The current RFP can be found on the CSU ARI website at:

https://ari.calstate.edu/.

Policy and Procedure Manual
Effective: July 1, 2018
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GENERAL POLICIES AND PROCEDURES

Part I. Program Information

A. Overview

The Agricultural Research Institute (ARI) exemplifies the California State University System (CSU) working for California through university-industry partnerships. ARI provides a diversified, multi-campus applied research program that annually matches $4.37 million in State General Funds with at least one-to-one external support for research on high-priority issues facing California agriculture.

The ARI engages the collective expertise of the CSU’s four colleges of agriculture, defined as Member Campuses, at California State University, Fresno; California Polytechnic State University, San Luis Obispo; California State Polytechnic University, Pomona; and CSU, Chico. Associate ARI Campuses include CSU, Monterey Bay and Humboldt State. Faculty are encouraged to work collaboratively with faculty and research scientists from other CSU and University of California (UC) campuses, the USDA, and other State, Regional and Federal organizations. ARI’s research and technology transfer activities complement the basic research conducted by the nation’s land grant universities and aim to improve the economic viability and sustainability of California agriculture.

B. Mission

To support and fund applied agriculture and natural resource research within the California State University (CSU) system that improves the economic efficiency and sustainability of California agriculture.

C. Vision

California has diverse and abundant agricultural and natural resources. Through education and research, we envision the ARI being a valuable resource to the State on policy and informed decision-making based upon robust science to ensure the sustainability of California’s agricultural economy and the preservation of its natural resources.

D. Strategic Objectives

- Invest in applied research to address emerging and high-priority issues facing California agricultural and natural resource industries;
- Develop a highly-trained professional workforce for California agricultural and natural resource industries through student participation in research projects;
- Communicate research results to industry stakeholders, scientists and the public.

E. Organization

A Board of Governors serves as the policy and funding authority for the ARI. It consists of the four CSU Presidents from member campuses, the UC Vice President of Agriculture and Natural Resources, and
four industry representatives, one for each member campus. A Deans’ Council, consisting of the four deans of agriculture from member campuses, oversees the respective campus ARI operations, including annual budgets and matching fund certification, and reviews System proposals prior to Board review. Campus Coordinators are responsible for campus daily administration and research project oversight. A Logistics Group consists of Campus Coordinators and research administrators at both the college and university/auxiliary level who provide day-to-day support for the ARI. The Executive Director reports to the Board of Governors and is responsible for the overall performance of the CSU ARI.

**Board of Governors**

*Jeffrey Armstrong*, President, California Polytechnic State University, San Luis Obispo  
*Joseph Castro*, President, California State University, Fresno  
*Soraya Coley*, President, California State Polytechnic University, Pomona  
*Glenda Humiston*, University of California, Agriculture and Natural Resources  
*Gayle Hutchinson*, President, California State University, Chico  
*AG Kawamura*, Orange County Produce  
*Gregory Kelley*, President & CEO, Orange County Produce  
*William S. Smittcamp*, President, Wawona Frozen Foods  
*Donn Zea*, Executive Director, California Dried Plum Board

**Deans’ Council**

*Lisa Kessler*, Interim Dean, College of Agriculture, California State Polytechnic University, Pomona  
*John Unruh*, Dean, College of Agriculture, California State University, Chico  
*Andrew J. Thulin*, Dean, College of Agriculture, Food and Environmental Sciences, California Polytechnic State University, San Luis Obispo  
*Sandra Witte*, Dean, Jordan College of Agricultural Sciences and Technology, California State University, Fresno

**F. Organization Roles/Terms Policy**

1. **Board of Governors**
Role: Policy, procedures and funding authority for the CSU/ARI.

Responsibilities:
- Interface with the CSU Chancellor
- Approve the annual budget
- Approve the annual report
- Approve policies and procedures
- Approve funding for system-wide competitive research projects
- Annual evaluation of Executive Director by Chair and Vice-chair; in-depth evaluation by Board every third year.

Participants: Four CSU Presidents from California Polytechnic State University, San Luis Obispo (Cal Poly, SLO), California State Polytechnic University, Pomona (Cal Poly, Pomona), California State University, Chico (Chico State) and California State University, Fresno (Fresno State), and UC Vice President of Agriculture and Natural Resources, four industry representatives (one selected by each CSU Member Campus) and the Deans’ Council chairperson (serving in a non-voting administrative support position)

Terms: CSU Presidents and the UC Vice President serve as representatives of their respective institutions; industry Board members serve one term up to six years. Upon the completion of their term, the respective member campus will appoint a replacement for their industry representative Board member. After one year of separation from the Board, Industry representative Board members may be reappointed to the Board by a member campus.

Executive Roles: A chairperson and vice chairperson role is assigned on a two-year term, with each role alternating between a CSU President and Industry Board member each term period. The current vice chairperson assumes the chairperson role upon its vacancy. The Board elects a vice chairperson every two years. In the event that there is a vice chairperson vacancy as well as a chairperson vacancy, the Board will elect a Board member for each role. The purpose of the chairperson role is to preside over Board meetings and to generally represent the Board, with the vice chairperson role performing this function in the chair’s absence as needed.

Meeting Frequency: Board meets twice per year

2. Deans’ Council

Role: CSU/ARI strategic planning and campus operational oversight.

Responsibilities:
- Advise Executive Director on strategic and operational issues
- Oversee CSU/ARI campus operations
- Review system-wide proposals
• Submit annual allocation request including certification of matching funds

Participants: The four deans from the Member Campuses (Cal Poly, Pomona, Cal Poly, SLO, Chico State, Fresno State and the CSU/ARI Executive Director (serving in a non-voting administrative support position).

Terms: Members of the Deans’ Council serve as representatives of their respective colleges of agriculture.

Executive Roles: The Deans’ Council annually elects a chairperson to preside over Deans’ Council meetings and serve as a Council’s representative for the Board of Governors.

Meeting Frequency: The Deans’ Council meets as needed by conference call and/or on-site. On-site meetings are conducted at one of the respective campuses.

3. Executive Director

Role: Under general oversight from the CSU Chancellor and the leadership and direction of the Board of Governors the Executive Director is responsible for the performance, coordination and accountability of the ARI program. He/she shall report to the Board of Governors and work with the Deans’ Council, Logistics Group, research scientists, and agricultural and environmental industry and agency partners to promote and advance the program.

Responsibilities:

• Compile an annual report and summary of research
• Coordinate and staff regular meetings of the Deans’ Council
• Develop, allocate and administer the CSU/ARI annual operating budget
• Administer the annual System administrative budget
• Represent CSU/ARI at appropriate related meetings and events; serve as an advocate for ARI within CSU and other university communities, related industries, agencies and the general public
• Coordinate the solicitation, review and approval of system-wide proposals
• Identify and pursue opportunities of collaboration with other CSU Affinity groups and the UC System.
• Identify and pursue Federal, State and Commodity funding opportunities to support the ARI mission.
• Provide administrative oversight to the 19 non-member campuses that participate in the system-wide competitive grant program.
• Conduct an annual assessment of the effectiveness, a three-year rolling window and an overall comprehensive impact of the ARI program.
• Initiate coordinate and hire ARI staff in accordance with administrative campus Human Resources procedures.
• Conduct performance evaluations of ARI staff in accordance with administrative campus Human Resources procedures
• Track all CSU/ARI research, continuing education and information dissemination activity

In coordination with and assistance from the Logistics Group:
• Compile, prepare, present and interpret financial information, proposals and reports as requested by the Board
• Provide direction, coordination and oversight of CSU/ARI operations, policies and procedures; maintain an up-to-date Policies and Procedures manual
• Identify issues, solutions and develop strategic initiatives for the Board to consider
• Review CSU/ARI-sponsored projects for conformity with established budgets, timelines, dissemination plans and objectives
• Assist Campus Coordinators with the management and reporting of state and related external matching research funds
• Initiate and oversee the request for proposals (RFPs)
• Coordinate a comprehensive annual dissemination plan including dissemination meetings, research notes, bulletins, pamphlets and reports
• Collect and review all campus research proposals and reports (interim, annual and final) and insure that they are in conformity with CSU/ARI established formats, budgets, timelines, objectives and dissemination guidelines
• Provide campus direction, coordination and oversight of CSU/ARI operations, policies and procedures
• Develop, allocate and administer the campus’ annual CSU/ARI operating budget
• Serve as the campus’ research projects final expenditure approval authority
• Disseminate appropriate CSU/ARI related information to all campus research faculty and staff
• Serve as an administrative member of the campus technical review and award committee

Performance Evaluation: Reviewed by the Chair and Vice-Chair annually; in-depth evaluation by Board every third year. (Effective 4/19/17)

Term: Serves at the discretion of the Board of Governors.

Meeting Frequency: Attends all Board of Governors, Deans’ Council and Logistics Group meetings.

4. Logistics Group

   a. Campus Coordinators

Role: Responsible for CSU/ARI local campus daily administration and research project oversight. They are the responsible campus contact person for both the CSU/ARI Executive Director and their own respective campus research staff.
Participants: One Campus Coordinator is appointed for each ARI member campus, at the discretion of the College of Agriculture Dean.

Responsibilities: Campus Coordinator’s specific responsibilities will vary from campus-to-campus depending on the size and complexity of the respective College of Agriculture’s research programs. All Campus Coordinators, or their designee, are responsible for the following:

- Communicate regularly with the CSU/ARI Executive Director
- Assist the Executive Director with the management and reporting of state and related external matching research funds
- Manage proposals and projects in InfoReady
- Verify and document the campus’ CSU/ARI external matching fund requirements
- Collect and review all campus research proposals and reports (interim, annual and final) and insure that they are in conformity with CSU/ARI established formats, budgets, timelines, objectives and dissemination guidelines
- Provide campus direction, coordination and oversight of CSU/ARI operations, policies and procedures
- Develop, allocate and administer the campus’ annual CSU/ARI operating budget
- Serve as the campus’ research projects final expenditure approval authority
- Disseminate appropriate CSU/ARI related information to all campus research faculty and staff
- Serve as an administrative member of the campus technical review and award committee

Terms: Serves at the discretion of the College of Agriculture Dean.

Meeting Frequency: Attends Logistics Group Meeting twice per year.

b. Other Campus Research Administrative Personnel

Role: Individuals are identified by Campus Coordinators, as being responsible for CSU/ARI local campus daily administration and research project oversight.

Participants: One or more people may be selected by the Campus Coordinator to perform tasks related to the acquisition and administration of CSU/ARI funds, proposal submission and project management. One person is selected by the Campus Coordinator to serve as Campus Point Person, the individual responsible for the online management of proposals and projects.

Responsibilities: These vary campus-by-campus, but are delegated by the Campus Coordinator.
Terms: Serve at the discretion of the College of Agriculture Dean and/or other appropriate administrative personnel.

Meeting Frequency: Attends Logistics Group meetings.

5. Administrative Analyst

Role: Assists the Director in all aspects of ARI administration and is responsible for the administrative coordination and duties related to the overall operation of the CSU ARI Program.

Responsibilities:

- Coordinate the day-to-day operations of the ARI central administration
- Prepare Governing Board meeting packets and other written communication
- Provide counsel regarding financial data, policies and administrative procedures
- Assist the director in the development of outreach and marketing materials

Meeting Frequency: Attends all Board of Governors and Logistics Group meetings.

G. Funding Allocation

The four ARI member campuses collectively receive $4.00 million annually in State General Funds from the California legislature to support applied agriculture and natural resource research. The Chancellor’s Office provides supplemental funding to support the ARI applied research mission on Associate Campuses (Humboldt State and Monterey Bay). The Board of Governors serves as the funding authority for the ARI and approves the annual budget and system-wide competitive research projects. Following passage of the CA Governor’s budget, which includes the CSU request for ARI funding, the ARI administrative office requests the transfer of Institute funds and are allocated as below. Historical allocation data is available upon request to the ARI System office.

<table>
<thead>
<tr>
<th>Allocation Summary</th>
<th>2018-19 Amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>System-wide</td>
<td>$1,082,223</td>
</tr>
<tr>
<td>Cal Poly Pomona</td>
<td>$713,119</td>
</tr>
<tr>
<td>Cal Poly, San Luis Obispo</td>
<td>$817,806</td>
</tr>
<tr>
<td>Chico State</td>
<td>$589,046</td>
</tr>
<tr>
<td>Fresno State</td>
<td>$817,806</td>
</tr>
<tr>
<td>CSU Monterey Bay**</td>
<td>$100,000</td>
</tr>
<tr>
<td>Humboldt State**</td>
<td>$250,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$4,370,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Allocation Detail</th>
<th>2018-19 Amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>System - admin</td>
<td>$306,767</td>
</tr>
<tr>
<td>System – projects***</td>
<td>$775,456</td>
</tr>
<tr>
<td>Cal Poly, Pomona - admin*</td>
<td>$85,000</td>
</tr>
<tr>
<td>Cal Poly, Pomona – competitive***</td>
<td>$628,119</td>
</tr>
<tr>
<td>Institution</td>
<td>Type</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Cal Poly, Pomona</td>
<td>capacity</td>
</tr>
<tr>
<td>Cal Poly, San Luis Obispo</td>
<td>- admin*</td>
</tr>
<tr>
<td>Cal Poly, San Luis Obispo</td>
<td>– competitive***</td>
</tr>
<tr>
<td>Cal Poly, San Luis Obispo</td>
<td>– capacity</td>
</tr>
<tr>
<td>Chico State</td>
<td>- admin*</td>
</tr>
<tr>
<td>Chico State</td>
<td>– competitive***</td>
</tr>
<tr>
<td>Chico State</td>
<td>– capacity</td>
</tr>
<tr>
<td>Fresno State</td>
<td>- admin*</td>
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<tr>
<td>Fresno State</td>
<td>– competitive***</td>
</tr>
<tr>
<td>Fresno State</td>
<td>– capacity</td>
</tr>
<tr>
<td>CSU Monterey Bay</td>
<td>- competitive**</td>
</tr>
<tr>
<td>Humboldt State</td>
<td>-- competitive**</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
</tbody>
</table>

* Effective FY 13-14 campus administrative funds were increased to $85,000 yearly. $5,000 of each member campus' administrative funds are provided by System Administration carryforward funds ($20,000 per year).
** Associate member funding allocated for the FY 14-15 and 15-16 (up to 10% of competitive funds may be used for administration purposes, 100% of allocation must be matched 1:1)
*** In FY 17-18 and 18-19, the four campuses and system research allocation dollars were decreased by ~3% to cover the shortfall of the system admin allocation for the increase in time commitment for Executive Director from .5 to 1.0 FTE.

1. **Research Priorities**

The ARI’s State funding must be annually matched at least one-to-one with industry and/or other non-CSU State General Funds to support high-impact applied agricultural research. Priority is given to research conducted through university-industry and/or collaborative multi-college/university partnerships that demonstrate the potential to improve the economic efficiency, productivity, profitability, and sustainability of California agriculture and its allied industries. Project results dissemination and technology transfer should lead to increased consumer awareness and confidence in our environmentally sound and science-based food and agricultural systems. The ARI primarily focuses on finding immediate and practical solutions for high-priority challenges facing California agriculture in the following broad research categories that have the potential to affect the sustainability and profitability of California agriculture (for full descriptions of each research priority area please visit the ARI website at [https://ari.calstate.edu](https://ari.calstate.edu)):

- Agricultural Business
- Biodiversity
- Biotechnology
- Food Science/Safety/Security
- Natural Resources
• Production and Cultural Practices
• Public Policy
• Water and Irrigation Technology

Based on State, national, and global challenges driven by environmental and regulatory concerns, new technology, and international competitiveness, California agricultural industry representatives, the ARI Board of Governors and the CSU’s Agricultural Advisory Council (AAC) recommended that an additional priority be given to projects specifically addressing the following research topics in agriculture:

• Climate change, air quality, greenhouse gas emissions and carbon sequestering
• Food safety and security practices and technologies
• Water quality, infrastructure, and conveyance technologies
• Energy efficiencies and alternative energy/fuel technologies and production
• Environmental infrastructure improvement and restoration
• Invasive species monitoring, prevention and eradication
• Public health and safety priorities

Part II. Programmatic Terms, Conditions, Policies and Procedures

A. Eligibility

Project Directors for Campus (and Seed) ARI projects must be faculty (tenure-track or adjunct), lecturers or research scientists with campus-defined eligibility from the member or associate campus which receives the ARI allocation.

For System projects, Project Directors may be faculty (tenure-track or adjunct), lecturers or research scientists with campus-defined eligibility from their respective CSU campus.

B. Allowable Costs

1. Administrative Costs

Administrative costs are only allowable if they meet the 2 CFR 200 guidelines for reasonability, allocability and consistency for such costs across all sponsored research at the recipient institution. Administrative costs, including accounting fees, processing fees, or any other indirect costs are not allowed on individual projects. Indirect costs defined as per uniform guidance (2 CFR 200) are unallowable on individual projects.

2. Capitalized Equipment Purchase and Ownership

All equipment purchased with ARI funding shall remain the property of the recipient CSU college, unless otherwise requested and approved in writing. Project directors are responsible for maintaining and servicing purchased equipment for the duration of the project.
3. Budget Revisions

When any budget category (i.e. A-G on ARI spreadsheet) deviates by 20% of that category, a rebudget is required and requires approval by the Campus Coordinator. No project expense may exceed the total project budget. Each campus may elect rebudget criteria that are more restrictive, but not less restrictive, than that stated above.

4. Indirect Charges

Pursuant to ARI policy adopted by the Board of Governors regarding indirect charges, the ARI does not allow the imposition of any indirect charges to ARI State General Fund funded projects, contracts, subcontracts, and/or the transfer of portions of a project budget between colleges, centers, campuses, university systems, or other public or private agencies. Each ARI Campus receives an allocation to support administration of the program on that campus; any additional administrative fees and/or indirect charges cannot be built into individual projects, this includes transaction fees charged by the campus Foundation or other auxiliary. Unrecovered indirect costs are not allowed as part of a match.

5. Project Personnel Added Compensation Policy

For faculty, additional employment is sometimes referred to as “overload”. The CSU policy for faculty allows additional employment of up to 25% of a full-time position in excess of a full-time workload, or when appropriate, in excess of a full-time timebase. These policies, limitations and calculations are based on time, not salary (http://www.calstate.edu/hradm/pdf2002/hr2002-05.pdf).

For non-faculty state employees, no additional employment or overload pay is allowed as part of CSU-ARI funding per the State of California Public Contract Code section 10831 (http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=PCC&sectionNum=10831).

Non-CSU collaborating personnel cannot receive additional compensation from ARI funds when their project contributions are related to and part of their official duties for their agency or employer for which they receive compensation.

Additional employment is allowed on non-CSU matching funds as permitted by Sponsor.

6. Travel

All travel is allowed on a CSU-ARI project providing that it is necessary for the performance of the project and dissemination of its results. All travel expenditures must be in accordance with CSU or auxiliary travel guidelines. Travel funding must be pre-approved by being in the proposal or approved through a campus re-budget process.
• ARI PI Meeting – PI’s with system grants are required to attend the annual PI meeting. PI’s with a campus grant of $150,000 over the lifetime of the grant or $75,000 in a single year are required to attend. Travel funds should be requested in the proposed budget to support attendance of the meeting every year during the life of the grant. Please identify lodging, per diem and travel costs plus other anticipated costs.

7. Hospitality

Administrative funds can be used to host or attend a conference or meeting that is consistent with its approved application and is reasonable and necessary for successful performance and to achieve the goals of the ARI administrative duties. In these cases, the primary purpose of the meeting is to disseminate technical information on specific programmatic requirements, best practices, coordinate work, or to conduct training or professional development. All applicable statutory and regulatory requirements in determining whether costs are reasonable and necessary are defined in 2 CFR 200 (Uniform Guidance). Such allowable costs may include rental of facilities, speakers’ fees, costs of meals and refreshments, local transportation, and other items incidental to such conferences unless further restricted by the terms and conditions provided in the ARI Policies and Procedures Manual. Meals and refreshments that are an integral and necessary part of the conference or meeting are allowable in as far as they are “working meals” where business is transacted.

C. Campus Policies vs. System Policies

Where no ARI policy exists, the applicable institutional policy and Federal cost principles will govern. In the case of a discrepancy between the special conditions of an ARI grant and the institutional policy or Federal cost principles, the most restrictive policy or principle will apply.

Campuses may have provisions to accept proposals outside the timeline specified in the RFP as long as the awarded projects follow the procedures specified for start date and can still be accommodated in the allocation process within the same fiscal year as the regular projects.

D. Citations

In any news release or public conference initiated by the issuance of a news release, during the conduct of any public conference, and/or within the release of any publication, newsletter and/or project summary, the following statement must be included: “Partial funding for this project has been provided by the California State University Agricultural Research Institute (ARI).”

E. Confidentiality of Proposals

The ARI receives research proposals in confidence and is responsible for protecting the confidentiality of their submission and contents. Proposals and accompanying attachments made accessible for administrative and review purposes may contain privileged and/or confidential information only for
use by the intended recipient(s) for the express purpose of financial, technical, and/or scientific review and evaluation. Recipients of these materials are also charged with maintaining the confidentiality of their contents. If you have received a hardcopy proposal and/or electronic proposal access in error, please immediately notify the appropriate ARI system and/or campus administrator (ARI Executive Director or Campus Coordinator) listed in the contact page of the ARI Request for Proposals, section VIII. Recipients of a hardcopy proposal and/or electronic proposal access MAY NOT copy, quote, distribute, or otherwise use material from an ARI proposal submission without the expressed written consent of its author(s), unless required by law.

F.  Conflict of Interest

The CSU-ARI mission to use applied research to solve current problems using matching funds from external sources may result in a situation in which involved parties find themselves with overlapping roles, involvement and/or investiture.

The CSU and ARI address this issue by requiring compliance with the policy outlined in the Chancellor’s Office memo, HR 2015-05, entitled “Conflict of Interest Policy for Principal Investigators”. http://www.calstate.edu/HRAdm/pdf2015/HR2015-05.pdf . In these cases, a Form 700-U is required to be filed by each CSU person with a Key Personnel role.

To prevent an actual or perceived conflict of interest, any person who would potentially benefit from ARI research funding shall not be involved in matters pertaining to those funding decisions. Any eligible campus member (defined under II.A), including those in management (MPP) roles, the Executive Director, Campus Coordinators and faculty can submit to either System or their respective Campus competitions. In a granting cycle where a person submits their proposal for consideration of funding, they shall recuse themselves from participating in all matters pertaining to the review and funding recommendation of proposals being considered during that funding cycle. Should the Executive Director submit a proposal to the System competitive funding, they shall not be involved in any proposal-related activities normally performed (described in section C.3) for that funding cycle. Instead, the Administrative Analyst under the general direction of the Chair of the Deans’ Council shall take over those duties for that funding cycle.

G.  Indemnification

Each Campus is responsible for ensuring that an indemnification statement is incorporated into all agreement(s) with contractor(s) and subcontractor(s) and/or any other recipient(s) of ARI project funds. ARI recognizes the differing requirements of each ARI member and associate campus and by this reference makes each campus’ relevant policies, procedures, and directives a mandatory part of any ARI agreement(s) with contractor(s) and subcontractor(s) and/or any other recipient(s) of ARI project funds from each respective campus. A sample clause is provided below:
“(Auxiliary name)” shall defend, indemnify and hold harmless Company, its officers, employees and agents from and against any and all liability, loss, expense, attorney's fees, or claims for injury or damages arising out of the performance of this Agreement but only in proportion to and to the extent such liability, loss, expense, attorney's fees or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of the Subcontractor, its officers, agents or employees.

Company shall defend, indemnify and hold harmless (Auxiliary name), (CSU Campus) State University, Trustees of the CSU, the State of California, its officers, employees and agents from and against any and all liability, loss, expense, attorney's fees, or claims for injury or damages arising out of the performance of this Agreement, but only in proportion to and to the extent such liability, loss, expense, attorney’s fees or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of the Company, its officers, agents or employees.”

H. Intellectual Property Policy

ARI project funding is restricted to public domain endeavors, therefore all intellectual property which is created or developed with ARI funding shall be subject to federal and state laws, all California State University applicable collective bargaining agreements, and individual campus policy. A declaration of pre-existing intellectual property must be noted on the “Data Sharing and Use of Preexisting Intellectual Property” form and submitted along with the proposal.

I. Matching Funds

ARI Cash Match vs. Traditional Cost-Share
In the spirit of the original strategic plan, CSU-ARI defines the acquisition and use of cash match as follows:

- Received and available.
- Project-related.
- Match must be received by the PI or the Co-PI.
- Not from the CSU General Fund or other similar funds such as State Lottery funding for CSU, student fees, or unrecovered indirect costs.
- Project match must be documented and verified between six months prior and six months post either the start of the fiscal year (July 1) or notification by the ARI Executive Director of ARI fund availability, depending on campus policies and procedures. For match arriving prior to six months before the project start date, only the available balance at the six months prior date is allowed as project match.
- May be received and expended up to 6 months prior to the start date or anniversary date for second and third year funding. Receiving future year match funding is allowed in earlier years for multiple-year projects – “front loading”.
- May be received no later than 6 months later than the project start date or anniversary date for second and third year funding.
• No CSU-ARI funds will be released for projects until cash match is in-hand. Funding release may be pro-rated for reduced expected match.
• Must be received on the CSU campus receiving the award or sub-award. Matching funds at other non-CSU institutions are considered “in-kind” only.
• If allowed by campus policy, matching funds may be expended up to 90 days beyond the ARI project end date. Matching funds may be expended beyond the 90 days, for dissemination purposes only.
• Unrecovered indirect costs cannot be used as match.

These practices also meet the 2 CFR 200 criteria for “cash” and “in-kind” as defined in section, 200.306 Cost sharing or matching.

J. Reduction or Termination of CSU/ARI Funding

In the event that CSU-ARI funding at the State level is reduced or eliminated in any year, the campuses may suspend all CSU-ARI project spending pending implementation of article 6 “Guidelines for Suspension of Members and/or Dissolution of ARI Program” in the EO 1103 for expenditure of funds on-hand.

K. Research Misconduct

CSU-ARI expects that every recipient of awards will abide by the policies and procedures in place at their institution as mandated by CSU EO 890 section 2.2 and by OSTP 65 FR 76260.

L. Use of Human Subjects/Vertebrate Animals/Recombinant DNA

1. Human Subjects

The grantee is responsible for the protection of the rights and welfare of human subjects involved in research supported by ARI. In addition, ARI research involving human subjects must comply with CSU Executive Order 890, sect. 3.4.2 (http://www.calstate.edu/oe/oe-890.pdf) and applicable campus policy.

2. Vertebrate Animals

Any grantee performing research on vertebrate animals shall comply with the Animal Welfare Act [7 U.S.C. 2131 et seq.] and the regulations promulgated thereunder by the Secretary of Agriculture [9 CFR 1.1-4.11] pertaining to the humane care, handling, and treatment of vertebrate animals held or used for research, teaching or other activities supported by ARI. ARI research involving human subjects must comply with CSU Executive Order 890, sect. 3.4.2 (http://www.calstate.edu/oe/oe-890.pdf) and applicable campus policy.

3. Research Involving Recombinant DNA Molecules
ARI grantees performing research involving recombinant DNA are subject to the Guidelines for Research Involving Recombinant DNA Molecules (NIH Guidelines) (https://osp.od.nih.gov/biotechnology/nih-guidelines/) and applicable campus policy.
PROPOSAL POLICIES AND PROCEDURES

Part I. Proposal Review Process

System pre-proposals will be collaboratively evaluated and ranked by the Deans’ Council and the Executive Director in accordance with the criteria identified below prior to the requests for full proposals to determine 1) alignment with one or more of the ARI research priority areas, 2) statewide significance of the proposed research, and 3) appropriate level of collaboration. System proposals involving multiple CSU campuses will receive priority.

A. System Full Proposals

System full proposals are first reviewed by Subject Matter Experts (SME) identified by the ARI Executive Director. Reviewer comments are then considered during a second review by the Executive Director and ARI Deans’ Council, who collectively recommend the top proposal(s) to the ARI Board for final approval.

B. Campus Proposals

Campus proposals are reviewed by technical review committees comprised of campus and other subject matter experts chosen by the campus ARI personnel. See applicable guidelines under Part II.F. Conflict of Interest.

All reviewer copies of proposals should be destroyed at the conclusion of the review process to ensure confidentiality.

Part II. Proposal Evaluation Criteria

Reviewer Notice: Proposals are confidential as per General Policies and Procedures Part II. E.

Full proposals will be evaluated by peer reviewers using the criteria listed below. In addition to asking reviewers to numerically score each of the proposal subsections listed, they are asked to provide comments and/or suggestions they believe may enhance the proposal goals and/or outcomes.

a. Problem/Issue to be Addressed (20 points)

Determine whether the problem is addressed clearly and presented convincingly. The Project Director should demonstrate a clear understanding of the significance of the problem, which should be solvable. Determine whether other researchers are addressing this problem, and whether the Project Director demonstrated a thorough understanding of related work that has been reported by others.

b. Statement of Methodology (25 points)
Determine whether the proposed methodology is sound and whether there are any significant limitations associated with the proposal design. Determine if pitfalls and possible solutions were identified. Determine whether the proposal indicates data will be collected and analyzed, whether the major objectives and milestones of the proposal have been identified, and whether they are appropriate. Evaluate whether the timeline of proposed activities is realistic and appropriate to the work proposed, and whether the objectives can be achieved using the approach identified. If matching funds were required, has the relevance of those funds been addressed, including non-overlap of objectives except in the case of direct cost-share?

c. Dissemination Plan (10 points)

Determine whether the information dissemination activities proposed are adequate, that they primarily address California farmers’, ranchers’, and/or agribusiness concerns (a requirement for all ARI funded proposals), and that they are well thought out.

d. Evidence of Economic Impact to the California Industry and Consumer (15 points)

Evaluate the value of the work proposed relative to California agriculture, agribusiness, food and natural resources. Determine whether the agricultural industry’s recognition of this problem as being high priority was economically accurate. Establish that industry has provided adequate support for this project or justified why it cannot.

e. Proposal Outcomes Evaluation Plan (5 Points)

Evaluate whether the methods proposed to assess the final project outcomes will determine whether or not objectives stated in the original proposal have been achieved. Evaluate if the milestones appear reasonable and achievable.

f. Staff Needs/Researcher Qualifications and Collaboration (10 points):

Determine whether the proposal clearly describes the qualifications of the Project Director and other key personnel to solve the identified proposal problem (training, education, demonstrated awareness of the issue) and whether the level of staffing is appropriate. Determine whether the roles of all the key personnel have been clearly defined. Student involvement is strongly encouraged.

g. Budget Appropriateness (15 points)

Evaluate whether the resources requested are appropriate to the work proposed and whether there are more efficient ways to conduct the project. Determine whether there is a clear relationship between the resources requested and the work proposed.

Part III. Review Process for ARI System Proposals

Steps in the review of System proposals:
1. The Executive Director will identify and contact Subject Matter Experts (SME) to read and review single proposals for the current funding round.

2. The SME reviewers will comment on each proposal’s scientific merit, research methodology, budget appropriateness, results dissemination plan, economic impact and relevancy to the California agriculture industry, per the evaluation criteria described in the Request for Proposals. A Proposal Review Sheet (Appendix II) will be provided to reviewers.

3. Deans’ Council members and the ARI Executive Director will conduct a separate review of System proposals. SME reviewers’ comments will be summarized for the Deans prior to a conference call with the Executive Director to discuss all System proposals for funding.

4. The ARI Executive Director will provide a summary of Dean’s and SME reviewer comments and recommend System proposals for funding to the ARI Board of Governors.
PROJECT POLICIES AND PROCEDURES

Part I. Project Director Meetings

Principal Investigators (or their non-student designee) with system grants are required to attend the annual PI meeting. PI’s with a campus grant of $150,000 over the lifetime of the grant or $75,000 in a single year are required to attend. In addition, Campus Coordinators are responsible to ensure that new Project Directors are provided an ARI orientation prior to the project start date.

Part II. Project Start Date

A project’s start date is either 1) the start of the fiscal year or 2) the date of notification by the ARI Executive Director of ARI fund availability, depending on campus policies and procedures. Single and multi-year project anniversary dates are observed in 12-month intervals commencing on each project’s start date.

Part III. InfoReady Documentation Checklist/Data Entry Policy/Instructions

It is the responsibility of the Campus Point Person to ensure that proposals are complete and in full compliance with the annual Request for Proposals. Additionally, they must ensure proper, accurate and complete entries into the InfoReady for all project data.

Part IV. No-Cost Extensions

For Member Campus funded projects, the Executive Director and/or Campus Coordinators or other authorized designee(s), in consultation with the respective campus Dean, may approve up to two separately requested, one-year, no-cost extensions when requested by a Project Director and accompanied with an appropriate written justification. Requests for no-cost extensions related to Member Campus funded projects must be submitted to the Campus Coordinator via email with an appropriate technical justification. No-cost extension requests must be submitted at least 30 days prior to the current project expiration date.

Associate Campus funded projects may request a no-cost extension in consultation with the Executive Director. The Executive Director may approve up to two separately requested, one-year, no-cost extensions when requested by a Project Director and accompanied with an appropriate written justification. Requests for no-cost extensions related to Associate Campus funded projects must be submitted to the Executive Director via email with an appropriate technical justification. No-cost extension requests must be submitted at least 30 days prior to the current project expiration date.

Part V. Changes in Project Budget, Direction or Management

A. Changes in Project Budget
Changes in project budgets, for both system and campus projects, are at the discretion of the campus and subject to any applicable campus policies as long as they include both reasons for augmenting line items and reasons why decreased budgeted lines no longer need the funding previously budgeted. Please see part II.B.3. in the General section for line item flexibility.

B. Changes to Project Objectives or Scope

Neither the objectives nor the scope of the project stated in the proposal or agreed modifications thereto should be changed without prior CSU ARI approval. Such changes should be proposed by the Project Director to the Campus Coordinator for campus-funded projects and the Executive Director for system-funded projects. If approved by CSU ARI, the relevant Campus Coordinator may amend the grant.

C. Changes to Project Management

The decision to support a proposed project is based to a considerable extent on the qualifications of the proposed Project Director and other personnel. The named Project Director is ultimately responsible for all aspects of the project (see Project Director in Glossary). In the event that a Project Director is unable to complete their obligation to a project, they should notify the appropriate Campus Coordinator, who shall take the necessary actions to ensure completion or closure of the project.

- When a Project Director transfers to another CSU-ARI member or associate campus, the project funding balance may be transferred. If project funding needs to be transferred between ARI campuses, the process shall be for the receiving campus to invoice for the funds.
- When a Project Director cannot continue in that role while on campus or if a Project Director moves to any other organization than an ARI member or associate campus, they have the option to select a replacement from their campus (who meets the eligibility criteria) and request a transfer of Project Directorship through the procedures in place on that campus for this purpose.
- If a Project Director moves away from an ARI member or associate campus and does not opt for a change of Project Directorship, the project will be closed. The original Project Director remains responsible for a Final Report which is due within 90 days of project close.

Part VI. Reports

A. General Information

While Campus Coordinators, their respective designee(s), and other appropriate administrative staff will make every reasonable effort to assist Project Directors in meeting progress reporting obligations, Project Directors are responsible for timely and accurate financial and programmatic progress reporting. Future funding and proposal submission approval may be withheld from Project Directors with progress reporting delinquencies or poor project management.
ARI progress reports must be completed using the appropriate online interactive Annual Assessment or Final Report Templates available in the Progress Reports section of the ARI website.

B. Annual Reports

Yearly submission of an annual progress report is required for projects on August 15, annually, except in the year when the project is completed, in which case a final report is due within 90 days after a project’s scheduled completion date.

C. Additional Annual Reports as a Result of a No-Cost Extension

If no-cost extensions are approved, additional annual reports will be required on August 15 of the extension year, except for the final year when the project is completed, in which case a final report is due within 90 days after project completion.

D. Final Reports

Final reports for all projects are due within 90 days after a project’s scheduled completion date.

It is essential that ARI research is understandable and relevant to our stakeholders, including the agricultural community and general public. To this end, Project Directors may be contacted by the ARI Executive Director or administrative staff to assist in preparation of public impact statements that describe the project’s findings and justify the use of ARI funds. Executive Summaries of Final Reports should be written with this in mind.

Part VII. Poor Performance

Project Directors are expected to fulfill all obligations as defined in the Glossary. Less than satisfactory performance on a CSU-ARI project can result in suspension of current or future funding at the discretion of the Campus Coordinator/Dean.

Poor performance can include, but is not limited to the following:

- Late submittal of a required Annual or Final Report – defined as more than 60 days late after a reminder from the Campus Coordinator.
- Extremely late Reports – defined as more than 180 days past due with at least 2 reminders from the Campus Coordinator.
- Unapproved change in scope.
- Exceeding budget line items by more than 20%.
- Exceeding the awarded project fund total.

Part VIII. Allocation Process for Campuses

Through state legislation, ARI funding is allocated annually by formula to member campuses for projects and administration. Additional System competitive research funding, as awarded, will also be allocated.
In addition, funding to Associate Campuses is allocated through a separate funding mechanism through the Chancellor’s Office on a year-to-year basis. For FY 16-17 years amounts of $100,000 for CSU Monterey Bay and $250,000 for Humboldt State University were allocated. Up to 10% of Associate Campus funds may be used for administration purposes with 100% of the allocation requiring a 1:1 match. Indirect or administrative costs cannot be included as a line item within any project budget.

A. Notification

The Executive Director will notify member and associate campuses when the annual CSU ARI funds have been received from the Chancellor’s Office.

B. Dean’s Allocation Request and Certification Letter

Each Campus Dean is to send the Allocation Request Letter (see Appendix III) to the Executive Director for campus and system competitive research funding (if applicable), certifying: 1) the proposals/projects are in the appropriate format; 2) meet/exceed minimal ARI requirements and match; and 3) Project Directors are in compliance with all previous ARI awarded project reporting requirements. Campuses are also to provide their procedures for ensuring that match is documented and uploaded to the InfoReady system and that all data entry into InfoReady is accurate.

C. Allocation Spreadsheet

Campuses are to use the allocation spreadsheet template to list the details of each project, including its external match.

Each proposal will automatically be assigned a number upon submission. A proposal that has been selected for funding will retain the proposal number as its ARI project number. The proposal/project format number is “AA-BB-CCC” where “AA” is the fiscal year of initial funding, “BB” is the campus number designation and “CCC” is the project/proposal number assigned in the order received. The campus numbers are: 01=System; 02=Fresno; 03=Cal Poly, SLO; 04=Cal Poly, Pomona; 05=Chico State; 06=Humboldt; 07= CSU Monterey Bay. All non-ARI member campuses will apply through the System competition and will receive a campus number of “01” regardless of campus.

Campuses update InfoReady with all project information, upload proposals and match documentation, and update the screens for first, second and third year of funding. Since this is the system all campuses will use for ARI, all screens should be completed for all ARI projects.

Once the allocation request has been received, the Executive Director will review the allocation request and proposals to ensure the submitted projects are consistent with ARI policies, mission and objectives. The program will fund the best applied agricultural science to leverage available resources to maximize impact and benefit in fulfilling the ARI mission in a way that does not dilute the mission, focus or effectiveness of the program.
Projects that fall outside the scope of the ARI policies, mission and objectives will be identified during the review by the Executive Director. Specific issues that contribute to the project’s non-compliance will be identified in writing by the Executive Director and communicated to the Dean and Campus Coordinators of the respective campus. The Project Director, working with the Dean and Campus Coordinator, will be provided an opportunity to address the issues to bring the project into compliance. When this is not possible, the project will not be funded.

D. Allocations

An annual campus funding request must include at a minimum a one-to-one external match for individual research projects. It is expected that the annual campus funding will be matched at least one-to-one in aggregate to compensate for seed grants that do not require individual match. At least 25% of the minimum required match must be cash.

Campuses may request more than one allocation order per year. A partial allocation request may be submitted as soon as one project has enough match to meet the InfoReady allocation order requirements.

E. Insufficient Match

Occasionally, individual research projects may fall short of required matching funds 1) prior to campus allocation of ARI funds or 2) after ARI allocations are sent to the campus.

1. Pre-Allocation Match Shortfall

Individual campus projects, with the exception of seed grants, are required to be matched in full before receiving an allocation from the ARI Administrative office. Additionally, the campus aggregate allocation must be matched in full. If an individual project or the overall campus aggregate match falls short, the campus may request a partial allocation for the other projects that have met the match requirement. The unallocated campus ARI funds for that year will be available for use either that year upon verification of suitable match, or may be carried forward to the next year’s campus allocation. If a campus intends to partially fund a project that does not have the full match in-hand, the P.I. must revise the budget, the scope of work and objectives for the revised award amount. Please note that the match is subject to conditions specified in Part II, Section I regarding project start dates and period of performance, or it will not be approved.

If a system project falls short of match, a partial funding allocation will be made to the campus hosting that project. The unallocated ARI funds for such projects will be available for use by future system projects among the eligible campuses.

2. Post-Allocation Match Shortfall
If a campus lacks matching funds from ARI campus projects equal to its required aggregate match after the final allocation of that year’s ARI funds has been received, the subsequent year’s allocation to that campus will be reduced by this shortfall amount. The unallocated campus ARI funds in that year will then be available for use by the following year’s campus projects for that campus’ use.

If a system project falls short of match, the next year’s allocation to the campus hosting that project will be reduced by the shortfall amount. The unallocated ARI funds for such projects will be available for use by future system projects among the eligible campuses.

Associate (non-member) campuses must cover any match shortfall in the final year of a system project or campus competitive project; or return unmatched project funds to the ARI administrative office at project’s end.

Part IX. Recordkeeping

A. Responsibility

Campuses are responsible for all project financial information and retention. System administration is only responsible for keeping its own financial information.

B. Grant/Project Closeout

Grant closeout is the process by which CSU-ARI determines that all required work and applicable administration has been completed. All expenditures must occur prior to the end date of the project. Grants are considered closed 90 days after the end date or with the submittal of the Final Report, whichever occurs last. (See Reporting.)

Any remaining funds in a CSU-ARI project should be transferred to a rollover account at the administering campus. These funds should be used first for future awards. These amounts should be reported on the annual Allocation spreadsheet. (See Allocations.)

C. File Retention Policy

All ARI project records must be kept for a period of three years following the submission and acceptance of a final report.

If no final report is received, all project records will be kept for a period of three years following the end date of the project. Campuses are responsible for demonstrating that due diligence was done to obtain the missing report.
GLOSSARY


Associate Campuses  CSU Monterey Bay and Humboldt State University.

ARI  The California State University Agricultural Research Institute.

Campus Coordinator  Campus Coordinators are the individuals at each ARI member campus responsible for ARI campus administration, local program oversight and collaboration with the ARI Executive Director.

Campus Funding  Campus funding is ARI funding disbursed directly to member or associate campuses in support of intra-campus competitive agricultural and natural resources applied research.

Campus Point Person  The individual on member and associate campuses with primary oversight of the campus’ entries into the InfoReady system. This individual has the responsibility to ensure completeness, accuracy and compliance with the Request for Proposals in the pre-award phase and proper data entry for the project/post-award phase.

Cash Match  Cash match is defined as any cash, check and/or other negotiable United States currency contribution made by non-CSU State General Fund sources that directly benefits and is specifically pertinent to an ARI or ARI master grant funded project. An allowable match directly benefits and is specifically pertinent to an ARI or ARI master grant funded project and must be received by the ARI P.I. or co-PI. For system projects, cash match from both the PI and co-PI CSU campuses will be counted and the cash must reside on one of the two CSU campuses.

Cooperator  Cooperators are scientifically and/or practically qualified individuals that provide materials, land, advice, guidance or consultation to the Project Director and are necessary for the completion of a significant portion of a project’s goals and objectives.

Co-investigator (CI)  Co-investigators (CI) are individuals involved with the PD in the scientific development and execution of the project. Co-investigators are scientifically qualified individuals with specific project-related expertise who work collaboratively with Project Directors to undertake key research activities, perform industry outreach, dissemination and technology transfer
activities. All co-PIs are expected to have significant intellectual input to the project and are expected to submit a letter committing their participation and specific contributions to the project. In the event a PI must leave a project it is expected that the remaining co-PI(s) could continue to direct the project and submit the requisite reports.

**Equipment**
Any single item with total cost of $5,000 or greater.

**Executive Director**
The Executive Director is the individual responsible for the ARI’s overall administration, day-to-day operational management and oversight, promotion, and program and financial accountability.

**External Match**
External match is donated or pledged cash and/or in-kind goods, services or equipment of verifiable financial value other than that originating from the CSU State General Fund allocation, any other ARI funded program, previously funded ARI projects or other donations which have been previously utilized as match for other projects.

**Faculty Release**
Faculty release is an ARI project budgeted reduction in the academic teaching workload of a specific faculty member(s) for the expressed purpose of conducting competitively funded applied agricultural and/or natural resources research, information dissemination and technology transfer activities that benefit California agriculture, the environment or society.

**Fair Market Value**
Fair market value is defined as the generally acceptable commercial value of a donation. For example: the value of consultant and/or staff time will be determined based on what the individuals involved are actually paid by other clients for similar work. The “fair market value” equivalent for non-reimbursed contributions of professional, technical, and/or clerical staff time by other universities, agencies, and/or organizations may be used as in-kind match provided that the respective ARI Dean has verified its authenticity.

**Full Proposal**
A full proposal is a detailed scientific research, information dissemination and technology transfer strategic plan that identifies an agricultural or natural resources problem or issue, the specific applied research to be performed and the methodology to be followed, the research’s impact on California agriculture, the environment or society, a detailed budget and timeline, staffing requirements, and a comprehensive dissemination and technology transfer plan.

**In-kind Match**
An in-kind match is the portion of project costs not paid by ARI funds. The in-kind match includes any contributions, other than cash (see Cash Match definition), donated or pledged, that originates from the gifting of the value of time, goods, services, equipment or other expendable property of verifiable financial “fair market value” other than that originating from a CSU State General Fund allocation and/or cash and in-kind contributions which have been previously utilized as ARI or ARI master grant match.
### Key Personnel
Key personnel are project personnel with significant identified project-related responsibilities (Project Directors, Co-investigators and Collaborators).

### Match Allowability
Cash or in-kind match originating from any CSU State General Fund allocation, any other ARI funded program, previously funded ARI projects or other donations which have been previously utilized as match for other projects is specifically prohibited from being used as external match. ARI and ARI master grant funding do not qualify as reciprocating match. Unrecovered indirect costs are not allowed as part of a match. CSU Project Personnel are not allowed to count their volunteer time on ARI projects as in-kind match. An allowable match directly benefits and is specifically pertinent to an ARI project or ARI master grant and must be received by the ARI project PD or co-PI.

### Member Campus
Member campuses are those CSU campuses with colleges of agriculture: California State University, Fresno (Fresno State); California Polytechnic State University, San Luis Obispo (Cal Poly, SLO); California State Polytechnic University, Pomona (Cal Poly, Pomona); and California State University, Chico (Chico State).

### Pending Match
Pending match is any ARI project-related cash or in-kind external funding request that has been submitted to an industry, governmental entity and/or foundation prior to the submission of the ARI funding request that is awaiting final funding notification. It must be received prior to the release of project funds by the campus.

### Pre-proposal
A pre-proposal is a one-to-five page preliminary proposal that generally identifies the specific research being proposed and its significance to California agriculture, the environment or society; the anticipated level of collaboration and key personnel required as well as any faculty release and/or additional employment pay anticipated; an estimated budget, timeline and alignment with one or more of the ARI research focus areas; an estimated ARI funding request; and potential external match funding sources.

### Principal Investigator (PI) / Project Director (PD)
The Principal Investigator (PI) / Project Director (PD) is defined as the individual with the appropriate level of expertise to lead and direct the project intellectually and logistically. The PI has the authority and responsibility to direct the project supported by the grant and is responsible and accountable to the ARI program for the proper conduct of the project including the submission of all required reports. The PD is responsible for all pre- and post-award proposal and project management including, but not limited to, proposal preparation and submission, securing and verifying appropriate external match, budget management, coordination of research and personnel activities, timely submission of research and financial reports, information dissemination, and relevant technology transfer.

### System Collaboration
System collaboration requires a research team including at least one CSU campus faculty or research scientist collaborating with another CSU campus faculty or research scientist from a UC, industry or another qualified research
organization’s faculty or research scientists. The principal investigator must be from a CSU campus. System proposals must document the research collaboration in terms of financial support and scope of work, through subcontracts, standard agreements, and/or transfer of matching funds from the Collaborator(s) to the Project Director’s campus. System proposals involving multiple CSU campuses will receive priority.

<table>
<thead>
<tr>
<th>System Funding</th>
<th>System funding is ARI funding which supports collaborative research partnerships addressing issues of statewide or regional importance. Each System research project is required to obtain 1:1 match to ARI funds provided with a minimum of 50% cash.</th>
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<tbody>
<tr>
<td>Technical Review Committees</td>
<td>Technical review committees are comprised of campus and outside subject matter experts who review campus proposals for technical merit and make funding recommendations to the agriculture college Dean. See Section II.F. of the ARI Policies and Procedures Manual for the conflict of interest guiding the technical review committee.</td>
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HELPFUL LINKS

ARI website:
https://ari.calstate.edu

ARI InfoReady Login:
https://www2.calstate.edu/impact-of-the-csu/research/ari/Pages/proposal-center.aspx

CSU Chancellor’s Office Executive Orders:
http://www.calstate.edu/eo/

2 CFR 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards

Cal Poly, Pomona Campus ARI Website:
https://www.cpp.edu/~ari/

Cal Poly, San Luis Obispo Campus ARI website:
http://ari.calpoly.edu/

Chico State Campus ARI Website:
http://www.csuchico.edu/resp/funding/ARI/index.shtml

Fresno State Campus ARI Website:
http://www.fresnostate.edu/jcast/ari/

Humboldt State Campus ARI Website:
https://www2.humboldt.edu/PMC/portal/agricultural-research-institute-ari-grants-agricultural-research-1819

CSU Monterey Bay Campus ARI Website:
https://csumb.edu/spo/csu-ari-campus-funding
### APPENDIX I. PROPOSAL REVIEW SHEET (PRS)

#### Proposal Information

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<thead>
<tr>
<th>Proposal #:</th>
<th>Campus:</th>
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<td>Principal Investigator:</td>
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<td>Proposal Title:</td>
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<td>Research Focus Area:</td>
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<td>Funding Type:</td>
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<td>Total ARI Request:</td>
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**Reviewer Notice:** Proposals are confidential as per section VIII.E. of the FY 2018-2019 ARI Request for Proposal Guidelines. Full proposals will be evaluated by peer reviewers using the criteria listed below. In addition to asking reviewers to numerically score each of the proposal subsections listed, they are asked to provide comments and/or suggestions they believe may enhance the proposal goals and/or outcomes.

If you believe that a colleague can make a substantive contribution to the review of a proposal and/or its attachment(s), which you have agreed to review, please consult the appropriate ARI system or campus administrator (ARI Executive Director or Campus Coordinator) before contacting your colleague. When you complete the review process, destroy any proposal documents or bring them with you to the panel review meeting if convened, and leave them with the appropriate designated system or campus administrator at the conclusion of the meeting.

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**Technical Evaluation Criteria**

**A. Approach to the Problem/Issue (20 points):** Determine whether the problem is addressed clearly and presented convincingly. The Project Director should demonstrate a clear understanding of the significance of the problem, which should be solvable. Determine whether other researchers are addressing this problem, and whether the Project Director possesses a thorough understanding of related work that has been reported by others.

- **Comments:**
- **Total Scientific Points for Proposal (100 possible):** 0

**B. Statement of Methodology (25 points):** Determine whether the proposed methodology is sound and whether there are any significant limitations associated with the proposal design. Determine whether the proposal indicates data will be collected and analyzed, whether the major objectives and milestones of the proposal have been identified, and whether they are appropriate. Evaluate whether the timeline of proposed activities is realistic and appropriate to the work proposed, and whether the objectives can be achieved using the approach identified. If matching funds were required, has the relevance of those funds been addressed, including non-overlap of objectives except in the case of direct cost-share?

- **Comments:**
- **Points B: (25 max)**

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**C. Dissemination Plan (10 points):** Determine whether the information dissemination activities proposed are adequate, that they primarily address California farmers’, ranchers’, and/or agribusiness concerns (a requirement for all ARI funded proposals), and that they are well thought out.

- **Comments:**
- **Points C: (10 max)**

**D. Evidence of Economic Impact to the California Industry and Consumer (15 points):** Evaluate the value of the work proposed relative to California agriculture, agribusiness, food and natural resources. Determine whether the agricultural industry’s recognition of this problem as being high priority was economically accurate. Establish that industry has provided adequate support for this project or justified why it cannot.

- **Comments:**
- **Points D: (15 max)**

**E. Outcomes Evaluation Plan (5 Points):** Evaluate whether the methods proposed to assess the final project outcomes will determine whether or not objectives stated in the original proposal have been achieved. Evaluate if the milestones appear reasonable and achievable.

- **Comments:**
- **Points E: (5 max)**

**F. Staff Needs/Researcher Qualifications and Collaboration (10 points):** Determine whether the proposal clearly describes the qualifications of the Project Director and other key personnel to solve the identified proposal problem (training, education, demonstrated awareness of the issue) and whether the level of staffing is appropriate. Determine whether the roles of all the key personnel have been clearly defined. Student involvement is strongly encouraged and their roles in the project should be clearly defined.

- **Comments:**
- **Points F: (10 max)**

**G. Budget Appropriateness (15 points):** Evaluate whether the resources requested are appropriate to the work proposed and whether there are more efficient ways to conduct the project. Determine whether there is a clear relationship between the resources requested and the work proposed.

- **Comments:**
- **Points G: (15 max)**

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**Total Scientific Points for Proposal (100 possible):** 0

**Additional Reviewer Comments**

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APPENDIX II. DEAN’S ALLOCATION REQUEST LETTER

Date

California State Polytechnic University
Attn: Dr. David Still, Executive Director
Professor, Department of Plant Sciences
Building 30
3801 W. Temple Avenue
Pomona, CA 91768

Re: [fiscal year] ARI Allocation Request

Dear David,

As decided by the Board of Governors for the Agricultural Research Institute, the funds allocated for each campus and its projects are to be transferred directly from Cal Poly, Pomona. In return for this transfer, the Deans of the Colleges of Agriculture on each of the four principal campuses or applicable Associate Campus designee assume administrative responsibility.

[Full Allocation Request]
In accordance with this policy, I am requesting that a total of $[funding amount] of the [fiscal year] ARI funds be transferred immediately to our campus as per the attached spreadsheet. This money represents the third year of funding for projects initiated in [fiscal year], the second year of funding for the projects initiated in [fiscal year] and the first year funding for projects which began in [fiscal year] for both our campus-funded projects and our system-wide projects. Please have this amount transferred to our CMS chartfield: ________________________________.

[Partial Allocation Request]
In accordance with this policy, I am requesting that a total of $[funding amount] of the [fiscal year] ARI funds be transferred immediately to our campus per the attached spreadsheet. This money is a partial allocation request and represents the third year of funding for [number of projects] projects initiated in [fiscal year], the second year of funding for [number of projects] projects initiated in [fiscal year] and the first year funding for [number of projects] projects which began in [fiscal year] for both our campus-funded projects and our system-wide projects. Should sufficient match be secured for the [number of projects] outstanding projects, an additional allocation request will be submitted within the appropriate timeframes. Please have this amount transferred to our CMS chartfield: ________________________________.

[Rollover Request for Unallocated Funds]
In accordance with this policy, I am requesting that a total of $[funding amount] of the [fiscal year] ARI funds be transferred immediately to our campus per the attached spreadsheet. This money represents the unallocated project funds for [fiscal year] which resulted from a combination of [new/ongoing] projects [not receiving as much match as planned/old projects closing with higher than anticipated...
balances}. Please have this amount transferred to our CMS chartfield: ________________________________.

I certify that the projects submitted for campus funding are complete and in compliance with the prescribed ARI format, are complete and up-to-date in the ARI Online Project Management System, meet and/or exceed all appropriate ARI campus funding requirements and that prospective project directors are in compliance with all previous ARI awarded project reporting requirements. By signing this letter I also agree to abide by ARI terms and conditions.

Thank you for your prompt attention. If you have any questions on this matter, please contact ________________________________.

Sincerely,

Attachment
Cc:
Campus procedures for ensuring that match is documented and uploaded into the ARI-InfoReady system

- Project award notification sent out to PI’s, center reps and center directors.
- Timeline identified for documenting match.
- Match completed and approved on the ARI match form.
- Match forms forwarded to Dean/Campus Coordinator for approval.
- When approved email is sent to PI, Center Rep and foundation grant analyst to initiate a project meeting to review and finalize budget.
- During the project meeting the Final Budget Approval form is completed and approved. This form is a recap of project that is forwarded along with the approved budget to Dean/Campus Coordinator for ‘final approval’.
- Email sent to PI when project is fully approved for expending funds.
- Project info is updated in the InfoReady system and then checked by a second individual to ensure project information has been updated and scanned documents can be opened.
APPENDIX III. RESEARCH PRIORITY AREAS AND DEFINITIONS

Agricultural Business
The 20th century saw the beginning of an agricultural revolution that increased crop yields through the integration of hybrid seeds, synthetic fertilizers, chemical pesticides and a far more mechanized process of producing crops.

Today, a whole host of new factors is changing agribusiness. Consumers — increasingly interested in both food and health — are driving the market for nutritious, locally produced, organic, environmentally sustainable, and humanely produced products.

Just as important, web-enabled technology plays a key role. The internet has created e-commerce opportunities to buy supplies, trade commodities and reach global markets. Farmers in California can easily manage daily operations from a mobile device rather than a pick-up truck.

That makes investments into applied research and the training and education of farmers essential to ensure the stability and growth of the state’s agricultural industry, especially in these areas:

• Agricultural and food marketing analyses and management
• Economic analyses of new technologies and regulations
• Economic and environmental impact assessments of crop production
• Market development and access
• Rural economic development

Biodiversity
California is one of the most biologically diverse regions in the world, with exceptional concentrations of endemic (restricted to California) species.

Unfortunately, California is also a “biodiversity hotspot” with endemic species experiencing an exceptional loss of habitat. Urban development coupled with climate change will drive habitat fragmentation and accelerate losses of biodiversity.

The Agricultural Research Institute (ARI) supports research that seeks to minimize the impact of agriculture and preserve and help protect natural resources and biodiversity. Much of the research at the interface of biodiversity and agriculture has taken place in the developing world, often in tropical areas that are converting forest ecosystems into agricultural land.

In North America, however, the conversion of wild lands into agricultural land largely occurred over a century ago and more land is lost to urban development.

The agriculture-biodiversity research area in developed economies has been largely overlooked and underdeveloped. With almost 26 million acres of farmland in California, agriculture is a substantial managed ecosystem and provides an ideal environment for conducting biodiversity-based agricultural research. As such, California can lead the nation in establishing practices that sustain biodiversity while preserving yields. The ARI has funded projects that include:

• Agricultural management practices that promote biodiversity
• Use of native birds as a pest management tool
• The role and capacity of native bees as pollinators in commercial agriculture
• Grazing practices and biodiversity

Biotechnology
The world’s population is predicted to exceed nine billion by the year 2050; at the same time, the pressure to repurpose arable land toward non-agricultural uses will increase.

Much the same is true of California. As our cities expand, the amount of prime agricultural land used for food production is reduced and often agriculture must compete for limited natural resources, especially water.

California agriculture feeds the state's burgeoning population and supports a robust agricultural export economy. New technologies are needed to sustain production, minimize environmental impact, and develop more nutritious, higher-value food and fiber products.

Multidisciplinary research teams from disciplines outside of traditional agriculture are contributing knowledge and skills to create new technologies and products. Biotechnology, including sequencing, phenomics and CRISPR/rDNA-aided reengineering, are being used to develop biological insight to guide genomic breeding and editing capabilities to develop new varieties that help solve agricultural problems.

Applied agricultural biotechnology research that’s co-funded by the Agricultural Research Institute and industry in these areas is important to the state’s agricultural mission:
• Pathogen early-detection systems
• Development of crops adapted to climate change and new pests
• Remote sensing for crop management
• High-throughput phenotyping (phenomics)
• rDNA and CRISPR technologies

Food Science/Safety/Security
Consumer demand for convenience and the agricultural industry's increased awareness of consumer safety concerns continue to drive product development, processing practices, and marketing strategies.

According to the Food Marketing Institute, a supermarket in 2015 carries an average of 39,500 items. Product development is part art, part science and very competitive. In 2016, over 21,400 new food and beverage products were created in the U.S. by food scientists.

More than one-half of supermarket sales are perishable commodities, many of which are minimally processed. Outbreaks of foodborne illness and product recalls have heightened the public’s awareness of food safety. In response, regulatory agencies have increased their capabilities to trace food items through the production chain, from farm to fork using new technologies derived largely through advances in sequencing and biotechnology.

Research into applied food product development, processing, packaging and nutrition that is co-funded by the Agricultural Research Institute (ARI) and industry has contributed to greater food safety, new products and student training by supporting projects in the following areas:
• Probiotics as an alternative to antibiotics
• Farm-to-school food safety
• Health benefits of pistachios
• Turning commodity (e.g., vegetables, fruit) processing waste into healthful foods
• Development and evaluation of new food products

Natural Resources
California’s diverse climates and abundance of high-quality natural resources are the basis for its population growth and the diversity of its agricultural products.

The state is unusually rich in minerals, timber, fertile soil and watersheds, supporting some of the most productive farmland, forests, grazing land and watersheds in the world.

Collectively, the CSU has the wealth of knowledge and research experience in conservation and restoration techniques, compatible and sustainable multiple-use systems, and environmentally sound management practices needed to sustain the natural resource and agriculture foundation of the state for future generations. “Multiple use” includes the need to support grazing for livestock and wildlife, timber harvesting, opportunities for recreation, mining, and non-renewable (coal, gas, oil) or developing renewable (wind, solar) energy resources.

The Agricultural Research Institute, industry and federal agencies have collaborated on research projects focused on preserving, protecting and sustainably developing natural resources in the state. Representative projects include:

- Climate change management of forests and rangelands
- Global warming and forest resilience
- Recycling CO2 emissions to enhance sugar beet productivity
- Geospatially analyzing fire risk in the wildland-urban interface of California

Production and Cultural Practices
California continues to be the leading agricultural state in the U.S., with over 400 agricultural commodities valued at over $47 billion to farmers and ranchers (known as “farm gate value”) and over $20 billion in exports.

The backbone of the agricultural production system is the ability to meet market demand with high-quality products. Tremendous advances in production were achieved during the 20th century, with about half of the gain due to improved crop genetics and breeding, and the other half to cultural practices, including better water and fertilizer management and the use of safer, more effective pesticides.

The challenges to California agriculture in the 21st century are many. Agricultural producers will need to be highly efficient in water use while facing the ongoing pressures of exotic pests and diseases, increasing regulations on plant protection materials, and conflicts between the resource demands of agriculture versus those of a growing urban population.

Cultural practices such as irrigation and fertilization will be an effective tool by which to address the effects of climate change and mitigate the environmental impact associated with agricultural production. The integration of precision information systems (e.g., GPS-GIS systems), better adapted to climate change, and biotechnology will lead to more efficient production systems and improved management practices.

The Agricultural Research Institute is well-positioned to provide the critical applied research needed to advance these objectives and train the workforce that will be needed to implement these cultural practices:
• Improving water use- and nitrogen use-efficiency (WUE and NUE) through optimization of irrigation and fertilization models and development of varieties with improved WUE /NUE
• Fumigation replacements for California strawberry production
• Winter supplementation strategies for beef cattle
• Evaluation of permanent crop root systems by ground penetrating radar
• Production of algae animal feed from dairy waste nutrients

Public Policy
California's future prosperity relies on making difficult, and sometimes controversial, policy choices when it comes to distributing economic and natural resources between agriculture and urban development.

Emerging biotechnologies continue to evolve, but to ensure their widespread adoption public policy should be informed by careful science-based evaluation of the benefits, potential risks and ethics of these technologies. Importantly, the benefits to society should be communicated to allay public concerns.

The Agricultural Research Institute (ARI) and its research collaborators are well-positioned to serve as non-partisan, scientifically based resources for policymakers. Wise choices about land use, water cost, water quality and allocation, air quality standards, farm worker safety, environmental protection and restoration, and agricultural and municipal waste management will heavily influence agriculture's future profitability, competitiveness, and sustainability.

The formation of agricultural policy involves a diverse set of stakeholders, but few Americans are directly involved in farming, ranching and timber production. Science-informed policies are more likely to sustain agriculture, protect the environment and provide California with a rich and diverse economic base. In addition to research conducted at the interface of public policy, science and agriculture, the ARI is supporting students to develop backgrounds in science and public policy through internships.

A short list of project and focus areas that have been supported by the ARI includes:
• Developing the next generation of agricultural safety and health leaders
• Implications of trade barriers applied to citrus export products
• Analyses of fire risk at the urban-wildland interface
• Public land management from a social science perspective

Water and Irrigation Technology
Demands on California’s water resources and its aging conveyance infrastructure have reached the crisis stage.

Climate change exacerbates the problem California faces to balance its finite water supplies against the needs of agriculture, the environment, and a growing population.

Global warming will contribute to droughts in California that are more frequent, severe and prolonged. A consequence of climate change will be a shift in precipitation from snowfall to rain and more extreme weather events. Accordingly, California's water infrastructure must adapt and over-drafted groundwater basins must be recharged. In response to the current drought, agricultural and urban water districts have implemented water efficiency technologies and conservation practices.
The Agricultural Research Institute (ARI) has been instrumental in the development, testing and evaluation of urban and agricultural irrigation equipment and systems for both public agencies and private business.

Additionally, ARI faculty have provided consumer education, industry training courses, and consulting services to irrigation and drainage personnel throughout California. The Institute will continue to provide research support for new and expanded irrigation industry partnerships and facilitate applied research in the following irrigation disciplines and those that are emerging:

- Economic and hydrologic impacts of a limited California water supply
- Managing coastal agricultural areas at the saltwater-freshwater interface
- Integrating satellite data – such as that from LANDSAT -- with online irrigation scheduling tools for California crops
- Evaluation of oilfield-produced water for crop irrigation
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