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Sent:	Friday, June 10, 2011 3:55 PM
To:	Bob Powell (UCD)
Cc:	Harris A Lewin; John Meyer; Jill Blackwelder Parker; Gina Anderson
Subject:	Draft Guide to Research Compliance for PI's & Departmental Administrators
Attachments:	Guide to Research Compliance.pdf

Dear Chair Powell,

As we have discussed over the previous few months, Accounting & Financial Services has been working in collaboration with the Office of Research and Safety Services on a revised document to support PI's and departmental administrators in meeting sponsored project reporting and compliance requirements.

For your consideration, attached is the final draft document that provides information about what PI's, departmental, and central administrative staff can do together to avoid common problems with regulatory and sponsoring agencies.

I hope that you will find this version more acceptable than the one we shared with you in 2009 and I look forward to discussing the draft Guide with you further in the near future.

Regards,
Mike

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Guide to Research Compliance

for Principal Investigators & Department Administrators

UCDAVIS
UNIVERSITY OF CALIFORNIA

DRAFT V6, JUNE 1, 2011

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Introduction

The administration of academic research has grown more complex over the years. In addition to leading the research that is the core mission of the University, principal investigators have ultimate responsibility for compliance with award terms and conditions, federal, state and local regulations, and University policies directly related to their research.

This publication provides an overview of these policies and regulations. It is intended as a supplement to -- not a substitute for -- the services provided by Extramural Funds Accounting, the Office of Research Sponsored Programs Office and other campus offices charged with supporting the UC Davis faculty.

Herein you will find:

- Information relating to the most frequently asked questions about award administration;
- Key points relating to issues which, in the past, have cost projects funding or been called out by internal and external auditors;
- Contact information for the departments that can assist PIs and department administrators with the finer points of award administration and compliance;
- Policy references and links to all relevant policies.

Our goal is to assist principal investigators and their support staffs in avoiding common pitfalls in award administration so that they can receive the full value from their sponsored awards and focus on the advancement of knowledge, the development of the next generation of scholars, and service to the worldwide community.

Accounting & Financial Services
    Extramural Accounting Office
    Office of Costing & Policy Analysis

Office of Research
    Sponsored Programs Office
    Office of Research Compliance

Solicitation of Extramural Funding

At the University of California, all awards must be made to The Regents of the University of California, not to schools, colleges, programs or departments. No official solicitation for extramural support for research or any other sponsored activity, such as training, public service programs or special projects, may be made in the name of the University without prior approval of the Board of Regents or an authorized officer of the University. At UC Davis, the chancellor has delegated such authority, within the limits set forth by the Regents, to the vice chancellor-research, as well as to the executive director and associate DIRECTORS of the Sponsored Programs Office.

University of California employees who receive any part of their salary through the University, or whose activities use any University resources or facilities, must submit proposals for extramural support through the Sponsored Programs Office. This ensures that all extramurally funded projects conducted by University employees, or with the use of University resources or facilities, have proper signature authority and comply with relevant University policies and guidelines. UC has put this policy in place to protect both the university and its faculty.

The Sponsored Programs Office assists the campus research community in its efforts to secure extramural funding while promoting proper stewardship of those funds. When processing a proposal and resulting award, the Sponsored Programs Office reviews all documents to ensure that project complies with relevant university policies and guidelines. The staff in the Sponsored Programs Office are available to assist with questions relating to university policy and proposal preparation.

Key Points

University policy requires that proposals be submitted through an authorized campus-based contracts and grants office. At UC Davis, this is the Sponsored Programs Office in the Office of Research.

Research awards are made to The Regents of the University of California.

Who to Contact

Sponsored Programs Office
Phone: (530) 754-7700
Fax: (530) 754-8229

Additional Information

Policy on Eligibility to Undertake Sponsored Research
manuals.ucdavis.edu/PPM/230/230-02.htm

Policy on the Requirement to Submit Proposals and to Receive Awards for Grants and Contracts through the University
ucop.edu/raohome/cgmemos/95-01.html

Eligibility to Serve as Principal Investigator

At UC Davis, the individual responsible for the design, scientific conduct, administrative conduct and reporting of a research, training or public service project supported by extramural funding is known as the Principle Investigator (PI) and sometimes, as the "project director." The PI must personally participate in the project to a significant degree. A person may not be designated as a PI who is not actually making a significant contribution to the subject project or research.

To be eligible to hold the designation of PI on a project, the faculty member must work at least 50 percent of full-time in any combination of the following six appointments:

- Member of the Academic Senate
- Appointee in the Agronomist series
- Appointee in the Adjunct Professor series
- Appointee in the Clinical Professor series
- Appointee in the Professional Researcher series
- Appointee in the Cooperative Extension Specialist series

Emeriti members of the University retain the PI eligibility that they held prior to their retirement.

With the approval of vice chancellor for research, UC Davis does allow some exceptions to the PI eligibility policy. Exceptions must be endorsed by the individual's department chair and the appropriate dean or vice chancellor. The vice chancellor for research may also approve exceptions to allow students, postdoctoral fellows, and other individuals to submit proposals for research or training as a principal investigator. Exceptions are approved on a case-by-case basis, and the majority of exceptions are valid only for the specific project listed in the PI exception request.

Award Terms & Conditions

It is critical to understand all funding source requirements and restrictions. If the terms of an individual award are stricter than federal guidelines and University policy, they take precedence. For example, travel expenses are allowable under either, but may be specifically excluded or limited by your specific award.

Some important terms and conditions to be considered when managing an award include:

Budget
The PI works with their department administrator to prepare a budget and justification for the project. The budget must be in accordance with allowable costing principles, applying the appropriate Facilities and Administrative rate (F&A rate, previously called the indirect cost rate.) As the project progresses, the grant budget should be compared to actual expenditures on a regular basis.

Modest re-budgeting is generally allowable without approval of the awarding agency. The award terms and conditions should be consulted before re-budgeting to ensure that prior approval is not required. Re-budgeting of more than 25 percent may represent a change of scope and require pre-approval from the granting agency. Significant re-budgeting of key personnel effort indicates a change in scope that requires pre-approval from the granting agency.

Performance period
Expenses must be incurred during the performance period of the award to be allowable. Some agencies allow pre-award spending 90 days prior to the start date of the award. If you are unsure whether pre-award spending is allowed, consult your assigned analyst or contracts and grants officer in the Sponsored Programs Office for guidance.

Pre-approvals
Some agencies require pre-approval for certain types of expenses. For example, foreign travel may require sponsor approval as might the carry-forward of unspent funds remaining at the end of a budget period.

Pre-award spending
Spending prior to receipt of an award is generally discouraged. However, there are situations where funding is delayed when the project is ready to commence. If a delay in funding is anticipated, an advance account can be requested. Advance accounts must be

requested through the Sponsored Programs Office, and the PI or Department Chair must guarantee that, if the proposal is not awarded, all pre-award expenses will be funded by departmental or other discretionary funds.

Post-award spending

Expenses incurred after the end of an award period are not allowable. If you have reason to believe you will not be able to complete a project by the end date of the project period, a request for a no cost extension should be submitted to the sponsor, through the Sponsored Programs Office. The award agreement may indicate a specific timeframe for submission of the no-cost extension, and you must meet that timeline or the request may be denied.

Program income

Program income is defined as gross income, earned by an award recipient, that is directly generated by a supported activity or earned as a result of the award. Examples of program income include fees from services performed or registration fees for conferences sponsored by an award. Most federal agencies identify the method for accounting for program income in the award agreement or have regulations that address the default method for accounting for program income.

If program income is anticipated as part of a proposed project, it should be disclosed in the project proposal. If program income arises during the life of the award which was not anticipated at the proposal stage, the PI's department administrator and Extramural Funds Accounting must be notified so that the proper method to account for the income can be established. All program income and related expenses must be reported to the sponsor agency along with the award financial activity.

Roles & Responsibilities

Different campus offices are responsible for various phases of the extramural funding process. The following table demonstrates key proposal and award roles and responsibilities.

PI and their Research Staff	PI's Department Administrator and Staff
• Develop complete, timely proposals • Prepare all required reports and submit to sponsors • Understand sponsors' terms and conditions and University policies and procedures related to sponsored project administration • Manage and control project funds, including subcontractor funds, to ensure compliance with award terms and conditions and University policy • Authorize expenses • When applicable, certify personnel effort and approve cost-share reports • Ensure scientific integrity and manage projects • Manage subcontractor progress • Ensure that staff have adequate training for research involving human subjects, animals and/or hazardous materials.	• Assist with development of proposals • Prepare administrative reports for submission to sponsors • Keep PI informed of the financial status of the award and assist in administration of the award • Provide the PI with business and accounting expertise • Process financial and budget transactions and review project status monthly to ensure only allowable costs are recorded and project expenditures are within budgetary constraints • Maintain and monitor effort commitments for faculty • Establish appropriate accounting structure to satisfy sponsor financial reporting requirements
Extramural Funds Accounting	**Sponsored Programs Office**
• Establish awards in the financial system • Approve project expenditure accounts and ensure reporting attributes are accurate • Prepare financial reports throughout the life of the project • Prepare invoices, letter of credit draw downs, perform collection activities • Coordinate effort-reporting process • Perform post audit reviews of financial transactions • Coordinate financial close out of the award • Conduct campus-wide training in post-award management	• Review and approve proposals • Negotiate awards and sub-awards, and accept on behalf of the Regents • Approve and submit post-award reports to sponsors, as required. • Review and approve proposal budgets, ensuring compliance with UC and Sponsor policies • Advise PIs and their staffs on budget preparation and indirect cost calculation • Collect internal approvals and Conflict of Interest disclosure forms • Distribute proposal information to appropriate campus offices such as Environmental Health & Safety, Extramural Accounting and other departments.

Conflict of Interest

A conflict of interest is a situation in which the conduct of research could be compromised, or appear to be compromised, by a related financial interest on the part of the Principal Investigator or other Investigators. "Financial interest" is any personal benefit of significant monetary value, including, but not limited to:

- Salary or other payments received for services;
- Equity interests, such as stocks, stock options or other ownership interests;
- Intellectual property rights, such as patents, copyrights and royalties from such rights, other than royalties received through the university; or
- Appointment to a position as an officer, director, agent or employee of a business entity.

Rules regarding conflict of interest apply to all investigators on the project as well as to their spouses, domestic partners and dependent children.

On projects sponsored by private sector organizations, any financial interest in the sponsor within 12 months prior to the date of the funding offer and during the project timeframe, constitutes a potential conflict of interest.

University policy prohibits faculty, staff, managers or officials from engaging in any activities that create a conflict of interest between official University activities and any personal interest or obligation.

Because conflicts of interest can arise in the course of an individual's interactions outside the University, the presence of an actual, apparent or perceived conflict of interest does not automatically constitute wrongdoing. However, such any potential conflicts of interest must be disclosed and managed, and the University has a formal procedure for doing so in compliance with federal and state regulations. It requires investigators to:

- Disclose their financial interests and the interests of their spouse/domestic partner and dependent children on the appropriate disclosure form(s).
- Provide updates as the amount or nature of interest changes during the period of performance of supported research.

This process is intended to protect investigators, their sponsored research and other educational and professional activities in which they are engaged, and the University.

Key Points

PIs and other investigators may not have, or appear to have, any personal financial interest in a research project.

University faculty, staff, managers or officials shall not engage in any activities where there is a conflict of interest between their official university duties and any other interest or obligation.

This policy applies to investigators and to their spouses, domestic partners and dependent children

Any potential conflict of interest must be disclosed.

Association of UC Davis's image or name with commercial interests in the public eye may lead to a conflict of interest.

Who to Contact

Director of Research Compliance & Integrity, Office of Research
Phone: (916) 703-9151
Fax: (916) 703-9160

Human Subjects and Conflict of Interest

Research involving human subjects poses special concern with regard to conflict of interest. For example, the research may potentially involve drugs, equipment, materials or methods in which the investigators or their domestic partner or dependent children have a financial interest. Such interests may appear to compromise the rights and well-being of the research subjects, as well as the integrity of the related research and must be disclosed. For this reason, potential conflicts of interest in research with human subjects are subject to careful scrutiny. Disclosure of conflicts of interest related to human subjects research is included in Institutional Review Board (IRB) procedures.

Use of the University Name and Logos

Association of UC Davis's name or logo with commercial interests may lead to a conflict of interest. For example, in the course of consulting or research, faculty members may provide professional evaluations of products or services. However, care must be taken to avoid identifying the University with their opinions or conclusions in any public or private reports that may support their own outside financial interests. Faculty must also avoid implying an endorsement on the part of the University.

Additional Information

Office of Research Compliance & Integrity
research.ucdavis.edu/compliance

Policy on Individual Conflicts of Interest Involving Research
manuals.ucdavis.edu/PPM/230/230-05.htm

Procedures for Reporting, Reviewing, and Managing Conflicts of Interest in Research
manuals.ucdavis.edu/PPM/230/230-05a.pdf

Institutional Review Board Conflict of Interest Disclosure Form
research.ucdavis.edu/documentDisplay.cfm?id=1822,doc

All other applicable University, state and federal policies and regulations governing conflict of interest are referenced and linked in UC Davis PPM 230-05.

Technical Progress & Final Reports

Required reports include:

Technical Reports

The PI is responsible for submitting all required technical reports to the award sponsor and the Office of Research. Report content requirements are spelled out in the grant terms and conditions, and typically include:

- Identification information (project title, grant/contract number, PI contact information, period of performance, including authorized extensions, etc.);
- Significant results of the project;
- Technical difficulties and solutions;
- List of publications, including articles in progress; and
- A discussion of milestones and/or deliverables.

Final Invention Reports

The PI submits final invention reports to the Office of Research Technology Licensing Office, which submits final invention reports to sponsors. The report describes any new technology developed with support from the award, whether or not it has been disclosed to the campus Innovation Access (Technology Transfer) Office.

Equipment Inventory Report

UC Davis's Property Office prepares and submits equipment inventory reports which detail all materiel and equipment acquired under the award that has been identified and tagged by the Property Office.

Cost Principles

UC Davis and its principal investigators are jointly responsible for stewardship of sponsored research funds in compliance with federal cost principles established by the Office of Management and Budget (OMB). These principles are described in *OMB Circular A-21* and incorporated into University policies and procedures for administering research awards.

Adherence to all cost principles is required to properly and appropriately account for the expenses of conducting research at UC Davis. The consequences of failing to comply with costing principles may range from disallowance of specific incurred costs by the sponsor to termination of the award to federal sanctions, depending on the particular cost and circumstances in question.

Allowable costs

The key concept of cost principles is "allowability." For a cost to be allowable on a specific sponsored award, it must be:

- *Reasonable*. It is necessary for the performance of the project and is within what a "prudent person" would pay for the particular goods or services obtained.
- *Allocable*. The project that pays the cost is the project that benefits from it. Expenses shared across multiple projects benefit all projects proportionately, when benefit can be clearly allocated, or reasonably, when proportionate value cannot be readily determined due to the inter-relationship of the work involved.
- *Consistently treated*. The University consistently designates that type of cost as either direct or indirect when incurred for the same purpose in like circumstances.

Additionally, the cost must not be explicitly excluded by federal guidelines or the terms and conditions of the award. Some expenses that may directly benefit a project may be prohibited by the award sponsor and, thus, not allowable on the award.

Administrative Costs

Salaries and wages of administrative and clerical staff should generally be treated as Finance and Administration (F&A) costs (previously called indirect costs) and included in departmental administration. Directly charging administrative costs to a grant may be appropriate when the project requires a level of administrative or clerical support significantly greater than the routine level of administrative service provided by the department. The costs must be attributable to the project and the circumstances must be justified in the project proposal to the satisfaction of the awarding agency.

The following types of administrative and clerical activities are considered indirect. They should not be charged to sponsored projects because they cannot easily be directly identified with specific projects:

- Administration and support services that span multiple departmental activities;
- Contracts and grants analysis;
- Personnel functions;
- Accounting and budgeting functions;
- Routine travel planning; or
- Processing and tracking of routine purchase orders.

The development and preparation of proposals, including word processing, data entry, photocopying, scanning and mailing, are indirect costs and should be considered part of the departmental administration budget.

If a sponsored project meets the criteria of a major project, as defined by the federal government, charging administrative expenses to the project may be allowable with sponsor approval. Such administrative expense must be specifically identified in the proposal budget and supported by a written justification as to how the expense is above and beyond what normally would be provided as administrative support to the project.

Expense Categories to Watch

The following categories of expense are frequently misunderstood, and tend to be highly scrutinized by auditors. Before approving any expenses in the following categories, check the award terms and conditions and University policy to ensure that the expenses are allowable.

Proposal Preparation Costs
Costs of preparing proposals and applications for acquiring sponsored funding, including copying, mailing, long distance telephone charges, etc., are not allowable.

Equipment
Equipment is defined by the federal government and the university as tangible, nonexpendable property having a useful life of more than one year and an acquisition cost of $5,000 or more per unit (including tax, shipping and installation.) However, when the terms of an award set a lower dollar threshold for equipment- $1,000 for example- the PI's department must track it as if it falls under the University's definition of equipment (See UC Davis Supplies and Equipment Policy, manuals.ucdavis.edu/PPM/contents.htm#350.)

Important considerations before purchasing equipment on a sponsored project:
- If a piece of purchased equipment will benefit more than one sponsored agreement or activity, the cost must be allocated to the various projects and activities proportionately based on the benefit directly received by each.
- Budgeted equipment is generally purchased in the beginning of a project unless the scope of work is such that the equipment is essential during a later period of performance. If the equipment purchase is to be made within 120-days of the award end date, the justification must be reviewed and approved by Extramural Accounting before purchase.
- Maintenance and repair costs to keep project-specific equipment -- whether existing or purchased with project funds -- in operating condition are allowable within the timeframe of the project performance period. As with equipment purchase, if the maintenance agreement or repair cost benefits more than one sponsored agreement or activity, the cost must be allocated to the various projects and activities proportionately based on the benefit directly received by each.

Food
The allowability of food expenses can be a source of confusion. Food is generally not allowable as a charge to a sponsored project. However, meal costs incurred during the course of travel are generally allowable as are meals provided as a working portion of a meeting taking place over an extended period of time. The rules for allowability and unallowablity of food expenses are included in UC Davis Entertainment Policy PPM 330-80 (manuals.ucdavis.edu/PPM/330/330-80.htm).

Administrative Salaries and Expenses
Unless the project meets the definition of a "major project" per federal guidelines, general administrative salaries and expenses should be treated as indirect costs and not charged to the project.

Travel
Before charging travel to an extramural project, PIs and their department administrators should review all relevant travel policies -- sponsor, program, federal, University and campus -- and follow the most

restrictive, noting any special requirements such as pre-trip approval. It is especially important to review the Fly America Act, which restricts travelers to American Flag air carriers when traveling on federal funds unless exception criteria are met. Travelers should also be familiar with export control requirements when travelling internationally (See UC Davis Travel Policy, manuals.ucdavis.edu/PPM/300/300-10.htm.)

Tuition Remission

Some sponsors do not allow student fees or tuition remission as a direct charge to projects. Check the award terms and conditions or agency guidelines if you are employing a graduate student on your project. Because tuition remission is a required benefit for all graduate student employees, an alternate, non-restricted funding source such as general funds or donations will need to be identified to pay these charges.

Memberships and Subscriptions

Memberships and subscriptions are normally considered to be indirect costs because their benefit to research and academic endeavors generally cannot be specifically assigned to individual awards. If memberships are required for attendance at a professional technical meeting related to the funded project, the membership cost may be allowable provided it was specifically budgeted and justified in the project proposal.

Office supplies, Telecommunication Charges, Postage and Printing Charges

Office supplies, postage/mailing costs, printing costs and local telephone line charges (including cell phones) are normally treated as indirect costs and included in the departmental administration component of the Facilities & Administrative rate (F&A rate, previously called the indirect cost rate). They may only be charged to projects as direct costs in unlike circumstances, such as research based upon large-scale mail or telephone surveys. Long distance charges that are specifically identifiable to a project may be directly charged.

General Purpose Computers, Software and Computer Supplies

General-purpose computers, computer supplies and office software, such as word processing and spreadsheet programs, are considered indirect costs unless special purpose and unlike circumstance are clearly documented and justified in the proposal budget and they are not specifically disallowed by the sponsor. These costs are scrutinized by federal agencies, and great care must be taken to assure that, when directly charged to a sponsored project, such costs directly benefit the project.

Recharge Activities and Service Centers

Costs of recharge activities and service centers are allowable as direct costs to a sponsored project where such costs are required under the scope of the project. All usage must be accounted for and services must be charged to all users based on actual usage using uniform, non-discriminatory rates. The rates must be based on the direct costs of providing the service. Rates must be approved within the University policies and appropriately revised based upon review of the actual direct expenses and charges to users. Charging a "tax" on projects is prohibited. In other words, a programmer's time could be directly recharged based on hours worked on the project, but three percent could not be charged to all extramural projects in a department to pay for programming services.

Cost Transfers

A cost transfer is the movement of an expense from one account to another. This may be necessary to correct an error, to move or split costs into accounts that did not exist when the original transaction was made, or for other reasons associated with a department's financial operation. Transfers should be the exception, not the rule. Cost transfers must meet the guidelines for allowability, allocability, reasonableness and consistency. More stringent criteria apply for cost transfers to be allowable on federally funded projects.

With the knowledge and approval of the PI, department staff may initiate a cost-transfer. All cost transfers must be:
- *Timely*. The transfer must be recorded in the general ledger within 120 days from the close of the month in which the original charge posted to the ledger.
- *Fully explained and justified*. The reason why the original charge was incorrect and why the charge is allowable and allocable to the new account must be documented.
- *Fully documented.* The transfer transaction must contain a reference to the invoice, payroll, or other disbursement document(s) that were the basis of the original direct charge.

A high frequency of cost transfers can imply that financial transactions are not being properly reviewed and recorded when originally incurred. For this reason, cost transfers are highly scrutinized by auditors to determine the reason for the correction and the allowability of the charge to the project.

Initiating a cost transfer
Once an expense has been recorded, it is appropriate to initiate a cost transfer only in the following situations:
- To correct an erroneous recording;
- To record a change in the original decisions made as to the use of goods or services;
- To redistribute certain high-volume, low-value charges that may be shared among several projects under the jurisdiction of the department; or
- To redistribute payroll costs based on the after-the-fact verification of effort reported through the campus effort reporting system.

Key Points

Cost transfers should be rare exceptions, not regular occurrences.

Cost transfers must meet the rules for allowability in the account to which they are being transferred.

Cost transfers are highly scrutinized by auditors. They must be recorded in a timely manner and fully justified and documented.

Who to Contact

PI's Department Administrator

Extramural Funds Accounting
Phone: (530) 757-8523
Fax: (530) 757-8721

Additional Information

UC Davis Expenditure Adjustments Information
accounting.ucdavis.edu/EX/costtransfer.cfm

UC Davis Policy and Procedure Manual, Chapter 330-63, Expenditure Adjustments (Cost Transfers)
manuals.ucdavis.edu/PPM/330/330-63.htm

University of California, Business and Finance Bulletin A-47
ucop.edu/ucophome/policies/bfb/a47.pdf

UCOP Contract and Grant Manual, Chapter 7, Budget and Expenditures
ucop.edu/raohome/cgmanual/chap07.html#salaries

Cost Sharing

Cost sharing is the portion of the project expenses borne by the University and not by the sponsoring agency. Shared costs are typically direct costs of the project and are paid from departmental or discretionary funds or provided by a third party.

There are four types of cost sharing:

- *Mandatory cost sharing.* Costs that the University must contribute toward the project in order for an award to be made.
- *Voluntary committed cost sharing.* Costs associated with a project and identified in the proposal, for which funding is not being requested from the sponsor.
- *Voluntary uncommitted cost sharing.* Any cost associated with a project and not funded by the sponsor, which has not been identified in the proposal, or in any other communication to the sponsor as a commitment of the University.
- *Matching.* A requirement that grant funds be matched in some proportion by the grant recipient.

Cost sharing should only be offered when it is a condition of receiving an award. If cost-sharing is mandatory, this will be noted in the request for proposals issued by the award agency. The PI and department are responsible for providing the resources for sharing direct costs and ensuring that the costs are tracked and reported.

Mandatory or voluntary committed cost sharing must be disclosed to the sponsor in the proposal. (Note that the National Science Foundation has specific policies prohibiting inclusion of voluntary committed cost sharing in proposals. Refer to the NSF Grant Proposal guide when submitting proposals to this agency). Cost sharing disclosed to the sponsor in the proposal constitutes a promise that University funding will be provided to directly support the project and not charged to the sponsor. Once an award is made, the cost sharing documented in the proposal becomes a binding commitment. Failure to fulfill the cost-sharing obligation may result in the reduction of the amount of the sponsor's award.

Per federal regulations, cost sharing agreements must be:

- Readily verifiable in the university's records and documented in writing, if provided by a third party;
- Necessary and reasonable to achieve the project objectives;
- Allowable under applicable cost principles; and
- Not paid by another award, except as specifically authorized by the agency;

Key Points

Cost sharing is the project expense borne by the University or by a third-party.

Cost sharing should only be proposed when the award sponsor has specified cost-sharing as a condition of receiving the award.

Cost sharing typically covers direct costs paid from departmental, discretionary or third-party funds.

Failure to fulfill a proposed cost-sharing obligation may result in reduction of the sponsor's award.

The PI is responsible for providing the resources for cost-sharing of direct costs and for tracking and reporting the costs appropriately.

- Provided for in the approved budget when required by the awarding agency;
- Incurred within the performance period of the award.

Tracking, reporting, and certifying cost sharing

The PI, departmental administrative staff, and Extramural Funds Accounting staff share responsibility for tracking, reporting and certifying cost-share direct costs.

Pre-award:
The PI prepares a cost-share pledge by:
- Clearly documenting cost-sharing in the proposal budget justification.
- Omitting from the proposal text any normal University resources necessary for the project which are not offered as voluntary committed cost sharing. If deemed necessary, this type of information should be narrative in nature and must not include quantifiable financial information.
- Obtaining signed documentation from each funding source that has promised to contribute. Letters of funding commitment from third parties must be on the contributor's letterhead.
- If the contribution is from the University, a signed letter from a provost, dean or department chair, or the authorized official's signature on the Sponsored Programs datasheet, is acceptable.
- Submitting all signed documentation with the proposal package to Sponsored Programs Office.

Post-award:
Department administrators are responsible for recording and tracking cost-share expenses in the Cost-Share Tracking System. The PI is responsible for ensuring that all cost-share contributions are captured correctly and that cost-sharing obligations are met in a timely manner.

It is important to notify the Sponsored Programs Office immediately if there is any possibility that a cost-sharing commitment will not be fulfilled. This includes situations in which a PI transfers to another institution during the performance period of a project, because the sponsor may hold UC Davis responsible for fulfilling all, or a proportionate share, of any cost sharing commitment associated with the project.

The PI and/or the department administrator must submit cost share contribution reports to Extramural Funds Accounting for submission to the sponsor in accordance with the reporting terms defined in the award agreement.

Who to Contact

PI's Department Administrator

Sponsored Programs Office
Phone: (530) 754-7700
Fax: (530) 754-8229

Extramural Funds Accounting
Phone: (530) 757-8523
Fax: (530) 757-8721

Additional Information

UC Davis Cost Sharing Help
accounting.ucdavis.edu/costshare/index.cfm

UCOP Contract and Grant Manual, Chapter 5
ucop.edu/raohome/cgmanual/chap05.html

OMB Circular A21
whitehouse.gov/omb/circulars/a021/a21_2004.html

Effort Reporting

Effort reporting is the federally-mandated process by which the salary charged to a sponsored project is certified as being reasonable in relation to the effort expended on the project. It applies only to federally-funded projects.

Effort reporting involves the documentation of time spent by any employee funded with federal grants and working on a grant-funded project, including employees whose salaries are charged directly to federal and federal flow-through funds. Effort reporting is the process used to substantiate all salary costs, either directly charged to or committed as cost-sharing on federal projects. Effort is expressed as a percentage of the total amount of time spent on all work-related activities for which the University compensates the individual. If cost-sharing applies -- whether mandatory or voluntary committed -- UC Davis is required to track the cost-shared effort and certify that the campus has satisfied its commitment to the project. Any voluntary uncommitted cost-shared effort over and above what was originally specified in the project proposal, is not tracked, reported or certified.

Certifying Effort

An effort report must be certified for each employee whose salary (or portion thereof) is charged to a federally sponsored award and/or for any employee who has cost-sharing commitments on the project.

PIs and other faculty in professorial, professional research, and management titles who are paid on federal or federal flow-through funds are required to certify their own effort. Effort for other employees must be certified by the PI or other responsible official. The certifier must have firsthand knowledge of the work performed and the amount of effort expended on that project.

At UC Davis, effort reporting and certification is conducted annually. The annual effort-reporting period aligns with the federal fiscal year of October 1 through September 30. Effort reports are issued on or around November 15 (approximately 45 days after the end of the reporting period). The deadline for certifying effort reports falls on or around January 28 (within 120 days of the end of the reporting period).

Developing & Monitoring Sub-recipient Relationships

As the prime recipient of a grant, UC Davis, may collaborate with other institutions, known as sub-recipients, who carry out a portion of the project. Sub-recipients can receive funding in the form of a sub-award from the prime award.

It is important to determine whether the relationship with an outside provider will be considered a sub-award or a vendor procurement transaction. Therefore, before developing a proposal, the PI should discuss any necessary outside providers with their department administrator or Sponsored Program Office representative.

If the relationship is appropriately characterized as a sub-recipient relationship, the sub-awards are processed by the Sponsored Programs Office. Only the first $25,000 of a sub-award expense is subject to the UC Davis Facilities and Administrative charge (F&A charge, previously called the "indirect cost rate") when the indirect cost base is modified total direct costs. F&A charges are not applied to sub-award expenses incurred by other UC campuses.

Sub-recipients must comply with all terms and conditions of the prime award. The PI is responsible for monitoring the sub-recipient for compliance with award terms and conditions and for satisfactory performance of their portion of the project, including the completeness and acceptability of work performed, reasonableness of expenditures, and fulfillment of cost-sharing commitments.

Sub-awards are monitored using one, or a combination of, the following mechanisms:

- *Reporting* .Review of financial and performance reports submitted by the sub-recipient
- *Contact* .Regular contact with sub-recipients about program activities and progress
- I*nvoice review* .Invoices are approved by the PI and processed for payment by departmental administrators. If an invoice is not approved the Sponsored Programs Office representative assists in resolution.

Research Involving Humans or Animals

UC Davis has both legal and ethical obligations to ensure that human and animal subjects used in research are treated responsibly.

Research Involving Humans

Federal regulations (Common Rule 45 CFR 46) and UC Davis policy require that the Institutional Review Board (IRB) review and approve all research involving human subjects before any human studies are begun. This includes projects related to the investigation of new drugs; medical, radiological, engineering, physiological, behavioral, sociological, and nutritional studies; projects involving human tissues or blood; as well as images, questionnaires, interviews, and other procedures.

All personnel who participate in studies involving human subjects must successfully complete an IRB training course. In addition, all studies approved by the IRB require continuing review. Failure to ensure that a project is reviewed/approved by IRB in a timely manner will lead to suspension of the project and any grants related to the study.

Prior to beginning a study involving human subjects:

- Apply to the IRB for review and approval. This requirement applies to all projects, even when federal regulations exempt certain research from full IRB review.
- Complete the online human subjects training course approved by the IRB. This requirement applies to principal investigators, associate investigators, student investigators, study coordinators, visiting scientists, consultants, laboratory technicians and all assistants who will have direct contact with human subjects of research. Training must be renewed as determined by IRB. The PI is responsible for ensuring compliance with training requirements.

Key Points

The Institutional Review Board (IRB) must review and approve all research involving human subjects before the project commences, even if federal regulations permit certain research to be exempt from full institutional board review.

Institutional Animal Care and Use Committee (IACUC) must review and approve all research studies and teaching exercises involving the use of vertebrate animals before research procedures are performed.

Advance training is required for most research personnel in advance of conducting human or animal research.

Research Involving Animals

All research, teaching or testing that involves the use of vertebrate animals must be approved by the UC Davis Institutional Animal Care and Use Committee (IACUC) before the activities are performed. This includes off-site contract work such as polyclonal antibody production. Any significant changes to an approved project must be approved by the IACUC in advance of implementation. The IACUC can assist PIs in complying with all applicable federal, state, local and institutional regulations regarding animal care and use. An approved Animal Care and Use Protocol must be in place before animals are ordered.

Prior to beginning a study involving animals:

- Submit a protocol to the IACUC for approval. This can be done online at iacuc.ucdavis.edu/protocol.
- Complete the Animal Care and Use 101 course which is accessed through the campus Learning Management System at safetyservices.ucdavis.edu/training/animal-care-and-use-training.
- Participate in the Occupational Health program by completing the online risk assessment form and health history questionnaire at safetyservices.ucdavis.edu/programs-and-services/occupational-health/acuohp/ohpinfo.

Who to Contact

Institutional Review Board (human subjects)
Phone: (916) 703-9151
Fax: (916) 703-9160

UC Davis IACUC Office (animal subjects)
Phone: (530) 752-2364
Fax: (530) 752-4994
E-mail: iacuc-staff@ucdavis.edu

Environmental Health & Safety (if biological agents, controlled substances or hazardous materials or are to be used)
Phone: (530) 752-1493
Fax: (530) 752-4527
E-mail: ehsdesk@ucdavis.edu

Additional Information

Research Involving Human Subjects (UC Davis Policy)
manuals.ucdavis.edu/ppm/contents.htm#240

Policy on Care and Use of Animals in Research and Teaching
manuals.ucdavis.edu/ppm/290/290-30.pdf

Biosafety

A Biological Use Authorization (BUA) from the Institutional Biosafety Committee (IBC) is required for any research involving recombinant DNA or other biohazardous agents or materials. If the project includes animals, IACUC approval is also required, contingent on IBC approval.

Specific types of projects or operations that require a authorization include:

- *Research involving recombinant DNA technology,* except projects that are exempt under NIH Guidelines. Exemption requests are reviewed and authorized by the IBC.
- *Work with biohazardous agents or materials* that are pathogenic, infectious, or potentially infectious to plants, animals, or humans.
  - *Biohazardous agents* include animals, plants, bacteria, viruses, Chlamydia, rickettsiae, parasitic/infectious protozoa, metazoan animal or human parasites, prions, certain toxins, all viral vectors, etc.
  - *Biohazardous materials* include cells, cell cultures, fluids, and tissues of animals or plants known or suspected to be infected with any microbial agent, parasite, prion, and toxin-producing animals and plants when maintained for the purpose of isolating or extracting toxins.
- *Human gene transfer clinical projects* (Under NIH rules IRB approval is contingent on IBC approval).
- *Work with human source materials* covered under the Cal OSHA Bloodborne Pathogen Standard, including any human cell lines, blood or blood products and body fluids.
- *Work with non-human primate (NHP) cells*, established NHP cell lines, and NHP blood or blood products.
- *Storage of biohazardous agents or materials* that are not currently in use.
- *Conduct of classes that entail potential exposure* to biohazardous materials, such as laboratory exercises where pathogenic agents are handled or recombinant plants or animals are developed.
- *Operation of core facilities* where activities that involve biohazard exposures or regulated recombinant material take place, or where personnel may be exposed to biohazardous materials. Clinical laboratory work is exempted unless the laboratory is not covered under clinical laboratory quality assurance regulations.

Training Requirements

New principal investigators are advised to attend "Biological Use Authorization Basics" training and orientation. This is an optional, instructor-led course which details the BUA requirement and provides guidance for completing the BUA application.

The following courses are mandatory prerequisites for PIs and laboratory staff working with involving specific biohazards:

- *General Biological Safety --* for work at Biological Safety Level 2 (BSL2) with human and non-human primate source materials including cell lines, or with Risk Group 2 human infectious agents.
- *Safe Use of Biological Safety Cabinets --* for researchers and staff who own or use biological safety cabinets
- *Biological Safety for Research Involving Animals --* for work with animals experimentally or naturally infected with zoonotic or human disease agents including viral vectors
- *Biological Safety for Plant Research --* for work with plant pathogens or recombinant plants in laboratory or greenhouse environments
- *Safe Handling of rDNA Materials --* for research staff who handle rDNA materials other than plant, including transgenic animals, recombinant vectors and other rDNA constructs
- *NIH Guidelines Training --* mandated for PIs who work with rDNA
- *Human Gene Transfer Studies at UC Davis --* for PIs and clinical coordinators of human gene therapy (transfer) studies

The Biological Safety program also offers customized training in select agents, BSL3 laboratory practices, plant biosafety at BSL1-P/BSL2-P and BSL3-P, and other specialized biological safety topics.

The safety of research often comes down to individual behavior. To avoid injury, illness or fatalities, all required protective clothing and equipment must be utilized when working with biological agents. Utmost care should be given to understanding and following correct material-handling and equipment-operation procedures, and a zero-tolerance policy for lapses in sound safety practice should be enforced.

Radiological and Laser Safety

A UC Davis Use Authorization is required prior to use of radioactive materials, radiation-producing (x-ray) machines, high intensity light sources or lasers. Usage must be approved by the appropriate radiation use committee. In some cases, the use committee may need to review and approve not only material or equipment, but a particular proposed use.

The Office of Environmental Health and Safety (EH&S) assists PIs in complying with all applicable regulations and use authorization requirements.

Prior to beginning a study involving these types of materials or equipment, the PI must:

- Submit a "Use Authorization" application to EH&S for review and approval.
- Complete all required training associated with the particular material or equipment.

The safety of research often comes down to individual behavior. All required protective clothing and equipment must be utilized when working with radioactive materials, radiation and lasers. Utmost care should be given to understanding and following correct material-handling and equipment-operation procedures, and a zero-tolerance policy for lapses in sound safety practice should be enforced. This is critical to avoid injury, illness or fatalities.

Controlled Substances

The UC Davis Controlled Substance Program oversees the special requirements and procedures applicable to the procurement, storage, use, transfer, disposal and inspection of controlled substances at all locations that are the responsibility of the UC Davis administration.

All research studies involving the use of controlled substances must be registered with the Office of Environmental Health and Safety (EH&S) before any controlled substance may be purchased.

Prior to beginning a study the PI must contact EH&S to request a new authorization. The authorization process includes inspection of the proposed storage location. An EH&S specialist will provide the PI with all of the necessary forms for proper documentation of each controlled substance acquisition, use and disposal.

Additionally, all personnel who will be handling controlled substances must complete controlled substances training.

The UC Davis Policy and Procedure Manual, section 290-70 provides detailed information on PI responsibilities and procedures for purchase, use, storage and disposal of controlled substances.

The safety of research often comes down to individual behavior. All required protective clothing and equipment must be utilized when working with controlled substances. Utmost care should be given to understanding and following correct material-handling and equipment-operation procedures, and a zero-tolerance policy for lapses in sound safety practice should be enforced. This is critical to avoid injury, illness or fatalities.

Key Points

The procurement, storage, use, transfer, disposal and inspection of controlled substances is monitored by the UC Davis Controlled Substance Program.

Authorization is required before purchasing any controlled substance.

Specialized training is required before beginning any study involving a controlled substance.

Who to Contact
Environmental Health & Safety
Phone: (530) 752-1493
Fax: (530) 752-4527
E-mail: ehsdesk@ucdavis.edu

Additional Information

UC Davis Policy and Procedure Manual, section 290-70
manuals.ucdavis.edu/ppm/290/290-70.pdf

Chemical Safety

All research studies involving the use of chemicals in a laboratory setting require:

- Proper reporting of the chemical inventory;
- Proper labeling, storage and disposal methods;
- A written Chemical Hygiene Plan that includes standard operating procedures; and
- Staff training.

Additional requirements for the use of campus-recognized chemical carcinogens also apply as appropriate.

Although not required by policy, the following training courses are recommended for all personnel working with chemicals:

- Laboratory Safety
- Hazardous Waste Management and Minimization

PIs and others responsible for chemicals and hazardous waste are required to self-audit chemical inventories on an annual basis and enter results into the Chemical Inventory System maintained by EH&S. This self-audit process is designed to verify regulatory compliance and enables county inspectors to audit the central system rather than visit every laboratory. Failure to comply with applicable regulations could result in fines to laboratories or projects.

The safety of research often comes down to individual behavior. All required protective clothing and equipment must be utilized when working with chemicals. Utmost care should be given to understanding and following correct material-handling and equipment-operation procedures, and a zero-tolerance policy for lapses in sound safety practice should be enforced. This is critical to avoid injury, illness or fatalities.

Contact Information

Accounting & Financial Services

accounting.ucdavis.edu
1441 Research Park Drive
Davis, CA 95616
Phone: (530) 757-8501
Fax: (530) 757-8510

Biological Safety Office

safetyservices.ucdavis.edu/programs-and-services/biosafety
276 Hoagland Hall
Phone: (530) 752-1493
Fax: 752-4527
Biosafety staff e-mails are listed at
safetyservices.ucdavis.edu/about-us-1/org-chart-pages/biological-safety-org-chart

Costing & Policy Analysis

accounting.ucdavis.edu/costing
1441 Research Park Drive, Room 101
Phone: (530) 752-4621
Fax: (530) 757-8510

Environmental Health & Safety

Phone: 530-752-1493
Fax: 530-752-4527
E-mail: ehsdesk@ucdavis.edu

Extramural Funds Accounting

accounting.ucdavis.edu/EX
1441 Research Park Drive, Room 170
Phone: (530) 757-8523
Fax: (530) 757-8721

Institutional Animal Care & Use Committee Office

safetyservices.ucdavis.edu/IACUC
ARS Q3
Phone: (530) 752-2364:
Fax: (530) 752-4994
E-mail: iacuc-staff@ucdavis.edu

Institutional Review Board

research.ucdavis.edu/irbadmin
UC Davis Medical Center, CTSC Building
2921 Stockton Blvd., Suite 1400, Room 1429
Sacramento, CA 95817
Phone: (916) 703-9151
Fax: (916) 703-9160
IRB contacts are listed at
research.ucdavis.edu/home.cfm?id=OVC,1,2057

Office of Research

research.ucdavis.edu
1850 Research Park Drive, Suite 300
Davis, CA 95618-6153
Phone: (530) 754-7679
Fax: (530) 754-7894
Office of Research contacts are listed at
research.ucdavis.edu/home.cfm?id=OVC,0,1125

Office of Research Compliance

research.ucdavis.edu/compliance
UC Davis Medical Center, CTSC Building
2921 Stockton Blvd., Suite 1400, Room 1429
Sacramento, CA 95817
Phone: (916) 703-9151
Fax: (916) 703-9160
Staff contacts are listed at
research.ucdavis.edu/home.cfm?id=OVC,10,1201,2116

Safety Services

safetyservices.ucdavis.edu
276 Hoagland Hall
Phone: (530) 752-2599
Fax: (530) 752-4527

Sponsored Programs Office

research.ucdavis.edu/sponsoredprograms
1850 Research Park Drive, Suite 300
Davis, CA 95618-6153
Phone: (530) 754-7700
Fax: (530) 754-8229
Sponsored programs contact look-up:
ortraining.ucdavis.edu/contact-tool