

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT

Article 1. INTRODUCTION

This Cooperative Research and Development Agreement (CRADA or Agreement) between the National Institute of Standards and Technology (NIST) and COMPANY (Collaborator) will be effective when signed by all Parties (Effective Date), entered into by NIST under its authority under Title 15, United States Code section 3710a. The research and development activities which will be undertaken by the Parties in the course of this CRADA are detailed in the Research Plan which is attached as part of Appendix A. Any exceptions or changes to the terms of the CRADA are set forth in Appendix B. NIST and Collaborator may also be referred to individually as “Party” or collectively as “Parties.”

Article 2. DEFINITIONS

As used in this CRADA, the following terms shall have the indicated meanings:

- 2.1 **“Background Invention”** means any Invention of either Party conceived outside of this CRADA.
- 2.2 **“CRADA Data”** means all recorded information, including computer software, first produced in the performance of this CRADA.
- 2.3 **“CRADA Invention”** means any invention conceived under this CRADA. Inventions created from research continuing after the expiration date of the CRADA are not CRADA Inventions and are not covered by provisions of this CRADA. The License options of Article 7 do not apply to inventions conceived solely or jointly by NIST after the expiration date of the CRADA or in any period during which this CRADA or any subsequent extensions are not effective.
- 2.4 **“Invention”** means any invention or discovery which is or may be patentable or otherwise protected under Title 35 (35 U.S.C. 100 *et seq.*) or any novel variety of plant which is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321 *et seq.*).
- 2.5 **“Principal Investigator”** or **“PI”** means the person designated respectively by each Party to this CRADA who will be responsible for the scientific and technical conduct of the research.
- 2.6 **“Project Team”** means each Party’s respective personnel assigned by such Party to conduct the research designated in this CRADA.
- 2.7 **“Proprietary Information”** means confidential scientific, business, or financial information, including data created under this CRADA solely by Collaborator at Collaborator’s research facilities, which may embody trade secrets provided by Collaborator to NIST in the course of this CRADA, and developed exclusively at private expense, except if such information:
 - i. was in NIST’s possession before receipt from Collaborator; or
 - ii. is or becomes a matter of public knowledge through no fault of NIST; or
 - iii. is received by NIST from a third party without a duty of confidentiality; or
 - iv. is disclosed by Collaborator to a third party without a duty of confidentiality on the third party; or
 - v. is independently disclosed by NIST with Collaborator’s prior written approval; or
 - vi. is independently developed by NIST without reference to information disclosed hereunder.
- 2.8 **“Written Notice”** means signed communication delivered by one Party to the other Party’s Contact for Written Notices found on the signature page, via electronic mail, facsimile, or common carrier.

Article 3. COOPERATIVE RESEARCH

- 3.1 **Research Plan and Changes.** The Research Plan of this CRADA, its duration, and its objectives are detailed in Appendix A. The research under this CRADA shall be performed on a reasonable efforts basis. Collaborator certifies the correctness of the information contained in Appendix A.
- 3.2 **Principal Investigators.** NIST shall be the supervising Federal agency, both administratively and scientifically, for this CRADA. The NIST PI is responsible for the scientific and technical conduct of this project on behalf of NIST. The designated Collaborator PI is responsible for the scientific and technical conduct of this project on behalf of Collaborator. Collaborator shall designate the Project Team in Appendix A of this CRADA.
- 3.3 **Conduct.** Collaborator agrees that each member of its Project Team will abide by all applicable regulations, policies and procedures applicable to NIST personnel relating to safety, security, and conduct while on NIST property, and will adhere to applicable building and restricted area access controls.

Article 4. EQUIPMENT OR MATERIAL

- 4.1 **Equipment.** Any equipment or material purchased by NIST with funds provided by Collaborator under this CRADA shall be the property of NIST. Any equipment loaned under this CRADA by a Party remains the property of that Party unless the Parties agree in writing on some other disposition. Each Party's equipment will be returned to the lending Party at the lending Party's expense and risk as soon as practical after expiration or termination of the CRADA. Any material provided to NIST by Collaborator under this CRADA will be returned or destroyed at the expiration or termination of this CRADA unless the Parties agree in writing on some other disposition.

Article 5. TREATMENT OF PROPRIETARY INFORMATION

- 5.1 **Protection.** Collaborator agrees to limit its disclosure of Proprietary Information to NIST to the amount necessary to carry out the Research Plan. Collaborator shall place a Proprietary Information notice on all Proprietary Information that it delivers to NIST under this CRADA. NIST agrees that Proprietary Information shall be used only for the purposes described in the attached Research Plan. Except where NIST is legally obligated to release information pursuant to the Freedom of Information Act (5 U.S.C. 552), or other requirement of law, Proprietary Information shall not be disclosed or otherwise made available in any form to any other person, firm, corporation, partnership, association or other entity without the written consent of Collaborator. NIST agrees to use its best efforts to maintain the confidentiality of Proprietary Information. NIST will promptly notify Collaborator of requests for Collaborator's Proprietary Information. Collaborator agrees that NIST is not liable for the disclosure of information designated as proprietary which, after notice to and consultation with Collaborator, NIST determines may not lawfully be withheld or which a court of competent jurisdiction requires to be disclosed.
- 5.2 These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive orders and statutory provisions are incorporated into this CRADA and are controlling.

Article 6. INTELLECTUAL PROPERTY

- 6.1 **Rights to Background Inventions.** No rights to Background Inventions are conveyed by this CRADA.
- 6.2 **Reporting Inventions and Other Responsibilities.** Each Party shall promptly supply written disclosure to the other Party of any invention conceived or reduced to practice in the performance of the Research Plan. Such disclosures shall not be further disclosed to others by the receiving Party until such time as a patent or other intellectual property application claiming that CRADA Invention has been filed or the parties inform

each other through Written Notice that they do not wish to pursue patent protection. Collaborator shall ensure that all Project Team members (a) promptly report any CRADA Inventions they make to Collaborator, and (b) sign any documents necessary or desirable for the filing and prosecution of patent applications. If any Project Team member is not Collaborator's employee, Collaborator shall require the member to agree in writing to assist Collaborator in fulfilling all of its patent responsibilities under this CRADA.

6.3 Treatment of CRADA Data.

6.3.1 **Ownership of Original Copies of CRADA Data.** NIST and Collaborator agree to exchange all CRADA Data. NIST and Collaborator shall each have the right to use all CRADA Data for their own purposes, consistent with their obligations under this CRADA.

6.3.2 **Ownership of Copyrights of CRADA Data.** Collaborator may elect to copyright scientific and technical publications, or those identifiable portions of a joint publication, developed solely by Collaborator's Project Team member. When Collaborator obtains a copyright, Collaborator shall affix the applicable copyright notice of 17 U.S.C. §§ 401, 402, and 403, and an acknowledgment of the scientific and technical contributions of the National Institute of Standards and Technology. Collaborator grants to the U.S. Government a paid-up, non-exclusive, irrevocable world-wide license to reproduce or have reproduced, prepare or have prepared in derivative form, and distribute or have distributed copies of publications and solely created by Collaborator CRADA Data for Government purposes. CRADA Data prepared by NIST employees, and CRADA Data prepared jointly by NIST employees and the Project Team, are not subject to copyright in the United States pursuant to section 105 of title 17 of the United States Code. NIST may, however, own copyright in jointly created, or solely created by NIST, publications and CRADA Data outside of the United States.

6.4 **Research Products.** The Parties agree to make mutually acceptable arrangements for the disposition of any unique or hard-to-replace research products.

6.5 **Publication.** Before either Party submits a paper or abstract for publication or otherwise intends to publicly disclose information about a CRADA Invention, or CRADA Data, the other Party shall be provided thirty (30) days to review the proposed publication or disclosure to ensure that no unprotected patentable information or Proprietary Information is inadvertently contained therein.

6.6 Patenting and Ownership of CRADA Inventions.

6.6.1 Reservation of Government's Minimum Rights.

6.6.1.1 **NIST's Sole Inventions and Joint Inventions.** Pursuant to the Federal Technology Transfer Act of 1986 as amended (15 U.S.C. 3710a (b)), NIST, on behalf of the United States Government, shall retain a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced NIST's sole CRADA Inventions and joint CRADA Inventions throughout the world by or on behalf of the Government.

6.6.1.2 **Collaborator's Sole Inventions.** Pursuant to the Federal Technology Transfer Act of 1986 as amended (15 U.S.C. 3710a (b)), NIST, on behalf of the United States Government, shall retain, and Collaborator hereby grants, a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced Collaborator's sole CRADA Inventions throughout the world by or on behalf of the Government for research or other Government purposes.

6.6.2 **Joint CRADA Inventions.** Jointly-conceived CRADA Inventions shall be jointly owned. Collaborator shall be responsible for filing U.S. Patent Applications for joint CRADA Inventions in a timely manner. If Collaborator does not file a U.S. Patent Application on a joint CRADA Invention within six (6) months after disclosure, NIST may file a U.S. Patent Application on such joint CRADA Invention. The non-filing Party shall reasonably cooperate and assist the filing Party in perfecting the patent application, and the filing Party shall have the right to control the prosecution of the U.S. Patent Application.

- 6.6.3 **CRADA Inventions Solely Developed.** Except for jointly-owned CRADA Inventions, each Party shall retain title to any CRADA Invention of its employees or Project Team members. The Party retaining title to a CRADA Invention may file a U.S. Patent Application after consultation with the other Party. Except as otherwise required by law, the owner of a CRADA Invention has no duty to file a U.S. or foreign patent application.
- 6.6.4 **Patent Expenses and Prosecution.** The filing Party shall bear the expenses attendant to filing U.S. Patent Applications. Each Party shall promptly provide the other Party with copies of Provisional Applications filed, Patent Applications filed and Office Actions bearing upon any CRADA Invention. Any post-filing and post-issue fees shall also be borne by the same Party.
- 6.6.5 **Foreign Filings of CRADA Inventions.** The Parties will consult with each other as to the advisability of filing for patent protection outside the U.S.

Article 7. LICENSING

- 7.1 **Option for a Commercialization License.** NIST, on behalf of the Government, hereby grants to Collaborator an option to choose an exclusive or nonexclusive commercialization license to patents or patent applications claiming CRADA Inventions solely conceived by NIST or to NIST's interest in patents or patent applications claiming joint CRADA Inventions. The exclusive or nonexclusive license shall be limited to fields of use defined by the subject matter of the Research Plan. The license will specify the licensed fields of use, geographic territory, markets, term and royalties. Additional terms and conditions shall be added to all licenses consistent with applicable statutes and regulations. The license will be based on mutually agreeable terms consistent with those conventionally granted in the field identified in the Research Plan for inventions with reasonably similar commercial potential. The royalty rates will reflect the relative contributions of the Parties to the CRADA Invention. All licenses granted under this Article are subject to the reservation of licenses in favor of the United States Government required in Section 6.6.1 above.
- 7.2 **Exercise of License Option to NIST Sole CRADA Inventions.** The option of Section 7.1 for CRADA Inventions solely conceived by NIST must be exercised by Written Notice within three (3) months from the date on which the Government notifies Collaborator that it intends to file a non-provisional patent application. Exercise of the license option by Collaborator initiates a negotiation period that expires six (6) months after the Written Notice to exercise the license option has been received by NIST. This period may be extended for three (3) months, by mutual agreement of the parties. If no agreement is concluded in this period, NIST shall be free to license its interest in such CRADA Inventions to others.
- 7.3 **Exercise of License Option to Joint CRADA Inventions.** The option of Section 7.1 for NIST's interest in CRADA Inventions jointly conceived by the Parties must be exercised by Written Notice within three (3) months from the date on which the Government or Collaborator notifies the other Party that it intends to file a non-provisional patent application. Exercise of the license option by Collaborator initiates a negotiation period that expires six (6) months after the Written Notice to exercise the license option has been received by NIST. This period may be extended for three (3) months, by mutual agreement of the Parties. If no agreement is concluded in this period, NIST shall be free to license its interest in such CRADA Inventions to others.

Article 8. TERMINATION

- 8.1 **Termination Notices.** Each Party has the right to terminate this CRADA upon thirty (30) days Written Notice to the other Party.
- 8.2 **Termination After Change of Control.** NIST may terminate this CRADA immediately if direct or indirect control of Collaborator is transferred to a foreign company or government; or, if upon the Effective Date, Collaborator is controlled by a foreign company or government, and that control is thereafter transferred to another foreign company or government.

- 8.3 **Interim Extension.** Upon Written Notice from Collaborator and NIST PI that it is the intent that the CRADA be amended, as provided in Section 11.5, to extend the term of the CRADA, the term of this CRADA shall be extended for ninety (90) days. The Written Notice shall be directed to the Technology Partnerships Office Director. Such interim extension shall be available only once prior to the effective date of a written amendment extending the CRADA pursuant to Section 11.5.

Article 9. **DISPUTES**

- 9.1 **Settlement.** Any dispute arising under this CRADA, which is not disposed of, by agreement of the Parties shall be submitted jointly to the signatories of this CRADA. A joint decision of the signatories or their designees shall be the disposition of such dispute. If the Parties cannot reach a joint decision, either Party may terminate this CRADA immediately.
- 9.2 **Continuation of Work.** Pending the resolution of any dispute or claim pursuant to this Article, the Parties agree that performance of all obligations shall be pursued diligently in accordance with the direction of the NIST's Operating Unit Director.

Article 10. **LIABILITY**

- 10.1 **Property.** The U.S. Government shall not be responsible for damage to any property of Collaborator loaned to NIST or acquired by NIST pursuant to this CRADA.
- 10.2 **Indemnification.**
- 10.2.1 **Conduct of Employees.** Collaborator's Project Team assigned to this Research Plan are not employees of NIST. Collaborator shall indemnify and hold harmless the U.S. Government for any loss, claim, damage, or liability of any kind to Collaborator's Project Team arising in connection with this CRADA except to the extent that such loss, claim damage or liability arises from the gross negligence or wrongful acts of NIST or its employees. NIST's responsibility for payment of tort claims in connection with the performance of work under this CRADA is governed by the Federal Tort Claims Act.
- 10.2.2 **Collaborator's Use of NIST Research.** Collaborator shall indemnify and hold harmless the U.S. Government for any loss, claim, damage, or liability of any kind arising out of the use by Collaborator, or any Party acting on its behalf or under its authorization, of NIST's research and technical developments or out of any use, sale or other disposition by Collaborator or others acting on its behalf or with its authorization, of products made by the use of NIST's technical developments.
- 10.3 **Force Majeure.** Neither Party shall be liable for any unforeseeable event beyond its reasonable control not caused by the fault or negligence of such Party, which causes such Party to be unable to perform its obligations under this CRADA (and which it has been unable to overcome by the exercise of due diligence), including, but not limited to, flood, drought, earthquake, storm, fire, pestilence, lightning and other natural catastrophes, epidemic, war, riot, civic disturbance or disobedience, strikes, labor dispute, or failure, threat of failure, or sabotage of facility or equipment, or any order or injunction made by a court or public agency. In the event of the occurrence of such a force majeure event, the Party unable to perform shall promptly notify the other Party. It shall further use its best efforts to resume performance as quickly as possible and shall suspend performance only for such period of time as is necessary as a result of the force majeure event.
- 10.4 **NO WARRANTY.** THE PARTIES MAKE NO EXPRESS OR IMPLIED WARRANTY AS TO ANY MATTER WHATSOEVER, INCLUDING THE CONDITIONS OF THE RESEARCH OR ANY INVENTION OR PRODUCT, WHETHER TANGIBLE OR INTANGIBLE, MADE OR DEVELOPED UNDER THIS CRADA, OR THE OWNERSHIP, MERCHANTABILITY, NON-INFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE OF THE RESEARCH OR ANY INVENTION OR PRODUCT.

Article 11. MISCELLANEOUS

- 11.1 **No Benefits.** No member of, or delegate to the United States Congress, or resident commissioner, shall be admitted to any share or part of this CRADA, nor to any benefit that may arise therefrom; but this provision shall not be construed to extend to this CRADA if made with a corporation for its general benefit.
- 11.2 **Governing Law.** The construction validity, performance and effect of this CRADA for all purposes shall be governed by the laws of the United States.
- 11.3 **Entire Agreement.** This CRADA constitutes the entire agreement between the Parties concerning the subject matter hereof and supersedes any prior understanding or written or oral agreement relative to said matter.
- 11.4 **Headings.** Titles and headings of the sections and subsections of this CRADA are for the convenience of references only and do not form a part of this CRADA, and shall in no way affect the interpretation thereof.
- 11.5 **Amendments.** If either Party desires a modification in this CRADA, the Parties shall, upon reasonable notice of the proposed modification by the Party desiring the change, confer in good faith to determine the desirability of such modification. Such modification shall not be effective until a written amendment is signed by all the Parties hereto by their representatives duly authorized to execute such amendment.
- 11.6 **Assignment.** Neither this CRADA nor any rights or obligations of any Party hereunder shall be assigned or otherwise transferred by either Party without the prior written consent of the other Party except that Collaborator may assign this CRADA to the successors or assignees of a substantial portion of Collaborator's business interest to which this CRADA directly pertains.
- 11.7 **Notices.** All notices pertaining to or required by this CRADA shall be Written Notices, as defined in Section 2.8, and shall be directed by Collaborator to the NIST Technology Partnerships Office Director, or by NIST to Collaborator's signatory.
- 11.8 **Independent Parties.** The relationship of the Parties to this CRADA is that of independent parties and not as agents of each other or as joint venturers or partners. Each Party shall maintain sole and exclusive control over its personnel and operations.
- 11.9 **The Use of Name or Endorsements.** Neither Party shall use the name of the other Party on any advertisement, product or service which is directly or indirectly related to either this CRADA or any patent license or assignment agreement which implements this CRADA. By entering into this CRADA NIST and Collaborator do not directly or indirectly endorse any product or service provided, or to be provided, by the other Party, its successors, assignees, or licensees. NIST and Collaborator shall not in any way imply that this CRADA is an endorsement of any such product or service.
- 11.10 **Duration of the Agreement.** It is mutually recognized that the duration of this project cannot be rigidly defined in advance and that the contemplated time periods for various phases of the Research Plan are only good faith guidelines subject to adjustment by mutual agreement to fit circumstances as the Research Plan proceeds. In no case will the term of this CRADA extend beyond the term specified in Appendix A, Section 2 unless it is revised in accordance with Section 11.5, or Section 8.3.
- 11.11 **Full Execution.** Collaborator acknowledges that this CRADA is not an offer to enter into a contract and cannot unilaterally be made binding. No contract exists until this CRADA is fully executed and signed by all parties, including Collaborator's signatory, the Chief Counsel for NIST, NIST's Operating Unit Director and the Director of NIST's Technology Partnerships Office.
- 11.12 **Survivability.** The provisions of Articles 5, 6, 7 and 10, and Sections 11.9, 11.12 and 11.13 shall survive the expiration or termination of this CRADA.

11.13 **Export of Technical Data.** Collaborator agrees to comply with United States export laws and regulations, including, but not limited to, the International Traffic in Arms Regulations and the Department of Commerce's Export Administration Regulations.

IN WITNESS WHEREOF, the Parties have caused this CRADA to be executed by their duly authorized representatives as follows:

Signatory for Collaborator:

Name: _____ Date _____
Title/Affiliation:

Collaborator's Contact for Written Notices:

Signatories for National Institute of Standards and Technology:

Henry N. Wixon _____ Date _____
Chief Counsel for NIST

NAME _____ Date _____
Director, Laboratory

Paul Zielinski _____ Date _____
Director, Technology Partnerships Office

NIST's Contact for Written Notices:
NIST Technology Partnerships Office
Attn: CRADA Administrator
100 Bureau Drive, Gaithersburg, MD 20899-2200
With courtesy copy to: ipp@nist.gov

Appendix A

NIST requires the information listed below. Collaborator agrees to notify NIST within thirty (30) days of any change relevant to Collaborator's information in this Appendix A. NIST considers Sections 6, 7, and 8 of this Appendix A to be proprietary business information.

1. **Collaboration Project Title:**
(Either Party may publicly disclose this title.)
2. **Duration of the CRADA:**
3. **Collaborator Certifications and Information.**
 - a. **Collaborator DUNS Number:** _____
 - b. **Collaborator Eligibility.** To ensure compliance with applicable Federal laws, regulations and policy, Collaborator certifies the following selected statements.

PLEASE CHECK/COMPLETE ALL APPROPRIATE BOXES.

- Collaborator certifies that it is incorporated or organized under the laws of one of the states or territories of the United States.
 - Collaborator certifies that it is not directly or indirectly controlled by a foreign government or foreign company.
 - Collaborator certifies that it is partially or wholly owned by the following foreign government: _____
 - Collaborator certifies that it is not owned by any government, but organized under the laws the following foreign country: _____
 - Collaborator certifies that it is directly or indirectly controlled by a foreign company (please also specify country): _____
 - Collaborator certifies that it has a manufacturing presence in the United States.
- c. **Protection of Human Subjects.** To assure compliance with 15 CFR Part 27 (the Common Rule for Protection of Human Subjects) and other relevant statutes, regulations and Presidential statements of Policy, Collaborator certifies that:
 - The Research Plan does not involve human subjects within the meaning of the Common Rule, 15 CFR Part 27.
 - The Research Plan involves human subjects within the meaning of 15 CFR Part 27, and Collaborator agrees to take all steps required by NIST to assure compliance with 15 CFR Part 27. Collaborator certifies that research involving human subjects shall not begin until an appropriate exemption or IRB review is completed and approved by NIST.
 - d. **Protection of Animal Subjects.** To assure compliance with the Animal Welfare Act as amended and implementing regulations (7 USC 2131 *et seq.*, 9 CFR Parts 1, 2, and 3), and other Federal statutes and regulations relating to animals, Collaborator certifies that:
 - The research to be conducted under this CRADA does not involve animal subjects within the meaning of 7 USC 2131 *et seq.* and 9 CFR Parts 1, 2, and 3.

The research to be conducted under this CRADA involves animal subjects within the meaning of 7 USC 2131 *et seq.* and 9 CFR Parts 1, 2, and 3, and Collaborator agrees to take all steps required by NIST to assure compliance with 9 CFR Parts 1, 2, and 3. Collaborator certifies that research involving animal subjects shall not begin until documentation of the appropriate reviews and certifications have been provided to and approved by NIST.

e. **Participation in other Federally Funded Projects.** NIST may enter into CRADAs with recipients of awards from other Federal agencies, or other awards from NIST. Collaborator certifies that:

Collaborator's activities described in the Research Plan are not supported by Federal or NIST funds.

Collaborator is a recipient of Federal funds awarded for activities that are related to the research activities described in the Research Plan. These Federal funding agreement(s) are identified as follows: _____

f. **Restricted Information.** Collaborator certifies that:

The Research Plan does not pertain to federally classified or otherwise restricted subject matter.

The Research Plan does pertain to federally classified or otherwise restricted subject matter.

4. **NIST's Principal Investigator.**

5. **NIST's Project Team, Services, Facilities, Intellectual Property, and/or Equipment Contributions.**

NIST's Project Team (Non-NIST employees may not be NIST's Project Team):

NIST Personnel:

NIST Contributions:

6. **Collaborator's Principal Investigator:**

7. **Collaborator's Project Team, Services, Facilities, Intellectual Property, Equipment, and/or Funds Contributions:**

Collaborator's Project Team:

Collaborator's Contributions:

For Financial Contributions:

Specify if invoices will be: Mail only Email only Mail & Email

Billing Contact Name/Payables Department: _____

Phone Number: _____

Mailing address for invoices:

Email address for invoices (if applicable):

Special instructions or description to be included on invoice:

8. **Research Plan:**

Delete these instructions when using this template. The Research Plan should describe the research project, including specifying what is to be performed by NIST, Collaborator, and jointly. The description should: 1) state the project's objectives, and 2) detail the research approach sufficiently to permit management and legal review of the tasks of each Party in the proposed collaboration. The Research Plan must also state benefit(s) to NIST and how the project aligns with NIST's, OU's, or Division's mission.