TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM570212

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
AKEBIA THERAPEUTICS, INC.		04/01/2020	Corporation: DELAWARE
KERYX BIOPHARMACEUTICALS, INC.		04/01/2020	Corporation: DELAWARE

RECEIVING PARTY DATA

Name:	BIOPHARMA CREDIT PLC
Street Address:	51 New North Road
Internal Address:	C/O Beaufort House
City:	Exeter EX4 4EP
State/Country:	UNITED KINGDOM
Entity Type:	Public Limited Company: ENGLAND AND WALES

PROPERTY NUMBERS Total: 1

Property Type	Number	Word Mark
Registration Number:	4956680	AURYXIA

CORRESPONDENCE DATA

Fax Number: 2028874288

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: 2149692741
Email: blove@akingump.com
Correspondent Name: Brenda Love
Address Line 1: 2001 K Street N.W.
Address Line 4: Washington, D.C. 20006

NAME OF SUBMITTER:	Brenda Love
SIGNATURE:	/Brenda Love/
DATE SIGNED:	04/02/2020

Total Attachments: 9

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This AMENDED AND RESTATED INTELLECTUAL PROPERTY SECURITY AGREEMENT, dated as of April 1, 2020, is made by AKEBIA THERAPEUTICS, INC. and KERYX BIOPHARMACEUTICALS, INC., (the "Grantors" and each a "Grantor"), in favor of BIOPHARMA CREDIT PLC (together with its successors and permitted assigns, the "Collateral Agent") on behalf of Lenders and the other Secured Parties (as defined in the Loan Agreement referred to below).

W I T N E S S E T H:

WHEREAS, pursuant to the Loan Agreement, dated as of November 11, 2019 (as the same may be amended, amended and restated, supplemented or otherwise modified from time to time, the "Loan Agreement"), by and among AKEBIA THERAPEUTICS, INC. ("Borrower"), KERYX BIOPHARMACEUTICALS, INC. (as an additional Credit Party), BIOPHARMA CREDIT PLC (as the "Collateral Agent" and a "Lender"), and BIOPHARMA CREDIT INVESTMENTS V (MASTER) LP (as a "Lender"), each Lender has agreed to make extensions of credit to Borrower upon the terms and subject to the conditions set forth therein;

WHEREAS, each Grantor has agreed, pursuant to a Guaranty and Security Agreement dated as of November 25, 2019 in favor of the Collateral Agent for the benefit of Lenders and the other Secured Parties (as such agreement may be amended, amended and restated, supplemented or otherwise modified from time to time, the "Guaranty and Security Agreement"), to guarantee the Obligations (as defined in the Loan Agreement) of Borrower; and

WHEREAS, each Grantor is party to the Guaranty and Security Agreement pursuant to which Grantor executed and delivered to the Collateral Agent an Intellectual Property Security Agreement, dated as of November 25, 2019 (the "Existing Intellectual Property Security Agreement");

WHEREAS, one or more Grantors have subsequently acquired additional Collateral and, pursuant to the Guaranty and Security Agreement, are required to execute and deliver to the Collateral Agent this Amended and Restated Intellectual Property Security Agreement Security Agreement; and

WHEREAS, this Amended and Restated Intellectual Property Security Agreement amends and restates the Existing Intellectual Property Security Agreement in its entirety;

NOW, THEREFORE, in consideration of the mutual covenants, terms and conditions set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree, intending to be legally bound, as follows:

Section 1. Defined Terms. Capitalized terms used herein without definition are used as defined in the Guaranty and Security Agreement.

Section 2. Grant of Security Interest in IP Collateral. Each Grantor, as collateral security for the prompt and complete payment and performance when due (whether at stated maturity, by acceleration or otherwise) of the Secured Obligations, hereby mortgages, pledges and hypothecates to the Collateral Agent, for the benefit of Lenders and the other Secured Parties, and grants to the Collateral Agent, for the benefit of Lenders and the other Secured Parties, a Lien on and security interest in, all of its right, title and interest in, to and under the following Collateral of such Grantor, in each case, solely to the extent constituting Collateral (and excluding any Excluded Property) (the "Intellectual Property Collateral"):

(a) any and all United States Patents, Trademarks and other Intellectual Property and IP Licenses (including any IP Licenses under the Current Company IP Agreements to which a Grantor is a party and the rights of such Grantor thereunder, and all of a Grantor's right, title and interest in, to and

under any Internet Domain Names and Software) owned by a Grantor, in each case, relating to the research, development, manufacture, production, use, commercialization, marketing, importing, storage, transport, offer for sale, distribution or sale of the Product in the Territory, including, without limitation, those referred to on Schedule 1 hereto; and

(b) all proceeds, products, accessions, rents and profits of or in respect of any of the foregoing.

Section 3. Guaranty and Security Agreement. The security interest granted pursuant to this Amended and Restated Intellectual Property Security Agreement is granted in conjunction with the security interest granted to the Collateral Agent for the benefit of Lenders and the other Secured Parties, pursuant to the Guaranty and Security Agreement and each Grantor hereby acknowledges and agrees that the obligations, rights and remedies of such Grantor and of the Collateral Agent on behalf of Lenders and the other Secured Parties with respect to the security interest in the Intellectual Property Collateral made and granted hereby are more fully set forth in the Guaranty and Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

Section 4. Grantor Remains Liable. Each Grantor hereby agrees that, anything herein to the contrary notwithstanding, such Grantor shall assume full and complete responsibility for the prosecution, defense, enforcement or any other reasonably necessary actions in connection with their Intellectual Property and IP Licenses subject to a security interest hereunder.

Section 5. Counterparts. This Amended and Restated Intellectual Property Security Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Signature pages may be detached from multiple separate counterparts and attached to a single counterpart.

Section 6. Governing Law. This Amended and Restated Intellectual Property Security Agreement and the rights and obligations of the parties hereto shall be governed by, and construed and interpreted in accordance with, the law of the State of New York without regard to any principle of conflicts of law that could require the application of the law of any other jurisdiction.

TRADEMARK
REEL: 006906 FRAME: 0774

IN WITNESS WHEREOF, each Grantor has caused this Amended and Restated Intellectual Property Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

Very truly yours,
AKEBIA THERAPEUTICS, INC.
as Grantor

By: _____
Name: John P. Butler
Title: President and Chief Executive Officer

KERYX BIOPHARMACEUTICALS, INC.
as Grantor

By: _____
Name: John P. Butler
Title: Director

ACCEPTED AND AGREED
as of the date first above written:

BIOPHARMA CREDIT PLC,
as Collateral Agent

By: Pharmakon Advisors, LP,
its Investment Manager

By: Pharmakon Management I, LLC,
its General Partner

By_____
Name: Pedro Gonzalez de Cosio
Title: Managing Member

SCHEDULE I
TO
AMENDED AND RESTATED INTELLECTUAL PROPERTY SECURITY AGREEMENT

Intellectual Property

1. REGISTERED PATENTS, PATENT APPLICATIONS AND PATENT LICENSES

Patent: Patent ID	Application Number	Filing Date	Patent Number	Issue Date	Status (High-Level)	All Assignees/ Owner	Title
P20001US1	11/206,981	2/18/2004	7,767,851	8/3/2010	In Force	Panion & BF Biotech Inc.	FERRIC ORGANIC COMPOUNDS, USES THEREOF AND METHODS OF MAKING SAME
P20001US10	16/589,905	10/1/2019			Pending	Panion & BF Biotech Inc.	FERRIC ORGANIC COMPOUNDS, USES THEREOF AND METHODS OF MAKING SAME
P20001US2	12/711,679	2/18/2004	8,338,642	12/25/2012	In Force	Panion & BF Biotech Inc.	FERRIC ORGANIC COMPOUNDS, USES THEREOF AND METHODS OF MAKING SAME
P20001US3	13/672,900	2/18/2004	8,609,896	12/17/2013	In Force	Panion & BF Biotech Inc.	FERRIC ORGANIC COMPOUNDS, USES THEREOF AND METHODS OF MAKING SAME
P20001US4	14/011,291	2/18/2004	8,754,258	6/17/2014	In Force	Panion & BF Biotech Inc.	FERRIC ORGANIC COMPOUNDS, USES THEREOF AND METHODS OF MAKING SAME
P20001US5	14/011,325	2/18/2004	8,901,349	12/2/2014	In Force	Panion & BF Biotech Inc.	FERRIC ORGANIC COMPOUNDS, USES THEREOF AND METHODS OF MAKING SAME

P20001US6	14/011,357	2/18/2004	8,846,976	9/30/2014	In Force	Panion & BF Biotech Inc.	FERRIC ORGANIC COMPOUNDS, USES THEREOF AND METHODS OF MAKING SAME
P20001US7	14/502,774	2/18/2004	9,328,133	5/3/2016	In Force	Panion & BF Biotech Inc.	FERRIC ORGANIC COMPOUNDS, USES THEREOF AND METHODS OF MAKING SAME
P20001US8	15/143,987	2/18/2004	9,913,821	3/14/2018	In Force	Panion & BF Biotech Inc.	FERRIC ORGANIC COMPOUNDS, USES THEREOF AND METHODS OF MAKING SAME
P20002US1	12/064,058	8/18/2006	8,093,423	1/10/2012	In Force	Panion & BF Biotech Inc.	PHARMACEUTICAL-GRADE FERRIC ORGANIC COMPOUNDS, USES THEREOF AND METHODS OF MAKING SAME
P20002US2	13/289,048	8/18/2006	8,299,298	10/30/2012	In Force	Panion & BF Biotech Inc.	PHARMACEUTICAL-GRADE FERRIC ORGANIC COMPOUNDS, USES THEREOF AND METHODS OF MAKING SAME
P20002US3	13/661,558	8/18/2006	8,754,257	6/17/2014	In Force	Panion & BF Biotech Inc.	PHARMACEUTICAL-GRADE FERRIC ORGANIC COMPOUNDS, USES THEREOF AND METHODS OF MAKING SAME
P20002US4	14/306,756	8/18/2006	9,050,316	6/9/2015	In Force	Panion & BF Biotech Inc.	PHARMACEUTICAL-GRADE FERRIC ORGANIC COMPOUNDS, USES THEREOF AND METHODS OF MAKING SAME
P20002US5	14/701,933	8/18/2006	9,757,416	9/12/2017	In Force	Panion & BF Biotech Inc.	PHARMACEUTICAL-GRADE FERRIC ORGANIC COMPOUNDS, USES

							THEREOF AND METHODS OF MAKING SAME
P20002US7	16/352,455	8/18/2006			Pending	Panion & BF Biotech Inc.	PHARMACEUTICAL-GRADE FERRIC ORGANIC COMPOUNDS, USES THEREOF AND METHODS OF MAKING SAME
P20003US1	08/794,328	2/3/1997	5,753,706	5/19/1998	In Force	HSU, Chen Hsing	METHOD FOR TREATING RENAL FAILURE
P20004US	10/682,045	10/8/2003	6,903,235	6/7/2005	In Force	Panion & BF Biotech Inc.	PHARMACEUTICAL-GRADE FERRIC CITRATE
P20005US1	12/162,558	1/26/2007	9,750,715	9/5/2017	In Force	Panion & BF Biotech Inc.	METHOD OF REVERSING, PREVENTING OR STABILIZING SOFT TISSUE CALCIFICATION
P20006US2	15/814,767	1/26/2007			Pending	Panion & BF Biotech Inc.	METHOD OF TREATING CHRONIC KIDNEY DISEASE
P20007US1	13/255,326	7/21/2010	9,387,191	7/12/2016	In Force	Keryx Biopharmaceuticals, Inc.	FERRIC CITRATE DOSAGE FORMS
P20007US3	15/159,008	5/19/2016	10,300,039	5/28/2019	In Force	Keryx Biopharmaceuticals, Inc.	FERRIC CITRATE DOSAGE FORMS
P20007US4	16/376,907	4/5/2019			Pending	Keryx Biopharmaceuticals, Inc.	FERRIC CITRATE DOSAGE FORMS
P20008US5	16/154,268	10/8/2018			Pending	Keryx Biopharmaceuticals, Inc.	USE OF FERRIC CITRATE IN THE TREATMENT OF CHRONIC KIDNEY DISEASE PATIENTS
P20009US2	16/216,772	12/11/2018			Pending	Keryx Biopharmaceuticals, Inc.	USE OF FERRIC CITRATE IN THE TREATMENT OF AND THE REDUCTION OF MORTALITY AND MORBIDITY RELATED TO ADVERSE CARDIAC

							EVENTS IN CHRONIC KIDNEY DISEASE PATIENTS
P20010US1	15/553,348	3/3/2016			Pending	Keryx Biopharmaceuticals, Inc.	USE OF FERRIC CITRATE IN THE TREATMENT OF IRON-DEFICIENCY ANEMIA
P20011US6	16/405,599	5/7/2019			Abandoned (in favor of filing P20011US7 application)	Keryx Biopharmaceuticals, Inc.	HIGH PURITY FERRIC CITRATE, METHODS OF MANUFACTURE AND USES FOR THE SAME
P20011US7	16/719,570	12/18/2019			Pending	Keryx Biopharmaceuticals, Inc.	HIGH PURITY FERRIC CITRATE, METHODS OF MANUFACTURE AND USES FOR THE SAME
	14/184,062	2/19/2014	9,624,155	4/18/2017	Issued	Japan Tobacco, Inc.	IRON (III) CITRATE, SUBSTANTIALLY FREE OF BETA-IRON HYDROXIDE OXIDE
	15/449,132	3/3/2017			Pending	Japan Tobacco, Inc.	IRON (III) CITRATE, SUBSTANTIALLY FREE OF BETA-IRON HYDROXIDE OXIDE
	16/438,694	6/12/2019			Pending	Japan Tobacco, Inc.	TABLET CONTAINING FERRIC CITRATE

2. TRADEMARK REGISTRATIONS[1]

Trademark	Country	Status	Application #	Date Filed	Registration #	Registration Date	Owner
AURYXIA	United States of America	Registered	86/390,566	Sep 10, 2014	4956680	May 10, 2016	Keryx Biopharmaceuticals, Inc.

[1] NTD: Any trademarks which are not part of the Collateral have been removed, but these are still referenced in the perfection certificate.

3. IP LICENSES

a. Second Amended and Restated License Agreement between the Borrower and Panion & BF Biotech, Inc., dated April 17, 2019.
b. Amended and Restated Sublicense Agreement between Keryx and Japan Tobacco and TORII Pharmaceutical Co., Ltd., dated June 8, 2009.
c. First Amendment to Amended and Restated Sublicense Agreement between Keryx and Japan Tobacco and TORII Pharmaceutical Co., Ltd., dated June 12, 2013.