

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT8052505

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
IQVIA INC.	07/11/2023
IMS SOFTWARE SERVICES, LTD.	07/11/2023

RECEIVING PARTY DATA

Name:	BANK OF AMERICA, N.A., AS ADMINISTRATIVE AGENT
Street Address:	100 N. TRYON STREET
Internal Address:	NC1-007-17-15
City:	CHARLOTTE
State/Country:	NORTH CAROLINA
Postal Code:	28255

PROPERTY NUMBERS Total: 95

Property Type	Number
Patent Number:	8903905
Patent Number:	9942206
Patent Number:	10447661
Patent Number:	10552630
Patent Number:	10298667
Patent Number:	10637930
Patent Number:	10795915
Patent Number:	10811142
Patent Number:	10795879
Patent Number:	10839164
Patent Number:	10839205
Patent Number:	10846616
Patent Number:	11201606
Patent Number:	11309065
Patent Number:	11321355
Patent Number:	11328825
Patent Number:	11373423
Patent Number:	11403558

PATENT

Property Type	Number
Patent Number:	11449830
Patent Number:	11526953
Patent Number:	11538594
Patent Number:	11556840
Patent Number:	11574491
Patent Number:	11574707
Patent Number:	11586821
Patent Number:	11615160
Patent Number:	11620565
Patent Number:	11621081
Application Number:	14628484
Application Number:	14836227
Application Number:	14598265
Application Number:	15340189
Application Number:	15621415
Application Number:	15633268
Application Number:	15633378
Application Number:	15805729
Application Number:	15810751
Application Number:	15844808
Application Number:	15856273
Application Number:	15929595
Application Number:	15961211
Application Number:	15983529
Application Number:	16181746
Application Number:	16288179
Application Number:	16800873
Application Number:	16813213
Application Number:	16905155
Application Number:	17003127
Application Number:	17062774
Application Number:	17098812
Application Number:	17101771
Application Number:	17177834
Application Number:	17511075
Application Number:	17511701
Application Number:	17532478
Application Number:	17557282

Property Type	Number
Application Number:	17683894
Application Number:	17696059
Application Number:	17710090
Application Number:	63327571
Application Number:	17716183
Application Number:	17717246
Application Number:	17728561
Application Number:	17731505
PCT Number:	US2022071974
Application Number:	17746233
Application Number:	17824351
Application Number:	17841004
Application Number:	17789345
Application Number:	63357741
Application Number:	17864688
Application Number:	17864879
Application Number:	17865709
Application Number:	17875868
Application Number:	17882824
Application Number:	17833975
Application Number:	17892830
Application Number:	63437595
Application Number:	18103538
Application Number:	18105004
Application Number:	63443329
Application Number:	18166158
Application Number:	63444712
Application Number:	18022598
Application Number:	18180209
Application Number:	18189498
Application Number:	18189386
Application Number:	18189393
Application Number:	63454555
Application Number:	18192744
Application Number:	18193743
Application Number:	18193918
Application Number:	18130878
Application Number:	18131256

Property Type	Number
Application Number:	18305148

CORRESPONDENCE DATA

Fax Number: (202)408-3141

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.

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Email: jean.paterson@cscglobal.com

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Address Line 4: WASHINGTON, D.C. 20005

NAME OF SUBMITTER: JEAN PATERSON

SIGNATURE: /jep/

DATE SIGNED: 07/12/2023

Total Attachments: 8

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PATENT SECURITY AGREEMENT

Patent Security Agreement, dated as of July 11, 2023, by and among IQVIA INC. and IMS SOFTWARE SERVICES, LTD. (each individually, a “Pledgor”, and, collectively, the “Pledgors”), in favor of BANK OF AMERICA, N.A., in its capacity as collateral agent pursuant to the Credit Agreement (in such capacity, the “Administrative Agent”).

WITNESSETH:

WHEREAS, the Pledgors are party to an Amended and Restated Pledge and Security Agreement, dated as of March 17, 2014 (as amended, amended and restated, supplemented or otherwise modified from time to time, the “Security Agreement”), in favor of the Administrative Agent pursuant to which the Pledgors are required to execute and deliver this Patent Security Agreement;

NOW, THEREFORE, in consideration of the premises and to induce the Administrative Agent, for the benefit of the Secured Parties, to enter into the Credit Agreement, the Pledgors hereby agree with the Administrative 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. Each Pledgor hereby pledges and grants to the Administrative Agent for the benefit of the Secured Parties a lien on and security interest in and to all of its right, title and interest in, to and under all Patents of such Pledgor listed on Schedule I attached hereto.

SECTION 3. Security Agreement. This Patent Security Agreement has been executed and delivered by the Pledgor for the purpose of recording the grant of security interest herein with the United States Patent and Trademark Office. The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interest granted to the Administrative Agent pursuant to the Security Agreement and Pledgors hereby acknowledge and affirm that the rights and remedies of the Administrative Agent with respect to the security interest in the Patents made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. 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 Administrative Agent shall otherwise determine.

SECTION 4. Termination. Upon termination of the Security Agreement in accordance with Section 11 thereof, the Administrative Agent shall execute, acknowledge, and deliver to the Pledgors an instrument in writing in recordable form releasing the collateral pledge, grant, assignment, lien and security interest in the Patents under this Patent Security Agreement.

SECTION 5. Counterparts. This Patent Security Agreement may be executed in any number of counterparts, all of which shall constitute one and the same instrument, and any party hereto may execute this Patent Security Agreement by signing and delivering one or more counterparts.

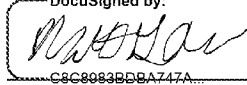
SECTION 6. Governing Law. This Patent Security Agreement and the transactions contemplated hereby, and all disputes between the parties under or relating to this Patent Security Agreement or the facts or circumstances leading to its execution, whether in contract, tort or otherwise, shall be construed in accordance with and governed by the laws (including statutes of limitation) of the State of New York.

[signature page follows]

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


Very truly yours,

IQVIA INC.
IMS SOFTWARE SERVICES, LTD.

DocuSigned by:

By: _____
C8C8083BDBA747A
Name: Matthew R. Gilmartin
Title: Vice President and Assistant
Secretary

Accepted and Agreed:

BANK OF AMERICA, N.A.,
as Administrative Agent

By: 
Name: Kevin L. Ahart
Title: Vice President

SCHEDULE I
to
PATENT SECURITY AGREEMENT

Patent Registrations

Pledgor	Patent Number	Title
IMS Software Services Ltd.	8,903,905	Method and System for Automatically Storing a Communication Session
IQVIA Inc.	9,942,206	System and Method for Privacy-Preserving Genomic Data Analysis
IQVIA Inc.	10,447,661	System and Method for Privacy-Preserving Genomic Data Analysis
IQVIA Inc.	10,552,630	System and Method To Produce a Virtually Trusted Database Record
IMS Software Services Ltd.	10,298,667	Method for a Remote Presentation Between at Least Two Terminals Connected via a Network
IQVIA Inc.	10,637,930	System for Integrating a Detectable Medical Module
IQVIA Inc.	10,795,915	System and Method for Merging Slowly Changing Data
IQVIA Inc.	10,811,142	System and method to Regularize Cancer Treatment Data for Systematic Recording
IQVIA Inc.	10,795,879	Methods And Systems for Predictive Clinical Planning And Design
IQVIA Inc.	10,839,164	Automated Translation Of Clinical Trial Documents
IQVIA Inc.	10,839,205	Automated Classification And Interpretation Of Life Sciences Documents
IQVIA Inc.	10,846,616	System And Method For Enhanced Characterization Of Structured Data For Machine Learning
IQVIA Inc.	11,201,606	Optimization Of Investigator And Site Location Identification
IQVIA Inc.	11,309,065	Management And Tracking Solution For Specific Patient Consent Attributes And Permissions
IQVIA Inc.	11,321,355	System And Method For Merging Slowly Changing Data
IQVIA Inc.	11,328,825	Machine Learning Techniques For Identifying Opportunity Patients
IQVIA Inc.	11,373,423	Automated Classification And Interpretation Of Life Science Documents
IQVIA Inc.	11,403,558	GXP Artificial Intelligence / Machine Learning (Ai/MI) Platform
IQVIA Inc.	11,449,830	Secure Method for Health Record Transmission to Emergency Service Personnel
IQVIA Inc.	11,526,953	Machine Learning Techniques For Automatic Evaluation Of Clinical Trial Data
IQVIA Inc.	11,538,594	System And Method To Regularize Cancer Treatment Data For Systematic Recording
IQVIA Inc.	11,556,840	High-Speed Scanning Parser For Scalable Collection Of Statistics And Use In Preparing Data For Machine Learning
IQVIA Inc.	11,574,491	Automated Classification And Interpretation Of Life Science Documents
IQVIA Inc.	11,574,707	System And Method For Phenotype Vector Manipulation Of Medical Data
IQVIA Inc.	11,586,821	Classification Code Parser
IQVIA Inc.	11,615,160	Data Label Management

IQVIA Inc.	11,620,565	System And Method For Enhanced Distribution Of Data To Compute Nodes
IQVIA Inc.	11,621,081	System For Predicting Patient Health Conditions

Patent Applications:

Pledgor	Patent Number	Title
IQVIA Inc.	14/628,484	System and Method for Payment Per Use
IQVIA Inc.	14/836,227	Method and System for Timeline Generation Based on User Editable Events
IQVIA Inc.	14/598,265	Enhanced Hospital Procedure and Diagnosis Platform
IQVIA Inc.	15/340,189	In-Memory Dynamic Data Analytics Engine
IQVIA Inc.	15/621,415	System and Method to Enroll a Patient in a Medical Trial
IQVIA Inc.	15/633,268	System and Method for Enhanced Curation of Health Applications
IQVIA Inc.	15/633,378	Data Predication from Multiple Disparate Data Sources
IQVIA Inc.	15/805,729	Advanced Analytic Technique for Analysis of Genomic Datasets
IQVIA Inc.	15/810,751	Advanced Analytics and Automation in Centralized Monitoring
IQVIA Inc.	15/844,808	Market Measures and Outcomes for App Prescribing
IQVIA Inc.	15/856,273	System and Method for Programmatic Targeting of Healthcare Conditions in a Privacy Compliant Manner
IQVIA Inc.	15/929,595	Artificial Intelligence To Predict Undiagnosed Patients
IQVIA Inc.	15/961,211	System and Method to Provide a Time Sensitive Treatment
IQVIA Inc.	15/983,529	Generating a Development Plan Using Valuation of an Asset
IQVIA Inc.	16/181,746	Systems and Methods for Determining and Validating Mortality Data
IQVIA Inc.	16/288,179	System To Generate Clean Synthetic Data Statistically Similar to a Given Dataset
IQVIA Inc.	16/800,873	Automated Clinical Concept Mapping Using SNOMED
IQVIA Inc.	16/813,213	System and Method for Timely Multi-Channel Notification of Treatment
IQVIA Inc.	16/905,155	Unbiased ETL System For Timed Medical Event Prediction

Pledgor	Patent Number	Title
IQVIA Inc.	17/003,127	Lifelong Machine Learning (LML) Model For Patient Subpopulation Identification Using Real-World Healthcare Data
IQVIA Inc.	17/062,774	Methods And Systems For Predictive Clinical Planning And Design
IQVIA Inc.	17/098,812	Automated Translation Of Subject Matter Specific Documents
IQVIA Inc.	17/101,771	System and Method for Enhanced Characterization of Structured Data for Machine Learning
IQVIA Inc.	17/177,834	Skipping Natural Language Processor
IQVIA Inc.	17/511,075	System and method to improve dynamic multi-channel information synthesis
IQVIA Inc.	17/511,701	Optimization of investigator and site location identification
IQVIA Inc.	17/532,478	Predictive system for generating clinical queries
IQVIA Inc.	17/557,282	Methods and systems to identify collaborative communities from multiplex healthcare providers
IQVIA Inc.	17/683,894	Decision support system for marketing mix modeling
IQVIA Inc.	17/696,059	Synthesizing Complex Population Selection Criteria
IQVIA Inc.	17/710,090	Management And Tracking Solution For Specific Patient Consent Attributes And Permissions
IQVIA Inc.	63/327,571	Regulatory Management System
IQVIA Inc.	17/716,183	Machine Learning Techniques For Identifying Opportunity Patients
IQVIA Inc.	17/717,246	System And Method For Merging Slowly Changing Data
IQVIA Inc.	17/728,561	Automation-Enhanced Translation Workflow
IQVIA Inc.	17/731,505	System For Integrating A Detectable Medical Module
IQVIA Inc.	PCT/US2022/071974	Digital Label Management
IQVIA Inc.	17/746,233	Automated Classification And Interpretation of Life Science Documents
IQVIA Inc.	17/824,351	Index For Risk Of Non-Adherence In Geographic Region With Patient-Level Projection
IQVIA Inc.	17/841,004	Systems And Methods For Streaming Normalized Clinical Trial Capacity Information
IQVIA Inc.	17/789,345	System And Method For Automated Adverse Event Identification
IQVIA Inc.	63/357,741	Mobile IP

IQVIA Inc.	17/864,688	GxP Artificial Intelligence / Machine Learning (AI/ML) Platform
IQVIA Inc.	17/864,879	Harmonized Quality (HQ)
IQVIA Inc.	17/865,709	Secure Method For Health Record Transmission To Emergency Service Personnel
IQVIA Inc.	17/875,868	System And Method For Providing Multi-Layered Access Control
IQVIA Inc.	17/882,824	Machine Learning Techniques For Automatic Evaluation Of Clinical Trial Data
IQVIA Inc.	17/833,975	Site Monitoring Activity Review Tool (ART)
IQVIA Inc.	17/892,830	System And Method For Timely Notification Of Treatment
IQVIA Inc.	63/437,595	Address Enhancement
IQVIA Inc.	18/103,538	Automated Classification And Interpretation Of Life Science Documents
IQVIA Inc.	18/105,004	System And Method For Phenotype Vector Manipulation Of Medical Data
IQVIA Inc.	63/443,329	Clinical Trials And Studies Single Sign-On Platform
IQVIA Inc.	18/166,158	Classification Code Parser
IQVIA Inc.	63/444,712	Software Kit For Inter-Application Communications
IQVIA Inc.	18/022,598	System And Method For Generating Synthetic Patient Data And Simulating Clinical Studies
IQVIA Inc.	18/180,209	Machine Reasoning As A Service
IQVIA Inc.	18/189,498	System And Method For Longitudinal Non-Conforming Medical Data Records
IQVIA Inc.	18/189,386	Predictive System For Generating Clinical Queries
IQVIA Inc.	18/189,393	Digital Label Management
IQVIA Inc.	63/454,555	Smart Clinical Signal Detector
IQVIA Inc.	18/192,744	System And Method For Enhanced Distribution Of Data To Compute Nodes
IQVIA Inc.	18/193,743	System For Predicting Patient Health Conditions
IQVIA Inc.	18/193,918	A Patient Privacy Compliant Targeting System And Method
IQVIA Inc.	18/130,878	System and Method for Detecting Drug Adverse Effects in Social Media and Mobile Applications Data
IQVIA Inc.	18/131,256	Automated Regulatory Decision-Making For Compliance

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REEL: 064258 FRAME: 0587

IQVIA Inc.	18/305,148	System And Method To Incorporate Disclosure Uncertainty To Anonymize Unstructured Information
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