504255627 03/03/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 EPAS ID: PAT4302307 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DUICH MCKAY	03/22/2016
GIL MCERLANE	03/22/2016
ALEX LIEBERMAN	04/04/2016

RECEIVING PARTY DATA

Name:	JPMORGAN CHASE BANK, N.A.
Street Address:	270 PARK AVENUE
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10017

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15448990

CORRESPONDENCE DATA

Fax Number: (614)248-4189

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: (614)217-4692

jpmc.patents@jpmchase.com Email:

Correspondent Name: JANET PETERSON

Address Line 1: 1111 POLARIS PARKWAY Address Line 2: MAIL CODE OH1-0152 Address Line 4: COLUMBUS, OHIO 43240

ATTORNEY DOCKET NUMBER: 72167.001220 **NAME OF SUBMITTER:** JANET PETERSON SIGNATURE: /Janet Peterson/ **DATE SIGNED:** 03/03/2017

Total Attachments: 6

source=72167.001220 Executed Assignment#page1.tif source=72167.001220 Executed Assignment#page2.tif source=72167.001220 Executed Assignment#page3.tif

PATENT REEL: 041463 FRAME: 0072 504255627

source=72167.001220 Executed Assignment#page4.tif source=72167.001220 Executed Assignment#page5.tif source=72167.001220 Executed Assignment#page6.tif

PATENT REEL: 041463 FRAME: 0073

ASSIGNMENT

WHEREAS, WE, Duich McKAY (citizen of GB) residing at 3/1 194 Woodlands Road, Glasgow G3 6LN, GB; and Gil McERLANE (citizen of GB) residing at 2 Sandielands Avenue, Erskine PA8 7BP, GB; have invented, developed, and/or have rights in the invention(s) (hereinafter "Invention") disclosure in a United States patent application entitled:

SYSTEMS AND METHODS FOR BIOMETRIC AUTHENTICATION

filed on March 4, 2016, and accorded Application No. 62/303,773 (hereinafter "Application"); and

WHEREAS, JPMorgan Chase Bank, N.A., a corporation organized under the laws of the United States of America and the State of Ohio, and having a place of business at 270 Park Avenue, New York, NY 10017 (hereinafter "Assignee"), is desirous of acquiring the entire right, title, and interest in and to the Invention and in and to the Application.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, we have sold, assigned, transferred and set over, and do hereby sell, assign, transfer and set over to Assignee and its successors and assigns, our entire right, title and interest, worldwide, in and to the Invention and the Application, and all patents and applications, worldwide, claiming priority to and/or benefit of, directly or indirectly, or based in whole or in part on, said Application and/or said Invention, including continuations, continuations-in-part, divisionals, reissues, reexaminations, renewals, substitutes, and extensions thereof, and any international and regional applications, based in whole or in part on any of the aforesaid applications or in whole or in part on said Invention, and all priority rights under the International Convention for the Protection of Industrial Property for every member country, and all utility-model registrations, inventor's certificates, and the like heretofore or hereafter filed, worldwide, for the Invention, and in and to any and all patents (including all extensions, renewals, reexaminations and reissues thereof), worldwide, which have been or may be granted on any of the aforesaid applications or on said Invention or any parts thereof.

AND WE HEREBY covenant and agree for ourselves and our heirs, executors and administrators that we will communicate to Assignee any facts known to us respecting the Invention and the aforementioned applications, sign all lawful papers, testify in any legal proceeding, make all rightful oaths, and take any other actions that may be necessary or desirable to secure to Assignee its right, title, and interest in and to the aforementioned patents, applications and Invention, and generally do everything possible to aid Assignee to obtain and enforce proper patent protection for the Invention and the aforementioned patents and applications;

AND WE HEREBY agree to execute without further consideration any further documents and instruments which may be necessary, lawful and proper in the prosecution of said applications, or in the preparation or prosecution of any continuation, continuation-in-part, divisional, substitute, renewal, reexamination or reissue application or in any amendments, extensions or interference proceedings, or other applications for patents or similar rights of any region or

l of 3

country, that may be necessary to secure to Assignee its interest and title in and to said Invention or any parts thereof, and in and to said applications and patents;

AND WE HEREBY authorize and request our agents, Hunton & Williams LLP, whose address is 2200 Pennsylvania Avenue, NW, Washington, DC 20037, US, to insert hereon any identification necessary or desirable for recordation of this document, including the filing date and application number of said Application when known;

AND WE HEREBY covenant for ourselves and our legal representatives, and agree with said Assignee, its successors and assigns, that we have the full right to convey the entire interest herein assigned, and that we have granted no right or license to make, use, sell or offer to sell said Invention, to anyone except said Assignee, that prior to the execution of this deed, our right, title and interest in said Invention and said Application had not been otherwise encumbered, and that we have not and will not execute any instrument in conflict therewith;

AND WE HEREBY authorize and request the United States Commissioner of Patents and Trademarks, and any officials of foreign countries whose duty is to issue patents on applications as aforesaid, to issue any and all letters patents which may be granted upon said United States and foreign applications or upon the Invention to the Assignee.

- SIGNATURES BEGIN ON NEXT PAGE -

2 of 3

IN WITNESS WHEREOF, we have executed this Assignment as of the date set forth below.

Duich McKAY	
Signature: Stum MCluy	
Printed Name: DUICH MCKAY	
Date: 22 3 2016	
WITNESS / O O O	WITNESS
Signature: Alll	Signature: Sarabject Kaus
Printed Name: AIDAN WARTW	Printed Name: SARABJEET KAUR
Date: 22 3 2016	Date: 20/03/2016
Gil McERLANE	
Signature:	
Printed Name:	
Date:	
WITNESS	WITNESS
Signature:	Signature:
Printed Name:	Printed Name:
D .	_

3 of 3

IN WITNESS WHEREOF, we have executed this Assignment as of the date set forth below.

Duich McKAY	
Signature:	
Printed Name:	
Date:	
WITNESS	WITNESS
Signature:	Signature:
Printed Name:	Printed Name:
Date:	Date:
Gil McERLANE Signature: 61 McGrane Date: 22/3/16	
WITNESS Signature: Elaine Bailey Printed Name: ELAINE BAILEY	WITNESS Signature: WILLIAM INNES Printed Name: WILLIAM INNES
Date: 22/3/16	Date: 22/3/2010

ASSIGNMENT

WHEREAS, I, Alex LIEBERMAN (citizen of US) residing at 53 Damascus Drive, Marlboro, NJ 07746, US; have invented, developed, and/or have rights in the invention(s) (hereinafter "Invention") disclosure in a United States patent application entitled:

SYSTEMS AND METHODS FOR BIOMETRIC AUTHENTICATION

filed on April 4, 2016, and accorded Application No. 62/317,765 (hereinafter "Application"); and

WHEREAS, JPMorgan Chase Bank, N.A., a corporation organized under the laws of the United States of America and the State of Ohio, and having a place of business at 270 Park Avenue, New York, NY 10017 (hereinafter "Assignee"), is desirous of acquiring the entire right, title, and interest in and to the Invention and in and to the Application.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I have sold, assigned, transferred and set over, and do hereby sell, assign, transfer and set over to Assignee and its successors and assigns, my entire right, title and interest, worldwide, in and to the Invention and the Application, and all patents and applications, worldwide, claiming priority to and/or benefit of, directly or indirectly, or based in whole or in part on, said Application and/or said Invention, including continuations, continuations-in-part, divisionals, reissues, reexaminations, renewals, substitutes, and extensions thereof, and any international and regional applications, based in whole or in part on any of the aforesaid applications or in whole or in part on said Invention, and all priority rights under the International Convention for the Protection of Industrial Property for every member country, and all utility-model registrations, inventor's certificates, and the like heretofore or hereafter filed, worldwide, for the Invention, and in and to any and all patents (including all extensions, renewals, reexaminations and reissues thereof), worldwide, which have been or may be granted on any of the aforesaid applications or on said Invention or any parts thereof.

AND I HEREBY covenant and agree for myself and my heirs, executors and administrators that I will communicate to Assignee any facts known to me respecting the Invention and the aforementioned applications, sign all lawful papers, testify in any legal proceeding, make all rightful oaths, and take any other actions that may be necessary or desirable to secure to Assignee its right, title, and interest in and to the aforementioned patents, applications and Invention, and generally do everything possible to aid Assignee to obtain and enforce proper patent protection for the Invention and the aforementioned patents and applications;

AND I HEREBY agree to execute without further consideration any further documents and instruments which may be necessary, lawful and proper in the prosecution of said applications, or in the preparation or prosecution of any continuation, continuation-in-part, divisional, substitute, renewal, reexamination or reissue application or in any amendments, extensions or interference proceedings, or other applications for patents or similar rights of any region or country, that may be necessary to secure to Assignee its interest and title in and to said Invention or any parts thereof, and in and to said applications and patents;

-

PATENT REEL: 041463 FRAME: 0078 **AND I HEREBY** authorize and request my agents, Hunton & Williams LLP, whose address is 2200 Pennsylvania Avenue, NW, Washington, DC 20037, US, to insert hereon any identification necessary or desirable for recordation of this document, including the filing date and application number of said Application when known;

AND I HEREBY covenant for myself and my legal representatives, and agree with said Assignee, its successors and assigns, that I have the full right to convey the entire interest herein assigned, and that I have granted no right or license to make, use, sell or offer to sell said Invention, to anyone except said Assignee, that prior to the execution of this deed, our right, title and interest in said Invention and said Application had not been otherwise encumbered, and that I have not and will not execute any instrument in conflict therewith;

AND I HEREBY authorize and request the United States Commissioner of Patents and Trademarks, and any officials of foreign countries whose duty is to issue patents on applications as aforesaid, to issue any and all letters patents which may be granted upon said United States and foreign applications or upon the Invention to the Assignee.

IN WITNESS WHEREOF, I have executed this Assignment as of the date set forth below.

Alex LIEBERMAN	
Signature: ALANN	
Printed Name: //ALEX HEBEANAN	
Date: 4/4/2016	
WITNESS	WITNESS
Signature: <u>AAEA</u>	Signature:
Printed Name: <u>N/T/N BUAKGAV</u> A	Printed Name: SATISIC SARAPRAKASIT
Date: 04/04/2016	Date: