

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

EPAS ID: PAT7080477

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	PATENT SECURITY AGREEMENT

**CONVEYING PARTY DATA**

Name	Execution Date
ANCESTRY.COM DNA, LLC	12/17/2021
ANCESTRY.COM OPERATIONS INC.	12/17/2021

**RECEIVING PARTY DATA**

<b>Name:</b>	CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH, AS COLLATERAL AGENT
<b>Street Address:</b>	ELEVEN MADISON AVENUE
<b>City:</b>	NEW YORK
<b>State/Country:</b>	NEW YORK
<b>Postal Code:</b>	10010

**PROPERTY NUMBERS Total: 40**

Property Type	Number
Patent Number:	D904189
Application Number:	63283176
Application Number:	63283044
Application Number:	63282091
Application Number:	63278004
Application Number:	63277431
Application Number:	63253650
Application Number:	63247550
Application Number:	63246745
Application Number:	63237839
Application Number:	63225844
Application Number:	63225246
Application Number:	63224746
Application Number:	63220241
Application Number:	63193788
Application Number:	63191192
Application Number:	63147494
Application Number:	63124316
Application Number:	17531446

**PATENT**

Property Type	Number
Application Number:	17531438
Application Number:	17531426
Application Number:	17501199
Application Number:	17452658
Application Number:	17392695
Application Number:	17369704
Application Number:	17343626
Application Number:	17283829
Application Number:	17261458
Application Number:	17252652
Application Number:	17227986
Application Number:	17184451
Application Number:	17178822
Application Number:	17175070
Application Number:	17160191
Application Number:	17158801
Application Number:	17154316
Application Number:	17149721
Application Number:	17149600
Application Number:	17128009
Application Number:	17123919

**CORRESPONDENCE DATA**

**Fax Number:**

*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:** 2023704750  
**Email:** ipteam@coagencyglobal.com  
**Correspondent Name:** JOANNA MCCALL  
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**Address Line 2:** COGENCY GLOBAL INC.  
**Address Line 4:** WASHINGTON, D.C. 20036

<b>ATTORNEY DOCKET NUMBER:</b>	1552738
<b>NAME OF SUBMITTER:</b>	JENNY LIM
<b>SIGNATURE:</b>	/Jenny Lim/
<b>DATE SIGNED:</b>	12/17/2021

**Total Attachments: 8**

- source=2. Ancestry - CREDIT Patent Security Agreement [Executed]#page3.tif
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- source=2. Ancestry - CREDIT Patent Security Agreement [Executed]#page5.tif

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## PATENT SECURITY AGREEMENT

**Patent Security Agreement**, dated as of December 17, 2021, by ANCESTRY.COM DNA, LLC, a Virginia limited liability company, and ANCESTRY.COM OPERATIONS INC., a Virginia corporation (individually, a “**Grantor**”, and, collectively, the “**Grantors**”), in favor of CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH, in its capacity as collateral agent pursuant to the Credit Agreement (in such capacity, the “**Collateral Agent**”).

### WITNESSETH:

WHEREAS, the Grantors are party to a Security Agreement dated as of December 4, 2020 (as amended, amended and restated, supplemented or otherwise modified from time to time, the “**Security Agreement**”) in favor of the Collateral Agent pursuant to which the Grantors are required to execute and deliver this Patent Security Agreement.

NOW, THEREFORE, in consideration of the premises and to induce the Collateral Agent, for the benefit of the Secured Parties, to enter into the Credit Agreement, the Grantors hereby agree with the Collateral Agent as follows:

SECTION 1. Defined Terms. Unless otherwise defined herein, terms defined in the Security Agreement and used herein have the meaning given to them in the Security Agreement.

SECTION 2. Grant of Security Interest in Patent Collateral. As security for the payment or performance, as the case may be, in full of the Secured Obligations, including the Guaranty (as defined in the Credit Agreement), each Grantor hereby pledges and grants to the Collateral Agent for the benefit of the Secured Parties a security interest in all of its right, title or interest in or to any and all of the following Article 9 Collateral (excluding any Excluded Assets) of such Grantor:

(a) All issued and applied for Patents of such Grantor, including those listed on Schedule I attached hereto.

SECTION 3. The Security Agreement. The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with the Security Interest granted to the Collateral Agent pursuant to the Security Agreement and the Grantors hereby acknowledge and affirm that the rights and remedies of the Collateral Agent with respect to the security interest in the Patents made and granted hereby are more fully set forth in the Security Agreement. In the event that any provision of this Patent Security Agreement is deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall control unless the Collateral Agent shall otherwise determine.

SECTION 4. Termination. Upon the termination of the Security Agreement in accordance with Section 6.11 thereof, the Collateral Agent shall, at the expense of such Grantor, execute, acknowledge, and deliver to the Grantors an instrument reasonably requested by such Grantor in writing in recordable form releasing the Lien on and Security Interest in the Patents under this Patent Security Agreement.

SECTION 5. Counterparts. This Patent Security Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall

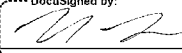
constitute one and the same instrument. Delivery by facsimile or other electronic communication of an executed counterpart of a signature page to this Patent Security Agreement shall be effective as delivery of an original executed counterpart of this Patent Security Agreement.

SECTION 6. Intercreditor Agreements. Notwithstanding any provision to the contrary contained herein, the terms of this Patent Security Agreement, the Liens created under the Security Agreement and the rights and remedies of the Collateral Agent hereunder are subject to the terms of each applicable Intercreditor Agreement. In the event of any conflict or inconsistency between the terms of this Patent Security Agreement and an Intercreditor Agreement, the terms of that Intercreditor Agreement shall govern.

[Signature pages follow.]

IN WITNESS WHEREOF, the undersigned have executed this Patent Security Agreement by a duly authorized officer as of the date first above written.

ANCESTRY.COM DNA, LLC, as a Grantor

DocuSigned by:  


6C528514B936492  
Name: Howard Hochhauser  
Title: Vice President and Chief Financial Officer

ANCESTRY.COM OPERATIONS INC., as a Grantor

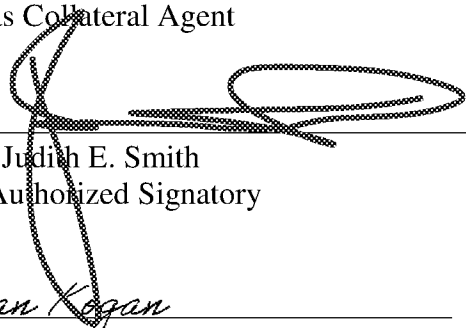
DocuSigned by:  


6C528514B936492  
Name: Howard Hochhauser  
Title: Chief Financial Officer, Chief Accounting Officer and Chief Operating Officer

*Signature Page to Patent Security Agreement*

CREDIT SUISSE AG, CAYMAN ISLANDS  
BRANCH, as Collateral Agent

By: \_\_\_\_\_

  
Name: Judith E. Smith  
Title: Authorized Signatory

By: \_\_\_\_\_

*Dan Kogan*  
Name: Daniel Kogan  
Title: Authorized Signatory

## Schedule I

### U.S. Patent Registrations and Applications

Title	Application Number	Issue Date	Patent Number	Registered Owner
Cap For A Container	29/686,155	12/8/2020	D904,189	Ancestry.com DNA, LLC
Geographical Boundary Estimation For Genetic Communities	63/283,176	Pending	Pending	Ancestry.com DNA, LLC
Scoring Method For Genetic Matches	63/283,044	Pending	Pending	Ancestry.com DNA, LLC
Family Tree Interface	63/282,091	Pending	Pending	Ancestry.com Operations Inc.
Image Enhancement	63/278,004	Pending	Pending	Ancestry.com Operations Inc.
Reusable Profile Component System and Method	63/277,431	Pending	Pending	Ancestry.com Operations Inc.
System And Method For Photograph Identification, Retrieval, and Arrangement	63/253,650	Pending	Pending	Ancestry.com Operations Inc.
Search-Result Explanation Systems and Methods	63/247,550	Pending	Pending	Ancestry.com Operations Inc.
Extraction of Keyphrases From Genealogical Descriptions	63/246,745	Pending	Pending	Ancestry.com Operations Inc.
Systems and Methods for Detection and Correction of OCR Text	63/237,839	Pending	Pending	Ancestry.com Operations Inc.
Image Faceting For Efficient Record Search	63/225,844	Pending	Pending	Ancestry.com Operations Inc.
Data-Sharding Systems And Methods For Time	63/225,246	Pending	Pending	Ancestry.com Operations Inc.



<b>Title</b>	<b>Application Number</b>	<b>Issue Date</b>	<b>Patent Number</b>	<b>Registered Owner</b>
and Cost-Efficient Record Search				
Storytelling Interface	63/224,746	Pending	Pending	Ancestry.com DNA, LLC
Handwriting Recognition Processing And Analysis Pipeline	63/220,241	Pending	Pending	Ancestry.com Operations Inc.
Fast Genotype Comparison for IBD Detection	63/193,788	Pending	Pending	Ancestry.com DNA, LLC
Domain Knowledge Guided Offline Q Learning	63/191,192	Pending	Pending	Ancestry.com Operations Inc.
Context-based Tool for Automatic Keyphrase Extraction	63/147,494	Pending	Pending	Ancestry.com Operations Inc.
Simplified Handwriting Recognition Model	63/124,316	Pending	Pending	Ancestry.com Operations Inc.
Photo Composite	17/531,446	Pending	Pending	Ancestry.com DNA, LLC
Community Assignments In Identity By Descent Networks And Genetic Variant Origination	17/531,438	Pending	Pending	Ancestry.com DNA, LLC
Filtering Genetic Networks to Discover Populations of Interest	17/531,426	Pending	Pending	Ancestry.com DNA, LLC
Image Captioning With Weakly-Supervised Attention Penalty	17/501,199	Pending	Pending	Ancestry.com Operations Inc.
Improving Handwriting Recognition Model with Language Modeling	17/452,658	Pending	Pending	Ancestry.com Operations Inc.
Machine-Learning System And Method For Identifying Same Person	17/392,695	Pending	Pending	Ancestry.com Operations Inc.

<b>Title</b>	<b>Application Number</b>	<b>Issue Date</b>	<b>Patent Number</b>	<b>Registered Owner</b>
In Genealogical Databases				
Providing Grave Information Using Augmented Reality	17/369,704	Pending	Pending	Ancestry.com Operations Inc.
Systems And Methods For Identifying And Segmenting Objects From Images	17/343,626	Pending	Pending	Ancestry.com Operations Inc.
Enrichment Of Traits And Association With Population Demography	17/283,829	Pending	Pending	Ancestry.com DNA, LLC
System And Method For Genealogical Entity Resolution	17/261,458	Pending	Pending	Ancestry.com Operations Inc.
Filtering Genetic Networks to Discover Populations of Interest	17/252,652	Pending	Pending	Ancestry.com DNA, LLC
Topic Segmentation of Image-Derived Text	17/227,986	Pending	Pending	Ancestry.com Operations Inc.
Genetic And Genealogical Analysis For Identification Of Birth Location And Surname Information	17/184,451	Pending	Pending	Ancestry.com DNA, LLC
Ventral-Dorsal Neural Networks: Object Detection Via Selective Attention	17/178,822	Pending	Pending	Ancestry.com Operations Inc.
Multiclass Classification With Diversified Precision and Recall Weightings	17/175,070	Pending	Pending	Ancestry.com Operations Inc.
Methods and Systems for Generating a Virtual Progeny Genome	17/160,191	Pending	Pending	Ancestry.com DNA, LLC

<b>Title</b>	<b>Application Number</b>	<b>Issue Date</b>	<b>Patent Number</b>	<b>Registered Owner</b>
Clustering Historical Images Using A Convolutional Neural Net And Labeled Data Bootstrapping	17/158,801	Pending	Pending	Ancestry.com Operations Inc.
Joint Extraction of Named Entities and Relations from Text Using Machine Learning Models	17/154,316	Pending	Pending	Ancestry.com Operations Inc.
Ancestry Inference Based On Convolutional Neural Network	17/149,721	Pending	Pending	Ancestry.com DNA, LLC
Estimation Of Phenotypes Using DNA, Pedigree, And Historical Data	17/149,600	Pending	Pending	Ancestry.com DNA, LLC
Linking Individual Datasets to a Database	17/128,009	Pending	Pending	Ancestry.com DNA, LLC
Prediction Of Phenotypes Using Recommender Systems	17/123,919	Pending	Pending	Ancestry.com DNA, LLC