

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT7797271

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	SECURITY AGREEMENT (REVOLVING))
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
CARTERRA, INC.	02/10/2023
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	MIDCAP FUNDING IV TRUST
<b>Street Address:</b>	7255 WOODMONT AVE., SUITE 200
<b>City:</b>	BETHESDA
<b>State/Country:</b>	MARYLAND
<b>Postal Code:</b>	20814
<b>PROPERTY NUMBERS Total: 13</b>	
<b>Property Type</b>	<b>Number</b>
Patent Number:	8210119
Patent Number:	8999726
Patent Number:	8383059
Patent Number:	8211382
Patent Number:	9682372
Patent Number:	10300479
Patent Number:	10300450
Patent Number:	9682396
Patent Number:	7233396
Patent Number:	8830481
Patent Number:	8488120
Patent Number:	10825548
Application Number:	17224448
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(703)610-6200
<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>	7036106100
<b>Email:</b>	dctrademark@hoganlovells.com
<b>Correspondent Name:</b>	GRETA D. FELDMAN OF HOGAN LOVELLS US LLP
<b>Address Line 1:</b>	8350 BROAD ST. 17TH FLOOR

PATENT

<b>Address Line 4:</b>	TYSONS,, VIRGINIA 22102
<b>ATTORNEY DOCKET NUMBER:</b>	036639.000123
<b>NAME OF SUBMITTER:</b>	/GRETA D. FELDMAN/
<b>SIGNATURE:</b>	/Greta D. Feldman/
<b>DATE SIGNED:</b>	02/15/2023
<b>Total Attachments: 8</b> source=MidCap - Carterra - Patent Security Agreement - Revolving#page1.tif source=MidCap - Carterra - Patent Security Agreement - Revolving#page2.tif source=MidCap - Carterra - Patent Security Agreement - Revolving#page3.tif source=MidCap - Carterra - Patent Security Agreement - Revolving#page4.tif source=MidCap - Carterra - Patent Security Agreement - Revolving#page5.tif source=MidCap - Carterra - Patent Security Agreement - Revolving#page6.tif source=MidCap - Carterra - Patent Security Agreement - Revolving#page7.tif source=MidCap - Carterra - Patent Security Agreement - Revolving#page8.tif	

## INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement is entered into as of the 10th day of February, 2023 by and among **MIDCAP FUNDING IV TRUST**, a Delaware statutory trust (in such capacity, together with its successors and assigns, "Agent") and **CARTERRA, INC.**, a Delaware corporation ("Carterra") and together with 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 accommodation to the Grantors (the "Credit Extensions") in the amounts and manner set forth in that certain Credit and Security Agreement (Revolving Loan), by and between Agent, the Lenders and the Grantors dated as of the date hereof (as the same may be amended, modified or supplemented from time to time, the "Credit Agreement"; unless specifically defined herein, 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 defined 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.

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 “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 WAIVE 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. In furtherance of the foregoing, the words "execution", "signed", "signature", "delivery" and words of like import in or relating to any document to be signed in connection with this Intellectual Property Security Agreement and the transactions contemplated hereby or thereby shall be deemed to include Electronic Signatures, deliveries or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act. As used herein, "Electronic Signature" means an electronic sound, symbol, or process attached to, or associated with, a contract or other record and adopted by a Person with the intent to sign, authenticate or accept such contract or other record

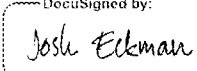
The provisions of the Credit Agreement regarding choice of law, jurisdiction, and venue are incorporated herein and shall govern this Intellectual Property Security Agreement. This Intellectual Property Security Agreement shall inure to the benefit of Agent, the Lenders and their respective successors 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:**

**CARTERRA, INC.**

DocuSigned by:  
  
By: \_\_\_\_\_  
Name: Josh Eckman  
Title: Chief Executive Officer

Address:

Carterra, Inc.  
825 N. 300 W., Suite C309  
Salt Lake City, UT 84103  
Attn: Janel Fillinger, Chief Financial Officer  
E-Mail: [jfillinger@carterra-bio.com](mailto:jfillinger@carterra-bio.com)

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

<b>Product Covered</b>	<b>Name</b>	<b>Registration No.</b>	<b>Date of Registration</b>	<b>Territorial Scope</b>	<b>Date of Expiration</b>	<b>Owned by:</b>
CFM Printhead LSA, Webb, Lyra, Gemini, Endeavor, Falcon	Spotting System and Device for High Concentration Spot Deposition on Microarrays and Other Microscale Devices.	8,210,119 ZL200580023025.2 E561744 602005034717.8 1773498	7/3/2012	USA China Austria Belgium Switzerland Germany France United Kingdom Netherlands Sweden	7/6/2025	University of Utah Research Foundation (UURF)  Carterra exclusive license
CFM Printhead LSA, Webb, Lyra, Gemini, Endeavor, Falcon	A Microfluidic Interface for Highly Parallel Addressing of Sensing Arrays.	8,999,726	4/7/2015	USA	9/30/2025	UURF Carterra exclusive license
CFM Printhead LSA, Webb, Lyra, Gemini, Endeavor, Falcon	A Microfluidic Interface for Highly Parallel Addressing of Sensing Arrays.	8,383,059	2/26/2013	USA	9/30/2025	UURF Carterra exclusive license
CFM Printhead LSA, Webb, Lyra, Gemini, Endeavor, Falcon	Microassay with Internal Referencing.	8,211,382	7/3/2012	USA	9/22/2028	Carterra, Inc.
CFM Printhead LSA, Webb, Lyra, Gemini, Endeavor, Falcon	Tip Overlay for Continuous Flow Spotting Apparatus.	9,682,372	6/20/2017	USA	7/19/2028	Carterra, Inc.



Product Covered	Name	Registration No.	Date of Registration	Territorial Scope	Date of Expiration	Owned by:
LSA, Webb, Lyra, Gemini, Endeavor, Falcon	Tip Overlay for Continuous Flow Spotting Apparatus.	10,300,479	5/28/2019	USA	9/14/2032	Carterra, Inc.
LSA, Webb, Lyra, Gemini, Endeavor, Falcon	Method and device for depositing a substance on a submerged surface.	10,300,450	5/28/2019	USA	6/19/2029	Carterra, Inc.
LSA, Webb, Lyra, Gemini, Endeavor, Falcon	Dual Flow Cell Fluid Delivery Systems.	9,682,396	6/20/2017	USA / PCT	3/24/2034	Carterra, Inc.
LSA, Webb, Lyra, Gemini, Endeavor, Falcon	Polarization Based Interferometric Detector.	7,233,396 2,649,421 ZL200780018285 2010877 - EPC  2010877 - France 602007053123.3 2010877 - Switzerland Patent 14 - 2010877 - UK	6/19/2007 8/8/2017 1/11/2012 11/22/2017  1/7/2009 11/22/2017 11/22/2017 11/22/2017	USA Canada China European Patent Convention France Germany Switzerland  United Kingdom	4/17/2026	Carterra, Inc.
LSA, Webb, Lyra, Gemini, Endeavor, Falcon	Polarization Based Interferometric Detector.	8,830,481	9/9/2014	USA	4/17/2026	Carterra, Inc.
LSA, Webb, Lyra, Gemini, Endeavor, Falcon	Polarization Based Interferometric Detector.	8,488,120	7/16/2013	USA	4/17/2026	Carterra, Inc.
LSA, Webb, Lyra, Gemini, Endeavor, Falcon	Systems and methods of sensing and analyzing antibody blocking interactions	10,825,548	11/3/2020	USA	12/2/2034	Carterra, Inc.

<b>Product Covered</b>	<b>Name</b>	<b>Registration No.</b>	<b>Date of Registration</b>	<b>Territorial Scope</b>	<b>Date of Expiration</b>	<b>Owned by:</b>
LSA, Webb, Lyra, Gemini, Endeavor, Falcon	Interstitial Printing of Microarrays for Biomolecular Interaction Analysis.	US20220326264A1 17/224,448	Pending	USA	4/7/2041	Carterra, Inc.