

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6435577

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
ANCESTRY.COM DNA, LLC	12/04/2020
ANCESTRY.COM OPERATIONS INC.	12/04/2020
IARCHIVES, INC.	12/04/2020
ANCESTRYHEALTH.COM, LLC	12/04/2020

RECEIVING PARTY DATA

Name:	CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH
Street Address:	ELEVEN MADISON AVENUE
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10010

PROPERTY NUMBERS Total: 141

Property Type	Number
Patent Number:	10720229
Patent Number:	10692587
Patent Number:	10679729
Patent Number:	10658068
Patent Number:	10558930
Patent Number:	10504611
Patent Number:	10296710
Patent Number:	10223498
Patent Number:	10114922
Patent Number:	D831688
Patent Number:	D831057
Patent Number:	9940433
Patent Number:	9732376
Patent Number:	9390225
Patent Number:	8855935
Patent Number:	8805620
Patent Number:	8738297

PATENT

Property Type	Number
Patent Number:	8620594
Patent Number:	10796152
Patent Number:	10635680
Patent Number:	10621693
Patent Number:	10552418
Patent Number:	10318846
Patent Number:	10262042
Patent Number:	9959013
Patent Number:	9792520
Patent Number:	9767353
Patent Number:	9747345
Patent Number:	9740928
Patent Number:	9665257
Patent Number:	9620079
Patent Number:	9619702
Patent Number:	9454545
Patent Number:	9400942
Patent Number:	9330418
Patent Number:	9251394
Patent Number:	9197525
Patent Number:	9177266
Patent Number:	9053362
Patent Number:	9030502
Patent Number:	8949110
Patent Number:	8938439
Patent Number:	8908971
Patent Number:	8894027
Patent Number:	8837787
Patent Number:	8825705
Patent Number:	8824803
Patent Number:	8825709
Patent Number:	8801201
Patent Number:	8793574
Patent Number:	8786603
Patent Number:	8768970
Patent Number:	8769438
Patent Number:	8731336
Patent Number:	8687890

Property Type	Number
Patent Number:	8600152
Patent Number:	8600980
Patent Number:	8446652
Patent Number:	8375286
Patent Number:	8370759
Patent Number:	8356023
Patent Number:	8249391
Patent Number:	8224821
Patent Number:	8185557
Patent Number:	8140512
Patent Number:	8095567
Patent Number:	8073285
Patent Number:	8019719
Patent Number:	7957907
Patent Number:	7945116
Patent Number:	7908315
Patent Number:	7870139
Patent Number:	7756289
Patent Number:	7734092
Patent Number:	7724981
Patent Number:	7392268
Patent Number:	7249129
Patent Number:	7240062
Patent Number:	7111144
Application Number:	16262749
Application Number:	16481050
Application Number:	17065763
Application Number:	15203776
Application Number:	15479291
Application Number:	16397114
Application Number:	15574363
Application Number:	63107511
Application Number:	14505066
Application Number:	14293541
Application Number:	16779082
Application Number:	16758757
Application Number:	62948676
Application Number:	16151111

Property Type	Number
Application Number:	62936899
Application Number:	16901950
Application Number:	63086529
Application Number:	63089331
Application Number:	16936444
Application Number:	16481030
Application Number:	62939211
Application Number:	16824536
Application Number:	16772739
Application Number:	16563800
Application Number:	16596063
Application Number:	16406891
Application Number:	17018611
Application Number:	16872139
Application Number:	16885200
Application Number:	15931009
Application Number:	15393665
Application Number:	16928903
Application Number:	16862266
Application Number:	16814891
Application Number:	63037364
Application Number:	63009185
Application Number:	16822388
Application Number:	63047244
Application Number:	62976799
Application Number:	17044223
Application Number:	62962786
Application Number:	16249803
Application Number:	16701162
Application Number:	62975936
Application Number:	16803219
Application Number:	62963944
Application Number:	16724908
Application Number:	62951646
Application Number:	16737269
Application Number:	16198480
Application Number:	16579700
Application Number:	15136093

Property Type	Number
Application Number:	16669530
Application Number:	16598988
Application Number:	16568010
Application Number:	16567962
Application Number:	16406847
Application Number:	16543033
Application Number:	15524612
Application Number:	14649796
Application Number:	16152169
Application Number:	29607734

CORRESPONDENCE DATA

Fax Number: (800)494-7512

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: 202-370-4756

Email: ipteam@coagencyglobal.com

Correspondent Name: JAY DASILVA

Address Line 1: 1025 VERMONT AVE NW, SUITE 1130

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Address Line 4: WASHINGTON, D.C. 20005

ATTORNEY DOCKET NUMBER: 1298420 PAT A

NAME OF SUBMITTER: DAPHNE XU

SIGNATURE: /Daphne Xu/

DATE SIGNED: 12/07/2020

Total Attachments: 19

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PATENT SECURITY AGREEMENT

Patent Security Agreement, dated as of December 4, 2020, by ANCESTRY.COM DNA, LLC, a Virginia limited liability company, ANCESTRY.COM OPERATIONS INC., a Virginia corporation, ANCESTRYHEALTH.COM, LLC, a Delaware limited liability company, and IARCHIVES, INC., a Utah 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.

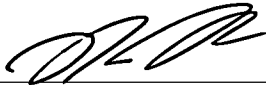
SECTION 4. Termination. Upon the termination of the Security Agreement in accordance with Section 6.11 thereof, the Collateral Agent shall, at the expense of such Grantor, execute, acknowledge, and deliver to the Grantors an instrument reasonably requested by such Grantor in writing in recordable form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

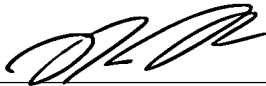
SECTION 6. Intercreditor Agreements. Notwithstanding any provision to the contrary contained herein, the terms of this Patent Security Agreement, the Liens created under the Security Agreement and the rights and remedies of the Collateral Agent hereunder are subject to the terms of each applicable Intercreditor 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.]


ANCESTRY.COM OPERATIONS INC.

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

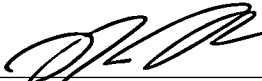
ANCESTRY.COM DNA, LLC

By: 
Name: Howard Hochhauser
Title: Vice President and Chief Financial
Officer

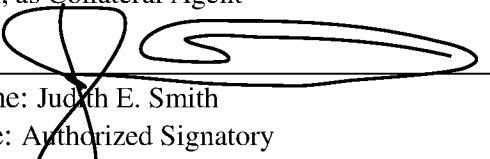
ANCESTRYHEALTH.COM, LLC

By: 
Name: Howard Hochhauser
Title: Vice President and Chief Financial
Officer

IARCHIVES, INC.

By: 
Name: Howard Hochhauser
Title: President, Chief Financial Officer, Chief
Accounting Officer and Chief Operating
Officer

**CREDIT SUISSE AG, CAYMAN ISLANDS
BRANCH, as Collateral Agent**

By: 
Name: Judith E. Smith
Title: Authorized Signatory

By: 
Name: Brady Bingham
Title: Authorized Signatory

Schedule I

U.S. Patent Registrations and Applications

Title	Application Number	Issue Date	Patent Number	Registered Owner
Reducing Error In Predicted Genetic Relationships	15/519,104	7/21/2020	10,720,229	Ancestry.com DNA, LLC
Global Ancestry Determination System	16/567,957	6/23/2020	10,692,587	Ancestry.com DNA, LLC
Haplotype Phasing Models	15/519,099	6/9/2020	10,679,729	Ancestry.com DNA, LLC
Evolutionary Models Of Multiple Sequence Alignments To Predict Offspring Fitness Prior To Conception	14/568,456	5/19/2020	10,658,068	Ancestry.com DNA, LLC
Local Genetic Ethnicity Determination System	15/209,458	2/11/2020	10,558,930	Ancestry.com DNA, LLC
Ancestral Human Genomes	15/519,105	12/10/2019	10,504,611	Ancestry.com DNA, LLC
Family Networks	15/182,787	5/21/2019	10,296,710	Ancestry.com DNA, LLC
Discovering Population Structure From Patterns Of Identity By Descent	15/168,011	3/5/2019	10,223,498	Ancestry.com DNA, LLC
Identifying Ancestral Relationships Using A Continuous Stream Of Input	14/029,765	10/30/2018	10,114,922	Ancestry.com DNA, LLC
Display Panel Of A Programmed Computer System With A Graphical User Interface	29/606,611	10/23/2018	D831,688	Ancestry.com DNA, LLC
Display Panel Of A Programmed Computer	29/602,694	10/16/2018	D831,057	Ancestry.com DNA, LLC

Title	Application Number	Issue Date	Patent Number	Registered Owner
System With A Graphical User Interface				
Discovering Population Structure From Patterns Of Identity-By-Descent	15/458,549	4/10/2018	9,940,433	Ancestry.com DNA, LLC
Sample Collection Device	14/448,721	8/15/2017	9,732,376	Ancestry.com DNA, LLC
Family Networks	14/214,856	7/12/2016	9,390,225	Ancestry.com DNA, LLC
Method And System For Displaying Genetic And Genealogical Data	11/541,796	10/7/2014	8,855,935	Ancestry.com DNA, LLC
Method And System For Selecting A Donor Or Reproductive Partner For A Potential Parent	12/908,636	8/12/2014	8,805,620	Ancestry.com DNA, LLC
Method For Molecular Genealogical Research	13/066,680	5/27/2014	8,738,297	Ancestry.com DNA, LLC
A Method And System For Generating A Virtual Progeny Genome	13/591,373	12/31/2013	8,620,594	Ancestry.com DNA, LLC
Ventral-Dorsal Neural Networks: Object Detection Via Selective Attention	16/573,180	10/6/2020	10,796,152	Ancestry.com Operations Inc.
Customized Coordinate Ascent For Ranking Data Records	16/481,027	4/28/2020	10,635,680	Ancestry.com Operations Inc.
2D Multi-Coordinate Adaptive Dynamics Programming Method For Robust Document Registration	15/392,997	4/14/2020	10,621,693	Ancestry.com Operations Inc.
Optimization Of First Set Of Ordered Items And	15/393,637	2/4/2020	10,552,418	Ancestry.com Operations Inc.

Title	Application Number	Issue Date	Patent Number	Registered Owner
Delayed Non-Duplicated Work Queue				
Clustering Historical Images Using A Convolutional Neural Net And Labeled Data Bootstrapping	15/393,008	6/11/2019	10,318,846	Ancestry.com Operations Inc.
System And Method For Determining That Two Data Records Relate To The Same Subject	15/593,854	4/16/2019	10,262,042	Ancestry.com Operations Inc.
System And Method For Creating A Family Tree Data Structure	15/089,090	5/1/2018	9,959,013	Ancestry.com Operations Inc.
System And Method For Transcribing Handwritten Records Using Word Grouping With Assigned Centroids	15/451,781	10/17/2017	9,792,520	Ancestry.com Operations Inc.
System And Method For Transcribing Historical Records Into Digitized Text	14/841,502	9/19/2017	9,767,353	Ancestry.com Operations Inc.
System And Method For Identifying Relationships In A Data Graph	14/457,769	8/29/2017	9,747,345	Ancestry.com Operations Inc.
System And Method For Transcribing Handwritten Records Using Word Groupings Based On Feature Vectors	14/841,519	8/22/2017	9,740,928	Ancestry.com Operations Inc.
Interactive Modification Of Spacing Constraints Of Genealogical Charts With Live Feedback	12/647,767	5/30/2017	9,665,257	Ancestry.com Operations Inc.
Visualizing, Creating And Editing Blending	13/733,045	4/11/2017	9,620,079	Ancestry.com Operations Inc.

Title	Application Number	Issue Date	Patent Number	Registered Owner
Modes Methods And Systems				
System And Method For Transcribing Handwritten Records Using Word Grouping With Assigned Centroids	14/841,542	4/11/2017	9,619,702	Ancestry.com Operations Inc.
Automated Field Position Linking Of Indexed Data To Digital Images	14/472,202	9/27/2016	9,454,545	Ancestry.com Operations Inc.
System And Method For Estimating/Determining The Date Of A Photo	14/988,135	7/26/2016	9,400,942	Ancestry.com Operations Inc.
System And Method For Creating A Family Tree Data Structure	13/618,568	5/3/2016	9,330,418	Ancestry.com Operations Inc.
System And Method For Estimating/Determining The Date Of A Photo	13/440,754	2/2/2016	9,251,394	Ancestry.com Operations Inc.
Systems And Methods For Displaying Statistical Information On A Web Page	13/738,871	11/24/2015	9,197,525	Ancestry.com Operations Inc.
Methods And Systems For Implementing Ancestral Relationship Graphical Interface	13/035,816	11/3/2015	9,177,266	Ancestry.com Operations Inc.
System And Method For Capturing Relevant Information From A Printed Document	14/174,733	6/9/2015	9,053,362	Ancestry.com Operations Inc.
System And Method For Organizing Documents	13/440,586	5/12/2015	9,030,502	Ancestry.com Operations Inc.
System And Method For Extracting Categories Of Data	13/242,566	2/3/2015	8,949,110	Ancestry.com Operations Inc.

Title	Application Number	Issue Date	Patent Number	Registered Owner
Collaborative Systems And Methods For Constructing Representations Of Data	13/718,441	1/20/2015	8,938,439	Ancestry.com Operations Inc.
Devices, Systems And Methods For Transcription Suggestions And Completions	14/036,404	12/9/2014	8,908,971	Ancestry.com Operations Inc.
Multi-Angle And Multi-Position Reprographic Copy Stand	13/075,565	11/25/2014	8,894,027	Ancestry.com Operations Inc.
System And Method For Associating A Photo With A Data Structure Node	13/440,811	9/16/2014	8,837,787	Ancestry.com Operations Inc.
Systems And Methods For Communication Among Collaborating Users	12/511,023	9/2/2014	8,825,705	Ancestry.com Operations Inc.
Automated Field Position Linking Of Indexed Data To Digital Images	13/601,111	9/2/2014	8,824,803	Ancestry.com Operations Inc.
Methods And Systems For Displaying Blended Family Genealogical Information	13/330,322	9/2/2014	8,825,709	Ancestry.com Operations Inc.
Dual Sided Mirror Book Imaging Devices And Methods	13/022,813	8/12/2014	8,801,201	Ancestry.com Operations Inc.
Methods And Systems For Identification And Transcription Of Individual Ancestral Records And Family	13/049,671	7/29/2014	8,793,574	Ancestry.com Operations Inc.
Ancestor-To-Ancestor Relationship Linking Methods And Systems	13/035,845	7/22/2014	8,786,603	Ancestry.com Operations Inc.

Title	Application Number	Issue Date	Patent Number	Registered Owner
Providing Alternatives Within A Family Tree Systems And Methods	13/326,718	7/1/2014	8,768,970	Ancestry.com Operations Inc.
Methods And System For Displaying Pedigree Charts On A Touch Device	13/333,670	7/1/2014	8,769,438	Ancestry.com Operations Inc.
Multi-Perpendicular Line-Based Deskew With Affine And Perspective Distortion Correction	13/325,396	5/20/2014	8,731,336	Ancestry.com Operations Inc.
System And Method For Capturing Relevant Information From A Printed Document	13/242,736	4/1/2014	8,687,890	Ancestry.com Operations Inc.
Devices, Systems And Methods For Transcription Suggestions And Completions	12/605,999	12/3/2013	8,600,152	Ancestry.com Operations Inc.
Consolidated Information Retrieval Results	13/422,245	12/3/2013	8,600,980	Ancestry.com Operations Inc.
Image Quality Monitoring And Tagging At Scan Time	11/750,191	5/21/2013	8,446,652	Ancestry.com Operations Inc.
Systems And Methods For Displaying Statistical Information On A Web Page	10/247,769	2/12/2013	8,375,286	Ancestry.com Operations Inc.
Visualizing, Creating And Editing Blending Modes Methods And Systems	12/240,566	2/5/2013	8,370,759	Ancestry.com Operations Inc.
Collaborative Systems And Methods For Constructing Representations Of Data	12/510,999	1/15/2013	8,356,023	Ancestry.com Operations Inc.

Title	Application Number	Issue Date	Patent Number	Registered Owner
User Interface Method For Skew Correction	11/844,443	8/21/2012	8,249,391	Ancestry.com Operations Inc.
Systems And Methods For The Organized Distribution Of Related Data	12/511,009	7/17/2012	8,224,821	Ancestry.com Operations Inc.
Positioning Of Non-Constrained Amount Of Data In Semblance Of A Tree	12/695,056	5/22/2012	8,185,557	Ancestry.com Operations Inc.
Consolidated Information Retrieval Results	12/758,238	3/20/2012	8,140,512	Ancestry.com Operations Inc.
Providing Alternatives Within A Family Tree Systems And Methods	10/748,442	1/10/2012	8,095,567	Ancestry.com Operations Inc.
User Interface Methods And Systems For Image Brightness And Contrast	11/845,635	12/6/2011	8,073,285	Ancestry.com Operations Inc.
Systems And Methods For Partitioning Data On Multiple Servers	12/144,341	9/13/2011	8,019,719	Ancestry.com Operations Inc.
Method For Molecular Genealogical Research	10/113,901	6/7/2011	7,957,907	Ancestry.com DNA, LLC
Computer-Assisted Image Cropping For Book Scans	11/841,268	5/17/2011	7,945,116	Ancestry.com Operations Inc.
Local Installation Of Remote Software Systems And Methods	11/342,251	3/15/2011	7,908,315	Ancestry.com Operations Inc.
Correlating Genealogy Records Systems And Methods	11/777,215	1/11/2011	7,870,139	Ancestry.com Operations Inc.
Image Watermarking Systems And Methods	11/388,231	7/13/2010	7,756,289	Ancestry.com Operations Inc.

Title	Application Number	Issue Date	Patent Number	Registered Owner
Multiple Image Input For Optical Character Recognition Processing Systems And Methods	11/560,026	6/8/2010	7,734,092	Ancestry.com Operations Inc.
Adaptive Contrast Control Systems And Methods	11/188,137	5/25/2010	7,724,981	Ancestry.com Operations Inc.
Systems And Methods For Partitioning Data On Multiple Servers	10/247,273	6/24/2008	7,392,268	Ancestry.com Operations Inc.
Correlating Genealogy Records Systems And Methods	10/748,439	7/24/2007	7,249,129	Ancestry.com Operations Inc.
System And Method For Creating A Searchable Word Index Of A Scanned Document Including Multiple Interpretations Of A Word At A Given Document Location	10/049,016	7/3/2007	7,240,062	iArchives, Inc.
Systems And Methods For Storing And Retrieving Data In A Web Server Environment	10/247,787	9/19/2006	7,111,144	Ancestry.com Operations Inc.
Local Installation Of Remote Software Systems And Methods	11/342,251	03/15/2011	7,908,315	Ancestry.com Operations Inc.
Providing Grave Information Using Augmented Reality	16/262,749	Pending	Pending	Ancestry.com DNA, LLC
Systems, Devices, And Methods For Sample Collection	16/481,050	Pending	Pending	Ancestry.com DNA, LLC
Adversarial network for transforming handwritten text	17/065,763	Pending	Pending	Ancestry.com Operations Inc.

Title	Application Number	Issue Date	Patent Number	Registered Owner
Genetic And Genealogical Analysis For Identification Of Birth Location And Surname Information	15/203,776	Pending	Pending	Ancestry.com DNA, LLC
Machine-Learning System And Method For Identifying Same Person In Genealogical Databases	15/479,291	Pending	Pending	Ancestry.com Operations Inc.
Clustering Historical Images Using A Convolutional Neural Net And Labeled Data Bootstrapping	16/397,114	Pending	Pending	Ancestry.com Operations Inc.
Systems And Methods For Providing Improved Prediction Of Carrier Status For Spinal Muscular Atrophy	15/574,363	Pending	Pending	Ancestry.com DNA, LLC
Improving Handwriting Recognition Model with Language Modeling	63/107,511	Pending	Pending	Ancestry.com Operations Inc.
Method And System For Displaying Genetic And Genealogical Data	14/505,066	Pending	Pending	Ancestry.com DNA, LLC
A method and system for performing genetic screening	14/293,541	Pending	Pending	Ancestry.com DNA, LLC
Search And Ranking Of Records Across Different Databases	16/779,082	Pending	Pending	Ancestry.com Operations Inc.
Genealogical Entity Resolution System And Method	16/758,757	Pending	Pending	Ancestry.com Operations Inc.
User Interface Navigation System And Methods	62/948,676	Pending	Pending	Ancestry.com Operations Inc.

Title	Application Number	Issue Date	Patent Number	Registered Owner
Characterizing Heterogeneity With Fine-Scale Population Structure	16/151,111	Pending	Pending	Ancestry.com DNA, LLC
Ensemble Of Classifier And Survival Analysis For Early-Stage Churn Prediction In Genealogy Service	62/936,899	Pending	Pending	Ancestry.com Operations Inc.
Genealogical Tree Tracing and Story Generation	16/901,950	Pending	Pending	Ancestry.com Operations Inc.
COVID-19 Host Genetic Study Identifies Three Novel Loci	63/086,529	Pending	Pending	Ancestry.com DNA, LLC
COVID-19 Susceptibility and Severity Risks Models and Methods	63/089,331	Pending	Pending	Ancestry.com DNA, LLC
Clustering of Matched Segments to Determine Linkage of Dataset in a Database	16/936,444	Pending	Pending	Ancestry.com DNA, LLC
Diversity Evaluation In Genealogy Search	16/481,030	Pending	Pending	Ancestry.com Operations Inc.
Hybrid Deep Ensemble Of Boosted Classifier And Survival Analysis For Churn Prediction	62/939,211	Pending	Pending	Ancestry.com Operations Inc.
Sample Collection Kit Including Cap Having Selectively Movable Sleeve	16/824,536	Pending	Pending	Ancestry.com DNA, LLC
Detection Of Deletions And Copy Number Variations In DNA Sequences	16/772,739	Pending	Pending	Ancestry.com DNA, LLC

Title	Application Number	Issue Date	Patent Number	Registered Owner
Sample Collection Device And Method	16/563,800	Pending	Pending	Ancestry.com DNA, LLC
Image Captioning With Weakly-Supervised Attention Penalty	16/596,063	Pending	Pending	Ancestry.com Operations Inc.
Genealogy Item Ranking And Recommendation	16/406,891	Pending	Pending	Ancestry.com Operations Inc.
Ventral-Dorsal Neural Networks: Object Detection Via Selective Attention	17/018,611	Pending	Pending	Ancestry.com Operations Inc.
Sample Collection Kit Including Cap Having Selectively Movable Sleeve	16/872,139	Pending	Pending	Ancestry.com DNA, LLC
Reducing Error In Predicted Genetic Relationships	16/885,200	Pending	Pending	Ancestry.com DNA, LLC
Global Ancestry Determination System	15/931,009	Pending	Pending	Ancestry.com DNA, LLC
Dynamically-Qualified Aggregate Relationship System In Genealogical Databases	15/393,665	Pending	Pending	Ancestry.com Operations Inc.
Extraction Of Genealogy Data From Obituaries	16/928,903	Pending	Pending	Ancestry.com Operations Inc.
Haplotype Phasing Models	16/862,266	Pending	Pending	Ancestry.com DNA, LLC
Systems, Devices, And Methods For Sample Collection	16/814,891	Pending	Pending	Ancestry.com DNA, LLC
Identifying and Segmenting Newspaper Articles from Scanned Newspaper Images	63/037,364	Pending	Pending	Ancestry.com Operations Inc.

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Segmenting Messy Text: Detecting the Boundaries of Topically Similar Segments in Text Derived from images of Historical Newspapers	63/009,185	Pending	Pending	Ancestry.com Operations Inc.
Customized Coordinate Ascent For Ranking Data Records	16/822,388	Pending	Pending	Ancestry.com Operations Inc.
Sample Collection Kit	63/047,244	Pending	Pending	Ancestry.com DNA, LLC
Weighted F-Measure For Multiclass-Classification With Specific Precision And Recall Requirements	62/976,799	Pending	Pending	Ancestry.com Operations Inc.
Community Assignments In Identity By Descent Networks And Genetic Variant Origination	17/044,223	Pending	Pending	Ancestry.com DNA, LLC
Ancestry Inference Via Convolutional Neural Networks	62/962,786	Pending	Pending	Ancestry.com DNA, LLC
Discovering Population Structure From Patterns Of Identity-By-Descent	16/249,803	Pending	Pending	Ancestry.com DNA, LLC
Ancestral Human Genomes	16/701,162	Pending	Pending	Ancestry.com DNA, LLC
Ensemble Learning For Early-Stage Churn Management	62/975,936	Pending	Pending	Ancestry.com Operations Inc.
Graphical User Interface Displaying Relatedness Based on Shared DNA	16/803,219	Pending	Pending	Ancestry.com DNA, LLC
Method For Jointly Extracting Named Entities And Relations From Raw Text Using	62/963,944	Pending	Pending	Ancestry.com Operations Inc.

Title	Application Number	Issue Date	Patent Number	Registered Owner
Task-Specific Neural Networks				
Optimization Of First Set Of Ordered Items	16/724,908	Pending	Pending	Ancestry.com Operations Inc.
Estimating Family Tree From DNA	62/951,646	Pending	Pending	Ancestry.com DNA, LLC
Local Genetic Ethnicity Determination System	16/737,269	Pending	Pending	Ancestry.com DNA, LLC
Sample Collection Kit Including Cap Having Selectively Movable Sleeve	16/198,480	Pending	Pending	Ancestry.com DNA, LLC
Device, System And Method For Assessing Risk Of Variant-Specific Gene Dysfunction	16/579,700	Pending	Pending	Ancestry.com DNA, LLC
Device, System And Method For Assessing Risk Of Variant-Specific Gene Dysfunction	15/136,093	Pending	Pending	Ancestry.com DNA, LLC
Estimation Of Phenotypes Using DNA, Pedigree, And Historical Data	16/669,530	Pending	Pending	Ancestry.com DNA, LLC
Phenotype Trait Prediction With Threshold Polygenic Risk Score	16/598,988	Pending	Pending	Ancestry.com DNA, LLC
Confidence And Range Of Ethnicity Estimates In A Global Ancestry Determination System	16/568,010	Pending	Pending	Ancestry.com DNA, LLC
Admixed Synthetic Reference Panel	16/567,962	Pending	Pending	Ancestry.com DNA, LLC
Family Networks	16/406,847	Pending	Pending	Ancestry.com DNA, LLC

Title	Application Number	Issue Date	Patent Number	Registered Owner
Prediction Of Phenotypes Using Recommender Systems	16/543,033	Pending	Pending	Ancestry.com DNA, LLC
Predicting Health Outcomes	15/524,612	Pending	Pending	AncestryHealth.com, LLC
System And Method For The Computational Prediction Of Expression Of Single-Gene Phenotypes	14/649,796	Pending	Pending	Ancestry.com DNA, LLC
Identifying Ancestral Relationships Using A Continuous Stream Of Input	16/152,169	Pending	Pending	Ancestry.com DNA, LLC
Display Panel Of A Programmed Computer System With A Graphical User Interface	29/607,734	Pending	Pending	Ancestry.com DNA, LLC