



NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES

Grant Number: 1R01DK118334-01A1
FAIN: R01DK118334

Principal Investigator(s):
YUXIANG SUN, MD

Project Title: The role of GHS-R in macrophage reprogramming during meta-inflammation

Foley, Jason
Proposal Administrator
400 Harvey Mitchell Parkway South
Suite 300
College Station, TX 778454375

Award e-mailed to: awards@tamu.edu

Period Of Performance:

Budget Period: 07/01/2019 – 06/30/2020

Project Period: 07/01/2019 – 06/30/2023

Dear Business Official:

The National Institutes of Health hereby awards a grant in the amount of \$310,784 (see “Award Calculation” in Section I and “Terms and Conditions” in Section III) to TEXAS A&M AGRILIFE RESEARCH in support of the above referenced project. This award is pursuant to the authority of 42 USC 241 42 CFR 52 and is subject to the requirements of this statute and regulation and of other referenced, incorporated or attached terms and conditions.

Acceptance of this award including the “Terms and Conditions” is acknowledged by the grantee when funds are drawn down or otherwise obtained from the grant payment system.

Each publication, press release, or other document about research supported by an NIH award must include an acknowledgment of NIH award support and a disclaimer such as “Research reported in this publication was supported by the National Institute Of Diabetes And Digestive And Kidney Diseases of the National Institutes of Health under Award Number R01DK118334. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.” Prior to issuing a press release concerning the outcome of this research, please notify the NIH awarding IC in advance to allow for coordination.

Award recipients must promote objectivity in research by establishing standards that provide a reasonable expectation that the design, conduct and reporting of research funded under NIH awards will be free from bias resulting from an Investigator’s Financial Conflict of Interest (FCOI), in accordance with the 2011 revised regulation at 42 CFR Part 50 Subpart F. The Institution shall submit all FCOI reports to the NIH through the eRA Commons FCOI Module. The regulation does not apply to Phase I Small Business Innovative Research (SBIR) and Small Business Technology Transfer (STTR) awards. Consult the NIH website <http://grants.nih.gov/grants/policy/coi/> for a link to the regulation and additional important information.

If you have any questions about this award, please contact the individual(s) referenced in Section IV.

Sincerely yours,

NATASHA LOVELESS
Grants Management Officer
NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES

Additional information follows

SECTION I – AWARD DATA – 1R01DK118334-01A1**Award Calculation (U.S. Dollars)**

Federal Direct Costs	\$231,621
Federal F&A Costs	\$79,163
Approved Budget	\$310,784
Total Amount of Federal Funds Obligated (Federal Share)	\$310,784
TOTAL FEDERAL AWARD AMOUNT	\$310,784

AMOUNT OF THIS ACTION (FEDERAL SHARE)	\$310,784
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SUMMARY TOTALS FOR ALL YEARS		
YR	THIS AWARD	CUMULATIVE TOTALS
1	\$310,784	\$310,784
2	\$312,784	\$312,784
3	\$312,765	\$312,765
4	\$312,334	\$312,334

Recommended future year total cost support, subject to the availability of funds and satisfactory progress of the project

Fiscal Information:

CFDA Name:	Diabetes, Digestive, and Kidney Diseases Extramural Research
CFDA Number:	93.847
EIN:	1746000541A1
Document Number:	RDK118334B
PMS Account Type:	P (Subaccount)
Fiscal Year:	2019

IC	CAN	2019	2020	2021	2022
DK	8472276	\$310,784	\$312,784	\$312,765	\$312,334

Recommended future year total cost support, subject to the availability of funds and satisfactory progress of the project

NIH Administrative Data:

PCC: DKA INFL / **OC:** 414A / **Released:** LOVELESSN 04/04/2019

Award Processed: 04/10/2019 12:07:20 AM

SECTION II – PAYMENT/HOTLINE INFORMATION – 1R01DK118334-01A1

For payment and HHS Office of Inspector General Hotline information, see the NIH Home Page at <http://grants.nih.gov/grants/policy/awardconditions.htm>

SECTION III – TERMS AND CONDITIONS – 1R01DK118334-01A1

This award is based on the application submitted to, and as approved by, NIH on the above-titled project and is subject to the terms and conditions incorporated either directly or by reference in the following:

- The grant program legislation and program regulation cited in this Notice of Award.
- Conditions on activities and expenditure of funds in other statutory requirements, such as those included in appropriations acts.
- 45 CFR Part 75.
- National Policy Requirements and all other requirements described in the NIH Grants Policy Statement, including addenda in effect as of the beginning date of the budget period.
- Federal Award Performance Goals: As required by the periodic report in the RPPR or in the final progress report when applicable.
- This award notice, INCLUDING THE TERMS AND CONDITIONS CITED BELOW.

(See NIH Home Page at <http://grants.nih.gov/grants/policy/awardconditions.htm> for certain references cited above.)

Research and Development (R&D): All awards issued by the National Institutes of Health (NIH) meet the definition of "Research and Development" at 45 CFR Part§ 75.2. As such, auditees should identify NIH awards as part of the R&D cluster on the Schedule of Expenditures of Federal Awards (SEFA). The auditor should test NIH awards for compliance as instructed in Part V, Clusters of Programs. NIH recognizes that some awards may have another classification for purposes of indirect costs. The auditor is not required to report the disconnect (i.e., the award is classified as R&D for Federal Audit Requirement purposes but non-research for indirect cost rate purposes), unless the auditee is charging indirect costs at a rate other than the rate(s) specified in the award document(s).

An unobligated balance may be carried over into the next budget period without Grants Management Officer prior approval.

This grant is subject to Streamlined Noncompeting Award Procedures (SNAP).

This award is subject to the requirements of 2 CFR Part 25 for institutions to receive a Dun & Bradstreet Universal Numbering System (DUNS) number and maintain an active registration in the System for Award Management (SAM). Should a consortium/subaward be issued under this award, a DUNS requirement must be included. See <http://grants.nih.gov/grants/policy/awardconditions.htm> for the full NIH award term implementing this requirement and other additional information.

This award has been assigned the Federal Award Identification Number (FAIN) R01DK118334. Recipients must document the assigned FAIN on each consortium/subaward issued under this award.

Based on the project period start date of this project, this award is likely subject to the Transparency Act subaward and executive compensation reporting requirement of 2 CFR Part 170. There are conditions that may exclude this award; see <http://grants.nih.gov/grants/policy/awardconditions.htm> for additional award applicability information.

In accordance with P.L. 110-161, compliance with the NIH Public Access Policy is now mandatory. For more information, see NOT-OD-08-033 and the Public Access website: <http://publicaccess.nih.gov/>.

In accordance with the regulatory requirements provided at 45 CFR 75.113 and Appendix XII to 45 CFR Part 75, recipients that have currently active Federal grants, cooperative agreements, and procurement contracts with cumulative total value greater than \$10,000,000 must report and maintain information in the System for Award Management (SAM) about civil, criminal, and administrative proceedings in connection with the award or performance of a Federal award that reached final disposition within the most recent five-year period. The recipient must also make semiannual disclosures regarding such proceedings. Proceedings information will be made publicly available in the designated integrity and performance system (currently the Federal Awardee Performance and Integrity Information System (FAPIIS)). Full reporting requirements and procedures are found in Appendix XII to 45 CFR Part 75. This term does not apply to NIH fellowships.

Treatment of Program Income:
Additional Costs

SECTION IV – DK Special Terms and Conditions – 1R01DK118334-01A1

Clinical Trial Indicator: No

This award does not support any NIH-defined Clinical Trials. See the NIH Grants Policy Statement

In accordance with the Salary Limitation in NIH Guide Notice [NOT-OD-19-031](#), Notice of Fiscal Policies in Effect for FY2019, none of the funds in this award shall be used to pay the salary of an individual at a rate in excess of Executive Level II. Therefore, this award and/or future years are adjusted accordingly, if applicable. See the [Salary Cap Summary](#) for a historical record of the salary cap, including effective dates.

In order to meet current NIDDK objectives and based on the relative scientific merit ranking of this application, the budget for the initial period has been programmatically reduced. Future recommended levels have been adjusted accordingly.

This is a Modular Grant Award without direct cost categorical breakdowns in accordance with the guidelines published in the [NIH Grants Policy Statement](#). Recipients are required to allocate and account for costs related to this award by category within their institutional accounting system in accordance with applicable cost principles.

See the budget information below for additional information.

In order to achieve an average competitive segment of 4 years for all NIDDK awards, the duration of the recommended competitive segment for this grant has been administratively reduced.

The grantee is required to follow the model organism sharing plan included in the application and may not implement any changes in the plan without the written prior approval of the NIDDK.

This award includes funds awarded for consortium activity with Baylor College of Medicine. Consortia are to be established and administered as described in the [NIH Grants Policy Statement](#).

In accordance with the NIH Guide Notice [NOT-OD-02-017](#) entitled, "Graduate Student Compensation" released December 10, 2001, total direct costs (salary, fringe benefits and tuition remission) for graduate students are provided at a level not to exceed the NIH maximum allowable amount (zero level of the Ruth L. Kirschstein National Research Service Award stipend in effect at the time of the competing award). Support recommended for future years has been adjusted accordingly, if applicable.

Grantees can determine which progress reports are due through the website located at <https://public.era.nih.gov/chl/public/search/index.jsp>, and should periodically check the site, which is updated on or around the 30th of each month. Progress report due dates are also available in the eRA Commons Status system. In addition, automatic e-mail notifications are sent to the PD/PI prior to due date.

As of October 17, 2014, the National Institutes of Health (NIH) requires grantees to submit all type 5 progress reports using the eRA [Research Performance Progress Report \(RPPR\)](#) module. Annual progress reports submitted in any format other than the RPPR will not be processed by the NIH and will require resubmission through the RPPR module in accordance with NIH Guide Notice [NOT-OD-15-014](#) released October 16, 2014.

STAFF CONTACTS

The Grants Management Specialist is responsible for the negotiation, award and administration of this project and for interpretation of Grants Administration policies and provisions. The Program Official is responsible for the scientific, programmatic and technical aspects of this project. These individuals work together in overall project administration. Prior approval requests (signed by an Authorized Organizational Representative) should be submitted in writing to the Grants Management Specialist. Requests may be made via e-mail.

Grants Management Specialist: Natasha Loveless
Email: lovelessnd@mail.nih.gov **Phone:** 301-594-8853 **Fax:** 301-594-9523

Program Official: Kristin M Abraham
Email: abrahamk@extra.niddk.nih.gov **Phone:** (301) 451-8048 **Fax:** (301) 480-3503

SPREADSHEET SUMMARY**GRANT NUMBER:** 1R01DK118334-01A1**INSTITUTION:** TEXAS A&M AGRILIFE RESEARCH

Budget	Year 1	Year 2	Year 3	Year 4
TOTAL FEDERAL DC	\$231,621	\$232,154	\$232,703	\$233,268
TOTAL FEDERAL F&A	\$79,163	\$80,630	\$80,062	\$79,066
TOTAL COST	\$310,784	\$312,784	\$312,765	\$312,334

Facilities and Administrative Costs	Year 1	Year 2	Year 3	Year 4
F&A Cost Rate 1	48.5%	50%	51.5%	51.5%
F&A Cost Base 1	\$26,520	\$26,221	\$155,460	\$153,526
F&A Costs 1	\$12,862	\$13,111	\$80,062	\$79,066
F&A Cost Rate 2	50%	51.5%		
F&A Cost Base 2	\$132,602	\$131,104		
F&A Costs 2	\$66,301	\$67,519		



NATIONAL INSTITUTE ON AGING

Grant Number: 1R01AG064869-01
FAIN: R01AG064869

Principal Investigator(s):
YUXIANG SUN, MD

Project Title: Nutrient-sensing GHS-R in macrophage reprogramming and inflamm-aging

Jason Foley
Texas A&M AgriLife Research
400 Harvey Mitchell Parkway South
Suite 300
College Station, TX 778454375

Award e-mailed to: awards@tamu.edu

Period Of Performance:

Budget Period: 07/01/2019 – 04/30/2020

Project Period: 07/01/2019 – 04/30/2024

Dear Business Official:

The National Institutes of Health hereby awards a grant in the amount of \$303,160 (see "Award Calculation" in Section I and "Terms and Conditions" in Section III) to TEXAS A&M AGRILIFE RESEARCH in support of the above referenced project. This award is pursuant to the authority of 42 USC 241 42 CFR 52 and is subject to the requirements of this statute and regulation and of other referenced, incorporated or attached terms and conditions.

Acceptance of this award including the "Terms and Conditions" is acknowledged by the grantee when funds are drawn down or otherwise obtained from the grant payment system.

Each publication, press release, or other document about research supported by an NIH award must include an acknowledgment of NIH award support and a disclaimer such as "Research reported in this publication was supported by the National Institute On Aging of the National Institutes of Health under Award Number R01AG064869. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health." Prior to issuing a press release concerning the outcome of this research, please notify the NIH awarding IC in advance to allow for coordination.

Award recipients must promote objectivity in research by establishing standards that provide a reasonable expectation that the design, conduct and reporting of research funded under NIH awards will be free from bias resulting from an Investigator's Financial Conflict of Interest (FCOI), in accordance with the 2011 revised regulation at 42 CFR Part 50 Subpart F. The Institution shall submit all FCOI reports to the NIH through the eRA Commons FCOI Module. The regulation does not apply to Phase I Small Business Innovative Research (SBIR) and Small Business Technology Transfer (STTR) awards. Consult the NIH website <http://grants.nih.gov/grants/policy/coi/> for a link to the regulation and additional important information.

If you have any questions about this award, please contact the individual(s) referenced in Section IV.

Sincerely yours,

Ryan Blakeney
Grants Management Officer
NATIONAL INSTITUTE ON AGING

Additional information follows

SECTION I – AWARD DATA – 1R01AG064869-01**Award Calculation (U.S. Dollars)**

Federal Direct Costs	\$205,000
Federal F&A Costs	\$98,160
Approved Budget	\$303,160
Total Amount of Federal Funds Obligated (Federal Share)	\$303,160
TOTAL FEDERAL AWARD AMOUNT	\$303,160

AMOUNT OF THIS ACTION (FEDERAL SHARE)	\$303,160
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SUMMARY TOTALS FOR ALL YEARS		
YR	THIS AWARD	CUMULATIVE TOTALS
1	\$303,160	\$303,160
2	\$305,429	\$305,429
3	\$306,206	\$306,206
4	\$305,987	\$305,987
5	\$305,758	\$305,758

Recommended future year total cost support, subject to the availability of funds and satisfactory progress of the project

Fiscal Information:

CFDA Name: Aging Research
CFDA Number: 93.866
EIN: 1746000541A1
Document Number: RAG064869A
PMS Account Type: P (Subaccount)
Fiscal Year: 2019

IC	CAN	2019	2020	2021	2022	2023
AG	8470692	\$303,160	\$305,429	\$306,206	\$305,987	\$305,758

Recommended future year total cost support, subject to the availability of funds and satisfactory progress of the project

NIH Administrative Data:

PCC: 1BIMMRF / **OC:** 414A / **Released:** BLAKENEYR 06/24/2019
Award Processed: 06/27/2019 12:02:50 AM

SECTION II – PAYMENT/HOTLINE INFORMATION – 1R01AG064869-01

For payment and HHS Office of Inspector General Hotline information, see the NIH Home Page at <http://grants.nih.gov/grants/policy/awardconditions.htm>

SECTION III – TERMS AND CONDITIONS – 1R01AG064869-01

This award is based on the application submitted to, and as approved by, NIH on the above-titled project and is subject to the terms and conditions incorporated either directly or by reference in the following:

- The grant program legislation and program regulation cited in this Notice of Award.
- Conditions on activities and expenditure of funds in other statutory requirements, such as those included in appropriations acts.
- 45 CFR Part 75.
- National Policy Requirements and all other requirements described in the NIH Grants Policy Statement, including addenda in effect as of the beginning date of the budget period.
- Federal Award Performance Goals: As required by the periodic report in the RPPR or in the final progress report when applicable.
- This award notice, INCLUDING THE TERMS AND CONDITIONS CITED BELOW.

(See NIH Home Page at <http://grants.nih.gov/grants/policy/awardconditions.htm> for certain references cited above.)

Research and Development (R&D): All awards issued by the National Institutes of Health (NIH) meet the definition of "Research and Development" at 45 CFR Part§ 75.2. As such, auditees should identify NIH awards as part of the R&D cluster on the Schedule of Expenditures of Federal Awards (SEFA). The auditor should test NIH awards for compliance as instructed in Part V, Clusters of Programs. NIH recognizes that some awards may have another classification for purposes of indirect costs. The auditor is not required to report the disconnect (i.e., the award is classified as R&D for Federal Audit Requirement purposes but non-research for indirect cost rate purposes), unless the auditee is charging indirect costs at a rate other than the rate(s) specified in the award document(s).

An unobligated balance may be carried over into the next budget period without Grants Management Officer prior approval.

This grant is subject to Streamlined Noncompeting Award Procedures (SNAP).

This award is subject to the requirements of 2 CFR Part 25 for institutions to receive a Dun & Bradstreet Universal Numbering System (DUNS) number and maintain an active registration in the System for Award Management (SAM). Should a consortium/subaward be issued under this award, a DUNS requirement must be included. See <http://grants.nih.gov/grants/policy/awardconditions.htm> for the full NIH award term implementing this requirement and other additional information.

This award has been assigned the Federal Award Identification Number (FAIN) R01AG064869. Recipients must document the assigned FAIN on each consortium/subaward issued under this award.

Based on the project period start date of this project, this award is likely subject to the Transparency Act subaward and executive compensation reporting requirement of 2 CFR Part 170. There are conditions that may exclude this award; see <http://grants.nih.gov/grants/policy/awardconditions.htm> for additional award applicability information.

In accordance with P.L. 110-161, compliance with the NIH Public Access Policy is now mandatory. For more information, see NOT-OD-08-033 and the Public Access website: <http://publicaccess.nih.gov/>.

In accordance with the regulatory requirements provided at 45 CFR 75.113 and Appendix XII to 45 CFR Part 75, recipients that have currently active Federal grants, cooperative agreements, and procurement contracts with cumulative total value greater than \$10,000,000 must report and maintain information in the System for Award Management (SAM) about civil, criminal, and administrative proceedings in connection with the award or performance of a Federal award that reached final disposition within the most recent five-year period. The recipient must also make semiannual disclosures regarding such proceedings. Proceedings information will be made publicly available in the designated integrity and performance system (currently the Federal Awardee Performance and Integrity Information System (FAPIIS)). Full reporting requirements and procedures are found in Appendix XII to 45 CFR Part 75. This term does not apply to NIH fellowships.

Treatment of Program Income:
Additional Costs

SECTION IV – AG Special Terms and Conditions – 1R01AG064869-01

Clinical Trial Indicator: No

This award does not support any NIH-defined Clinical Trials. See the NIH Grants Policy Statement

In order to meet Institute Program objectives, direct costs awarded have been adjusted to a level determined to be compatible with the approved scope of the grant while also meeting NIA cost management objectives.

This is a Modular Grant Award without direct cost categorical breakdowns issued in accordance with the guidelines published in the NIH Grants Policy Statement. See: http://grants.nih.gov/grants/policy/nihgps/HTML5/section_13/13_modular_applications_and_awards.htm# . Recipients are required to allocate and account for costs related to this award by category within their institutional accounting system in accordance with applicable cost principles.

None of the funds in this award shall be used to pay the salary of an individual at a rate in excess of the current salary cap. Current salary cap levels can be found at the following URL: http://grants.nih.gov/grants/policy/salcap_summary.htm

In accordance with the Notice: NOT-OD-02-017 entitled, "GRADUATE STUDENT COMPENSATION" published on December 10, 2001, in the NIH Guide for Grants and Contracts, total direct costs (salary, fringe benefits and tuition remission) for graduate students are provided at a level not to exceed the NIH maximum allowable amount (zero level of the Ruth L. Kirschstein National Research Service Award stipend in effect at the time of the competing award). Support recommended for future years has been adjusted accordingly, if applicable. The full guide Notice describing the level of compensation allowed for a graduate student can be found at: <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-017.html>

This award includes funds for twelve months of support. The competing budget period is awarded for less than 12 months. Continuation awards will cycle each year on May 1st. The Research Performance Progress Reports (RPPR) are due 45 days prior to this date.

STAFF CONTACTS

The Grants Management Specialist is responsible for the negotiation, award and administration of this project and for interpretation of Grants Administration policies and provisions. The Program Official is responsible for the scientific, programmatic and technical aspects of this project. These individuals work together in overall project administration. Prior approval requests (signed by an Authorized Organizational Representative) should be submitted in writing to the Grants Management Specialist. Requests may be made via e-mail.

Grants Management Specialist: Manda C Richards
Email: manda.richards@nih.gov **Phone:** 301-827-7977 **Fax:** 301-451-9789

Program Official: Rebecca A Fuldner
Email: fuldnerr@nia.nih.gov **Phone:** (301) 496-6402 **Fax:** (301) 402-0010

SPREADSHEET SUMMARY

GRANT NUMBER: 1R01AG064869-01

INSTITUTION: TEXAS A&M AGRILIFE RESEARCH

Facilities and Administrative Costs	Year 1	Year 2	Year 3	Year 4	Year 5
F&A Cost Rate 1	48.5%	50%	51.5%	51.5%	51.5%
F&A Cost Base 1	\$32,884	\$65,640	\$196,516	\$196,092	\$195,647
F&A Costs 1	\$15,949	\$32,820	\$101,206	\$100,987	\$100,758
F&A Cost Rate 2	50%	51.5%			
F&A Cost Base 2	\$164,421	\$131,280			
F&A Costs 2	\$82,211	\$67,609			



Alzheimer's Disease Research
Macular Degeneration Research
National Glaucoma Research

March 31, 2019

Yuxiang Sun, MD, PhD
Texas A&M AgriLife Research
400 Harvey Mitchell Parkway South, Suite 300
College Station TX 77845

Dear Dr. Sun:

I am pleased to inform you that the BrightFocus Foundation approved funding of your Alzheimer grant application entitled, ***"Ghrelin receptor mediated neuroinflammation in Alzheimer's Disease"***, hereby incorporated into the Grant Agreement, in the cost-reimbursable amount of \$300,000.00 for the period 01 July 2019 - 30 June 2022. By this award letter of agreement, the Board has committed the expenditure of these funds on a quarterly basis (\$25,000 per quarter), beginning 01 July 2019. This grant has been made to the Texas A&M AgriLife Research for research that you as the Principal Investigator shall conduct.

The "Terms and Conditions of Grant Awards" and "Intellectual Property Contract" that are attached to this letter are part of the conditions upon which this grant is being awarded and is incorporated by reference in this letter. Your signed acceptance of this letter shall also indicate your understanding and agreement to abide by these policies as outlined in the attached materials.

In order to begin payments, you will need to return the information requested in the attached package. Please refer to the 'Award Checklist' page for a summary of items necessary to begin payment.

BrightFocus is excited about this opportunity to support high-quality research, and we are proud to have you and your staff as members of our research team.

Sincerely,

A handwritten signature in black ink that reads "Diane Bovenkamp".

Diane Bovenkamp, PhD
Vice President of Scientific Affairs

Please sign to indicate your acceptance of the terms and conditions of this grant award from the BrightFocus Foundation as described in the attached letter and enclosures.

Principal Investigator

Signature A handwritten signature in blue ink that appears to read "Yuxiang Sun".

Date: 4-12-2019

Yuxiang Sun, MD, PhD

Institutional Official

Signature _____ Date: _____

Julie Bishop, Associate Executive Director, TAMU, SRS

BrightFocus Foundation
Award Checklist: Sun, MD, PhD

The Following Items Are Necessary For Payments To Begin.

PRINCIPAL INVESTIGATOR INITIALS

 YS Please initial here to certify that the BrightFocus award will not scientifically or financially overlap the awards of other funding agencies. Please contact researchgrants@brightfocus.org with any questions concerning potential overlap.

AWARD LETTER CHECKLIST

 YS signed by Principal Investigator

 signed by Institutional Official

TERMS AND CONDITIONS CHECKLIST

 YS signed by Principal Investigator

 signed by Institutional Official

INTELLECTUAL PROPERTY CONTRACT CHECKLIST

 YS signed by Principal Investigator

 signed by Institutional Official

 full-text copy (not a link to a website) of Grantee Institution's IP Policy that is currently active has been submitted to BrightFocus prior to execution of this Agreement

 choice of Royalty Option 1, 2, or 3 in section 5 (Revenue Sharing) initialed by Institutional Official

ASSURANCES CHECKLIST

If *vertebrate animals or human subjects* are required and the IACUC/IRB date and/or assurance numbers are missing, then you must send that information before we can begin sending grant payments.

 YS If vertebrate animals will be involved, IACUC approval date and assurance numbers are required: Yes

IACUC date: 2016-12-08

IACUC assurance number: 2016-0292

 N/A If human subjects will be involved, IRB approval date and assurance number are required: No

IRB date:

IRB assurance number:

 YS Include a copy of the IACUC or IRB approval letter to BrightFocus with this packet

 Sign and return the Release of Grant Information Agreement with this packet.

Public Information Tab

 YS Principal Investigator has gone online to their BrightFocus grants portal and submitted the requested information and documentation

US Domestic Institutions

 Include a copy of your institutional IRS W-9 form and your most recent IRS designation letter certifying your non-profit, charitable, or otherwise tax-exempt status.

 Fill out and return the attached Automated Clearing House (ACH) Payment Information Document

Foreign Institutions

 N/A Institutions outside of the U.S. should complete the attached wire transfer information document.

 Please include documentation of your non-profit, charitable, or otherwise tax-exempt, status.

BRIGHTFOCUS FOUNDATION

RESEARCH GRANT PROGRAMS

TERMS AND CONDITIONS OF GRANT AWARDS

BrightFocus Terms and Conditions of Grant Awards Template last updated March 2019

Principal Investigator: Yuxiang Sun, MD, PhD

Grantee Institution: Texas A&M AgriLife Research

BrightFocus Grant Submission Number: A2019630S

Award Value: \$300,000.00

Award Type: Alzheimer

Award Duration: 01 July 2019 - 30 June 2022

Project Title Submitted by Principal Investigator: Ghrelin receptor mediated neuroinflammation in Alzheimer's Disease

Project Specific Aims as Proposed by Principal Investigator ("Specific Aims"):

Emerging evidence indicates that neuroinflammation is involved in pathogenesis of AD, playing important roles in both pathogenesis and prognosis of AD (2-4). Neuro-inflammation is mediated by myeloid cells in the brain, including resident microglia and blood-derived infiltrating monocyte macrophages (mo-M ϕ) (5-8). Microglia and mo-M ϕ are functionally distinct, but act in concert in plasticity and repair of central nervous system (8-10). It has been shown that mo-M ϕ cells can "prime" microglia to enhance its ability in phagocytosis and degradation of amyloid beta (A β) plaques (6, 11, 12). Similar to peripheral macrophages, microglia and mo-M ϕ cells are highly plastic and dynamic, they shift from a resting state to an activated state upon insults/injuries (4, 13-15), producing pro-inflammatory cytokines to elicit neuronal damage if present for a long period of time (16-19). Understanding the activation and polarization of microglia/mo-M ϕ is of great importance for combating neuro-inflammation in AD.

Growth hormone secretagogue receptor (GHS-R) is the established receptor for the nutrient-sensing gut hormone ghrelin (20-22). Our studies have shown that GHS-R is an important metabolic regulator in aging; global ablation of GHS-R protects against age-associated obesity, insulin resistance (23-26), and inflammation (25, 27). GHS-R is abundantly expressed in macrophages, and our data revealed that GHS-R expression in macrophages increases with age (25). To investigate the macrophage-specific role of GHS-R, we have generated myeloid-specific GHS-R deficient mice (LysM-Cre;Ghsrflox/flox). Our

preliminary data showed that inactivation of GHS-R in myeloid cells mitigated high fat diet (HFD)-induced chronic inflammation, and attenuated pro-inflammatory macrophage polarization. Remarkably, we observed that 8-month old HFD-fed LysM-Cre;Ghsrflox/flox mice have improved spatial memory, and reduced expression of inflammation and AD marker genes in the brain. Based on these exciting data, we hypothesize that myeloid GHS-R is a pathogenic factor for AD, and GHS-R promotes pro-inflammatory activation/polarization of brain myeloid cells to exacerbate neuro-inflammation. We will test our hypothesis via the following Specific Aims: Aim 1. Determine the role of myeloid GHS-R deficiency on neuroinflammation and AD pathology. Our LysM-Cre;Ghsrflox/flox mice will be bred to transgenic AD mice 5XFAD to generate myeloid GHS-R deficient 5XFAD mice; these mice will be subjected to analyses of inflammatory cytokines, metabolic parameters, cognitive function, neuroinflammation and AD pathology. Aim 2. Determine the polarization state, cellular/molecular signatures, and regulatory mechanisms of GHS-R deficient myeloid cells in AD. Myeloid GHS-R deficient 5XFAD and AD-control mice will be used to: 2a) sort microglia/mo-M ϕ by FACS and perform RNA sequencing analysis; 2b) characterize GHS-R deficient microglia and bone marrow-derived macrophages (BMDM) using flow cytometry, Seahorse extracellular flux, and protein/RNA expression.

We anticipate that suppression of GHS-R in myeloid cells mitigates pro-inflammatory activation/polarization of microglia/mo-M ϕ , thus alleviating neuro-inflammation in AD. Our studies will fill critical knowledge gap regarding the role of myeloid GHS-R in neuro-inflammation in AD, uncover the functional link between nutrient-sensing signaling and neuron-inflammation, and potentially lead to a novel AD immunotherapy of reprogramming myeloid cells.

The BrightFocus Foundation (BrightFocus) awards grants for basic research on the causes of and treatments for Alzheimer's disease, Macular Degeneration, and Glaucoma. Its programs include Alzheimer's Disease Research (ADR), Macular Degeneration Research (MDR), and National Glaucoma Research (NGR).

DEFINITIONS AND ABBREVIATIONS

Definitions set forth in this section "Definitions and Abbreviations," in addition to any definitions integrated in the text of this Grant Agreement, apply to all portions of this Grant Agreement unless explicitly stated otherwise.

ADR: Alzheimer's Disease Research, a program of the BrightFocus Foundation.

Agreement: The agreement defined in the present document unless represented as "Grant Agreement", defined elsewhere in the section entitled Definitions and Abbreviations.

Assignee: is defined in Terms & Conditions section [21.2].

Award Date: 01 July 2019

BrightFocus: BrightFocus Foundation

Grant: Financial award of funds for research on the causes of and treatments for Alzheimer's disease, Macular Degeneration, and/or Glaucoma.

Grant Agreement: The agreement defined collectively by the documents entitled "Terms and Condition of Grant Awards," "Intellectual Property Contract," and the "BrightFocus Foundation Release of Grant Information Agreement." The Grant Agreement is understood to be made in support of the Specific Aims of the research formally proposed by the Principal Investigator through BrightFocus' Grant application process.

Grantee: The grant recipient of the BrightFocus award. The individual whose name appears as Principal Investigator for the BrightFocus Award.

Grantee Institution: The college, university, organization or institution to which the Grant is granted, and with whom the Grantee is formally associated.

MDR: Macular Degeneration Research, a program of The BrightFocus Foundation.

NGR: National Glaucoma Research, a program of The BrightFocus Foundation.

No Cost Extension (NCE): An extension of a Grant term to expend unused Grant funds or allow for completion of proposed research.

Official Written Correspondence: Written or electronically delivered communications reasonably understood to have originated from an identifiable individual representing either Grantee, Grantee Institution, BrightFocus, or their agents. Such communications may be by written letter delivered through the postal system, or electronic representations of such communications provided as images bearing a facsimile of the sender's signature.

Principal Investigator: The individual designated as the lead researcher whose name appears as Principal Investigator for the BrightFocus Award on the Grant application, unless otherwise approved by BrightFocus. This person shall also serve as the primary contact for all communications regarding the BrightFocus award.

Reagent: A product used, by virtue of its mechanical, chemical or biological activity, to detect, measure, examine, analyze, or produce other products (e.g., recombinant DNA clones, cultured cell lines, hybridoma cell lines, mutant or unique organisms, software, or equipment).

Research Misconduct: An act of falsification, fabrication, or plagiarism of data or results, or the omission of material data or results that occurs during the application process, performance of the award or reporting of performance of the award.

Specific Aims: are defined and set forth under the title "Project Specific Aims As Proposed by Principal Investigator," above.

Sub-Grant: is defined in Terms & Conditions section [21.1].

Supported Project: Work approved by BrightFocus to be performed by the Grantee in support of the Specific Aims of the research that were formally proposed by the Principal Investigator through BrightFocus' grant application process.

Term: The term ("Term") of this Grant Agreement shall include the Award Duration (start and end dates inclusive), plus the duration and first and end dates of any one or more contiguous No Cost Extension(s), unless earlier terminated in accordance with the provisions of this Grant Agreement. Signature dates will have no impact on the length of Term. In the event that, prior to completion of Term, this Grant Agreement is transferred in entirety from Grantee Institution to an Assignee pursuant to section 21.2 of Terms & Conditions, (a) "Original Term" shall refer to the portion of the Award Duration commencing with the start date and ending on the day prior to the date of assignment to the Assignee; and (b) "Transferee Term" shall refer to the portion of the Award Duration commencing with the date of assignment to the Assignee and ending on the end date of Award Duration, plus the duration and first and end dates of any one or more contiguous No Cost Extension(s), unless earlier terminated in accordance with the provisions of this Grant Agreement.

CONDITIONS OF FUNDING

[1] Funding Restrictions

BrightFocus will fund grants for research at non-profit organizations or institutions only. Each Grantee Institution must submit evidence of its tax-exempt status to BrightFocus prior to the distribution of any Grant including but not limited to, a tax determination from the Internal Revenue Service.

For foreign institutions: Each Grantee Institution must submit evidence of its tax-exempt status to BrightFocus prior to the distribution of any Grant, including but not limited to, a determination of tax-exempt or nonprofit status from their home country of origin.

Funds shall be awarded to the Grantee Institution and not to individual Principal Investigators. All Grants must be used exclusively for research and research equipment not for overhead, capital expenditures, administrative costs or other peripheral costs, except where BrightFocus, in its discretion, may make an exception for costs associated with the publication of the results of the BrightFocus sponsored research in academic journals, or for costs associated with participation in academic conferences.

The BrightFocus Grant may pay for all or a portion of the salary of the Principal Investigator provided the salary request is justified in the Grant application and is in accordance with rules specified in the application guidelines. Acceptance of these terms and conditions shall constitute an affirmation that Principal Investigator is of the professional rank or status required by the application guidelines.

[2] Discontinuation of Grant Funding and Termination of Grant Agreement

Although BrightFocus has committed grant funds for the Term of the Grant, BrightFocus reserves the right to terminate the Grant and Grant Agreement with 30 days written notice at any time prior to the end of the Term in the event of a breach of any of the terms and obligations stated herein. In the event the breach is not cured within 30 days of Grantee notice, Brightfocus may terminate the Grant, no further Grant payment will be made and Grantee Institution shall be required to return any Grant funds that have been advanced. Either party may terminate the Grant Agreement upon thirty (30) days prior written notice to the other party. If terminated by BrightFocus for reasons

other than Research Misconduct, then Grantee Institution is entitled to full repayment for all non-cancelable commitments associated with BrightFocus-approved budget line items incurred to the Grantee Institution (if they are in excess of the funds already paid), as of the effective date of the termination. Non-cancelable commitments include, but are not limited to, all costs associated with a graduate student's appointment within a given academic year. Discontinuation of Grant Funding due to Research Misconduct shall be treated as a special circumstance as described in separate sections of this document and may require the return of the entire grant in BrightFocus' sole discretion.

[3] Anti-Terrorism Compliance

Both the Principal Investigator and Grantee Institution affirm expressly that each will use the grant funds in compliance with all applicable anti-terrorist financing and asset control laws, regulations, rules and executive orders, including but not limited to, the USA Patriot Act of 2001 and Executive Order 13224.

Any violation of this representation is grounds for immediate termination of the Grant Agreement and return to BrightFocus of all funds advanced to the Grantee, in BrightFocus' sole discretion.

In the event of termination for the reasons set forth above, the Grantee Institution shall be required to reimburse BrightFocus for all reasonable costs incurred by BrightFocus in obtaining the return of the Grant award funds, including but not limited to, reasonable attorney's fees, except as prohibited by applicable state law.

Any Principal Investigator determined to violate this Section shall be prohibited from seeking future funding from BrightFocus.

Any Grantee Institution determined to violate this Section shall, at the discretion of BrightFocus, be prohibited from seeking future funding from BrightFocus.

[4] Research Misconduct

The Grantee Institution identified in the Grant Agreement shall have in place adequate controls and systems for assuring the quality and integrity of research carried out under the supervision of the Principal Investigator so that Research Misconduct shall be prevented, and if not prevented, the conduct shall be detected and terminated forthwith, and Grantee Institution shall notify BrightFocus of such detection and termination. The Grantee Institution shall have effective mechanisms for identifying Research Misconduct and shall have clearly publicized rules and procedures for investigating allegations of Research Misconduct.

BrightFocus holds both material and intangible interests in all research conducted pursuant to the Grant Agreement and Supported Project. In the event that the Principal Investigator, research team, or staff is reasonably determined by the Grantee Institution, or by an independent institutional inquiry, to have been found to have engaged in Research Misconduct, BrightFocus holds the right to terminate any funding authorized by this Grant Agreement to that Principal Investigator, research team, or staff member in its sole discretion. Termination of the award may be initiated regardless of whether the perpetrator of the misconduct was the named Principal Investigator or any person under the supervision of the Principal

Investigator, including but not limited to students, trainees and employees. If the perpetrator of the misconduct is a collaborator or person under the supervision of a collaborator named on the BrightFocus Grant application, termination may be initiated only if the Research Misconduct is directly related to the Specific Aims of the Supported Project of the Grant.

Termination of the Grant Agreement due to Research Misconduct shall require the return of all Grant funds authorized under this Grant Agreement and advanced to the Grantee Institution for the performance of this Grant Agreement. In the event of termination for the reasons set forth in this section, the Grantee Institution shall reimburse BrightFocus for all reasonable costs incurred by BrightFocus in obtaining the return of the Grant award funds, including but not limited to, reasonable attorney's fees, except as prohibited by applicable state law.

The interest of BrightFocus in any Grant awarded shall be understood to persist for a period of four years following the expiration of the Grant. Should Research Misconduct be reasonably determined by BrightFocus or by an independent institutional inquiry to have occurred in relation to this BrightFocus Grant after termination of the Grant, BrightFocus shall have the right to demand, and Grantee Institution shall return, all funds advanced to the Grantee Institution under the Grant and the reimbursement of all reasonable costs incurred by BrightFocus in obtaining the return of the Grant award funds, including but not limited to, reasonable attorney's fees, except as prohibited by applicable state law.

BrightFocus may, in its discretion, decline the application of, and prohibit any investigator found to have been guilty of, Research Misconduct from seeking future Grant funding from BrightFocus.

[5] Overlapping Grant Awards

"Overlapping Grant Awards" is defined as a circumstance under which either the budget or scientific aims of a BrightFocus Supported Project duplicates either the budget or scientific aims of another project that is under the direction of the Principal Investigator and funded by another source. This overlap may be scientific in which the duplication occurs in the Specific Aims of the research project, or financial in which another funding source commits money for items documented in the approved BrightFocus award budget.

BrightFocus awards funds with the express understanding that BrightFocus is the exclusive financial supporter of the Supported Project for which Grant monies were requested. At the request of the Principal Investigator, the instance of scientific overlap may be approved by BrightFocus, at its discretion, so long as there is no financial overlap associated with the request. Financial overlap is prohibited. BrightFocus does not allow BrightFocus Grant funds to be used for research projects receiving funding from another source without express written permission from BrightFocus, said permission having been applied for and received in advance of the anticipated occurrence of the overlap.

An anticipated occurrence of Overlapping Grant Awards shall be understood to exist following Principal Investigator's or Grantee Institution's receipt of an award letter, or the documented promise for funding, from another funding source, if that award

would be scientifically or fiscally duplicative of the BrightFocus award. All occurrences or anticipated occurrences of Overlapping Grant Awards must be reported immediately to BrightFocus. Grantee Institution shall have thirty (30) days from the report of the overlap to remedy the overlap. Failure of the Grantee Institution to report or satisfactorily remedy the occurrence of overlap between the BrightFocus Grant and the funding of another organization will result, at the discretion of BrightFocus, in terminating the award, and/or the return of the overlapping proportion of monies awarded by BrightFocus to the Grantee Institution up to and including the full value of the BrightFocus award.

In the event of termination for the reasons set forth in this Section, the Grantee Institution shall be required to reimburse BrightFocus for all reasonable costs incurred by BrightFocus in obtaining the return of the Grant award funds, including but not limited to, reasonable attorney's fees, except as prohibited by applicable state law.

[6] Use of Human Subjects or Vertebrate Animals for Research

Research projects involving human subjects and/or vertebrate animals must meet or exceed standards required for United States of America federal government funding including all rules and regulations developed by the National Institutes of Health. If the proposed research will involve the use of human or vertebrate animal subjects, the appropriate committee of the Grantee Institution must provide BrightFocus with a signed release to demonstrate approval of the proposed research protocol(s) before Grant funds are released.

If the project is to be funded through an award to a foreign institution or through an individual fellowship award that will support activities at a foreign institution, BrightFocus requires a statement of compliance from the Grantee Institution that the activities will be conducted in accordance with all applicable local laws and regulations in the foreign country. Such foreign protocols must meet or exceed standards required for United States of America federal government funding for research projects.

[7] Indemnity and Liability

Solely to the extent that Grantee Institution is authorized by its state laws and constitution, Grantee Institution agrees to indemnify BrightFocus, its officers, directors, employees, agents, successors and assigns (the "Indemnatee") from any loss, liability, damage, cost or expense, including reasonable attorneys' and accountants' fees, suffered by Indemnatee arising from Grantee Institution's negligent acts or omissions in the performance of the Grant Agreement including but not limited to, activities involving (a) Principal Investigator or Grantee Institution's use, planned use, and/or proposed use of human or animal subjects, whether alive or dead, including, but not limited to clinical trials and diagnostic trials; (b) scientific experimentation; (c) personal injury, bodily injury, or property damage.. The extent to which Grantee Institution is permitted to perform its functions as an indemnitor pursuant to this paragraph shall be determined according to the procedures for dispute resolution set forth in section [22].

Grantee Institution will maintain insurance coverage with policy limits sufficient to cover the aforesaid indemnity obligations and scope of activities contemplated in this

Grant Agreement, and will name BrightFocus as an additional insured. Grantee Institution will, at the reasonable request of BrightFocus, provide BrightFocus with evidence of such insurance coverage. Alternatively, in the event that Grantee Institution is self-insured, Grantee Institution will self-insure with amounts sufficient to cover the aforesaid indemnity obligations and scope of activities contemplated in this Grant Agreement.

Each party shall be responsible for its own negligent acts and any loss, liability, damage, cost or expenses resulting therefrom and shall not be responsible for the acts of the other party. Each party will assume all risks and liability to itself, its agents, or employees for any injury to persons or property to the extent such negligent conduct results from its own acts and/or the acts of its agents or employees performing under this agreement.

[8] Sharing of Reagents

Reagents developed during the course of any research funded by BrightFocus Grants must be made available to qualified investigators following the publication of reports using or describing the Reagents. The Grantee Institution shall provide the Reagents developed during the course of BrightFocus-sponsored research to other qualified investigators when reasonably requested to do so.

Unpublished Reagents shall be treated as described in the Intellectual Property Contract Agreement (section 11, Reservation of Rights for Research Purposes).

[9] Public Education

Acceptance of this Grant shall be deemed consent of the Grantee Institution to the publication of information, including the title of the project, the name and institutional affiliation of the Principal Investigator, the amount of the award and the non-technical project summary. The non-technical summary shall not contain confidential information.

[10] Confidentiality

Any information provided by Grantee Institution or the Principal Investigator that is explicitly marked non-confidential as provided for in the attached "BrightFocus Foundation Release of Grant Information Agreement" (hereby incorporated by reference) shall be considered available to BrightFocus for purposes of public education or marketing without further consultation with the Principal Investigator or Grantee Institution.

[11] Publications

All publications resulting from research sponsored by BrightFocus Grants shall give the following or similar credit: Acknowledgement is made to the donors of the XXX, a program of the BrightFocus Foundation, for support of this research. XXX is understood to represent the program through which the grant is made (*i.e.*, XXX=ADR, MDR, or NGR) and the BrightFocus Grant Submission Number.

Grantee Institution should make good faith efforts to include the BrightFocus logo when BrightFocus-supported studies are represented in public through communications and media wherein the logos of sponsoring agencies are

traditionally depicted (*e.g.*, slide presentations, poster presentations, study enrollment fliers, *etc.*), A copy of the BrightFocus logo may be downloaded from the BrightFocus website, and is currently maintained at <https://www.brightfocus.org/grants/current-awardees>.

Additional acknowledgement should be given to any Grant made in a memorial or honor of a named person. Notification of such memorials or honors shall be made to the Principal Investigator by Official Written Correspondence from BrightFocus.

For all scientific publications of work supported by BrightFocus, Principal Investigator is responsible for informing BrightFocus within two weeks of notification of an editorial decision to accept a manuscript for publication. Manuscripts posted on a pre-print database, such as BioRxiv or similar platform, should be provided by a hyperlink at the time of posting.

[12] Publicity

Publicity of awards is an essential component of BrightFocus' mission to educate the public concerning issues regarding BrightFocus' program areas. By acceptance of the award, the Principal Investigator agrees to participate in targeted promotional activities including media interviews, social media, and videos. Participation of the Grantee Institution in such publicity shall be governed by Grantee Institutional policy. Grantee Institutional representatives other than the Principal Investigator shall only be reimbursed for expenses at the discretion of BrightFocus.

[13] Renewals

All requests for renewal of BrightFocus support should be made by submission of a new application.

[14] Requests For Supplemental Funding.

BrightFocus has an interest in the continued success of its investigators. At the termination of the Grant Agreement, if Principal Investigator has been unable to secure additional funding for his or her laboratory, BrightFocus may at its sole discretion, and in rare circumstances, grant limited additional support to Principal Investigator. Any Principal Investigator seeking such aide should contact the BrightFocus Scientific Affairs Department for full guidelines and must make the request prior to the expiration of the Grant Agreement.

ADMINISTRATIVE REQUIREMENTS

[15] Intellectual Property Contract

The BrightFocus Intellectual Property Contract (attached), along with the Terms and Conditions of Grant Awards, is an integral part of the BrightFocus Grant Agreement, and applies to all Grants provided by BrightFocus.

[16] Budget Guidelines, Revisions, and No Cost Extensions

The budget may not contain administrative overhead or indirect costs, and should be prepared in US dollars.

The transfer of more than \$5,000 from one budget category to another requires written approval from BrightFocus. Requests for such transfers must be made through Official Written Correspondence, provide justification for the proposed transfer, and submit a copy of the new proposed budget.

In the event that there is more than 15% of the total grant award remaining in the Grant account at the end of the Grant period, the Grantee Institution or Principal Investigator may request permission to extend the grant period for a period not to exceed one year with no increase in funding. Requests for such "No Cost Extensions" must be made through Official Written Correspondence before the expiration of the award.

If a request for a No Cost Extension is approved for an extension period greater than three months, an interim scientific progress and financial statement shall be required within sixty (60) days following the original termination of the award. A final financial and scientific progress report shall be required within sixty days (60) following termination of the approved No Cost Extension.

[17] Transfer of Grants Between Institutions or to a Different Principal Investigator

17.1 Transfer of Grant Between Different Grantee Institutions

In the event that Principal Investigator transfers to another university or research facility and wishes to transfer the Grant and animals, supplies, equipment and other materials purchased with funds from the Grant, Principal Investigator must submit a formal request through Official Written Correspondence to BrightFocus. Requests must be accompanied by a letter from the new institution, the letter a) documenting Principal Investigator's new title, date of hire, and available resources; b) stating that the new institution has read and agreed to the terms and conditions of this Grant Agreement; c) providing, where appropriate, copies of animal or human subject protocols; and d) providing necessary banking information for future grant payments. The request must also be accompanied by a ready-for-signature draft of an Assignment pursuant to section [21.2] Rights of Assignment and Assumption. If the transfer is not approved by BrightFocus, then the Grant will be terminated pursuant to section [2] Discontinuation of Grant Funding.

If Grantee Institution is not willing to relinquish the Grant and Grant Agreement, then the Grant will be terminated as provided in section [2] Discontinuation of Grant Funding.

If Grantee Institution is willing to relinquish the Grant but Assignee does not agree to comply with the requirements set forth in this Grant Agreement due to legal restrictions imposed by State or Federal law, then, in those rare occasions, a minor letter amendment to this Grant Agreement may be negotiated with BrightFocus and Grantee Institution. Otherwise, if Assignee cannot accept the Grant Agreement as required by section [21.2] Rights of Assignment and Assumption, then the Grant will be terminated as provided in section [2] Discontinuation of Grant Funding.

The Principal Investigator shall not use Grant funds for any costs related to a transfer under this section [17].

17.2 Transfer of Grant Between Different Principal Investigators

at the Same Institution

In the event that Principal Investigator can no longer oversee execution of the Supported Project, Principal Investigator may request that Principal Investigator's responsibilities be transferred to another person to complete for the remainder of the Term. In such a case, Principal Investigator must request a change in personnel through Official Written Correspondence to the BrightFocus Scientific Affairs Department for approval. This request must be accompanied by a letter from the individual who would serve as the new Principal Investigator ("New Principal Investigator") and by a brief bio-sketch explaining New Principal Investigator's qualifications to complete the Specific Aims of the Supported Project. This letter should indicate that New Principal Investigator is willing to take responsibility for the project as described in the original proposal and that New Principal Investigator accepts the obligations of this Grant Agreement.

In the event that a request is made to transfer the Grant to a New Principal Investigator and the request is not approved by BrightFocus, and Principal Investigator cannot continue to oversee execution of Supported Project, then the Grant shall be terminated as provided in section [2] Discontinuation of Grant Funding.

17.3 Transfer of Grant By Postdoctoral Fellows

Postdoctoral fellowship grants are considered by BrightFocus to be personal and non-delegable. Thus, if Principal Investigator is on a Postdoctoral Fellowship Grant and can no longer oversee execution of the Specific Aims of the Supported Project because Principal Investigator has left Grantee Institution to pursue other efforts, the Grant will not be transferred to another investigator at Grantee Institution, and the Grant will be terminated as provided in section [2] Discontinuation of Grant Funding.

If Principal Investigator is on a Postdoctoral Fellowship Grant and is given a promotion within Grantee Institution, and is still executing research on the Specific Aims, then Official Written Correspondence must be submitted to the BrightFocus Scientific Affairs department by Principal Investigator and his/her research supervisors explaining the situation and asking for permission to continue the Grant.

[18] Financial Reports

BrightFocus requires a certified financial report for each year of the Grant. BrightFocus will provide forms for submission of the financial reports through the grantees online application portal at Smart Simple (<https://brightfocus.smartsimple.us>).

If the grant is for a period of time exceeding one year, a 12-month Interim Financial Report showing allocations and expenditures for the first Grant year must be submitted by 60 days from the one year anniversary of the start date, for each year of the grant (For a start date of July 1, the Grant year is July 1 to June 30, and the Interim Financial Report must be submitted by September 1 each year.). This report must be signed by the Principal Investigator and a representative of the Grantee Institution, and must show that Grant funds were used in accordance with the approved budget.

Delinquent reports or reports describing unapproved expenditures may result in

delays of scheduled award payments or, at the sole discretion of BrightFocus, termination of the Grant.

A Final Financial Report showing allocations and expenditures for the Grant must be submitted by two months after expiration of the Grant Agreement (or by two months after the expiration of the NCE, if the grant has been extended). This report shall be made in lieu of the Interim Financial Report, must be signed by the Principal Investigator and an authorized signatory of the Grantee Institution, and must show that grant funds were used in accordance with the approved budget. Unexpended grant funds in excess of US\$50 shall be returned to BrightFocus at the time of the Final Financial Report.

BrightFocus shall have the right to decline to review future funding proposals made by any Principal Investigator or Grantee Institution, if the Principal Investigator fails to submit the appropriate Final Financial Report (or return unexpended grant funds in excess of US\$50), until such requirements are submitted to BrightFocus.

[19] Scientific Progress Reports

If the Grant is for a period exceeding of one year, the Principal Investigator must submit an Interim Scientific Progress Report detailing progress made towards the Specific Aims of the Grant. This annual report shall be signed by the Principal Investigator and must be submitted by 45 days before the end of each Grant year. (For a start date of July 1, the Grant year is July 1 to June 30, and the Interim Scientific Progress Report must be submitted by May 15 each year.).

Delinquent reports will result in delays of scheduled Grant payments or, at the sole discretion of BrightFocus, termination of the Grant.

For all Grants, a Final Scientific Progress Report must be submitted within 60 days after the end of the Grant period (For a start date of July 1, the Final Scientific Progress Report must be submitted by September 1). This report should be made in lieu of the Interim Scientific Progress Report in the final year of the award. This report must be signed by the Principal Investigator.

The submission of the progress reports will be handled online through the grantee's application portal at Smart Simple (<https://brightfocus.smartsimple.us>).

BrightFocus shall have the right to decline to review future funding proposals made by any Principal Investigator or Grantee Institution, if the Principal Investigator fails to submit the appropriate Interim and Final Scientific Progress Reports, until such requirements are submitted to BrightFocus.

Reprints of subsequent publications acknowledging support of BrightFocus should be submitted to the BrightFocus Scientific Affairs Department as they become available. Progress reports will be reviewed by BrightFocus program staff or representatives. BrightFocus' determination of the level of progress made on the Supported Project shall be informed by the Specific Aims submitted with the BrightFocus proposal by the Principal Investigator.

Requests to amend, or otherwise change, Specific Aims shall be made by Official Correspondence initiated by Principal Investigator and submitted to the BrightFocus Scientific Affairs Department for approval, which shall not be unreasonably withheld.

If Principal Investigator is determined by BrightFocus to have achieved inadequate progress on the Supported Project, then Principal Investigator shall be given a reasonable period of time to remedy the progress. The length of this period of time shall be determined in good faith based on the circumstances of the individual Supported Project and Principal Investigator and is not explicitly defined by this contract. If BrightFocus determines that the project cannot be satisfactorily completed during the duration of the award, BrightFocus, at its discretion, may terminate the award as provided in section [2] Discontinuation of Grant Funding.

BrightFocus holds the right to decline to review future funding proposals made by any Principal Investigator who fails to submit the Final Scientific Progress Report required of a prior BrightFocus Grant award until such reports are submitted to BrightFocus.

The Principal Investigator will be contacted in years 1, 2, and 5 following the expiration of the award. At this time, the Principal Investigator will be asked to respond to a brief inquiry regarding any publications or other reportable outcomes that may have arisen from BrightFocus support.

The Principal Investigator for Postdoctoral Fellowship awards will provide additional progress reports to BrightFocus at regular intervals throughout the year. The format and frequency of these reports will be determined by mutual consent of Principal Investigator and BrightFocus as necessary for the effort at the start of the project.

[20] Document Retention

Grantee Institution shall retain copies of all Official Written Correspondence related to the BrightFocus Grant for a period of 3 years following expiration of the award.

BrightFocus, in some circumstances, accepts electronic or other facsimile copies of written letters. However, it does so only with the understanding that the original document remains in the possession of the sender of the correspondence and that the original document will be made available upon request by BrightFocus.

Retention of records pertaining to Subject Property (as defined in the Intellectual Property Contract) is governed by the Intellectual Property Contract.

[21] Rights to Sub-Grant and Assign

21.1. Right to Sub-Grant.

Grantee Institution will have the right to issue a sub-grant by delegating a portion of the performance goals and responsibilities of this Grant ("Sub-Grant") to a Sub-Grant recipient ("Subrecipient"), according to substantially the same terms as this Grant Agreement. Any Sub-Grant awarded by Grantee Institution to a Subrecipient ("Sub-Grant Agreement") shall (a) be in writing; (b) be subject and subordinate to, and consistent with, the rights and obligations of this Grant Agreement; (c) permit Grantee Institution to monitor the activities of Subrecipient as necessary to ensure that Sub-Grant performance goals are achieved and that procedures are followed in a manner consistent with this Grant Agreement; and (d) require the applicable Subrecipient to comply with all applicable terms of this Grant Agreement. No Sub-Grant Agreement will diminish, reduce or eliminate any right or obligation of any party under this Grant Agreement.

Grantee Institution will ensure that any Sub-Grant that it enters into hereunder explicitly states that the termination date of any Sub-Grant and Sub-Grant Agreement will be co-incident with the termination date of this Grant and this Grant Agreement, respectively, regardless of whether such termination date occurs at the normal expiration end date of the Term or is prompted by a notice of termination pursuant to section [2].

Grantee Institution will ensure that the survival clause of section 12.2 of the Intellectual Property Contract will apply to the term of the Sub-Grant as the responsibility of the Sub-Recipient.

21.2. Rights of Assignment and Assumption. Grantee Institution will have the right to assign, transfer, deliver, and set over to an assignee ("Assignee") in an assignment ("Assignment") all of Grantee Institution's right, title and interest in, to and under this Grant Agreement, said right to assign being contingent on (a) a statement by Grantee Institution in said Assignment confirming that BrightFocus has a continued right to enforce Grant Agreement during Transferee Term; and (b) Assignee's contemporary acceptance of Assignment and on assumption of all obligations arising thereunder on and after the effective date of Assignment, at which effective date Assignee will assume all of the duties of a new Grantee Institution under this Grant Agreement.

The survival clause of section 12.2 of the Intellectual Property Contract will apply to the Original Term as the responsibility of Grantee Institution. The survival clause of section 12.2 of the Intellectual Property Contract will apply separately to the Transferee Term as the responsibility of Assignee.

[22] **Other**

22.1. Dispute Resolution. If there is any dispute arising out of or in connection with interpretation, performance, breach, or termination of this Grant Agreement, the parties shall attempt to resolve their dispute amicably through their respective designated representatives within thirty (30) days after written notice by one party to the other of the existence of such controversy or dispute. In the event that the parties are unable to resolve their dispute in such a manner, either party shall be free to seek any remedies available to that party under law, including but not limited to recovery of court costs and attorney's fees.

Jurisdiction and venue for any suit filed against BrightFocus shall be in the courts of the State of Maryland, or in the United States District Court for the District of Maryland. Grantee Institution shall submit written notice of any such dispute to the attention of the President and CEO, BrightFocus Foundation.

Jurisdiction and venue for any suit filed against Grantee Institution shall be conducted according to the dispute resolution process provided in Chapter 2260 of the Texas Government Code to attempt to resolve a dispute arising under this contract and such process is a required prerequisite to suit in accordance with Chapter 107, Texas Civil Practice and Remedies Code. BrightFocus must submit written notice of a claim of breach of contract under this chapter to Patrick J. Stover, Vice Chancellor and Dean for Agriculture and Life Sciences.

The institution of any dispute resolution proceeding hereunder will not relieve either party of its obligations to make payments required by the terms of this Grant Agreement during the continuance of the dispute resolution proceeding.

22.2. Audit Rights. In the event that the aforesaid dispute arises in connection with the revenue sharing provisions of this Grant Agreement, Grantee Institution agrees to permit its books and records to be examined to the extent necessary to verify the reports provided for in this Grant Agreement, such examination to be made at the expense of BrightFocus by any auditor appointed by BrightFocus who is reasonably acceptable to Grantee Institution, and shall be done with reasonable notice and at reasonable times.

22.3. Export Laws. Grantee Institution shall comply, and shall require its licensees to comply, with all applicable laws and regulations. In particular, it is understood and acknowledged that the transfer of certain commodities and technical data is subject to United States laws and regulations controlling the export of such commodities and technical data, including all Export Administration Regulations of the United States Department of Commerce. These laws and regulations among other things, prohibit or require a license for the export of certain types of technical data to certain specified countries. Grantee Institution hereby agrees and gives written assurance that it will comply with all United States laws and regulations controlling the export of commodities and technical data, that it will be solely responsible for any violation of such by Grantee Institution, and that it will accept sole responsibility for any and all costs and damages in the event of any legal action of any nature occasioned by such violation.

22.4. Signatory Authority. The undersigned signatory signing on behalf of Grantee Institution represents that he/she has the authority to bind each and every legal entity encompassed within Grantee Institution as that term is defined the "Definitions and Abbreviations" of this Terms and Conditions of Grant Award.

IN WITNESS WHEREOF, the parties have made this Agreement effective as of the Award Date by signing this Agreement on the date indicated below.

BrightFocus Foundation

By: _____ Date: _____
Name: Diane Bovenkamp, Ph.D.
Title: Vice President of Scientific Affairs

Principal Investigator

 Signature _____ Date: _____4-12-2019_____

Name: Yuxiang Sun, MD, PhD

Title: Associate Professor

Grantee Institution: Texas A&M AgriLife Research

Grantee Institutional Official

Signature _____ Date: _____

Name: Julie Bishop

Title: Associate Executive Director, TAMU, SRS

Contact Information:

400 Harvey Mitchell Parkway South, Suite 300
College Station, TX 77845-4375

Email address: awards@tamu.edu

BRIGHTFOCUS FOUNDATION

RESEARCH GRANT PROGRAMS

BrightFocus Intellectual Property Contract Template Last Updated March 2019

INTELLECTUAL PROPERTY CONTRACT

This Intellectual Property Contract "Agreement" shall govern the relationship of the BrightFocus Foundation ("BrightFocus") to patent, trade secret, and other intellectual property interests arising from research conducted under the following grant award (hereinafter "Grant"):

BrightFocus Reference: A2019630S

Project Title: Ghrelin receptor mediated neuroinflammation in Alzheimer's Disease

Principal Investigator: Yuxiang Sun, MD, PhD

Grantee Institution: Texas A&M AgriLife Research

Whereas, BrightFocus Foundation ("BrightFocus") is committed to a policy that results of scientific research conducted further to the Grant should be used for public benefit, believes that every reasonable incentive should be provided for prompt development of such research for public use, and wishes to use its share in any commercial benefits obtained from such research to fund scientific research or education; and

Whereas, Grantee Institution desires to obtain the Grant to fund Principal Investigator's Supported Project, and is prepared to use its best efforts to facilitate development of any scientific research results from Supported Project for public benefit.

Therefore, this Agreement shall govern the relationship between BrightFocus and Grantee Institution as to intellectual property interests arising from research conducted under the Grant.

1. Definitions: Defined terms are indicated by an initial capital, and have the meaning set forth in the "Terms and Conditions of Grant Awards" portion of the Grant Agreement (hereafter "Terms and Conditions") unless defined otherwise herein. Definitions in this section, and integrated in the text of this Agreement, apply

"Agreement": For purposes of this Intellectual Property Contract, "Agreement" refers to this Intellectual Property Contract.

The term "Grantee Institution" collectively includes an entity referenced above and any additional entities falling within the definition set forth in Terms and Conditions, and further includes any institution established for the purpose of holding or administering intellectual property rights on behalf of Grantee Institution, and any other organization which has as one of its primary functions the management of inventions in compliance with 35 U.S.C. §202(c)(7).

"Grantee Institution's IP Policy" refers to a written intellectual property policy established by Grantee Institution which sets forth procedural and legal provisions for technology transfer, protecting and maintaining Property, electing to hold title to Property, permitting Originator

to take title to Property, and a formula for allocation of any monetary or equitable proceeds derived from Property between Originators, Originators' research, and other entities.

"Property" means intellectual property, including Inventions, copyrights, trade secrets, trademarks, mask rights, discoveries, data and databases, and Research Materials, whether such Property is in the form of a composition of matter, method, process, product, program, software, or writing, whether or not patented or patentable or copyrighted or copyrightable, confidential or non-confidential.

"Subject Property" is Property (1) conceived and first actually reduced to practice, authored or published, created, discovered, or otherwise originated in the course of, or as a direct result of, performing Supported Project under the Grant during the Term, or (2) conceived in the performance of the Grant during the Term and first actually reduced to practice within five (5) years after expiration or termination of the Term.

An "Invention" is anything that is a new, useful, and unobvious process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.

"Subject Invention" means any Invention that is or may be patentable or otherwise protectable under Title 35 of the U.S. Code, and that is conceived or first actually reduced to practice in the performance of the Grant during the Term.

"Invention Disclosure" is a written description of an Invention, submitted to Grantee Institution for the purpose of evaluating whether Grantee Institution desires to seek protection of Invention under the patent laws codified in Title 35 of the U.S. Code or under the patent laws of a foreign or international jurisdiction.

An "Originator" is a solo or joint inventor, an author, or a creator of a Subject Property, whether employed by or contractually engaged by Grantee Institution, or otherwise participating in research or development performed under Supported Project.

A "Research Material" is a biological or non-biological material, or an informational resource, that aids in the performance of scientific or technical research or development, including, without limitation, cell lines, clones and transgenic animals; genes, proteins, antibodies and other bio-molecular entities; chemical substances, chemical targets and models, and chemical libraries; molecular probes, primers and labels; computer software; and data, such as sequence data, structural data, and clinical or pre-clinical data.

"Gross Income" is all income received by Grantee Institution from the licensing or sale of Subject Property, or the licensing or sale of a commodity or service under Subject Property, or other exploitation of Subject Property in whatever form, whether the exploitation is by Grantee Institution itself or an outside third-party (including proceeds from the sale of equity distributions, intangible interests and exchanges of items or services of value).

"Net Income" means Gross Income less (a) any documented Out of Pocket Expense incurred by Grantee Institution in marketing Subject Property or in preparation, negotiation, execution and/or enforcement of license or other commercial exploitation agreements with respect to Subject Property; (b) documented Out of Pocket Expense incurred by Grantee Institution in the preparation, filing, prosecution, maintenance, and enforcement of patents, copyrights, or other statutory protections covering Subject Property; (c) royalties or similar amounts that are required to be paid to Originator pursuant to Grantee Institution's IP Policy submitted to BrightFocus pursuant to section 2 of this Agreement; (d)

royalties or similar amounts that are required to be paid to a co-owner of Subject Property; and (e) an amount equal to 0.4 times the Grant Award Value. Notwithstanding the above, no Out of Pocket Expense made by a third party, and no Out of Pocket Expense made by Grantee Institution which is subsequently reimbursed by a third party, will be credited against Net Income. "Out of Pocket Expense" means an expense requiring an outlay of cash to an arms-length payee.

2. Grantee Institution IP Policy

Grantee Institution represents that it has a Grantee Institution's IP Policy, and further represents that a written copy of Grantee Institution's IP Policy has been submitted to BrightFocus prior to execution of this Agreement. Grantee Institution agrees that it will continue to have a Grantee Institution's IP Policy during the Term of the Grant Agreement.

Grantee Institution will (a) ensure that all employees employed to conduct research under the Grant are obligated to assign, and have in fact assigned, all Subject Property to Grantee Institution; (b) ensure that any non-employee engaged to conduct research under the Grant is obliged to assign, and has in fact assigned, all Subject Property to Grantee Institution; (c) ensure that any non-employee hired to create a copyrightable work under the Grant enter into a work-for-hire agreement prior to creating said work; and (d) take any additional measures necessary to hold all rights required to issue licenses to third parties or otherwise commercialize Subject Property.

3. Reporting Provisions; Confidentiality

Within sixty (60) days of receiving an Invention Disclosure disclosing a Subject Invention, or prior to any public disclosure of Subject Invention (whichever is earlier), Grantee Institution will submit a written report of Subject Invention to BrightFocus. The report to BrightFocus will include a copy of the initial Invention Disclosure as received by Grantee Institution, along with any subsequent versions having substantive changes or additional information. Grantee Institution will further notify BrightFocus within 60 days of any decision of Grantee Institution's lack of intent to file for patent protection under Title 35 of the U.S. Code based on such invention disclosure.

Should Grantee Institution decide not to proceed with licensing or other commercialization efforts for a Subject Invention, Grantee Institution's inventors may request a release of rights per A&M System Policy. In the event that both Grantee Institution and inventors decide not to seek licensing or other commercialization efforts for a Subject Invention, the provisions of section 4 of this Agreement control.

Grantee Institution will further notify BrightFocus in writing within sixty (60) days of a patent application being filed, and within sixty (60) days of any patent subsequently being issued.

Grantee Institution and Principal Investigator will provide BrightFocus with contemporaneous reports of all other Subject Property (i.e., Subject Property which is not an Invention) as part of its obligation to submit Scientific Progress Reports as set forth in Terms and Conditions.

Except as provided in Terms and Conditions Section [10] Confidentiality and the "BrightFocus Foundation Release of Grant Information Agreement," BrightFocus agrees to

keep all information provided by Grantee Institution and Principal Investigator confidential and agrees not to release any information relating to Subject Property to any third party.

Grantee Institution and Principal Investigator will retain data, documents, notebooks, and electronic information relating to research, development, and legal protection of a Subject Property for a minimum of three years following expiration of the award, and until the expiration date of the last-to-expire patent grant or other form of statutory or common law intellectual property protection, including without limitation laboratory records and communications, records and communications relating to patent or copyright prosecution, non-disclosure agreements, and material transfer agreements and communications.

4. Abandonment and Reversion of Rights

Whereas, BrightFocus wishes to ensure that, in the event that (a) a particular Subject Property has been identified by the Principal Investigator and BrightFocus as being of technological importance; and (b) Grantee Institution has determined that it cannot or will not support financially the Subject Property, either directly or with the assistance of a third party pursuant to Section 9 of this Agreement, and by said lack of financial support abandonment of the Subject Property is anticipated, then BrightFocus desires sufficient notice of the anticipated abandonment to permit BrightFocus to further assist the Principal Investigator by attempting to locate third party financial support for salvaging the Subject Property.

Therefore, Grantee Institution agrees, that,

(a) Grantee Institution will not abandon a patent, patent application, or other type of statutory protection for a Subject Property (except (1) in the case of a final rejection of such patent, application or other statutory protection by the applicable governmental agency, after exhausting available appeals within the applicable agency, and (2) in the case where a legally related patent or application is issued or still pending) without prior notice to BrightFocus sufficiently in advance to permit BrightFocus to prevent abandonment or other loss of rights in the Subject Property, by informing BrightFocus of any intent to lose rights in a Subject Property at least sixty (60) days prior to any event anticipated to cause loss of rights in the Subject Property.

(b) On receipt of the notice outlined in 4(a) above, if Grantee Institution cannot commercialize without patenting or other statutory protection, then, Grantee Institution agrees that, to the extent legally able, BrightFocus will have the option to acquire rights to such Subject Property without payment of further fees beyond the grant funds awarded in this Grant Agreement in the form of a royalty-free, exclusive license, with right to sublicense. The exclusive license will confer all substantial rights on BrightFocus sufficient for BrightFocus or its sublicensee to take any steps necessary to establish, maintain, and enforce such Subject Property at BrightFocus' discretion and expense, subject to Grantee Institution satisfying its corporate governance for entering a lawsuit.

5. Revenue Sharing

In acknowledgment of the Grant, Grantee Institution will make royalty payments to BrightFocus in the form of Royalty Option 1, Royalty Option 2, or Royalty Option 3 as set forth below. By applying its signature next to its elected royalty option in this section 5,

Grantee Institution confirms its agreement to pay royalties to BrightFocus in the form of said elected royalty option.

Royalty Option 1: <hr/> Agreed to on behalf of Grantee Institution by: [type name]	Grantee Institution will pay to BrightFocus four (4) royalty payments per year for a period of three (3) years, each royalty payment in the amount of one half the monetary amount of the Grant. The first royalty payment will be due to BrightFocus thirty (30) days after the date of the first commercial sale or service of a commercial embodiment of a Subject Property, each successive royalty payment to be paid at three month intervals thereafter.
Royalty Option 2: <hr/> Agreed to on behalf of Grantee Institution by: Patrick J. Stover	Grantee Institution will pay to BrightFocus a royalty in the amount of ten percent (10%) of Net Income. Grantee Institution will make all such payments to BrightFocus at least annually, within ninety (90) days after the end of each calendar year in which such Net Income was received by Grantee Institution, and will accompany the payment with financial information and documentation adequate to establish and document the amount of Net Income.
Royalty Option 3: <hr/> Agreed to on behalf of Grantee Institution by: [type name]	Grantee Institution will pay to BrightFocus a royalty in the amount of two percent (2%) of Gross Income, up to an aggregate amount equal to six (6) times the monetary amount of the Grant. Grantee Institution will make all such payments to BrightFocus at least annually, within ninety (90) days after the end of each calendar year in which such Gross Income was received by Grantee Institution, and will accompany the payment with financial information and documentation adequate to establish and document the amount of Gross Income.

Grantee Institution agrees that payment of a royalty to BrightFocus pursuant to this Section 5 shall not lead to any reduction in monetary or equitable proceeds due to Originators or due to Originators' research according to the formula prescribed in Grantee Institution's IP Policy.

6. Bayh-Dole Act

Notwithstanding any of the foregoing, nothing in this Agreement is intended to, or should be construed to, conflict with federal law or the laws of any state governing Grantee Institution, including the Bayh-Dole Act of 1980. Federal and applicable state law shall govern in the event of an inconsistency with this Agreement.

BrightFocus agrees that all royalties which BrightFocus receives from Grantee Institution under this Agreement will be utilized for the support of scientific research and education.

7. Conflict with Other Funding Organizations

Grantee Institution represents that it has no past commitments to others that are inconsistent with or in derogation of its obligations under this Agreement. Grantee Institution agrees that it will not undertake any future commitments to others that are inconsistent with or in derogation of its obligations under this Agreement.

8. Right of Review; Notice of Execution and Finalized Licenses

Grantee Institution will use diligent best efforts to commercialize, or to cause to be commercialized, the Subject Property. Grantee Institution will submit to BrightFocus a copy of any agreement with a third party relating to commercialization, collaboration, or exploitation of a Subject Property, including without limitation any license, lease, sale or other revenue generating agreement, within sixty (60) days of the execution of such agreement. Grantee Institution may redact any information from said copy of said third party agreement deemed to be confidential by said third party. Thereafter, Grantee Institution will include a report of the status of each such agreement as part of the Financial Reporting provisions of the Grant Agreement and as part of the royalty reporting provisions of this Agreement.

9. Due Diligence and Milestones

In the event that commercialization is achieved by licensing Subject Property to one or more third party licensees, Grantee Institution will contractually obligate each such licensee to exert its best efforts to commercialize the Subject Property as rapidly as practical, consistent with sound and reasonable business practices and judgment, as set forth in a schedule of milestones agreed to between Grantee Institution and the third party licensee. Grantee Institution will provide to BrightFocus a report of the progress of the third party licensee within ninety (90) days after each contractually imposed milestone.

If Grantee Institution, or its designee or licensee, has not taken commercially reasonable steps and cannot show reasonable cause why it should retain all rights in the administration of the Subject Property for a further period of time, then, if no other parties have superior legal rights, Grantee Institution and BrightFocus will meet and confer to determine a course of action appropriate in the circumstances.

10. Trademarks

In an effort to give BrightFocus public acknowledgement for its role in funding scientific research and creating Property under the Grant, Grantee Institution and Principal Investigator will ensure that they, and those acting on their behalf (a) exhibit BrightFocus' logo on posters and presentations; (b) include in publications the statement: "Acknowledgement is made to the donors of [Alzheimer's Disease Research, Macular Degeneration Research, or National Glaucoma Research], a program of BrightFocus Foundation, for support of this research."; and c) include on laboratory websites a link to a BrightFocus' URL as follows:

Alzheimer's Disease Research: <http://www.brightfocus.org/alzheimers/>
Macular Degeneration Research: <http://www.brightfocus.org/macular/>
National Glaucoma Research: <http://www.brightfocus.org/glaucoma/>

BrightFocus' trademarks and logo shall be exhibited in the manner shown in the .jpg file found at the following URL: <https://www.brightfocus.org/sites/default/files/brightfocuslogo-high-res-jpg.jpg>.

11. Reservation of Rights for Research Purposes

Grantee Institution and Principal Investigator each agrees that it will provide Subject Property to third parties on a nonexclusive basis and will grant third parties non-exclusive licenses to make and use a Subject Property, but solely for non-commercial research purposes; *provided, however*, that prior to receipt of such Subject Property, Grantee Institution and third party have entered into an agreement to maintain the confidential and proprietary status of the Subject Property. In the event that the Subject Property is protected as a trade secret, Grantee Institution shall notify the third party of the trade secret status of the Subject Property, and shall contractually commit the third party to preserving the trade secret status of the Subject Property. BrightFocus reserves the right to request that Grantee Institution and/or Principal Investigator consent to making such Subject Property available to a third party pursuant to this paragraph, which consent shall not be unreasonably withheld.

In the event that BrightFocus exercises its option pursuant to the last paragraph of Article 4, BrightFocus will assume the legal obligations of Grantee Institution set forth in Article 11 "Reservation of Rights for Research Purposes," and agrees that Principal Investigator and other employees of Grantee Institution shall have the same right of access to Subject Property reserved for third parties.

12. Other

12.1. Transfer of Rights. In the event that the title holder to a Subject Property is not Grantee Institution, or in the event that the title holder to a Subject Property ceases to be Grantee Institution due to Grantee Institution's IP Policy, due to a transfer of title from Grantee Institution, or due to acts undertaken pursuant to section 4 of this Agreement, Grantee Institution will obtain from any such title holder a written agreement to be bound by the this Agreement, and will immediately provide a copy of such written agreement to BrightFocus. Upon receipt of a copy of such written agreement, BrightFocus will accept the title holder as a substitute for Grantee Institution with respect to all rights and obligations under this Agreement. Grantee Institution agrees that any attempted transfer of title without express agreement by the title holder to be bound by this Agreement will be void and without effect.

12.2. Survival. The terms of this Agreement shall survive termination of the "Terms and Conditions" portion of the Grant Agreement, and shall survive expiration of the Grant.

12.3. Signatory Authority. The undersigned signatory signing on behalf of Grantee Institution represents that he/she has the authority to bind each and every legal entity encompassed within Grantee Institution as that term is defined in section 1 ("Definitions") of this Intellectual Property Contract.

IN WITNESS WHEREOF, the parties have made this Agreement effective as of the Award Date by signing this Agreement on the date indicated below.

BRIGHTFOCUS FOUNDATION

Signature: _____ Date: _____
Name: Diane Bovenkamp, Ph.D.
Title: Vice President of Scientific Affairs

Principal Investigator

Signature  _____ Date: 4-12-2019
Name: Yuxiang Sun, MD, PhD
Title: Associate Professor
Grantee Institution: Texas A&M AgriLife Research

Grantee Institution Official

Signature _____ Date: _____

Name: Patrick J. Stover

Title: Vice Chancellor and Dean for Agriculture and Life Sciences

Contact Information:

Agriculture and Life Sciences Building
600 John Kimbrough Boulevard, Suite 510
2142 TAMU
College Station, TX 77843-2142

Email address: vcdean@ag.tamu.edu

BRIGHTFOCUS FOUNDATION

RELEASE OF GRANT INFORMATION AGREEMENT ("Release")

In order to comply with Federal Regulations and widely adopted operating procedures regarding transparency of the charitable operations of non-profit organizations, BrightFocus must release certain information regarding the nature of the Supported Project publicly. This is most notably accomplished through BrightFocus' website, annual report, and Internal Revenue Service (IRS) Form 990 filings. Secondly, this may also be accomplished through marketing or press-releases related to the announcement of awards. Thus, by this Release, BrightFocus seeks affirmation of its right to use such information, in whole or in part, for purposes of public education and operational transparency.

Items (and information and subject matter therein) subject to this Release consist of those items explicitly marked NON-CONFIDENTIAL at the time of the item's submission by the Principal Investigator to BrightFocus. Such items include, without limitation, the items supplied by the Principal Investigator at the time of application under headings explicitly marked as NON-CONFIDENTIAL under the provision that the information would be made public if an award were offered. Such items are further expected to include those submitted during start-up processes and those submitted with future scientific progress reports.

Principal Investigator Name:

Yuxiang Sun, MD, PhD

BrightFocus Grant Reference Number:

A2019630S

Grantee Institution Name:

Texas A&M AgriLife Research

Grantee Institution Location:

United States

Project Title:

Ghrelin receptor mediated neuroinflammation in Alzheimer's Disease

Non-Technical Project Title:

A new intervention to control inflammation in Alzheimer's Disease

Award Value:

\$300,000.00

Award Type:

Alzheimer

Award Duration:

01 July 2019 - 30 June 2022

"Three Sentence Summary of Project":

Low-grade chronic inflammation is a hallmark of aging, and inflammation in the brain causes and worsens Alzheimer's Disease (AD). We have evidence that suppression of a gene called GHS-R in immune cells produces an anti-inflammatory effect in the brain and improves spatial memory. The goal of this proposal is to determine the role of GHS-R in immune cells in AD. This has potential to lead to novel interventions for combating AD by combating inflammation.

The undersigned hereby consents to this Release:

Principal Investigator

Signature  _____ Date: 4-12-2019 _____
Name: Yuxiang Sun, MD, PhD
Title: Associate Professor

Grantee Institutional Official

Signature _____ Date: _____
Name: Julie Bishop
Title: Associate Executive Director, TAMU, SRS

BRIGHTFOCUS FOUNDATION

Automated Clearing House (ACH) Payment Information Document (for grants within the United States of America)

Please use capital letters and unambiguously distinguish similar characters such as the letters 'O' and the number 0, or the letter 'I' and the number 1.

BrightFocus Grant Number: A2019630S

Institution/Organization: Texas A&M AgriLife Research

Project PI: Yuxiang Sun,

Project Title: Ghrelin receptor mediated neuroinflammation in Alzheimer's Disease

Institutional Grant Number: <i>(If your institution has assigned an internal code or reference number please list that here)</i>	06-408694
ABA Number: <i>(Must be 9 characters even if first character is zero)</i>	121000248
Bank Account Number: <i>(no dashes or spaces)</i>	6070982753
Bank Account Type: <i>(checking or savings)</i>	Deposit Checking
Name on Bank Account: <i>(e.g., Board of Regents of the University of Wisconsin System)</i>	Texas A&M AgriLife Research – Sponsored Research Services
Contact: <i>(Name, phone, and email address of person who should be contacted concerning above information)</i>	Brenda Schroeder srsdepositsach@tamu.edu 979-845-6689

Comments/Notes:

Please complete and return this form with your contract documents

BRIGHTFOCUS FOUNDATION
INTERNATIONAL WIRE TRANSFER INFORMATION DOCUMENT
(for grants made outside of the United States of America)

Please use capital letters and unambiguously distinguish similar characters such as the letters 'O' and the number 0, or the letter 'I' and the number 1.

BrightFocus Grant Number/ PI: A2019630S, Yuxiang Sun ,
Institution/Organization: Texas A&M AgriLife Research
Project Title: Ghrelin receptor mediated neuroinflammation in Alzheimer's Disease

Institutional Grant Number: <i>(If your institution has assigned an internal code or reference number please list that here)</i>	
Mailing Address of Institution:	
Name on Bank Account: <i>(e.g., Board of Regents of the University of Wisconsin System)</i>	
Name of Bank:	
Bank Address:	
IBAN#	
Account Number: <i>(no dashes or spaces)</i>	
SWIFT/BIC number:	
Sort/Routing number:	
UID number:	
Payment Reference: <i>(40 characters additional information that can be listed on the wire transfer)</i>	
Contact: <i>(Name, phone, and email address of person who should be contacted regarding above information)</i>	

Please complete and return this form with your contract documents