506709551 06/10/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6756370

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GOVERNMENT OF THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE SECRETARY OF THE AIR FORCE	02/10/2019

RECEIVING PARTY DATA

Name:	ARIZONA BOARD OF REGENTS ON BEHALF OF NORTHERN ARIZONA UNIVERSITY	
Street Address:	NAU INNOVATIONS, NORTHERN ARIZONA UNIVERSITY	
Internal Address:	PO BOX 4087	
City:	FLAGSTAFF	
State/Country:	ARIZONA	
Postal Code:	86011-4087	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16842643

CORRESPONDENCE DATA

Fax Number: (602)229-5690

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: 602-229-5200

Email: debra.augustine@quarles.com

Correspondent Name: QUARLES & BRADY Address Line 1: RENAISSANCE ONE

Address Line 2: TWO NORTH CENTRAL AVENUE

Address Line 4: PHOENIX, ARIZONA 85004

ATTORNEY DOCKET NUMBER:	BER: 2018-013 (133502.00113)	
NAME OF SUBMITTER:	MICHAEL J. CURLEY, REG. NO. 63,251	
SIGNATURE: /Michael J. Curley/		
DATE SIGNED:	06/10/2021	

Total Attachments: 7

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PATENT 506709551 REEL: 056505 FRAME: 0362

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PATENT REEL: 056505 FRAME: 0363

ASSIGNMENT AGREEMENT BETWEEN THE DEPARTMENT OF THE AIR FORCE AND THE ARIZONA BOARD OF REGENTS OF THE NORTHERN ARIZONA UNIVERSITY

PREAMBLE

This Agreement, by and between the Government of the United States of America, as represented by the Secretary of the Air Force, (hereinafter referred to as "AIR FORCE"), and The Arizona Board of Regents, for and on behalf of Northern Arizona University an institute of higher education having a place of business at 1395 South Knoles Drive, P.O. Box 4087, Flagstaff, AZ 86011 (hereinafter referred to as "UNIVERSITY").

WITNESSETH THAT:

WHEREAS, Donald Telesca while employed by the AIR FORCE and Betrand Cambou and Paul Flikkema while employed by UNIVERSITY jointly made the inventions in Appendix A.

WHEREAS, the entire right, title, and interest of Donald Telesca in and to said invention including foreign rights is assigned to the AIR FORCE;

WHEREAS, the entire right, title, and interest of Bertrand Cambou and Paul Flikkema in and to said invention including foreign rights is assigned to the UNIVERSITY;

WHEREAS, UNIVERSITY desires to retain title in and to said invention, and to the interests of Bertrand Cambou and Paul Flikkema;

WHEREAS, it is the goal of AIR FORCE and UNIVERSITY to promote the utilization of inventions arising from federally supported research or development;

WHEREAS, to achieve the mutual goals of AIR FORCE and UNIVERSITY, AIR FORCE desires to assign its rights and UNIVERSITY desires to acquire the AIR FORCE'S right, title, and interest in and to said inventions in Appendix A; and

WHEREAS this Agreement is authorized by law including P.L. 96-517, P.L. 98-620, P.L. 99-502 and 35 USC §202(e).

NOW, THEREFORE, in consideration of the premises, and the agreements, covenants, and conditions herein contained, the parties agree as follows:

Page 1

ARTICLE I. DEFINITIONS

- a. "THE ASSIGNED INVENTION" means the inventions in Appendix A and any other U.S. or foreign non-provisional patent application or applications filed thereon, or U.S. or foreign patent or patents issued thereon, including all divisions, continuations, continuations-in-part (subject to any intervening rights), if any, reissues or extensions thereof.
- b. "Effective date of the Agreement" means the later of the dates of execution by the authorized representative of the AIR FORCE and the UNIVERSITY.

ARTICLE II. ASSIGNMENT GRANT

AIR FORCE hereby assigns to UNIVERSITY its entire right, title, and interest throughout the world in and to THE ASSIGNED INVENTION, reserving to the Government of the United States a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the United States the subject matter of THE ASSIGNED INVENTION throughout the world.

ARTICLE III. COSTS AND CONDITIONS OF REASSIGNMENT

- a. UNIVERSITY shall pay all U.S. and foreign fees or costs, including patent application filing fees, prosecution fees, and patent maintenance fees, licensing fees or commissions, and any other costs incurred by UNIVERSITY relating to THE ASSIGNED INVENTION.
- b. As a condition of this Agreement, UNIVERSITY agrees to file a non-provisional patent application on THE ASSIGNED INVENTION. UNIVERSITY will not abandon any patent application or cease to pay maintenance fees on any patent on THE ASSIGNED INVENTION without providing AIR FORCE written notice at least sixty (60) days before the expiration of any time period in which action must be taken to prosecute the patent application or in which a maintenance fee must be paid without extra fee or surcharge. UNIVERSITY further agrees, upon request and at no cost to AIR FORCE, to assign to AIR FORCE, or other party whom AIR FORCE directs, the entire right, title, and interest in THE ASSIGNED INVENTION if the UNIVERSITY intends to abandon or cease to maintain any patent application based on the ASSIGNED INVENTION.

ARTICLE IV. CONSIDERATION

a. UNIVERSITY will pay AIR FORCE a 33.3% of net royalties received on THE ASSIGNED INVENTION The net amount of minimum royalty, additional royalties and other income payable to AIR FORCE shall be determined after deduction therefrom, by UNIVERSITY, of any direct and documented patent expenses incurred by UNIVERSITY related to the ASSIGNED INVENTION. Said patent related expenses are limited to the costs associated with patent application preparation, prosecution, and USPTO and other fees, including issue and maintenance fees.

Page 2	
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- b. All payment to AIR FORCE under this Article shall be made by check payable to "Treasurer of the United States" and mailed to the address in Article VIII within one (1) month from said 31 December date.
- c. Each payment shall include an accounting and description of all royalties or other income received. If no payment is owing, the accounting shall so state. UNIVERSITY shall maintain, for five years, books of account showing all royalties or other income received or receivable. AIR FORCE may inspect the books during normal business hours upon reasonable request.

ARTICLE V. TERM

This Agreement will have force and effect until all patents on THE ASSIGNED INVENTION have expired, except, however, that UNIVERSITY's obligations to pay royalties or other income under Article IV shall continue for as long as royalties or other income are received by UNIVERSITY.

ARTICLE VI. ADDITIONAL REQUIRED PROVISIONS UNDER 35 U.S.C. §202(c)

This Agreement is made subject to the policies, rights, and obligations of the parties set forth in Title 35, United States Code, Chapter 18, including, but not limited to, the following:

- a. UNIVERSITY may not assign its rights in THE ASSIGNED INVENTION without prior written approval of AIR FORCE, except to an organization which has as one of its primary functions the management of inventions, provided that such assignee shall be subject to the terms and conditions of this Agreement.
- b. UNIVERSITY shall share any royalties or other income received with UNIVERSITY's employee inventors.
- c. The balance of any income earned by UNIVERSITY with respect to THE ASSIGNED INVENTION, after payment of expenses (including payments to AIR FORCE under this Agreement and to UNIVERSITY's employee inventors) incidental to the administration of THE ASSIGNED INVENTION, shall be utilized for the support of scientific research or education.
- d. UNIVERSITY will make efforts that are reasonable under the circumstances to attract licensees of THE ASSIGNED INVENTION that are small business firms as set forth in Federal Acquisition Regulation 52.227-11(k)(4).
- e. The assignment grant of Article II is made subject to the march-in-rights of AIR FORCE under 35 U.S.C. §203.
- f. Unless waived by AIR FORCE under the provisions of 35 U.S.C. §204, an exclusive right to make, use or sell THE ASSIGNED INVENTION shall not be granted to any person or entity unless such person or entity agrees that any products embodying THE

ASSIGNED INVENTION or produced through the use of THE ASSIGNED INVENTION will be manufactured substantially in the United States.

ARTICLE VII. EXCLUSIONS

- a. Enforcement of any patent on THE ASSIGNED INVENTION against third party infringers shall solely be the responsibility of UNIVERSITY and not AIR FORCE or the United States Government. The extent of enforcement, if any, shall be at the sole discretion of UNIVERSITY. Any recoveries made as a result of said enforcement shall be shared with the AIR FORCE consistent with the terms set forth in Article IV.
- b. Neither UNIVERSITY nor AIR FORCE warrants the validity of any patent on THE ASSIGNED INVENTION or scope of the claims, or that practice of THE ASSIGNED INVENTION will not result in infringement of any existing patent.
- c. This Agreement shall not be construed to confer on UNIVERSITY any immunity from the antitrust laws or from a charge of patent misuse.
- d. UNIVERSITY agrees not to create the appearance that AIR FORCE or the Government the United States endorses or warrants THE ASSIGNED INVENTION or any resulting product or service. AIR FORCE and the Government of the United States shall not be connected directly or impliedly with any advertising or promotional program for THE ASSIGNED INVENTION or any resulting product or service, except that it may be generally stated that THE ASSIGNED INVENTION has been obtained in part by assignment from the AIR FORCE.

ARTICLE VII. ADDRESSES

The address for AIR FORCE for receiving payments, notices, reports and for any other purposes under this Agreement is:

AFRL/SB (Attn: Abby Boggs) 2275 D St Bldg. 16 Rm 107 WPAFB OH 45433

with a copy to:

AFRL/RIB Attn:ORTA 26 Electronic Parkway Rome, NY 13441-4514 The address for UNIVERSITY for this Agreement is:

NAU Innovations 1395 South Knoles Drive P.O. Box 4087 Flagstaff, AZ 86011-4087 Attn: Cristy Salanga, Patent Manager

Page 5

ARTICLE IX. EFFECTIVE DATE

This Agreement shall have an effective date of the later of the dates of the following signatures by UNIVERSITY and AIR FORCE.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by these duly authorized representatives.

FOR THE GOVERNMENT OF THE UNITED STATES

Title: Director, Information Directorate and Commander, AFRL/Detachment 4 Air Force Research Laboratory

Date: 10 Feb 19

FOR THE ARIZONA BOARD OF REGENTS, for and on behalf of NORTHERN ARIZONA UNIVERSITY

-//24/19

Title: Vice President for Research

Date:

Page 6

APPENDIX "A"

PATENT RIGHTS

Title	NAU Disclosure Number	AIR FORCE Disclosure Number
Dynamic Hybridized Positional Notation Instruction Set Computer Architecture to Enhance Security	2018-014	n/a
Artificial Neuron Synaptic Weights Implemented with Variable Dissolvable Conductive Paths	2018-002	n/a
Key Exchange Schemes with Addressable Elements	2017-044	n/a

Page 7

RECORDED: 06/10/2021

PATENT REEL: 056505 FRAME: 0370