

STEVENSON-WYDLER (15 USC 3710)
COOPERATIVE RESEARCH AND DEVELOPMENT
AGREEMENT (hereinafter "CRADA") No. _____

BETWEEN

BROOKHAVEN SCIENCE ASSOCIATES, LLC

operator of Brookhaven National Laboratory
under its U.S. Department of Energy Prime Contract
No. DE-AC02-98CH10886 (hereinafter "Contractor")

AND

_____ (hereinafter "Participant"),

both being hereinafter jointly referred to as the "Parties"

ARTICLE I: DEFINITIONS

- A. "Government" means the Federal Government of the United States of America and agencies thereof.
- B. "DOE" means the Department of Energy, an agency of the Government.
- C. "Contracting Officer" means the DOE employee administering the Contractor's DOE contract.
- D. "Generated Information" means information produced in the performance of this CRADA.
- E. "Proprietary Information" means information which embodies (i) trade secrets or (ii) commercial or financial information which is privileged or confidential under the Freedom of Information Act (5 USC 552 (b)(4)), either of which is developed at private expense outside of this CRADA and which is marked as Proprietary Information.
- F. "Protected CRADA Information" means Generated Information which is marked as being Protected CRADA Information by a Party to this CRADA and which would have been Proprietary Information had it been obtained from a non-federal entity.

- G. "Subject Invention" means any invention of the Contractor or Participant conceived or first actually reduced to practice in the performance of work under this CRADA.
- H. "Intellectual Property" means patents protected by Federal Law and foreign counterparts, except trade secrets.
- I. "Field of Use" means
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ARTICLE II: STATEMENT OF WORK

The Statement of Work is attached as Appendix A.

ARTICLE III: TERM, FUNDING AND COSTS

- A. The effective date of this CRADA shall be the date on which it is signed by the last of the Parties hereto. The work to be performed under this CRADA shall be completed within _____ from the effective date.
- B. The Participant's estimated contribution is \$_____, of which _____ is funds in to the Contractor.
- C. The Participant, upon execution of this CRADA, shall advance to the Contractor the sum of \$_____. The Contractor must receive the advance payment before it commences work under this CRADA. The advance payment shall be recorded in the Contractor's account until the last three months of the CRADA term, at which time it will be liquidated by charging costs incurred during that period to the advance payment account. Advance payment in excess of total costs incurred by the Contractor under this CRADA shall be refunded to the Participant. Failure of the Participant to provide the necessary advance payment shall be cause for termination of this CRADA in accordance with Article XXX of this CRADA.
- D. Neither Party shall have an obligation to continue or complete performance of its work at a contribution in excess of its estimated contribution as contained in Article III.B. above, including any subsequent amendment.

E. Each Party agrees to provide at least thirty (30) days notice to the other Party if the actual cost to complete performance will exceed its estimated cost.

F. With the exception of the advance payment, payments shall be made by the Participant within thirty (30) days of receipt of a monthly invoice from the Contractor. Invoices should be submitted to the following point of contact at the Participant:

The Participant's Accounts Payable contact is:

G. Payments by the Participant shall be made as follows:

Mail To: Brookhaven National Laboratory
20 Brookhaven Avenue
Fiscal Division, Bldg 400D
Upton, N.Y. 11973

Check Payable To: Brookhaven Science Associates LLC

Or by wire transfer to:

JP Morgan Chase Manhattan Bank
270 Park Avenue
New York, NY 10017
ABA Routing No.021000021
For Account of: Brookhaven Science
Associates
Account No. 615-775942

ARTICLE IV: PERSONAL PROPERTY

All tangible personal property produced or acquired under this CRADA by Contractor shall become the property of the Participant. Such property is identified in Appendix A, Statement of Work. Personal property shall be disposed of as directed by the Participant at its expense.

ARTICLE V: DISCLAIMER

THE GOVERNMENT, THE PARTICIPANT, AND THE CONTRACTOR 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 GOVERNMENT, THE PARTICIPANT, NOR THE CONTRACTOR SHALL BE LIABLE FOR SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES ATTRIBUTED TO SUCH RESEARCH OR RESULTING PRODUCT, INTELLECTUAL PROPERTY, GENERATED INFORMATION, OR PRODUCT MADE OR DEVELOPED UNDER THIS CRADA.

ARTICLE VI: PRODUCT LIABILITY

Except for any liability resulting from any negligent acts or omissions of the Contractor, the Participant agrees to hold harmless the Government and the Contractor for all damages, costs, and expenses, including attorney's fees, arising from personal injury or property damage occurring as a result of the making, using, or selling of a product, process, or service by or on behalf of the Participant, its assignees, or licensees, which was derived from the work performed under this CRADA.

ARTICLE VII: OBLIGATIONS AS TO PROPRIETARY INFORMATION

- A. Contractor agrees not to disclose Proprietary Information provided by the Participant to anyone without written approval of the Participant, except to Government employees who are subject to the statutory provisions against disclosure of confidential information set forth in the Trade Secrets Act (18 USC 1905).
- B. If Proprietary Information is orally disclosed to

Contractor, it shall be identified as such, orally, at the time of disclosure and confirmed in a written summary thereof, appropriately marked by the Participant, within 15 days, as being Proprietary Information.

- C. All Proprietary Information shall be returned to the Participant at the conclusion of this CRADA at the Participant's expense.
- D. All Proprietary Information shall be protected for a period of five (5) years from the effective date of this CRADA, unless such Proprietary Information becomes publicly known without the fault of the Contractor, shall come into Contractor's possession without breach by the Contractor of any of the obligations set forth herein, or is independently developed by Contractor's employees who did not have access to such Proprietary Information.

ARTICLE VIII: OBLIGATIONS AS TO PROTECTED CRADA INFORMATION

- A. Each Party may designate as Protected CRADA Information any Generated Information produced by its employees which meets the definition of Article I.F. and, with the agreement of the other Party, so designate any Generated Information produced by the other Party's employees which meets the definition of Article I.F. All such designated Protected CRADA Information shall be appropriately marked.
- B. For a period of five (5) years from the date Protected CRADA Information is produced, the Parties agree not to further disclose such information except:
 - (1) as necessary to perform this CRADA;
 - (2) as provided in Article XI [REPORTS AND ABSTRACTS];
 - (3) as requested by the DOE Contracting Officer to be provided to other DOE facilities for use only at those DOE facilities with the same protection in place; or
 - (4) to existing or potential licensees, affiliates, customers, or suppliers of the Parties in support of commercialization of the technology with the same protection in place. Disclosure of the Participant's Protected CRADA Information under this subparagraph

shall only be done with the Participant's consent; or
(5) as mutually agreed by the Parties in advance.

C. The obligations of B above shall end sooner for any Protected CRADA Information which shall become publicly known without fault of either Party, shall come into a Party's possession without breach by that Party of the obligations of paragraph B above, or shall be independently developed by a Party's employees who did not have access to the Protected CRADA Information.

ARTICLE IX: RIGHTS IN GENERATED INFORMATION

The Parties and the Government shall have unlimited rights in all Generated Information produced or provided by a Party under this CRADA, except for information which is: (a) disclosed in a Subject Invention disclosure being considered for patent protection, or (b) marked as being Protected CRADA Information.

ARTICLE X: EXPORT CONTROL

THE PARTIES UNDERSTAND THAT MATERIALS AND INFORMATION RESULTING FROM THE PERFORMANCE OF THIS CRADA MAY BE SUBJECT TO EXPORT CONTROL LAWS AND THAT 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:

(1) an initial abstract provided by Contractor to DOE which is suitable for public release at the time the CRADA is approved by DOE;

(2) a final report upon completion or termination of this CRADA, to include a list of Subject Inventions; and

(3) other topical/periodic reports where the nature of research and magnitude of dollars justify.

B. The Parties acknowledge that the Contractor has the responsibility to provide the above information at the time

of its completion to the DOE Office of Scientific and Technical Information.

- C. Participant agrees to participate with Contractor in the preparation of the final report to enable full compliance with paragraph B of this Article.
- D. The Parties acknowledge that the Contractor and DOE have a need to document the long-term economic benefit of the cooperative research under this CRADA. Therefore, the Participant shall respond to the Contractor's reasonable requests, during the term of this CRADA and for a period of two (2) years thereafter for pertinent information.

ARTICLE XII: PRE-PUBLICATION REVIEW

- A. The Parties agree to secure pre-publication approval from each other which shall not be unreasonably withheld or denied beyond 45 days.
- B. The Parties agree that neither will use the name of the other Party or its employees in any promotional activity, such as advertisements, with reference to any product or service resulting from this CRADA, without prior written approval of the other Party.

ARTICLE XIII: RESERVED

ARTICLE XIV: REPORTING SUBJECT INVENTIONS

- A. The Parties agree to disclose to each other through the Project Managers identified in Article XXVII each Subject Invention which may be patentable or otherwise protectable under the Patent Act. The Parties agree that the Contractor and the Participant will disclose their respective Subject Inventions to DOE and each other within two (2) months after the inventor first discloses the Subject Invention in writing to the person(s) responsible for patent matters of the disclosing Party.
- B. These disclosures should be in sufficiently complete technical detail to convey a clear understanding, to the

extent known at the time of the disclosure, of the nature, purpose and operation of the Subject Invention. The disclosure shall also identify any known actual or potential statutory bars, i.e., printed publications describing the Subject Invention or the public use or "on sale" of the Subject Invention in this country. The Parties further agree to disclose to each other any subsequently known actual or potential statutory bar that occurs for a Subject Invention disclosed but for which a patent application has not been filed. All Subject Invention disclosures shall be marked as confidential under 35 USC 205.

ARTICLE XV: TITLE TO SUBJECT INVENTIONS

A. Wherein DOE has granted the Participant and the Contractor the right to elect to retain title to their respective Subject Inventions, each Party shall have the first option to elect to retain title to any Subject Invention made by its employees and that election shall be made:

(1) for the Participant, within twelve (12) months of disclosure of the Subject Invention to DOE; or

(2) for the Contractor, as provided in its Prime Contract with DOE.

If a Party elects not to retain title to any Subject Invention of its employees, the other Party shall have the second option to elect to retain title to such Subject Invention under this CRADA. DOE shall retain title to any Subject Invention which is not retained by any Party.

B. For Subject Inventions which are joint inventions made by the Contractor and the Participant, title to such Subject Inventions shall be jointly owned by the Contractor and the Participant if both Parties elect to retain title to such Subject Inventions.

C. The Parties acknowledge that DOE may obtain title to each Subject Invention reported under Article XIV for which a patent application or applications are not filed pursuant to Article XVI or for which any issued patents are not maintained by any Party to this CRADA.

- D. The Parties acknowledge that the Government retains a non-exclusive, non-transferable, irrevocable, paid-up license to practice or to have practiced for or on behalf of the United States every Subject Invention under this CRADA throughout the world. The Parties agree to execute a Confirmatory License to affirm the Government's retained license.
- E. The Participant has the option to acquire, on agreed-upon reasonable terms and conditions, an exclusive license in the Field of Use under any of Contractor's patent properties which cover Contractor's Subject Inventions. This option shall remain in effect for each such Subject Invention for a period of six (6) months from the date Contractor reported the Subject Invention in writing to Participant. If Participant does not exercise its option, any rights held by Participant in such Subject Invention shall be null and void. If Participant exercises its option, Contractor and Participant agree to negotiate in good faith to conclude a license agreement containing reasonable licensing terms. If the Parties are unable to agree upon terms for a license agreement within six (6) months after Participant exercises its option, any rights held by Participant shall be null and void.

ARTICLE XVI: FILING PATENT APPLICATIONS

- A. The Parties agree that the Party initially indicated as having an ownership interest in any Subject Inventions ("Inventing Party") shall have the first opportunity to file U.S. and foreign patent applications; but if such Party does not file such applications within one (1) year after disclosure, then the other Party to this CRADA may file patent applications on such Subject Inventions. If a patent application is filed by the other Party ("Filing Party"), 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. The Parties shall agree among themselves as to who will file patent applications on any joint Subject Invention.
- B. The Parties agree that DOE has the right to file patent

applications in any country if neither Party desires to file a patent application for any Subject Invention. Notification of such negative intent shall be made in writing to the DOE Contracting Officer within three (3) months of the decision of the non-inventing Party to not file a patent application for the Subject Invention pursuant to Article XV, or not later than 60 days prior to the time when any statutory bar might foreclose filing of a U.S. patent application.

- C. Participant agrees to include within the beginning of the specification of any U.S. Patent applications and any Patent issuing thereon (including foreign Patents) covering a Subject Invention, the following statement: "This invention was made under a CRADA (identify CRADA number) between (name the Participant) and (name the Laboratory) operated for the United States Department of Energy. The Government has certain rights in this invention." Contractor will include in any patent filings covering its Subject Inventions the statement required by its Prime Contract.
- D. A Party electing title or filing a patent application in the United States or in any foreign country shall advise the other Party and DOE if it no longer desires to continue prosecution, pay maintenance fees, or retain title in the United States or any foreign country. The other Party and then DOE will be afforded the opportunity to take title and retain the patent rights in the United States or in any such foreign country.

ARTICLE XVII: RESERVED

ARTICLE XVIII: RESERVED

ARTICLE XIX: COST OF INTELLECTUAL PROPERTY PROTECTION

Each Party shall be responsible for payment of all costs relating to U.S. and foreign patent application filing and prosecution, and all costs relating to maintenance fees for U.S. and foreign patents hereunder which are owned by that Party.

ARTICLE XX: REPORTS OF INTELLECTUAL PROPERTY USE

The Participant agrees to submit, for a period of two (2) years from the date of termination or completion of this CRADA and upon request of DOE, a non-proprietary report no more frequently than annually on efforts to utilize any Intellectual Property arising under the CRADA.

ARTICLE XXI: DOE MARCH-IN RIGHTS

The Parties acknowledge that the DOE has certain march-in rights to any Subject Inventions in accordance with 48 CFR 27.304-1(G) and 15 U.S.C. 3710a(b)(1)(B) and (C).

ARTICLE XXII: U.S. COMPETITIVENESS

The Parties agree that a purpose of this CRADA is to provide substantial benefit to the U.S. economy.

- A. In exchange for the benefits received under this CRADA, the Participant therefore agrees to the following:
1. Products embodying Intellectual Property developed under this CRADA shall be substantially manufactured in the United States, and
 2. Processes, services, and improvements thereof which are covered by Intellectual Property developed under this CRADA shall be incorporated into the Participant's manufacturing facilities in the United States either prior to or simultaneously with implementation outside the United States. Such processes, services, and improvements, when implemented outside the United States, shall not result in reduction of the use of the same processes, services, or improvements in the United States.
- B. The Contractor agrees to a U.S. Industrial Competitiveness clause in accordance with its prime contract with respect to any licensing of its Intellectual Property arising from this CRADA, except that any licensing of its Intellectual Property rights to the Participant shall be in accordance with the terms of Paragraph A of this Article.

ARTICLE XXIII: ASSIGNMENT OF PERSONNEL

- A. Each Party may assign personnel to the other Party's facility as part of this CRADA. Such personnel assigned by the assigning Party to participate in or observe the research to be performed under this CRADA shall not during the period of such assignments be considered employees of the receiving Party for any purposes, including but not limited to any requirements to provide workers' compensation, liability insurance coverage, payment of salary or other benefits or withholding of taxes.
- 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. The assigning Party's employees and agents shall observe the working hours, security and safety rules, and holiday schedule of the receiving Party while working on the receiving Party's premises.
- D. 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 CRADA. The receiving Party shall bear the costs of providing an appropriate workspace, access to a telephone, use of laboratory, manufacturing or other work areas as appropriate, and any other utilities and facilities related to such assignments.

ARTICLE XXIV: FORCE MAJEURE

No failure or omission by the Contractor or the Participant in the performance of any obligation under this CRADA shall be deemed a breach of this CRADA or create any liability if the same shall arise from any cause or causes beyond the control of the Contractor or the Participant, including but not limited to the following, which, for the purpose of this CRADA, shall be regarded as beyond the control of the Party in question: Acts of God, acts or omissions of any government or agency thereof, compliance with requirements, rules, regulations, or orders of

any governmental authority or any office, department, agency, or instrumentality thereof, fire, storm, flood, earthquake, accident, acts of the public enemy, war, rebellion, insurrection, riot, sabotage, invasion, quarantine, restriction, transportation embargoes, or failures or delays in transportation.

ARTICLE XXV: ADMINISTRATION OF CRADA

The Contractor enters into this CRADA under the authority of its prime contract with DOE. The Contractor is authorized to and will administer this CRADA in all respects unless otherwise specifically provided for herein. Administration of this CRADA may be transferred from the Contractor to DOE or its designee with notice of such transfer to Participant, and the Contractor shall have no further responsibilities except for the confidentiality, use and/or non-disclosure obligations of this CRADA.

ARTICLE XXVI: RECORDS AND ACCOUNTING FOR GOVERNMENT PROPERTY

The Participant shall maintain records of receipts, expenditures, and the disposition of all Government property in its custody related to the CRADA.

ARTICLE XXVII: NOTICES AND PROJECT MANAGEMENT

- A. Any communications required by this CRADA, if given by postage prepaid first class U.S. Mail 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 addressee, or on the date given if by verified facsimile. Address changes shall be given in accordance with this Article and shall be effective thereafter. All such communications, to be considered effective, shall include the number of this CRADA.
- B. Each Party shall assign and identify in writing a Project Manager prior to the start of the CRADA. Either Party may change its Project Manager by providing written notification to the other. Each Project Manager shall be responsible for coordinating all matters relating to this CRADA, any Statement of Work hereunder, and all other related matters

between the Parties. All communications between the Parties relating to this CRADA shall take place between the Project Managers or their designees.

- C. The Parties will use reasonable efforts to manage the disclosure of Proprietary Information or Protected CRADA Information through the Project Managers or their designees; however, failure to do so will not cause any marked Proprietary Information or any marked Protected CRADA Information to lose the protection afforded by Articles VII and VIII.
- D. The addresses, telephone numbers and facsimile numbers for the Project Managers for each Party are as follows:

The Contractor:

Michael J. Furey
Office of Intellectual Property
and Sponsored Research
Brookhaven National Laboratory
Bldg. 490C
P.O. Box 5000
Upton, NY 11973-5000
Telephone No.: (631) 344-7338
Fax No.: (631) 344-3729

For Participant:

ARTICLE XXVIII: DISPUTES

The Parties shall attempt to jointly resolve all disputes arising from this CRADA. If the Parties are unable to jointly resolve a dispute within a reasonable period of time, after submission of the dispute for resolution, said dispute shall be adjudicated in a court of competent jurisdiction in the State of New York. To the extent that there is no applicable U.S. Federal law, this CRADA and performance thereunder shall be governed by the law of the State of New York.

ARTICLE XXIX: ENTIRE CRADA AND MODIFICATIONS

- A. This CRADA with its appendices contains the entire agreement between the Parties with respect to the subject matter hereof, and all prior representations or agreements relating hereto have been merged into this document and are thus superseded in totality by this CRADA.
- B. Any agreement to materially change any terms or conditions of this CRADA or the appendices shall be valid only if the change is made in writing, and executed by the Parties hereto.

ARTICLE XXX: TERMINATION

This CRADA may be terminated by Participant upon 60 days written notice to Contractor. This CRADA may be terminated by the Contractor upon 60 days written notice to Participant:

- i) in the event of failure by the Participant to provide the necessary advance funding, as agreed in Article III;
- ii) in the event Participant is in default under any provisions of this Agreement; or
- iii) in the event Contractor is instructed by DOE to terminate this Agreement for national security reasons.

In the event of termination by either Party, Participant shall reimburse Contractor for the costs incurred by Contractor through the effective date of termination, as well as Contractor's costs incurred after the effective date of termination, and which are related to the termination. The confidentiality, use, and/or non-disclosure obligations of this CRADA shall survive any termination of this CRADA.

FOR CONTRACTOR:

BY _____
 NAME _____

TITLE _____

DATE _____

FOR PARTICIPANT:

BY _____
 NAME _____

TITLE _____
DATE _____