

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7493911

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST (REVOLVING)

CONVEYING PARTY DATA

Name	Execution Date
CODEX DNA, INC.	08/09/2022

RECEIVING PARTY DATA

Name:	MIDCAP FUNDING IV TRUST
Street Address:	7255 WOODMONT AVE., SUITE 200
City:	BETHESDA
State/Country:	MARYLAND
Postal Code:	20814

PROPERTY NUMBERS Total: 54

Property Type	Number
Patent Number:	9771576
Patent Number:	10704041
Patent Number:	9718060
Patent Number:	11027282
Patent Number:	9751668
Patent Number:	10017306
Patent Number:	9446407
Patent Number:	10377997
Patent Number:	11060137
Patent Number:	11203761
Patent Number:	10968496
Patent Number:	8497069
Patent Number:	7723077
Patent Number:	9534251
Patent Number:	10577629
Patent Number:	7776532
Patent Number:	8435736
Patent Number:	7704690
Patent Number:	9434974
Patent Number:	10041060

PATENT

Property Type	Number
Patent Number:	8859744
Patent Number:	9593329
Patent Number:	9481880
Patent Number:	8968999
Patent Number:	10266865
Patent Number:	10626429
Patent Number:	9273310
Patent Number:	9267132
Patent Number:	10975378
Patent Number:	10818378
Patent Number:	9206435
Patent Number:	11085037
Patent Number:	10876110
Patent Number:	8173368
Patent Number:	8367335
Patent Number:	9644225
Application Number:	16920204
Application Number:	16212534
Application Number:	17321301
Application Number:	16525349
Application Number:	17373115
Application Number:	17541163
Application Number:	17212926
Application Number:	16799424
Application Number:	16388722
Application Number:	17200633
Application Number:	17185609
Application Number:	17320021
Application Number:	63223866
Application Number:	17527043
Application Number:	63334578
PCT Number:	US2021019656
PCT Number:	US2021032344
PCT Number:	US2021059422

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 using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 7036106100
Email: dctrademark@hoganlovells.com
Correspondent Name: GRETA D. FELDMAN OF HOGAN LOVELLS US LLP
Address Line 1: 8350 BROAD STREET, 17TH FLOOR
Address Line 2: ATTN: BOX INTELLECTUAL PROPERTY
Address Line 4: TYSONS, VIRGINIA 22102

ATTORNEY DOCKET NUMBER:	036639/000165
NAME OF SUBMITTER:	GRETA D. FELDMAN OF HOGAN LOVELLS US LLP
SIGNATURE:	/Greta D. Feldman/
DATE SIGNED:	08/18/2022

Total Attachments: 9

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement is entered into as of the 9th day of August, 2022 by and among **MIDCAP FUNDING IV TRUST**, a Delaware statutory trust (in such capacity, together with its successors and assigns, "Agent"), **CODEX DNA, INC.**, a Delaware corporation ("Codex DNA"), **ETONBIO, INC.**, a California corporation ("EtonBio"), and together with Codex DNA and any other Person that joins this agreement as a Grantor, each a "Grantor" and collectively, the "Grantors").

RECITALS

A. The Lenders have agreed to make certain advances of money and to extend certain financial accommodations to the Grantors (the "Credit Extensions") in the amounts and manner set forth in that certain Credit, Security and Guaranty Agreement (Revolving Loan), by and between Agent, the Lenders, the Grantors, and the other Credit Parties party thereto dated as of the date hereof (as the same may be amended, modified or supplemented from time to time, the "Credit Agreement"; capitalized terms used herein are used as defined in the Credit Agreement). The Lenders are willing to make the Credit Extensions to the Grantors, but only upon the condition, among others, that the Grantors shall grant to Agent, for the ratable benefit of the Lenders, a security interest in certain Copyrights, Trademarks, Patents, and Mask Works (as each term is described below) to secure the obligations of the Grantors under the Credit Agreement.

B. Pursuant to the terms of the Credit Agreement, each Grantor has granted to Agent, for the ratable benefit of the Lenders, a security interest in all of such Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral (excluding Excluded Property).

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 (all of which shall collectively be called the "Intellectual Property Collateral"), including, without limitation, the following:

(a) Any and all copyright rights, copyright applications, copyright registrations and like protections in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held, including without limitation those set forth on Exhibit A attached hereto, as such Exhibit may be amended, modified or supplemented from time to time (collectively, the "Copyrights");

(b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;

(c) Any and all design rights that may be available to such Grantor now or hereafter existing, created, acquired or held;

(d) Any and all patents, patent applications and like protections including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same, including without limitation the patents and patent applications set forth on Exhibit B attached hereto, as such Exhibit may be amended, modified or supplemented from time to time (collectively, the “Patents”);

(e) Any and all trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of such Grantor connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto, as such Exhibit may be amended, modified or supplemented from time to time (collectively, the “Trademarks”);

(f) Any and all mask works or similar rights available for the protection of semiconductor chips, now owned or hereafter acquired, including, without limitation those set forth on Exhibit D attached hereto, as such Exhibit may be amended, modified or supplemented from time to time (collectively, the “Mask Works”);

(g) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(h) All licenses or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(i) All amendments, extensions, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works; and

(j) 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.

Notwithstanding the foregoing, the Intellectual Property Collateral does not include any Excluded Property or “intent to use” trademark at all times prior to the first use thereof, whether by the actual use thereof in commerce, the recording of a statement of use with the United States Patent and Trademark Office or otherwise, provided, that upon submission and acceptance by the United States Patent and Trademark Office of an amendment to allege use of an intent-to-use trademark application pursuant to 15 U.S.C. Section 1060(a) (or any successor provision), such intent-to-use application shall constitute Intellectual Property Collateral.

This security interest is granted in conjunction with the security interest granted to Agent, for the ratable benefit of the Lenders, under the Credit Agreement. The rights and remedies of Agent with respect to the security interest granted hereby are in addition to those set forth in the Credit Agreement and the other Financing Documents, and those which are now or hereafter available to Agent as a matter of law or equity. Each right, power and remedy of Agent provided for herein or in the Credit Agreement or any of the Financing Documents, or now or hereafter existing at law or in equity shall be cumulative and concurrent and shall be in addition to every right, power or remedy provided for herein and the exercise by Agent of any one or more of the rights, powers or remedies provided for in this Intellectual Property Security Agreement, the Credit Agreement or any of the other Financing Documents, or now or hereafter existing at law or in equity, shall not preclude the simultaneous or later exercise by any person, including Agent, of any or all other rights, powers or remedies.

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT AND ALL DISPUTES AND OTHER MATTERS RELATING HERETO OR THERETO OR ARISING THEREFROM (WHETHER SOUNDING IN CONTRACT LAW, TORT LAW OR OTHERWISE), SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO CONFLICTS OF LAWS PRINCIPLES (OTHER THAN SECTION 5-1401 OF THE GENERAL OBLIGATIONS LAW).

EACH GRANTOR AND AGENT HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT AND AGREES THAT ANY SUCH ACTION OR PROCEEDING SHALL BE TRIED BEFORE A COURT AND NOT BEFORE A JURY. EACH GRANTOR AND AGENT ACKNOWLEDGES THAT THIS WAIVER IS A MATERIAL INDUCEMENT TO ENTER INTO A BUSINESS RELATIONSHIP, THAT EACH HAS RELIED ON THE WAIVER IN ENTERING INTO THIS AGREEMENT, AND THAT EACH WILL CONTINUE TO RELY ON THIS WAIVER IN THEIR RELATED FUTURE DEALINGS. EACH GRANTOR AND AGENT WARRANTS AND REPRESENTS THAT IT HAS HAD THE OPPORTUNITY OF REVIEWING THIS JURY WAIVER WITH LEGAL COUNSEL, AND THAT IT KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS.

This Intellectual Property Security Agreement may be signed in any number of counterparts, each of which shall be deemed an original and all of which when taken together shall constitute one and the same instrument. Delivery of an executed counterpart of this Intellectual Property Security Agreement by facsimile or by electronic mail delivery of an electronic version (e.g., .pdf or .tif file) of an executed signature page shall be effective as delivery of an original executed counterpart hereof and shall bind the parties hereto.

Unless otherwise specifically provided herein, any notice hereunder shall be in writing and may be personally served or sent by telefacsimile or United States mail or courier service and shall be deemed to have been given when delivered in person or by courier service and signed for against receipt thereof, upon receipt of telefacsimile or electronic mail, or three (3) Business Days after depositing it in the United States mail with postage prepaid and properly addressed. For the purposes hereof, the addresses of the parties hereto shall be as follows:

If Agent: MidCap Funding IV Trust
c/o MidCap Financial Services, LLC, as servicer
7255 Woodmont Ave, Suite 300
Bethesda, MD 20814
Attn: Account Manager for Codex DNA transaction
Email: notices@midcapfinancial.com

With a copy to:

MidCap Funding IV Trust
c/o MidCap Financial Services, LLC, as servicer
7255 Woodmont Ave, Suite 300
Bethesda, MD 20814
Attn: Legal
Email: legalnotices@midcapfinancial.com

If to a Grantor: Codex DNA, Inc.
9535 Waples Street, Suite 100
San Diego, CA 92121
Attn: Todd R. Nelson
Email: todd@codexdna.com

With a copy to:
9535 Waples Street, Suite 100
San Diego, CA 92121
Attn: Rob Cutler
Email: robcutler@codexdna.com

And a copy to:

Wilson Sonsini Goodrich & Rosati
650 Page Mill Road
Palo Alto, CA 94304
Attn: Philip H. Oettinger
Email: poettinger@wsgr.com

or as may be designated by such party in a written notice to all of the other parties complying as to delivery with the terms of this paragraph.

The provisions of the Credit Agreement regarding choice of law, jurisdiction, and venue are incorporated herein and shall govern this Intellectual Property Security Agreement. This Intellectual Property Security Agreement shall inure to the benefit of Agent, the Lenders and their respective successors and assigns, and shall be binding upon each Grantor and its successors and assigns.

[Signature page follows.]

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

GRANTORS:

CODEX DNA, INC.

DocuSigned by:
By: Todd R. Nelson
Name: Todd R. Nelson
Title: Chief Executive Officer

ETONBIO, INC.

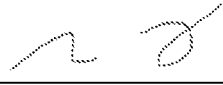
DocuSigned by:
By: Todd R. Nelson
Name: Todd R. Nelson
Title: Chief Executive Officer

AGENT:

MIDCAP FUNDING IV TRUST

By: Apollo Capital Management, L.P.,
its investment manager

By: Apollo Capital Management GP, LLC,
its general partner

By:  _____

Name: Maurice Amsellem

Title: Authorized Signatory

EXHIBIT B

Patents

<u>Description</u>	<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>
Materials and Methods for the Synthesis of Error-Minimized Nucleic Acid Molecules	9,771,576	09/26/2017
Materials and Methods for the Synthesis of Error-Minimized Nucleic Acid Molecules	10,704,041	07/07/2020
Materials and Methods for the Synthesis of Error-Minimized Nucleic Acid Molecules	16/920,204	07/02/2020
PEG-Mediated Assembly of Nucleic Acid Molecules	16/212,534	12/06/2018
Digital to Biological Converter	9,718,060	08/01/2017
Digital to Biological Converter	11,027,282	06/08/2021
Digital to Biological Converter	17/321,301	05/14/2021
Tamper-Resistant Assembly for Securing Valuable Material	9,751,668	09/05/2017
Tamper-Resistant Assembly for Securing Valuable Material	10,017,306	07/10/2018
Lid Mechanism	9,446,407	09/20/2016
Genetically Engineered Vibrio sp. and Uses Thereof	10,377,997	08/13/2019
Genetically Engineered Vibrio sp. and Uses Thereof	16/525,349	07/29/2019
Methods for Assembling DNA Molecules	11,060,137	07/13/2021
Methods for Assembling DNA Molecules	17/373,115	07/12/2021
Genetically Engineered Vibrio Sp. and Uses Thereof	11,203,761	12/21/2021
Genetically Engineered Vibrio Sp. and Uses Thereof	17/541,163	12/02/2021
Vibrio Sp. Organisms with Modified Lipopolysaccharide	10,968,496	04/06/2021
Vibrio Sp. Organisms with Modified Lipopolysaccharide	17/212,926	03/25/2021
Amplification and Cloning of Single DNA Molecules Using Rolling Circle Amplification	8,497,069	07/30/2013
In Vitro Recombination Method	7,723,077	05/25/2010
In Vitro Recombination Method	9,534,251	01/03/2017
In Vitro Recombination Method	10,577,629	03/03/2020
In Vitro Recombination Method	16/799,424	02/24/2020
Method for In Vitro Recombination	7,776,532	08/17/2010

MidCap / Codex DNA / IP Security Agreement (Revolving Loan)

PATENT
REEL: 061208 FRAME: 0072

<u>Description</u>	<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>
Method for In Vitro Recombination	8,435,736	05/07/2013
Synthesis of Error-Minimized Nucleic Acid Molecules	7,704,690	04/27/2010
Installation of Genomes or Partial Genomes into Cells or Cell-like Systems	9,434,974	09/06/2016
Synthetic Genomes	10,041,060	08/07/2018
Recombinant Hydrogen-Producing Cyanobacterium and Uses Thereof	8,859,744	10/14/2014
Assembly of Large Nucleic Acids	9,593,329	03/14/2017
Methods of Genome Installation in a Recipient Host Cell	9,481,880	11/01/2016
Methods for In Vitro Joining and Combinatorial Assembly of Nucleic Acid Molecules	8,968,999	03/03/2015
Methods for In Vitro Joining and Combinatorial Assembly of Nucleic Acid Molecules	10,266,865	04/23/2019
Methods for In Vitro Joining and Combinatorial Assembly of Nucleic Acid Molecules	16/388,722	04/18/2019
Methods for In Vitro Joining and Combinatorial Assembly of Nucleic Acid Molecules	10,626,429	04/21/2020
Methods for Cloning and Manipulating Genomes	9,273,310	03/01/2016
Methods for Cloning and Manipulating Genomes	9,267,132	02/23/2016
Methods for Cloning and Manipulating Genomes	10,975,378	04/13/2021
Encoding Text into Nucleic Acid Sequences	10,818,378	10/27/2020
Crowding Agent-Induced Nucleic Acid Transfer into a Recipient Host Cell	9,206,435	12/08/2015
Generation of Synthetic Genomes	11,085,037	08/10/2021
Generation of Synthetic Genomes	17/200,633	03/12/2021
Synthesis of Sequence-Verified Nucleic Acids	10,876,110	12/29/2020
Programmable Oligonucleotide Synthesis	8,173,368	05/08/2012
Programmable Oligonucleotide Synthesis	8,367,335	02/05/2013
Programmable Oligonucleotide Synthesis	9,644,225	05/09/2017
Methods for Assembling Nucleic Acids	17/185,609	02/25/2021
Methods for Assembling Nucleic Acids	PCT/US2021/019656	02/25/2021
On Demand Synthesis of Polynucleotide Sequences	17/320,021	05/13/2021
On Demand Synthesis of Polynucleotide Sequences	PCT/US21/32344	05/13/2021

MidCap / Codex DNA / IP Security Agreement (Revolving Loan)

<u>Description</u>	<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>
Microfluidic Devices, Instruments, and Methods for Producing RNA	63/223,866	07/20/2021
Methods of Synthesizing Nucleic Acid Molecules	17/527,043	11/15/2021
Methods of Synthesizing Nucleic Acid Molecules	PCT/US21/59422	11/15/2021
Apparatus for Delivery of Laboratory Consumables	63/334,578	04/25/2022