INTERNATIONAL

COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT

FOR

BASIC SCIENCE COOPERATION

(HEREINAFTER "ICRADA")

BY AND AMONG

BROOKHAVEN SCIENCE ASSOCIATES, LLC
UNDER ITS U.S. DEPARTMENT OF ENERGY CONTRACT
NO. DE-SC0012704
TO MANAGE AND OPERATE
BROOKHAVEN NATIONAL LABORATORY
(HEREINAFTER "LABORATORY" OR "BNL")
BNL ICRADA NO.C-XX-XX

AND

JEFFERSON SCIENCE ASSOCIATES, LLC
UNDER ITS U.S. DEPARTMENT OF ENERGY CONTRACT
NO. DE-AC05-06OR23177
TO MANAGE AND OPERATE
THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY
(HEREINAFTER "LABORATORY" OR "JLAB")
JLAB ICRADA NO.XXXXX

AND

<<INSERT COLLABORATOR NAME>>

(HEREINAFTER "PARTICIPANT" OR "XXXX")

BNL AND JLAB COLLECTIVELY REFERRED TO

AS "LABORATORIES"

LABORATORIES AND PARTICIPANT COLLECTIVELY REFERRED TO

AS THE "PARTIES" AND SEPARATELY AS A "PARTY"

This iCRADA being entered into by the Parties in order to carry out the cooperative activities set forth in the attached Annex A.

ARTICLE I: DEFINITIONS

- A. "Background Intellectual Property" means the Intellectual Property identified by the Parties in Annex A, Background Intellectual Property, which was in existence prior to or is first produced outside of this iCRADA, except that in the case of inventions in those identified items, the inventions must have been conceived outside of this iCRADA and not first actually reduced to practice under this iCRADA to qualify as Background Intellectual Property.
- B. "DOE" means the Department of Energy, an agency of the United States of America.
- C. "Facility" means the Laboratories' Facility to which materials or equipment are delivered or installed in accordance with the Project and a location in which cooperative activities as set forth in the applicable Task Order are conducted.
- D. "Filing Party" means the Party filing patent application(s) on a Subject Invention in a jurisdiction the Inventing Party decides not to file a patent application.
- E. "Generated Information" means information produced in the performance of this iCRADA.
- F. "Government" means the government of the United States of America and the government of Participant's country and the agencies of each.
- G. "Intellectual Property" means patents, copyrights, and other forms of comparable property rights protected by the laws of one of the Parties' countries.
- H. "Inventing party" means the Party employing or sponsoring the inventor(s) of a Subject Invention.
- I. "Project" means the Electron Ion Collider (EIC).
- J. "Proprietary Information" means information which is developed at private expense outside of this iCRADA, is marked as Proprietary Information, and embodies (1) trade secrets or (2) commercial or financial information which is considered privileged or confidential under the laws of one of the Parties' countries, i.e., the United States of America or Participant's country.
- K. "Statement of Work (SOW)" means the applicable work statement and Tasks as defined in ANNEX A
- L. "Subject Invention" means any invention of the Laboratories or Participant conceived or first actually reduced to practice in the performance of work under this iCRADA.
- M. "Unlimited Rights" means the right to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose, and to have or permit others to do so.

ARTICLE II: STATEMENT OF WORK, TERM, FUNDING, AND COSTS

A. The Parties will define the objectives and work statement for this iCRADA in ANNEX A. Each ANNEX A will have a SOW to be performed, a budget (including costs and payments), net benefits statement, and any additional or modified terms applicable to each party. Each ANNEX A will be required to be approved by DOE and executed by the Parties. Once fully executed and approved, will become the legally binding document of the iCRADA.

- B. Notices: The names, postal addresses, telephone numbers, and email addresses for the Parties are provided in ANNEX A. Any communication required by this iCRADA, if given by postage or other verifiable means addressed to the Party to receive the communication, shall be deemed made as of the day of receipt of such communication by the Party, or on the date given if by email. Address changes shall be made by written notice and shall be effective thereafter. All such communications to be considered effective shall include the number of this iCRADA.
- C. The effective date of this iCRADA shall be the date on which it is signed by the last of the Parties.
- D. The term of this iCRADA shall be five (5) years from the effective date unless terminated in accordance with the terms set forth herein. At the end of the prior 5-year period, this iCRADA will be evaluated and extended for an additional five (5) years unless either party objects to extending the term in writing, no less than ninety (90) days prior to the end of the prior 5-year period.
- E. Costs and Payments are specified in the executed and approved ANNEX A attached hereto.

ARTICLE III: FORMS OF COOPERATION

Subject to the Statement of Work in ANNEX A, the forms of cooperation under this iCRADA may include:

- A. research and development;
- B. visits by students, scientists, engineers, and other experts to participate in assembly, commissioning activities, and/or to conduct research and development;
- C. exchange of scientific and technical information and personnel;
- D. seminars and other meetings;
- E. a contribution of equipment, instruments and/or materials to the Laboratories or the Facilities;
- F. operation and maintenance of, and improvements to the Facility, and supporting research and development;
- G. other related activities; and
- H. other forms of cooperation as mutually agreed.

ARTICLE IV: EQUIPMENT/PERSONAL PROPERTY

Participant may be permitted by the Laboratories to furnish equipment, tooling, test apparatus, or materials necessary to assist in the performance of this iCRADA. Unless otherwise agreed by the parties such items shall remain the property of the Participant unless they are integrated into the Facility, and any equipment that becomes integrated into the Facility shall be the property of the government of the United States of America.

Unless the Parties otherwise agree, all such property furnished by Participant or equipment and test apparatus provided by Participant that is not integrated into the Facility or necessary for the operation of the Facility will be removed by Participant within sixty (60) days of termination or expiration of this iCRADA or will be disposed of as directed by the laboratories at Participant's expense.

Participant acknowledges that any material supplied by Participant may be damaged, consumed, or lost. Materials (including residues and/or other contaminated material) remaining after the performance of the work or analysis will be removed in their then condition by the Participant at the Participant's expense. The Participant will return facilities and equipment utilized in their original condition except for normal wear and tear.

The Participant shall use its best efforts to ensure that all equipment it supplies in support of the Statement of Work shall conform to the safety standards in force at the Laboratories' Facilities at the time of delivery to the Laboratory.

Laboratories shall have no responsibility for Participant's property in Laboratories' possession other than loss or damage caused by willful misconduct or gross negligence of Laboratory or its employees.

Unless otherwise agreed by the Parties, personal property produced or acquired during the course of this iCRADA shall be disposed of as directed by the Party at the Party's expense.

If the Parties anticipate that the Participant will provide substantial equipment or materials under ANNEX A, the Parties will follow the approved standard property management plan developed for that Statement of Work by incorporating the plan into the applicable ANNEX. Or, if there is no standard property management plan and one needs to be developed, that plan shall be set out in Annex A, "Other terms and conditions.

ARTICLE V: DISCLAIMER

THE PARTIES' RESPECTIVE GOVERNMENTS, THE PARTICIPANT, AND THE LABORATORY MAKE NO EXPRESS OR IMPLIED WARRANTY AS TO THE CONDITIONS OF THE RESEARCH OR ANY INTELLECTUAL PROPERTY, GENERATED INFORMATION, OR PRODUCT MADE OR DEVELOPED UNDER THIS CRADA, OR THE OWNERSHIP, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE RESEARCH OR RESULTING PRODUCT. NEITHER THE PARTIES' RESPECTIVE GOVERNMENTS, THE PARTICIPANT, NOR THE LABORATORIES SHALL BE LIABLE FOR SPECIAL, CONSEQUENTIAL, PROVIDED BY THE LAWS OF THE PARTICIPANT'S COUNTRY.

ARTICLE VI: LIABILITY

Unless otherwise agreed by the Parties, a Party shall not be responsible to the other Party for any indirect or consequential loss or similar damage such as, but not limited to, loss of profit, loss of revenue, or loss of contracts, provided such damage was not caused by the wilful act of a Party. The provisions of this iCRADA shall not be construed to amend or limit the Party's statutory liability.

In cases where the personnel of one Party works on the premises of the other Party, such personnel shall comply with the internal regulations and the technical instructions of the host Party.

ARTICLE VII: ASSIGNMENT OF PERSONNEL

- A. Each Party may assign personnel to the other Party's facilities as part of this iCRADA to participate in or observe the research or other activities to be performed under this iCRADA. Such personnel assigned by the assigning Party shall not during the period of such assignments be considered employees of the receiving Party for any purpose.
- B. The receiving Party shall have the right to exercise routine administrative and technical supervisory control of the occupational activities of such personnel during the assignment period and shall have the right to approve the assignment of such personnel and/or to later request their removal by the assigning Party.
- C. Unless otherwise agreed to by the Parties, the assigning Party shall bear any and all costs and expenses with regard to its personnel assigned to the receiving Party's facilities under this iCRADA. The receiving Party shall bear the facility costs of such assignments.

D. The Parties shall use their best efforts to ensure that their personnel working under this iCRADA conform to the rules for conduct and safety in force at the facility where the work is being performed.

ARTICLE VIII: RIGHTS TO INTELLECTUAL PROPERTY

The Parties agree that the purpose of this iCRADA is to provide substantial benefit to the economies of the United States of America and the Participant's country. Specific plans for providing a net benefit are included in each ANNEX A attached hereto. In exchange for the benefits received under this iCRADA, the Parties agree to the following:

A. While the Parties do not anticipate the creation of Intellectual Property under this iCRADA, the Parties shall take appropriate steps, in accordance with the national laws and regulations of their respective countries, with a view to realizing the following arrangement of Intellectual Property:

Rights to Subject Inventions between the Parties

- (1) Subject Inventions made solely by persons employed or sponsored by one Party shall be owned by that Party. Subject Inventions made jointly by persons employed or sponsored by both Parties shall be jointly owned by the Parties.
- (2) Each Party grants each Government, and the other Party, a nonexclusive, transferable, irrevocable, paid-up license to practice or to have practiced for or on behalf of that Government, or that Party, all of its Subject Inventions arising out of this iCRADA throughout the world, with a right to grant sublicenses to third parties.
- (3) For each Subject Invention made in the performance of or under this iCRADA, the Inventing Party shall disclose the Subject Invention promptly to the other Party together with any documentation and information necessary to enable the other Party to establish any rights to which it may be entitled.
- (4) The Parties agree that the Inventing Party of any Subject Invention shall have the first opportunity to file for patent protection. If there is more than one Inventing Party, the Inventing Parties shall agree among themselves as to who will file patent applications on any joint Subject Invention.
- (5) The Inventing Party shall reasonably cooperate and assist the Filing Party, at the Filing Party's expense, in executing a written assignment of the Subject Invention to the Filing Party and in otherwise perfecting the patent application, and the Filing Party shall have the right to control the prosecution of the patent application.

B. Facilities License

In addition to the rights of the Parties with respect to inventions or discoveries conceived or first actually reduced to practice in the course of or under this iCRADA, the Participant agrees to and does hereby grant to the Laboratories an irrevocable, non-exclusive, paid-up license in and to any inventions or discoveries regardless of when conceived or first actually reduced to practice or acquired by the Participant, which at any time through completion of this iCRADA, are owned or controlled by the Participant and are incorporated into the Facility as a result of this iCRADA to such an extent that the Facility is not restored to the condition existing prior to this iCRADA. The license defined by this paragraph allows the Laboratories (1) to practice or to have practiced by or for the Laboratories at the

Facilities those inventions or discoveries, and (2) to transfer such license with the transfer of the Facility.

- C. Laboratory shall be bound by the U.S. Industrial Competitiveness provisions in accordance with its Prime Contract with respect to any licensing and assignments of Intellectual Property arising under this CRADA.
- D. Given the collaborative and basic science nature of this iCRADA, the Participant agrees that the non-exclusive disposition of intellectual property rights allocated in this iCRADA is equitable and will best enable the Parties to fulfill the activities outlined in the attached Task Orders. Therefore, while the Participant acknowledges that it has the option to choose an exclusive license for a pre-negotiated field of use for reasonable compensation for any Subject Invention made in whole or in part by a Laboratory employee, the Participant is declining such an option.
- E. A Net Benefit Statement is included in each attached Task Order to justify waiving the standard U.S. Competitiveness provision, subject to the approval of DOE as provided in Article II.

ARTICLE IX: RIGHTS IN DATA

A. GENERATED INFORMATION

Each Party shall have Unlimited Rights in all Generated Information produced by or provided to the Parties under this iCRADA, except for information which is disclosed in a Subject Invention disclosure being considered for patent protection, or which is marked as being Proprietary Information.

Each Party may assert copyright in its Generated Information. However, the unlimited rights of the other Parties are not changed by any copyright assertion. Furthermore, all Parties have royalty-free, nontransferable, nonexclusive, irrevocable worldwide license to use, reproduce, prepare derivative works, perform and display publicly, and distribute to other Parties, any Intellectual Property developed during, or originating from, this CRADA for any use, including but not limited uses necessary to ensure successful design, construction, commissioning, operation, and upgrades of/to the Project and Facility, and permit others to do so same.

B. PROPRIETARY INFORMATION

Each Party agrees to not disclose Proprietary Information provided by the other Party to anyone other than the Parties to this iCRADA without the written approval of the providing Party, except to employees of the respective Governments that are required to protect the Proprietary Information.

C. CESSATION OF OBLIGATIONS REGARDING PROPRIETARY INFORMATION

The obligations relating to the disclosure or dissemination of Proprietary Information shall end if any such information becomes known without fault or if such information is developed independently by a Party's employees who had no access to the Proprietary Information.

D. SHARING GENERATED DATA WITH OTHERS

The Parties also agree to share all Generated Information with each other, and any other entity or party identified in the applicable Project.

E. FACILITIES DATA CLAUSE

The Laboratories shall have Unlimited Rights in any Proprietary Information that is incorporated into the Facility or equipment under this iCRADA to such extent that the Facility or equipment is not restored to the condition existing before such incorporation. The Participant will provide to the Laboratories information, if any, which is (1) essential to the performance of work by the Laboratory personnel or (2) necessary for the health and safety of such personnel in the performance of the work.

ARTICLE X: COMPLIANCE WITH EXPORT CONTROLS AND REGULATIONS

If goods and/or technology are transferred, the Parties shall comply with the export control laws and regulations of the United States of America and the Participant's country. The Parties shall obtain export licenses for goods and/or technology to be transferred for cooperative activities conducted under this iCRADA when such export licenses are required by the export control laws and regulations of the United States of America or Participant's country. Each Party is responsible for its own compliance with such laws.

ARTICLE XI: REPORTS AND ABSTRACTS

- A. The Parties agree to produce the following deliverables: an initial abstract suitable for public release; interim reports as reasonably requested; and a final report including a list of Subject Inventions.
- B. Use of the name of the other Party or its employees in any promotional activity, with reference to this iCRADA, requires written approval (responses to customer survey forms and solicitations for success stories are considered written approval) of the other Party.

ARTICLE XII: HARDSHIP/FORCE MAJEURE

Neither Party will be liable for unforeseeable events beyond its reasonable control.

ARTICLE XIII: DISPUTES

The Parties will attempt to resolve any disputes between them which may arise during the course of this iCRADA. In the event that a dispute cannot be resolved between the Parties, and upon mutual agreement of their respective Governments.

ARTICLE XIV: ENTIRE iCRADA, MODIFICATIONS AND TERMINATION

This iCRADA with its Annex represents the entire agreement between the Parties in performing the research and other activities described in this iCRADA will be effective as defined in Article II paragraph (D). Any agreement to materially change any terms or conditions of this iCRADA shall be valid only if the change is made in writing and executed by the Parties hereto.

This iCRADA may be terminated by either Party with ninety (90) days' written notice to the other Party. Each Party will be responsible for its own costs as a result of this termination. The confidentiality, use, and/or non-disclosure obligations of this iCRADA shall survive any termination of this iCRADA, as well as provisions of this iCRADA which would naturally survive termination or expiration of this iCRADA.

IN WITNESS WHEREOF, the Parties have caused this iCRADA to be duly executed in their respective names by their duly authorized representatives.

FOR BROOKHAVEN NATIONAL LABORATORY:	FOR PARTICIPANT:	
Name: Title:	Name: Title:	
Date:	Date:	
FOR THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY:		
Name: Title:		
Date:		

ANNEX A Statement Of Work for:

Name of the Task Order for EIC **Electron-Ion Collider (EIC) Project** (HEREINAFTER "EIC Project")

STATEMENT OF WORK DESCRIPTION:

This collaborative Statement of Work between Brookhaven National Laboratory (BNL), Thomas Jefferson National Accelerator Laboratory (JLab) and Partner's Name. SOW descrition.

This SOW is subject to and governed by BNL iCRADA No. C-XX-XX / JLab iCRADA No. xxxxx ("iCRADA") between the Parties and all the terms, conditions, definitions, and provisions of said iCRADA are hereby incorporated by reference. The Parties agree to perform their respective obligations related to this SOW in accordance with the terms and conditions of this ANNEX A and other documents attached or incorporated by reference, which together constitute the entire iCRADA package. In the event of any conflict between the provisions of this iCRADA and the provisions of Annexes, the iCRADA shall control.

This Annex is planned to be implemented through Project Planning Documents (PPDs), which are intended to be jointly developed by the Parties, for the scope of work defined in this Annex and any amendments hereto.

STATEMENT OF WORK ("SOW")

In detail the following activities are planned to accomplish the above goals during the period of this iCRADA:

BNL Principal Investigator: PI Name BNL Tasks:

1. Task

2. ...

JLab Tasks: JLab Principal Investigator: PI Name

1. Task

2. ...

Partner Tasks: Partner Principal Investigator: PI Name

1. Task

2. ...

The Partner estimated contribution for this SOW is \$XXM, of which \$0.00 is funds-in to the Laboratories.

12000 Jefferson Avenue

NOTICES

The addresses, telephone numbers, and email addresses for the Parties are as follows:

Brookhaven National Laboratory P.O. Box 5000

Upton, New York 11973 Newport News, VA 23606

U.S.A.

U.S.A. +1 (631) 344-8000 +1 (757) 269-7590 ResearchPartnerships@bnl.gov tdorsey@ilab.org

Partner Insistution Name

Thomas Jefferson National Accelerator Facility

Partner's Adress

Partner's Phone	
Partner's Email	
FOR BROOKHAVEN NATIONAL LABORATORY:	FOR PARTNER INSTITUTION:
	Name:
Name: Title:	Title:
Title.	Date:
Date:	
FOR THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY:	
Name:	
Title:	
Data	