

MEMORANDUM OF UNDERSTANDING

Initial Participating Universities: The Florida International University Board of Trustees, the University of South Alabama, Texas A&M AgriLife Research, the Boston University Board of Trustees and Sam Houston State University.

This Memorandum of Understanding (MOU) is effective this **September 15, 2020** between the participating universities listed above, who intend to join together in a cooperative effort to support the Center for Advanced Research in Forensic Science (hereinafter referred to as "CENTER, or CARFS"). All of the universities mentioned above shall be hereinafter referred to collectively as "INSTITUTIONS, or SITES".

WHEREAS, the activities of the CENTER are funded by 1) the National Science Foundation and the National Institute of Justice (hereinafter referred to, respectively, as "NSF" and "NIJ") 2) Industrial Members (hereinafter referred to as "MEMBERS") and 3) other funds that may be received from time to time.

WHEREAS, INSTITUTIONS desire to formalize certain agreements between them with respect to the subject matter contained herein;

NOW THEREFORE, for and in consideration of the mutual promises and covenants herein contained and intending to be legally bound, INSTITUTIONS hereto agree as follows:

1. Center Governance

- a. The CENTER will be guided by a common set of By-laws (a copy of which is included as Attachment A). The By-laws incorporate a mechanism for their modification.
- b. The CENTER will share a common Industrial Advisory Board (IAB), which recommends policy and project funding for the CENTER.
- c. The CENTER Director provides overall administrative management of the CENTER.
- d. Each SITE shall have a SITE Director that provides overall administrative management of the SITE.
- e. The Academic Leadership Team is composed of the CENTER Director, SITE Directors and a representative from each Institution that is affiliated with any SITE within the CENTER.
- f. MEMBERS join the CENTER by executing the CARFS IUCRC Membership Agreement with a SITE.

2. Center Funding

Projects will be proposed to the IAB by SITE Directors at semiannual IAB meetings, and project funding allocations will be determined based on IAB project selection recommendations and Academic Leadership Team input as detailed in the CENTER By-laws. Each SITE will be responsible for collecting and administering membership dues from MEMBERS who are joining the CENTER through that SITE. Certification of MEMBER names and total fees paid by

MEMBERS shall be reported to NSF by each SITE, for the MEMBERS joining through that SITE.

3. Cross-Funding of Research

Each SITE shall collect fees from their respective MEMBERS. SITE Directors will use those fees to support CENTER research at their respective SITES and, when needed, at other SITES. The transfer of funds to support research projects that are based at other SITES shall be made by subcontract between the SITES. The SITE that collected the funds is permitted to collect an indirect cost (IDC) rate at a maximum of 5% of the transferred MEMBER funds, as defined within the subcontract. The SITE receiving the transferred funds is permitted to collect a maximum of 5% IDC rate of the transferred funds.

4. Ownership and Administration of Intellectual Property.

Intellectual Property (IP) shall be managed according to the terms of the existing CARFS IUCRC Membership Agreement, the CARFS By-laws and the guidance provided within the IUCRC solicitation.

5. Changes to this Memorandum of Understanding

The terms of this Memorandum of Understanding may be amended at any time by a written amendment executed by the authorized officers of all the parties to this MOU that are identified in the first paragraph above.

IN WITNESS WHEREOF, the parties hereto have caused this MOU to be duly executed by their duly authorized officers as of the day and year set forth next to each signature.

28th January 2021 *RMG*

Agreed, this ~~15th~~ day of ~~September~~, 2020:

The Florida International University Board of Trustees

J.L

By: Roberto M. Gutierrez

Its: Assistant Vice President for Research

Agreed, this 15th day of September, 2020:

Sam Houston State University



By: Chad W. Hargrave, PhD

Its: Associate Vice President of Research and Sponsored Programs

Agreed, this 31st day of August, 2020:

Boston University

Todd Conley

By: Todd Conley

Its: Associate Director, Preaward Services

Agreed, this 20th day of January, 2020-2021

Texas A&M AgriLife Research

Stephen Schulze

By: Stephen schulze

Its: Assistant Vice Chancellor for Administration

Agreed, this 15th day of September, 2020:

University of South Alabama

Lynne Chronister

By: Lynne Chronister

Its: Vice President of Research & Economic Development

Attachment A

Center for Advanced Research in Forensic Science (CARFS) Center Bylaws¹

Article 1: Introduction and Definitions

1. The following By-laws will be used to guide the Center for Advanced Research in Forensic Science (“Center”), an Industry–University Cooperative Research Center (“IUCRC”) funded in part by the National Science Foundation (“NSF”) and the National Institute of Justice (“NIJ”).
2. These Center By-laws are subordinate to the IUCRC program guidelines for operating an IUCRC (including relevant NSF solicitation) and if a conflict is identified, the IUCRC guidelines shall be followed. These Center By-laws are similarly subordinate to the CARFS membership agreement and MOU, and if a conflict is identified, the CARFS membership agreement and MOU shall be followed.
3. The Center is a consortium initially comprised of the following universities (either as individual sites or as affiliates to sites within the Center), collectively known hereafter as “Academic Institutions“, in alphabetical order:
 - a. Florida International University
 - b. Texas A&M University²
 - c. University of South Alabama
 - d. Boston University³

Additional university sites or affiliates may be added to the center following the NSF IUCRC guidelines for the addition of university sites or affiliates.

4. Definitions:
 - a. A SITE is any college or university (i.e. an Institution) that joins the Center by award from NSF for purposes of participating in activities of the Center. An affiliate site is any Institution that joins the CENTER through

¹ The original Bylaws, before amendment, were approved by IAB vote in August 2017.

² Texas A&M is joining by and through it affiliate organization: Texas A&M AgriLife Research.

³ Northeastern University was removed from the list of “Academic Institutions” by IAB vote in March 2019. Boston University was added to the list of “Academic Institutions” by IAB vote on August 2, 2019.

subcontract to a SITE for purposes of participating in activities of the Center.

- b. Site Directors are appointed by their respective universities and are usually the PIs of the IUCRC awards.
- c. The Academic Leadership Team is comprised of the Site Directors, including Center Director.
- d. The Center Director will be appointed by the Academic Leadership Team and will either be chosen from among the Site Directors or be an experienced faculty member from one of the Sites. The Center Director must have significant background and experience in the discipline of forensic science. The Associate Director will be appointed by the academic leadership team and will either be chosen from among the Site Directors or be an experienced faculty member from one of the Sites. The Associate Director will represent the Center Director when the Center Director is unable to fulfill his/her duties.
- e. A University Policy Committee for each Site will be comprised of individuals from the Institution Administration and will facilitate the operation of the Site while ensuring compliance with the policies of their respective universities. Each University Policy Committee will meet as necessary to discuss and resolve Center-related issues. This Committee shall not have any overlap with the members of the Center Academic Leadership Team.
- f. An “Industrial Member” is any industrial firm or organization (including non-profits), or non-NSF Federal agency that has joined and been accepted as a member of the Center by signing the CARFS Membership Agreement countersigned by an authorized representative of a Site (or in the case of Federal agencies, via Military Interdepartmental Purchase Request [MIPR] or Interagency Agreement [IAA] with NSF) and has timely paid annual membership fees pursuant to said CARFS membership agreement. Other categories of industrial members, for example, individuals or state/local government agencies, may also be eligible for membership.
- g. Full Industrial Members (“Full Members”) are defined as any Industrial Member who has paid at least a \$25,000 membership fee per year to support research at the Center.
- h. Affiliate Industrial Members (“Affiliate Members”) are “Small Businesses” (according to the Federal government definition) that join as non-voting “Affiliate Members” with a minimum contribution of \$5,000/year. Affiliate Members may nonetheless vote the dollars contributed by them towards project funding.⁵

⁵ The last sentence in Article 1.h. was added as an amendment by IAB vote on August 2019

- i. The “Industrial Advisory Board” (“IAB”) is comprised of one representative appointed by each of the Industrial Members, with an elected Chair. The IAB reviews and recommends all research activities funded totally or in part by membership fees and approves Center bylaws.

Article 2: Purpose

1. Vision Statement: a collaborative research environment within the disciplines of forensic science that involves government, private industry and academic researchers to advance the field of forensic science practice through innovative research.
2. Mission Statement: to contribute to the nation’s research infrastructure base by developing long-term partnerships among industry, academia and government to address important challenges within the field of forensic science and to provide meaningful solutions to these problems.
3. Research focus: The Center’s research topics will focus on the needs of the members and the capabilities of the universities in various areas of forensic science.

Article 3: Membership

1. Participants in the Center include Academic Institutions, Full Members and Affiliate Members.
2. Academic Institutions may only join the Center through award of an IUCRC grant from NSF, with a minimum of two-thirds agreement among the existing Academic Site Directors and with simple majority agreement of the Center’s IAB.
3. Full Members and Affiliate Members join the Center through the CARFS IUCRC Membership Agreement (Exhibit A) executed with a Site within the Center. Federal Agencies have the option of joining the Center without signing the membership agreement, by entering into a MIPR or IAA with NSF.
4. Companies, federal research and development organizations, government owned contractor operated laboratories, small businesses and related entities (“New Members”) may request, or be requested, to join the Center as an Industrial Member or Affiliate Industrial Members (“Small Business”) at a Site or an Affiliate Site. New Members may join the Center upon signature of the applicable

Membership Agreement, acceptance of the current By-laws, and payment of the applicable non-prorated annual membership fees. Application of new or additional membership fees may be made at the Site or Affiliate Site to existing research programs or new interim proposals approved by the Center Leadership in consultation with the IAB, or held in reserve for project funding until the next Center meeting. New Members' rights to continued funding and intellectual property are subject to the same provisions in these By-Laws as existing members.⁴

Article 4: Organization and Governance

1. The Center shall be governed, as set forth below by: (a) the NSF IUCRC guidelines (including solicitation and membership agreement); (b) the Industrial Advisory Board; (c) the Center Director; and (d) the Site Director(s), and (e) the University Policy Committees for each site.

2. Industrial Advisory Board. A Full Member organization is entitled to have one representative on the IAB for every paid membership fee (\$25,000). Regardless of the number of representatives, a Full Member organization contributing two \$25,000 membership fees may choose to have two votes. Both votes may be placed in the hands of a single voting representative. A Full Member organization can pay more than \$50,000 but cannot have more than two votes. The IAB shall meet twice annually as per IUCRC guidelines to fulfill its responsibilities hereunder.
 - a. The IAB will select a Chair for a one-year term at the first meeting of the IAB [tentatively set for May 2017] and then for 2-year terms thereafter. The IAB Chair and Center Director will work together as needed to manage Center activities.

 - b. All Industrial Members (Full Members and Affiliate Members) will participate through the IAB in the strategic planning of the Center. The IAB will assist the Center Director, Site Directors, and participating faculty in identifying pre-competitive, forensic science-related research problems; recommend, via voting process, research projects for future work; identify appropriate internship opportunities for graduate students; assist the Center Director and Site Directors in identifying new members; review the research and educational accomplishments of the Center; and recommend restructuring and/or redirecting of ongoing programs to meet Industry Members' needs and concerns.

⁴ Article 3, subsection 4 was added as an amendment by IAB vote on August 8, 2018.

- c. At all meetings of the IAB, two-thirds of the Full Members of the IAB will constitute a quorum for the transaction of business.
 - d. All IAB Members may participate in discussions of all matters before the Board. Only Full Members may vote on issues before the IAB.
 3. Center Director and Associate Director. The Center Director is the primary decision-maker for the Center and shall have responsibility and authority for all aspects of the Center's operation and performance. The designated Center director oversees all operating and management aspects of Center operations. The Center Director will be advised by the IAB Chair. A Center Associate Director will be designated to perform the duties of the Center Director in the event that the Center Director is unable to perform his/her duties as Center Director.
 4. Site Directors
 - a. The Site Directors will be responsible for Center activities at their university and will report directly to their respective university administrators and to the Center Director. The Site Directors will serve as a liaison between the Center and the other Academic Researchers.
 - b. Funds are defined as NSF funds provided to the site, plus all funds (program income) from IAB members recruited by the site. The Site Directors will control the funds at their site.
 5. The CARFS MOU is an agreement among academic institutions participating in the center, describing how Sites will interact as part of the Center. The agreement addresses sharing of administrative and managerial responsibilities, handling of the collection and allocation of membership fees after project selection, the arrangement for annual certification of the collected membership fees and their sources at each Site, and intellectual property issues. This MOU shall be posted on the public portion of the Center Website.
 6. The University Policy Committee at each Site is available to resolve administrative issues related to the operation of the Center at that Site. A University Policy Committee for each Site comprised of individuals from the Institution Administration that facilitates the operation of the Site/Center while ensuring compliance with the policies of their respective universities.
 7. Other Participants in the Center include but are not limited to:
 - a. Project Principal Investigators. Project Principal Investigators will manage

specific research projects funded by the Center or Industry Members and will report directly to the appropriate Site Director, university administrator, and to the Industrial Advisory Board. Project Principal Investigators will be identified in specific project proposals.

- b. Administrative Support Staff. The Academic Researchers/Institutions will provide a reasonable level of clerical and accounting support for the operation of the Center.
- c. An Assessment Coordinator will provide an independent assessment of the operation of the Center as to the NSF Program Officer for the Center, as per NSF guidelines. The support of the NSF-appointed assessment coordinator is managed independently by NSF. Centers are required to provide all necessary data and materials to the Center assessment coordinator in a timely fashion, so that the assessment coordinator can fulfill his/her responsibilities.

Article 5: Administration

1. The IAB, Center Director and Site Directors will develop strategic plans for the Center and for recruiting new Industrial Members and Academic Researchers/Institutions to the Center.
2. The Center Director, in coordination with the Site Directors, with consideration of recommendations of the IAB, and in accordance with provisions of prevailing membership agreements, will authorize the use of membership fees by the Project Principal Investigators in support of Center research.

Article 6: Meetings

1. The Center Director, in consultation with the Site Directors and the IAB Chair, will establish the schedule of activities and meetings for the Center including establishing the agenda for the semi- annual IAB meetings.
2. The participating universities and IAB members for the Center will meet twice a year; once in the fall and once in the spring. The participating universities will host the meetings on a rotating basis with the date and location determined at the previous IAB meeting, or at least six months in advance.
3. IAB members that sign the membership agreement also agree to not share any

intellectual property outside the Center. IAB members are expected to:

- a. Attend both semi-annual IAB meetings, in person (barring circumstances out of their control). Video- or tele-conference participation during project selection procedures is discouraged but may be acceptable under rare circumstances;
 - b. Participate in the process of reviewing and recommending research to be funded; and
 - c. Full Members will vote on research projects and other research matters before the IAB.
4. Center meetings are closed to the public. Attendance is limited to representatives of member companies; faculty, staff and students of affiliated universities; and the Assessment Coordinator and other NSF personnel. In the event a prospective member would like to attend, that organization must sign a non-disclosure agreement (NDA) and would not participate in IAB voting.

Article 7: Research Project Selection

1. Projects will be proposed to the IAB by Site Directors at semiannual IAB meetings, and project funding allocations will be determined based on IAB project selection recommendations and Academic Leadership Team input. IAB full members shall recommend projects by voting, based on the amount of their individual membership contribution, for their preferred projects, which may occur at one or more sites in the CENTER. Where conflicts exist in matching voted allocation to project funding requirements, the Academic Leadership Team will work as a group and with the IAB to support IAB member needs at all SITES and to optimize the CENTER-wide impact of funding decisions.

Article 8: Intellectual Property (Patents, Copyrights and Licensing/Royalty Agreements)

1. The rules and program guidelines of the NSF IUCRC and the membership agreement shall be followed with regard to the administration of intellectual property. Intellectual property that results from CARFS-funded research shall be the property of the research site or sites where the work was performed.
2. If invention or discovery is made resulting from CARFS-funded research, the Principal Investigator (PI) shall submit an invention disclosure to the relevant department or office (i.e., Technology Transfer Office) associated with their Site. The PI, in conjunction with technology transfer office and/or university will then

forward the invention disclosure to the Center Director who will then forward the disclosure to all of the currently paid Members who have a signed NDA on file with CARFS.

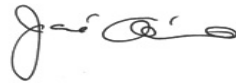
3. Members shall have 90 days from receipt of an invention disclosure to notify the disclosing University of the Member's desire to enter into a non-exclusive royalty-free license.
4. Patent rights eligibility is contingent upon having an active membership at the time of the invention disclosure. Members who join the Center after a disclosure has been filed are not eligible to the same patent rights as those Members who were active at the time of the invention's discovery. This also applies to Members who have lapsed membership and rejoin the Center at a later date.

Article 9: Miscellaneous

These By-laws may be amended at any time by an affirmative vote of the Academic Leadership Team, with the consent of two-thirds of the Industrial Advisory Board, as hereinafter defined.

Agreed, this is _27th day of August, 2019:

Florida International University



By: Jose R. Almirall,
PhD

FIU Site Director and CARFS Director

Agreed, this is ___ day of _____, 2019:

Texas A&M AgriLife Research

By: _____

Its: _____

Agreed, this is ___ day of _____, 2019:

University of South Alabama

By: _____

Its: _____

Agreed, this is ___ day of _____, 2019:

Boston University

By: _____

Its: _____