RESEARCH GRANT AGREEMENT

SynGAP Research Fund, Incorporated (the "Foundation") is pleased to award Johns Hopkins University ("JHU") a project support grant in the amount of \$250,000 to support the direct costs only (no indirect cost will be permitted) of the research of Richard Huganir, Ph.D. in the field of SynGAP expression research, subject to and on the conditions set forth in this Research Grant Agreement (the "Agreement").

1. Key Personnel

Dr. Richard Huganir is identified as key personnel for this Project (as defined in Section 2 below). He will be responsible for performing the work and for supervision of any individual performing portions of the Project. In the event Dr. Huganir becomes unwilling or unable to perform the duties required or leaves JHU, the Foundation will negotiate in good faith with JHU and shall, in its sole but reasonable discretion, determine whether to continue the Project with a mutually agreeable replacement or to discontinue this Agreement and no longer fund the grant.

2. Restrictions on Use of Grant Funds

The use of the grant funds, and earnings thereon, must be restricted to the purposes of the Project described in the proposal and described in this Section 2, and may not be expended, borrowed (interfund), pledged or transferred for reasons unassociated with the project. Grant funds may not be used for lobbying.

Grant funds must be deposited in an interest-bearing account and any interest earned must be applied to the purposes of the grant.

The grant will be used in support of a study conducted by Dr. Richard Huganir. All funds provided through this Research Grant Agreement shall be used for the dedicated research project entitled Generation and characterization of a new SynGAP mutant mouse line and development of potential ASO approaches for therapeutic treatment (the "Project"). This Project will have two aims: 1) to examine the effect of a human SynGAP1 mutation • Chr6:33414343G>A in a splice acceptor site on SynGAP expression and function and 2) to analyze the effect of a natural human antisense RNA on SynGAP expression and confirm preliminary studies that it inhibits SynGAP expression in reconstituted systems and examine its role in human neurons in culture. The Project's goal will be to understand these processes sufficiently to identify new therapeutic approaches for patients who carry the SynGAP1 mutation.

JHU agrees to make all mouse lines developed or created in connection with the Project readily available to the scientific community, including at the direction and request of the Foundation. JHU shall provide Foundation with a description of a specific plan for sharing and distributing unique model organism research resources generated using the grant funds herein so that other researchers can benefit from these resources. JHU further agrees to deposit all of the transgenic mice generated in The Jackson Laboratory (JAX) or such other NIH supported mouse repository as may be requested by the Foundation.

To facilitate sharing and distribution of the transgenic/knockout mice and associated resources developed under this grant, mice will be maintained in a specific pathogen free facility. This facility will maintain the mice free of the following micro-organisms and pathogens (e.g., pinworms, mouse hepatitis virus (MHV), Sendai virus, mycoplasma, mites, etc.). Should the transgenic/knockout mice become infected with any of these micro-organisms, JHU agrees that the mice will be rederived through embryo transfer.

3. Term

This Agreement shall remain in effect for a twelve-month period, January 1, 2020 through December 31, 2020. The Effective Date will be the date of the last signatory to this Agreement.

4. Payment of Grant Funds

The Foundation will pay this grant via check according to the following schedule: \$ 250,000 upon receipt of a report on the first year of the project.

Payment will be made to

The Johns Hopkins University

(Tax ID 52-0595110)

And sent to:

Johns Hopkins University Central Lockbox

Bank of America

12529 Collections Center Drive Chicago, IL 60693-0125

JHU acknowledges that, as a result of Foundation's efforts, it has received a prior grant in the amount of \$250,000 from an anonymous donor to match the funds Foundation has granted pursuant to this Agreement in support of this Project, bringing the total amount of funding to support research costs associated with this Project over the course of a two-year period to \$500,000. JHU acknowledges that Foundation and its representatives have made no actual or implied promise of future funding in support of this Project.

5. Reporting

Over the two-year period outlined in the proposal, JHU shall provide the Foundation with interim progress reports every six months and a final report of the project by 12/31/2020.

Reports shall be submitted to: SynGAP Research Fund, Incorporated Attn: J. Michael Graglia Email: Mike@SyngapResearchFund.com 1270 Lincoln Ave, Palo Alto, CA 94301

6. Record Maintenance and Inspection

JHU agrees to maintain adequate records to enable expenditure of the grant funds to be easily include a visit by personnel of the Foundation to observe JHU's program, a discussion of the program with JHU's staff, and a review of financial and other records connected with this grant during normal business hours after providing reasonable written notice and occurring no more than once a year.

7. Publication

JHU and Dr. Richard Huganir are free to publish, present, or use any results arising out of this Study for their own research, instruction, or publication objectives. Appropriate acknowledgement of the Foundation's support will be included in any publication.

8. Use of Name

Neither party shall use directly or by implication the names of the other party, nor any of the other party's affiliates or contractors, nor any abbreviations thereof, or of any staff member, faculty member, student or employee of the other party in connection with any products, publicity, promotion, financing, advertising or other public disclosure without the prior written permission of the other party.

9. Force Majeure

JHU will not be responsible or liable to the Foundation for non-performance or delay in performance of any terms or conditions of this Agreement due to acts or occurrences beyond the control of JHU,

including, but not limited to, acts of God, acts of government, terrorism, wars, riots, strikes or other labor disputes, shortages of labor or materials, fires, or floods. JHU will provide written notice of any reason for such nonperformance or delay.

10. Tax Exempt Status

JHU confirms that it is exempt from United States federal income tax under section 501(c)(3) under the Internal Revenue Code of 1986 (the "Code"). JHU agrees to advise the Foundation immediately of any change in its exempt status during the term of this grant.

11. Indemnification

JHU agrees to indemnify, defend, and hold the Foundation harmless from and against any and all liability, loss, and expense (including reasonable attorneys' fees) on claims for injury or damages arising out of or resulting from, or that are alleged to arise out of or result from, the actions or omissions by JHU or any of its officers, agents, employees, contractors or subcontractors with respect to the grant.

12. Entire Agreement

This Agreement, including all exhibits, shall be the complete Agreement of the parties hereto and shall supersede all prior agreements and understandings, oral or written, between the parties respecting the subject matter hereof.

13. Counterparts and Electronic Signatures

This Agreement and any amendments hereto may be executed in counterparts and all such counterparts taken together shall be deemed to constitute one the same instrument. The parties agree that electronic signatures or signatures affixed to any one of the originals and delivered by facsimile, PDF or other electronic means shall be valid, binding, and enforceable. The parties have caused this Agreement to be executed by their duly authorized representatives as of the Effective Date.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

On behalf of:

SYNGAP RESEARCH FUND, INCORPORATED

hael Greglin. Date

J. Michael Graglia. I Managing Director

THE JOHNS HOPKINS UNIVERSITY

Amy Ross Senior Grants Associate

Office of Research Administration

Read and agreed, but not as a signatory to this agreement: