ726746New Zealand5/28/2015Stable cannabinoid formulationsAccepted						formulations		(No PWS)
IL 249197 Israel S/28/2015 Stable cannabinoid formulations 5636 MX 2016/015636 Mexico S/28/2015 Stable cannabinoid formulations 5636 MX 2016/015636 Mexico S/28/2015 Stable cannabinoid formulations NZ 726746 NZ726746 New Zealand S/28/2015 Stable cannabinoid formulations NZ 726746 NZ726746 New Zealand S/28/2015 Stable cannabinoid formulations	2016569911	JP 2017519742	JP6659933B2	Japan	5/28/2015	Stable	Granted	Hydroalcoholic formulation
IL 249197Israel5/28/2015Stable cannabinoidPending formulations5636MX 2016/015636Mexico5/28/2015Stable cannabinoidPending formulations5636MX 2016/015636Mexico5/28/2015Stable cannabinoidPending formulations5636NZ 726746New Zealand5/28/2015Stable cannabinoidPending formulationsNZ 726746NZ 726746New Zealand5/28/2015Stable cannabinoid formulationsAccepted formulations						formulations		Methods of use for various
IL 249197 Israel 5/28/2015 Stable cannabinoid formulations Pending cannabinoid formulations 5636 MX 2016/015636 Mexico 5/28/2015 Stable cannabinoid formulations Pending cannabinoid formulations 5636 MX 2016/015636 Mexico 5/28/2015 Stable cannabinoid formulations Pending cannabinoid formulations 5636 NZ 726746 New Zealand 5/28/2015 Stable cannabinoid formulations Pending cannabinoid formulations								indications
IL 249197IsraelS/28/2015Stable cannabinoid formulationsPending5636MX 2016/015636MexicoMexicoS/28/2015Stable cannabinoid formulationsPending5636NX 2016/015636New ZealandS/28/2015Stable cannabinoid formulationsPending5636NZ 726746New ZealandS/28/2015Stable cannabinoid formulationsAccepted cannabinoid 								(No PWS)
5636 MX 2016/015636 Mexico 5/28/2015 Stable cannabinoid formulations 5636 MX 2016/015636 Mexico 5/28/2015 Stable cannabinoid formulations NZ 726746 NZ 726746 New Zealand 5/28/2015 Stable cannabinoid formulations NZ 726746 NZ 726746 New Zealand 5/28/2015 Stable cannabinoid formulations	249197	IL 249197		Israel	5/28/2015	Stable	Pending	Hydroalcoholic formulation
5636 MX 2016/015636 Mexico 5/28/2015 Stable cannabinoid formulations 5636 MX 2016/015636 Mexico 5/28/2015 Stable cannabinoid formulations NZ 726746 NZ726746 New Zealand 5/28/2015 Stable cannabinoid formulations NZ 726746 NZ726746 New Zealand 5/28/2015 Stable cannabinoid formulations						formulations		Methods of use for various
5636 MX 2016/015636 Mexico S/28/2015 Stable cannabinoid formulations NZ 726746 NZ 726746 New Zealand S/28/2015 Stable cannabinoid formulations Pending Pendig Pending Pending Pendig Pending Pendig Pending Pending Pending P								indications
5636 MX 2016/015636 Mexico 5/28/2015 Stable Pending NZ 726746 NZ 726746 New Zealand 5/28/2015 Stable Accepted NZ 726746 NZ 726746 New Zealand 5/28/2015 Stable Accepted								(No PWS)
NZ 726746 NZ726746 New Zealand 5/28/2015 Stable cannabinoid formulations NZ 726746 New Zealand 5/28/2015 Stable cannabinoid formulations Accepted	2016015636	MX 2016/015636		Mexico	5/28/2015	Stable	Pending	Hydroalcoholic formulation
NZ 726746 NZ 726746 New Zealand 5/28/2015 Stable Accepted cannabinoid formulations						formulations		Methods of use for various
NZ 726746 NZ 726746 New Zealand 5/28/2015 Stable Accepted cannabinoid formulations								indications
NZ 726746 NZ726746 New Zealand 5/28/2015 Stable Accepted cannabinoid formulations								(No PWS)
	726746	NZ 726746	NZ726746	New Zealand	5/28/2015	Stable	Accepted	MCT formulation
						formulations		Methods of use for various
								(No PWS)

		15/166,476		14/815,936		14/724,351						2016/08209					(DIV of 726746)	763449		APPLICATION NO.
		US 20160271252		US 20150342902		US 20150343071													NO.	PUBLICATION
																				PATENT NO.
	States	United		United States		United States						South Africa						New Zealand		COUNTRY
		5/27/2016		7/31/2015		5/28/2015						5/28/2015						4/9/2020	DATE	FILING
	cannabinoid formulations	Stable	formulations	Stable	formulations	Stable cannabinoid					formulations	Stable cannabinoid					formulations	Stable cannabinoid		TIFLE
		Pending		Pending		Pending						Pending						Pending		STATUS
(PWS disclosed)	MCT formulation with ethanol	MCT formulation	(No PWS)	MCT formulation	formulation (No PWS)	Hydroalcoholic	(No PWS)	indications	Methods of use for various	Lipid formulation	Hydroalcoholic formulation	Aqueous formulation	(No PWS)	Methods of use for various indications	-	Lipid formulation	Hydroalcoholic formulation	Aqueous formulation		COVERAGE

			2986268				2016267585				15/253,010						PCT/US2016/034565	APPLICATION NO.
			CA 2986268				AU 2016267585				US 20160367496						WO 2016/191651	PUBLICATION NO.
																		PATENT NO.
			Canada				Australia				United States						International	COUNTRY
			4/27/2017				11/28/2017				8/31/2016						5/27/2016	FILING
		formulations	Stable cannabinoid			formulations	Stable cannabinoid			formulations	Stable cannabinoid				formulations	cannabinoid	Stable	TITLE
			Pending				Pending				Pending			7	stage 06/11/201	National	Entered	STATUS
(PWS disclosed)	Methods of use for various indications	MCT formulation	Lipid formulation	(PWS disclosed)	Methods of use for various indications	MCT formulation	Lipid formulation	trial (PWS disclosed)	pK data from clinical	Treatment resistant seizure disorders	MCT formulation	(PWS disclosed)	indications	Method of use for various	ועוכר וטרווועומנוטרו		Lipid formulation	COVERAGE

			15/712,515				17803241			3025702				PCT/US2017/029843		то/499,178	15/100 170					2018513742				16800777		APPLICATION NO.
			US 20180028489				EP 3462885			CA 3025702				WO 2017/204986		US 2UI /UZ24034	110 JUL 100 JUL 201					JP 2018-516281				EP 3302437		PUBLICATION NO.
																												PATENT NO.
		States	United				Europe			Canada				International		States	Initod				-	Japan				Europe		COUNTRY
			9/22/2017				11/28/2017			11/28/2017				4/27/2017		4/2//201/	7 1 J J J J J J J J J J J J J J J J J J					11/28/2017				4/27/2017		FILING
		cannabinoid formulations	Stable		formulations	cannabinoid	Stable		formulations	Stable		formulations	cannabinoid	Stable	formulations	cannabinoid	C+>>			formulations	cannabinoid	Stable			formulations	Stable cannabinoid		TITLE
			Pending				Pending			Pending	11/26/201	Stage	National	Entered		Pending	Donding				c	Pending				Pending	-	STATUS
(Infantile spasms & CAE disclosed)	MCT formulation	Willi	Methods of treating Prader-	indications, including PWS	Methods of use for various		MCT formulation	indications, including PWS	Methods of use for various	MCT formulation	indications, including PWS	Methods of use for various		MCT formulation	Prader-Willi	MCT formulation		(PWS disclosed)	indications	Methods of use for various		MCT formulation	(PWS disclosed)	indications	Methods of use for various	MCT formulation		COVERAGE

\\DC - 036639/000111 - 15906793 v2

				2017907335				3,062,814				PCT/US2017/052897	APPLICATION NO.
				EP 3615079				CA 3062814				WO 2018/200024	PUBLICATION NO.
													PATENT NO.
				Europe				Canada				International	COUNTRY
				10/28/2019				10/25/2019				9/22/2017	FILING DATE
			IOTITIUIALIOTIS	Stable cannabinoid			Tormulations	Stable cannabinoid			tormulations	Stable cannabinoid	TITLE
				Pending				Pending			Stage 10/25/2019	Entered National	STATUS
formulation	Lipid formulation MCT	Hydroalcoholic formulation	Aqueous formulation	Methods of treating Prader- Willi, Infantile spasms or CAE	(Infantile spasms & CAE disclosed)	MCT formulation	Lipid formulation	Methods of treating Prader- Willi	(Infantile spasms & CAE disclosed)	MCT formulation	Lipid formulation	Methods of treating Prader- Willi	COVERAGE

					2019558668	APPLICATION NO. PUBLICATION NO. NO.
						PATENT NO.
					Japan	COUNTRY
					11/27/2019	FILING DATE
			formulations	cannabinoid	Stable	TITLE
					Pending	STATUS
formulation	Lipid formulation MCT	Hydroalcoholic formulation	Aqueous formulation	Willi, Infantile Spasms or CAE	Methods of treating Prader-	COVERAGE

NDC - 036639/000111 - 15906793 v2

					62/846,279	APPLICATION NO.
						PUBLICATION NO.
						PATENT NO.
					United States 5/10/2019	COUNTRY
					5/10/2019	FILING DATE
manufacturing cannabidiol	intermediates of	and	cannabidiol	manufacturing	Methods of	TITLE
					Expired	STATUS
					CBD Manufacturing process	COVERAGE

NDC - 036639/000111 - 15906793 v2

\\DC - 036639/000111 - 15906793 v2

		PCT/IB2020/000610				16/874,225				62/847,991										PCT/IB2020/000365										16/870,637		APPLICATION NO.
						US 20200360286														WO2020229891										US 20200354297		PUBLICATION NO.
																																PATENT NO.
		International				United States				United States										International										United States		COUNTRY
		5/15/2020				5/15/2020				5/15/2019										5/8/2020										5/8/2020	DATE	FILING
formulation	cannabidiol	Self- emulsifying	formulation	cannabidiol	emulsifying	Self-	formulation	cannabidiol	emulsifying	Self-	cannabidivarin	cannabidiol or	manufacturing	of	intermediates	and	cannabidivarin	cannabidiol or	manufacturing	Methods of	cannabidivarin	cannabidiol or	manufacturing	of	intermediates	and	cannabidivarin	cannabidiol or	manufacturing	Methods of		TITLE
		Pending				Pending				Expired										Pending										Pending		STATUS
indications, including PWS	Methods of use for various	CBD composition	indications, including PWS	Methods of use for various		CBD composition	indications, including PWS	Methods of use for various		CBD composition										CBD Manufacturing process										CBD Manufacturing process		COVERAGE

PCT/IB2020/000474		16/874,300	62/856,526	APPLICATION NO.
WO/2020/245662		US 20200375911		PUBLICATION NO. P
				PATENT NO.
International		United States	United States	COUNTRY
5/14/2020		5/14/2020	6/3/2019	FILING DATE
Cannabidiol nanocrystal compositions	compositions	Cannabidiol	Cannabidiol nanocrystal compositions	TITLE
Pending		Pending	Expired	STATUS
CBD composition A process for producing a CBD composition Method of use for a variety of indications, including PWS	A process for producing a CBD composition Method of use for a variety of indications, including PWS	Method of use for a variety of indications, including PWS CBD composition	CBD composition A process for producing a CBD composition	COVERAGE

NDC - 036639/000111 - 15906793 v2

MidCap

Final Audit Report

2021-01-08

Created:	2021-01-08	
Ву:	Carla Biaso-Falkenstein (cbiaso-falkenstein@radiuspharm.com)	
Status:	Signed	
Transaction ID:	CBJCHBCAABAA6xKSFgbege6mGidoxx33n-LRswfwKyXP	

"MidCap" History

- Document created by Carla Biaso-Falkenstein (cbiaso-falkenstein@radiuspharm.com) 2021-01-08 - 9:40:17 PM GMT- IP address: 76.24.93.251
- Document emailed to Averi Price (Aprice@radiuspharm.com) for signature 2021-01-08 9:41:13 PM GMT
- Email viewed by Averi Price (Aprice@radiuspharm.com) 2021-01-08 - 11:10:23 PM GMT- IP address: 104.47.44.254
- Averi Price (Aprice@radiuspharm.com) verified identity with Adobe Sign authentication 2021-01-08 - 11:11:19 PM GMT
- Document e-signed by Averi Price (Aprice@radiuspharm.com) Signature Date: 2021-01-08 - 11:11:19 PM GMT - Time Source: server- IP address: 146.115.140.189
- Agreement completed. 2021-01-08 - 11:11:19 PM GMT



Adobe Sign