



DEPARTMENT OF HEALTH & HUMAN SERVICES

OFFICE OF INSPECTOR GENERAL

Office of Audit Services
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FEB 3 2006

Report Number: A-01-05-01501

Mr. Bruce D. Alexander
Acting Vice President for
Finance & Administration
Yale University
2 Whitney Ave
7th Floor
New Haven, CT 06510

Dear Mr. Alexander:

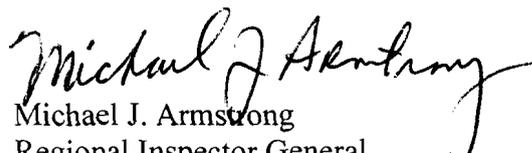
Enclosed are two copies of the U.S. Department of Health & Human Services (HHS), Office of Inspector General (OIG) report entitled "Review of Subaward Costs Claimed by Yale University on NIH Grant Number 5 P01 HL56920-05 from February 1, 2001 through August 31, 2002." A copy of this report will be forwarded to the action official noted below for his review and any action deemed necessary.

The HHS action official will make final determination as to actions taken on all matters reported. We request that you respond to the HHS action official within 30 days from the date of this letter. Your response should present any comments or additional information that you believe may have a bearing on the final determination.

In accordance with the principles of the Freedom of Information Act (5 U.S.C. § 552, as amended by Public Law 104-231), OIG reports issued to the department's grantees and contractors are made available to the public to the extent information is not subject to exemptions in the Act which the department chooses to exercise. (See 45 CFR part 5.)

If you have any questions or comments about this report, please do not hesitate to contact me at (617) 565-2689 or through e-mail at Michael.Armstrong@oig.hhs.gov. To facilitate identification, please refer to report number A-01-05-01501 in all correspondence.

Sincerely yours,


Michael J. Armstrong
Regional Inspector General
for Audit Services

Enclosures – as stated

Direct Reply to HHS Action Official:

Ms. Elizabeth Dabler
Chief, Special Reviews Branch
Division of Financial Advisory Services
Office of Acquisition Management and Policy
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Department of Health and Human Services

**OFFICE OF
INSPECTOR GENERAL**

**REVIEW OF SUBAWARD COSTS
CLAIMED BY YALE UNIVERSITY ON
NIH GRANT NUMBER
5 P01 HL56920-05 FROM
FEBRUARY 1, 2001, THROUGH
AUGUST 31, 2002**



**Daniel R. Levinson
Inspector General**

**February 2006
A-01-05-01501**

Office of Inspector General

<http://oig.hhs.gov>

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OAS FINDINGS AND OPINIONS

The designation of financial or management practices as questionable or a recommendation for the disallowance of costs incurred or claimed, as well as other conclusions and recommendations in this report, represent the findings and opinions of the HHS/OIG/OAS. Authorized officials of the HHS divisions will make final determination on these matters.



EXECUTIVE SUMMARY

BACKGROUND

Yale University (the University) is a private, not-for-profit institution of higher education located in New Haven, Connecticut. The school consistently ranks among the leading recipients of research funding from the National Institutes of Health (NIH) and other organizations that support the biomedical sciences.

NIH's National Heart, Lung, and Blood Institute awarded grant number 5 P01 HL 56920-05, entitled "Hematopoietic Stem Cell Growth and Engraftment," to the University of Massachusetts Medical School (UMMS) for the period September 1, 1996, through August 31, 2002. Of the total award of \$5.5 million, \$1.7 million (31 percent) was for a subrecipient grant awarded to Yale University, entitled "Genes Expressed in Stem Cells and During Cell Cycle (Project 4)." Our review covered the last subgrant budget period, from February 1, 2001, through August 31, 2002. Of the \$572,344 awarded for this budget period, \$213,311 (37 percent) was in unspent funds from previous budget periods. The University's final invoice dated October 23, 2002, totaled \$508,304.

OBJECTIVE

Our objective was to determine whether the University claimed allowable costs under the terms and conditions of the subgrant and applicable Federal regulations set forth in OMB Circular A-21.

SUMMARY OF FINDINGS

From February 1, 2001, through August 31, 2002, the University claimed \$193,779 in costs that did not comply with OMB Circular A-21 and the terms of the subgrant. Of this amount,

- \$151,252 was in labor costs and related fringe and indirect costs representing unallowable cost transfers, and
- \$42,527 was in unsupported direct charges and related indirect costs representing nonlabor costs of \$32,993 and unconfirmed effort reports of \$9,534.

Although the University had established procedures for work on sponsored research projects, we found that these procedures were not always followed or were inadequate.

In addition, the Principal Investigator failed to provide the 25 percent level of effort proposed in the University's budget justification document and subgrant application and did not obtain prior approval from UMMS for the significant reduction in effort. As a result, we have less than adequate assurance that the goals of this funded research project were met.

RECOMMENDATIONS

We recommend that the University:

- comply with Federal and University requirements to verify that cost transfers are adequately explained and documented,
- improve procedures for direct charging of nonlabor goods and services and comply with procedures for confirming effort reports, and
- ensure that budgeted levels of efforts are satisfied and that necessary prior approvals are obtained for significant deviations in budgeted levels of effort.

Because the University received its funds through a subgrant from UMMS rather than directly from NIH, we will recommend under separate cover that UMMS reimburse NIH for unallowable subgrant costs totaling \$193,779.

YALE UNIVERSITY'S COMMENTS

In its written comments on our draft report, the University disagreed with some of our findings and recommendations. The University presented several rationales for its position. The University's comments are included as the appendix.

OFFICE OF INSPECTOR GENERAL'S RESPONSE

We maintain that our recommendations accurately reflect the University's failure to comply with OMB Circular A-21 and the terms of the subgrant.

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INTRODUCTION

BACKGROUND

Yale University (the University) is a private, not-for-profit institution of higher education in New Haven, CT. The school consistently ranks among the leading recipients of research funding from the National Institutes of Health (NIH) and other organizations that support the biomedical sciences.

NIH's National Heart, Lung, and Blood Institute awarded grant number 5 P01 HL 56920-05, entitled "Hematopoietic Stem Cell Growth and Engraftment," to the University of Massachusetts Medical School (UMMS) for the period September 1, 1996, through August 31, 2002. Of the total award of \$5.5 million, \$1.7 million (31 percent) was for a subrecipient grant awarded to Yale University, entitled "Genes Expressed in Stem Cells and During Cell Cycle (Project 4)." Our review covered budget year 5, the last subgrant budget period, from February 1, 2001, through August 31, 2002. Of the \$572,344 awarded for this budget period, \$213,311 (37 percent) was in unspent funds from previous budget periods. The University's final invoice dated October 23, 2002, totaled \$508,304.

OBJECTIVE, SCOPE, AND METHODOLOGY

Objective

Our objective was to determine whether the University claimed allowable costs under the terms and conditions of the subgrant and applicable Federal regulations set forth in OMB Circular A-21.

Scope

We reviewed the \$508,304 that the University claimed for the period February 1, 2001, through August 31, 2002. We limited our review of internal controls to the process that the University used to claim subgrant costs for reimbursement.

During our review, the University self-disclosed that documentation that it had provided to us to support the salary cost transfers for two researchers had been altered. The unaltered version stated that the transfers were needed to spend down the subgrant funds. The University voluntarily disclosed the alteration to us when University staff discovered it. The University considered the alteration a serious matter and conducted an investigation.

Because the objective of our audit was to determine whether the University claimed allowable costs under the terms and conditions of the subgrant and applicable Federal regulations, the alteration of relevant information to support cost transfers claimed could materially affect whether such costs were allowable for reimbursement. This alteration calls into question the accuracy of the information that the University supplied to us.

We performed our fieldwork between February and October 2005 at Yale University in New Haven, CT.

Methodology

We used applicable Federal regulations, subgrant terms and conditions, and University policies and procedures to determine if amounts claimed met reimbursement requirements. In addition, we obtained detailed ledger transaction listings, labor distribution records, personnel records, and supporting documents to perform audit tests of various cost categories.

During our review, we:

- reviewed subgrant and budget award documents for pertinent terms and conditions;
- reconciled costs claimed by the University to supporting accounting records;
- reviewed charges distributed through payroll distribution procedures and reconciled salary and wage charges with supporting personnel action forms and semi-annual effort certification reports;
- reviewed proposed and actual level of effort of key employees for differences;
- reviewed purchasing and recharge center procedures and tested and verified selected direct costs (i.e., for materials, supplies, equipment, and travel) to source documents;
- reviewed pertinent A-133 audit reports and working papers; and
- verified that the University applied overhead and fringe benefit rates approved by the HHS Division of Cost Allocation.

We conducted our review in accordance with generally accepted government auditing standards.

FINDINGS AND RECOMMENDATIONS

From February 1, 2001, through August 31, 2002, the University claimed \$193,779 in costs that did not comply with OMB Circular A-21 and the terms of the subgrant. Of this amount,

- \$151,252 was in unallowable cost transfers and related fringe and indirect costs, and

- \$42,527 was in unsupported direct charges and related indirect costs representing nonlabor costs of \$32,993 and unconfirmed effort reports of \$9,534.

Although the University had established procedures for work on sponsored research projects, we found that these procedures were not always followed or were inadequate.

In addition, the Principal Investigator (PI) failed to provide the 25 percent level of effort proposed in the University's budget justification document and subgrant application and did not obtain prior approval from UMMS for the significant reduction in effort. The University does not have procedures for monitoring the budgeted or minimum level of effort for key personnel. As a result, we have less than adequate assurance that the goals of this funded research project were met.

COST TRANSFER CHARGES

Federal and University Regulations Governing Cost Transfers

NIH Grants Policy Statement (03/01), part II, subpart A, for cost transfers states:

The transfers must be supported by documentation that fully explains how the error occurred and a certification of the correctness of the new charge by a responsible organizational official of the grantee, consortium participant, or contractor. An explanation merely stating that the transfer was made "to correct error" or "to transfer to correct project" is not sufficient. Transfers of costs from one budget period to the next solely to cover cost overruns are not allowable.

OMB Circular A-21, section C.4.b, states:

Any costs allocable to a particular sponsored agreement under the standards provided in this Circular may not be shifted to other sponsored agreements in order to meet deficiencies caused by overruns or other fund considerations, to avoid restrictions imposed by law or by terms of the sponsored agreement, or for other reasons of convenience.

Yale University Procedure 1305 PR.2.1 on labor transfers states, "Do not use any sponsored project as a holding account, even for a short period of time." Furthermore, 1305 PR.2.3 states that ". . . costs transfers must be approved in the system before they can be posted The approver will only authorize a transfer when satisfied that it is proper and that the explanation is specific, clear, and detailed."

Section 1305.2.2 on use of journal entries for nonlabor costs states:

Journal entry cost transfers must be approved in the system before they can be posted. The approver will verify that the explanation contained in the description field of each debit line is complete and proper and required data is complete and accurate The approver will only

authorize a transfer when satisfied that it is proper and that the explanation is specific, clear, and detailed.

For labor and nonlabor cost transfers over \$100, University procedures state, “Grants and Contract Financial Administration monitors transfers made against sponsored awards and reviews them for compliance. Thorough explanation and retention of backup documentation is required in every case.”

Unallowable Cost Transfers

The University transferred \$151,252 to this grant that was not allowable: \$112,693 was in salaries and \$38,559 in nonlabor costs (see Table 1). In addition, the University did not monitor any costs transfers over \$100 as required.

Table 1: Unallowable Cost Transfers

Source	Number	Direct Costs	Indirect & Fringe Costs	Direct and Indirect Costs
Labor Transfers				
Other Projects	4	\$28,972	\$30,586	\$59,558
General Funds	3	25,786	27,349	\$53,135
Subtotal	7	\$54,758	\$57,935	\$112,693
Nonlabor Transfers				
Animal Care, Supplies	22	\$23,369	\$15,190	\$38,559
TOTAL				\$151,252

The seven unallowable salary cost transfers made during the subgrant performance period related to seven individuals whose salaries had been originally charged to other sponsored research projects or to general fund accounts:

- Transfers from other sponsored research projects – Four of the seven cost transfers totaling \$59,558 were for salaries that were originally charged to other sponsored research projects. However, the University did not maintain adequate support and detailed documentation of the cost transfers as required. Moreover, one e-mail initially provided to us to support two labor cost transfers had been altered.¹
- Transfers from general fund accounts – Three of the seven cost transfers totaling \$53,135 were originally charged to general fund accounts. Because the subgrant was awarded late, the University subsequently transferred salaries from general funds to the subgrant. However, the transfers were neither properly authorized nor adequately supported by a specific, clear, and detailed explanation with related documentation as required.

¹ The altered e-mail requested cost transfers for two researchers’ salaries but did not contain a reason for the transfers. The unaltered version stated that the transfers were needed to spend down the subgrant funds. For further details, see the Scope section of this report.

The 22 nonlabor cost transfers that we reviewed consisted of animal care, materials, and laboratory supply costs transferred from other NIH grants. All of these transfers were unallowable because they either represented overrun costs (18 transfers) or were not adequately explained (4 transfers).

For both labor and nonlabor cost transfers, the University did not comply with NIH requirements and its own procedures to ensure that the transfers were adequately supported by a full, clear, and documented explanation and properly reviewed and approved before posting. As a result, we have questioned \$151,252 that the University transferred to this grant (\$112,693 in labor costs and \$38,559 in nonlabor costs).

DIRECT CHARGES TO GRANT

Federal and University Regulations Governing Charges to Sponsored Projects

OMB Circular A-21, section D.1 and D.2, states:

Direct costs are those costs that can be identified specifically with a particular sponsored project . . . or that can be directly assigned to such activities relatively easily with a high degree of accuracy The cost of materials supplied from stock or services rendered by specialized facilities or other institutional service operations may be included as direct costs of sponsored agreements, provided such items are charged under a recognized method of computing actual costs and conform to generally accepted cost accounting practices consistently followed by the institution.

OMB Circular A-21, section C.4.a, states, “A cost is allocable to a particular cost objective (i.e., a specific function, project, sponsored agreement, department, or the like) if the goods or services involved are chargeable or assignable to such cost objective in accordance with relative benefits received or other equitable relationship.”

Yale University Procedure 1315 PR.2.1 states:

Direct charge effort reporting confirms and substantiates that the actual activity of an employee supports the compensation charged to federal funds Direct charges to federal funds, if not confirmed by the employee, must be confirmed by responsible persons who have suitable means of verifying that the services were performed.

Unsupported Direct Charges to Grant

The University claimed \$42,527 in unsupported direct charges and related indirect costs representing nonlabor costs of \$32,993 and unconfirmed effort reports of \$9,534 (see Table 2).

Table 2: Unsupported Direct Charges

Direct Charges	Number	Direct Costs	Indirect & Fringe Costs	Direct and Indirect Costs
Nonlabor				
Supplies and Materials	13	\$14,445	\$9,389	\$23,834
DNA Sequencing	2	1,597	1,038	2,635
Maintenance	3	3,954	2,570	6,524
Subtotal	18	\$19,996	\$12,997	\$32,993
Labor				
Effort Reports	2	\$4,394	\$5,140	\$9,534
TOTAL				\$42,527

Of the 55 nonlabor transactions that we reviewed, 18 charges totaling \$32,993 were unallowable. These transactions consisted of:

- 13 charges totaling \$23,834 for laboratory stockroom supplies and purchased chemicals and materials. We found no evidence that these transactions had been properly approved and that the supplies had been used on this subgrant.
- 2 charges totaling \$2,635 for internal DNA sequencing services. Both requests for services came from researchers who could not be documented as having worked on the UMMS subgrant.
- 3 charges totaling \$6,524 for maintaining equipment purchased under another sponsored grant. The University did not provide sufficient information to show that the charges to this subgrant were equitable.

We also found unsupported labor transactions charged to this subgrant. Because two monthly effort reports for one researcher were not confirmed as required, we have no assurance that the researcher actually worked on the subgrant for this 2-month period or that the corresponding salary and indirect costs totaling \$9,534 were allowable.

Although the University had established procedures for charging nonlabor goods and services and confirming effort reports, we found that these procedures were inadequate or were not always followed. Thus we have questioned costs totaling \$42,527 (\$32,993 in nonlabor and \$9,534 in labor charges).

LEVEL OF EFFORT

Federal Regulations Governing Level of Effort

Title 45 CFR, part 74, subpart C, section 74.25(b) states that "recipients are required to report deviations from budgets and program plans and request prior approvals for budget and program plan revisions . . ."

Furthermore, subpart C, section 74.25(c), states that "for nonconstruction awards, recipients shall obtain prior approval from the HHS awarding agency . . . for a 25 percent

reduction in time devoted to the project by the approved project director or principal investigator.”

OMB Circular A-21, section J.10.c(2), states, “Under this system the distribution of salaries and wages by the institution will be supported by activity reports These reports will reflect an after the fact reporting of the percentage distribution of activity of employees.”

Insufficient Level of Effort from Principal Investigator

The PI failed to provide the 25 percent level of effort proposed in the University’s budget justification document and related subgrant application. Furthermore, the University did not obtain prior approval from UMMS for the significant reduction in the PI’s planned level of effort. The PI spent 9 percent of his effort working on the award from January through June 2001 and 5 percent from July through December 2001. The budgeted level of effort for these periods was 25 percent. Although the University stated that the PI had expended a sufficient level of effort, it did not provide supporting documentation.

The University does not have procedures for monitoring the budgeted or minimum level of effort for key personnel. Existing activity certification reports do not always reflect the actual percentage of activity that employees devoted to the grant, as OMB A-21 requires. As a result, we have less than adequate assurance that the research goals funded under this subgrant were achieved.

RECOMMENDATIONS

We recommend that the University:

- comply with Federal and University requirements to verify that cost transfers are adequately explained and documented,
- improve procedures for direct charging of nonlabor goods and services and comply with procedures for confirming effort reports, and
- ensure that budgeted levels of efforts are satisfied and that necessary prior approvals are obtained for significant deviations in budgeted levels of effort.

Because the University received its funds through a subgrant from UMMS rather than directly from NIH, we will recommend under separate cover that UMMS reimburse NIH for unallowable subgrant costs totaling \$193,779.

YALE UNIVERSITY'S COMMENTS AND OFFICE OF INSPECTOR GENERAL'S RESPONSE

In its January 17, 2006, response to our draft report, the University disagreed with some of our findings and recommendations. The University's comments are summarized below and included in the appendix.

Cost Transfer Charges

Yale University's Comments

Labor: The University acknowledged that \$35,942 of the \$112,693 in disallowed labor cost transfers was not adequately documented and will not dispute the disallowance of these costs. However, the University maintained that the remaining \$76,751 was properly transferred to the subaward and should be allowed. It stated that the transfers were necessary because UMMS did not notify the University until June 2001 that the subaward would be continued for budget year 5, which began February 1, 2001. Because the University was uncertain whether the continuation year would be awarded before the close of the University's fiscal year on June 30, 2001, it did not establish an unfunded "pre-award" account to accumulate labor charges. Instead, the salaries for most of the employees working on the UMMS subaward were charged either to discretionary accounts or to other sponsored research projects and transferred to the UMMS subaward account after the University was notified of the award. The University maintained that the reasons for these labor cost transfers were reasonable and adequately documented at the time of the transfers.

Nonlabor: The University acknowledged that all nonlabor cost transfers, which totaled \$38,559, were inadequately documented at the time of the transfers. It will not dispute the disallowance of these costs.

Office of Inspector General's Response

Labor: Like the \$35,942 disallowance that the University acknowledge, the remaining \$76,751 in labor cost transfers from general accounts and other sponsored projects was neither properly authorized nor adequately supported by a specific, clear, and detailed explanation with related documentation as required. The salary amounts that the University claimed were transferred because of the late award were not properly accounted for as required. In addition, we were not able to reconcile these costs to the accounting records. Because of the existence of several e-mails requesting transfers of both labor and nonlabor costs to the subgrant to cover deficits in other projects and the alteration of one of these e-mails, we cannot accept any cost transfers that are not fully in compliance with the University's own requirements for valid justification and detailed supporting documentation. Accordingly, we maintain our recommendation that the University (1) comply with Federal and University requirements for verifying that cost transfers are adequately explained and documented and (2) classify the remaining \$76,751 in labor transfer costs as a disallowance.

Direct Charges to Grant

Yale University's Comments

Supplies and Materials: The University agreed with only \$158 of the \$23,834 for supplies and materials that we questioned. In response to this finding, the University stated the following:

- The PI reviewed the \$23,834 and confirmed that all but \$158 of this total was for common reagents and materials used for all three of the major research projects funded in his lab during the audit period.
- OMB A-21, section C.4.a, provides that a cost is allocable to an award if “it benefits both the sponsored agreement and other work of the institution, in proportions that can be approximated through use of reasonable methods.” Because of the difficulty of ascertaining the precise use of these fungible supplies and materials, the PI adopted a reasonable method of allocating their cost among the three research projects in his lab. The University maintained that it described this allocation method in detail in its October 26, 2005, memorandum.
- Although the personnel who ordered these supplies did not charge time to the subaward, these two senior research technicians were under the PI’s direction and followed the PI’s general method of allocating costs for fungible items.

DNA Sequencing: The University concurred with our total questioned costs of \$2,635 for internal DNA sequencing and oligonucleotide synthesis services.

Equipment Maintenance: The University agreed that the \$1,671 for the centrifuge maintenance contract charged to the subgrant after the end of the subaward (i.e., 9/1/2002 through 6/30/2003) should be disallowed. However, it maintained that the remaining questioned equipment maintenance costs of \$4,853 for the period 7/1/2000 through 8/31/2002 should be allowed because the PI used a reasonable cost allocation method to allocate these costs to the subaward.

The University noted that the PI had provided a declaration stating that the centrifuge identified on the maintenance contract was used on the subaward and other research in his lab during the audit period. The University maintained that the PI divided these and other equipment maintenance costs among the three principal projects active in his lab. Accordingly, the PI charged all of the maintenance contract costs for this centrifuge to the subaward, the centrifuge’s purchase cost and 1-year warranty to the second project in his lab, and other equipment maintenance costs to the third project.

Effort Reports: The University disagreed with our disallowance of \$9,534 for a lab technician’s labor costs charged to the subaward for 2 months. Although the University could not locate the signed effort reports for these 2 months, it maintained that this lack of documentation was an isolated occurrence. It stated that, of the 28 effort reports that it provided to us during the audit, only these 2 were not properly signed. In addition, the PI

confirmed that the lab technician had devoted 100 percent of effort to the subaward during the period in question.

The University maintained that the history of signed effort reports for the UMMS subaward and the PI's confirmation that the lab technician had devoted effort to this subaward during July and August 2002 provide reasonable assurance that the questioned labor costs of \$9,534 were allowable, reasonable, and allocable to the UMMS subaward.

Office of Inspector General's Response

Supplies and Materials: Although the University disagreed with our disallowance of \$23,676 (\$23,834–\$158) for supplies and materials, the University has no cost accounting procedures that address the direct allocation of fungible goods. The allocation method that the PI used was vaguely described in the University's October 26, 2005, memorandum. However, the University's method as set forth in the memo is unacceptable because it is not a recognized method that is consistently applied. Although the memo indicated that the PI's objective was to charge one-third of supplies and materials about equally to the three major sponsored projects, the memo did not provide any supporting evidence that the various projects would consume the same level of supplies and materials, nor did it adequately account for smaller projects. In addition, it did not adequately explain what constituted an active project during the 3-year period mentioned. The active period of August 1999 through August 2002 is not compatible with the subaward period of February 2001 through August 2002.

Equipment Maintenance: The University disagreed with our disallowance of \$4,853 (\$6,524–\$1,671) for equipment maintenance. However, our objections to the PI's method for allocating costs for supplies and materials also apply to equipment maintenance costs. Again, the University's method is unacceptable because it is not a recognized method that is consistently applied. The University presented no analysis or evidence to demonstrate the equitability and reasonableness of allocating equipment maintenance in this manner, including no evidence that all equipment is used equally on all three grants, or that none of the equipment was used on smaller grants.

Effort Reports: The University disagreed with our disallowance of \$9,534 for labor costs. Contrary to Federal and University requirements, the PI did not submit effort reports for this lab technician for the 2-month period cited. In light of the PI's movement of subaward funds to other projects that were over budget, we have no assurance that the lab technician worked on this subaward during this period.

In total we have questioned 13, or almost half, of the 28 certified effort reports selected for review. This high percentage does not support the University's contention that the two missing reports related to the lab technician are an isolated incidence.

We maintain that the University needs to improve its procedures for direct charging of nonlabor goods and services, comply with procedures for confirming effort reports, and classify the remaining \$28,529 (\$23,676 + \$4,853) in nonlabor costs and \$9,534 in labor costs as a disallowance.

Level of Effort

Yale University's Comments

The University acknowledged that its effort reporting system does not have adequate controls to ensure that the PI and other key personnel expended the promised level of effort on this subaward. However, it disagreed with our findings that (i) the PI failed to provide the 25 percent level of effort promised to the subaward and did not obtain prior approval for reducing his level of effort and (ii) weaknesses in the existing system resulted in less than adequate assurance that the research goals funded under this grant were achieved.

The University stated that, consistent with the purpose of the University's activity certification and survey reports, the PI's activity reports show the percentage of the PI's salary that was charged to the UMMS subaward (11 percent for January through July 2001 and 5 percent for July through December 2001) rather than the PI's actual activity. The University asserted that, because part of the PI's salary was funded by nonsponsored award sources, his salary was charged to the UMMS subaward at a lower percentage than his actual effort warranted. The PI told the University that his actual effort on the UMMS subaward during the fifth year of the grant was 20 percent, or 1 day per 5-day week. The University concluded that the PI's 20 percent actual level of effort fell within the guidelines prescribed by the NIH Grants Policy Statement because it represented a reduction of less than 25 percent of the PI's committed effort for the UMMS subaward.

The University asserted that the achievement of the UMMS subaward's research goals could not reasonably be questioned, as evidenced by the publications that have resulted from the work performed on the subaward.

Office of Inspector General's Response

The University's disagreement with this finding is based on a verbal statement from the PI that he had dedicated 20% of his effort, or 1 day a week, to the subaward. Because the University made several cost transfers to cover overruns from other projects, we cannot rely on testimonial evidence to refute our findings. Additional information on actual level of effort percentages that the University provided to us shows that, from February through August 2001, the PI actually expended 15.1 percent of his total effort on the subaward. This level of effort is not within the minimum 18.75 percent level of effort required. For the balance of the subaward period, from September 2001 through August 2002, the activity reports did not show that the PI devoted any effort to this subaward. University officials indicated that he worked on the subaward but did not charge it. Although we requested supporting documentation to identify what account the PI's effort was charged to and how it could be identified as effort on this subaward, the University did not provide this support.

We maintain that the University should ensure that budgeted levels of efforts are satisfied and that necessary prior approvals are obtained for significant deviations in budgeted levels of effort.

APPENDIX

YALE UNIVERSITY

*Office of the Vice President for Finance and Administration
2 Whitney Avenue, 7th Floor, New Haven, Connecticut 06510*

APPENDIX

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Phone: 203 432-1094

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VIA FACSIMILE AND FEDERAL EXPRESS

January 17, 2006

Michael J. Armstrong
Regional Inspector General for Audit Services
DHHS – Office of the Inspector General – Region I
John F. Kennedy Federal Building
Boston, MA 02203

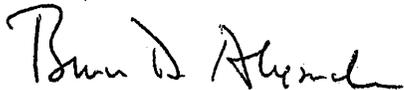
Re: Draft Report Number A-01-05-01501 (dated November 28, 2005)

Dear Mr. Armstrong,

Enclosed is Yale University's ("the University") response to the U.S. Department of Health and Human Services, Office of Inspector General, Office of Audit Services, draft report entitled "Review of Subaward Costs Claimed by Yale University on NIH Grant Number 1 P01 HL56920-05 from February 1, 2001 through August 31, 2002."

We appreciate the extension of time that your office granted (by email from Daniel Lew on December 2, 2005) to respond to the findings and recommendations in the draft report. Please contact me if you have any questions or would like additional information concerning any aspect of our response.

Sincerely,



Bruce D. Alexander
Acting Vice President for Finance and Administration

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EXECUTIVE SUMMARY

We appreciate the opportunity to respond to the findings and recommendations in the OIG draft report #A-01-05-01501 (dated November 28, 2005). The University's position on each of the findings and recommendations is summarized below. A more detailed response to the findings and recommendations set forth in the draft report follows this summary.

COST TRANSFER CHARGES

Labor

The draft report proposes to disallow labor costs totaling \$112,693¹ that were transferred to the University of Massachusetts ("UMASS") subaward, on the ground that the transfers either were not supported by adequate documentation or lacked proper authorization. Of this amount, we believe that labor cost transfers totaling \$76,751 (which were not charged initially to a UMASS subaward account because of a delayed award notice) were properly transferred and charged to the UMASS subaward and were adequately explained and substantiated in documentation contemporaneous with the transfers. Therefore, we believe these costs should be allowed.

We also believe that a significant portion of the remaining \$35,942 in labor cost transfers were allowable, reasonable and allocable to the UMASS subaward. The University acknowledges, however, that the transfer of these costs was inadequately documented at the time of the transfers. Accordingly, Yale will not dispute the disallowance of these costs.

Non-Labor

The University believes that a portion of the \$38,559 transferred charges for animal services and for radioisotopes and other fungible laboratory supplies were allowable, reasonable and allocable to the UMASS subaward. The University acknowledges, however, that transfers of these costs were inadequately documented at the time of the transfers. Accordingly, Yale will not dispute the disallowance of these costs.

We have updated the fringe benefit costs in light of additional information that the University provided us.

DIRECT CHARGES TO GRANT

The draft report questions \$42,383 in direct charges to the UMASS subaward, including \$32,993 in non-labor costs and \$9,390 in labor charges, on the ground that supporting documentation was inadequate.

Non-Labor

Lab Supplies and Materials. With respect to the \$23,834 of questioned costs for laboratory supplies and materials, we believe that \$23,676 (*i.e.*, all but \$158, for certain paper goods) of these costs was allowable and allocable to the UMASS subaward and was allocated to it on a reasonable basis.

DNA Sequencing. Upon detailed review, the University determined that \$2,635 charged for DNA sequencing was initially thought to be fungible costs and was allocated to the UMASS subaward in accordance with the general cost allocation methodology used in the Principal Investigator's ("PI") lab and described in our previous submissions. On further review, however, the University determined that these costs were not fungible and should have been charged to a specific grant account. Therefore, the University will not dispute the disallowance of these costs.

Equipment Maintenance. Regarding the questioned equipment maintenance costs totaling \$6,524, we believe \$4,853 of these costs were allocated to the UMASS subaward based on a reasonable cost allocation methodology, as described in our previous submissions. The University will not dispute the disallowance of the remaining \$1,671 of the questioned equipment maintenance costs.

Labor

Regarding the two unsigned effort reports for one lab technician (out of the 28 effort reports OIG reviewed during the audit), we believe that the history of obtaining signed effort reports for this individual and other employees who worked on the subaward demonstrates that the missing reports were an isolated occurrence. Further, the PI has confirmed that the lab technician devoted 100% of her effort to the UMASS subaward during the questioned period, July and August 2002. Therefore, we do not believe that the \$9,534 in questioned labor costs for this period (*see* fn. 1) should be disallowed.

APPLICABLE FRINGE RATE

We have updated the fringe benefit costs in light of additional information that the University provided us.

LEVEL OF EFFORT

The OIG draft report alleges that (A) the PI failed to provide the 25% level of effort proposed in the subaward application and did not obtain prior approval for reducing his level of effort; (B) Yale does not have procedures for monitoring the budgeted or minimum level of effort for key personnel; and (C) the OIG has less than adequate assurance that the research goals funded under this grant were achieved. We strongly disagree with each of these contentions.

Proposed (Committed) Effort vs. Actual Effort

The draft report questions the PI's actual level of effort on the UMASS subaward, which his proposal stated would be 25%. We believe this finding is based on a misunderstanding of the University's Activity Reports.²

The PI's Activity Reports reflect a salary distribution to the UMASS subaward of 11% for January through June 2001 and 5% for July through December 2001. These Activity Reports show the percentage of the PI's salary that was charged to the UMASS subaward, but not his actual level of effort. The reports reflect only that the UMASS subaward did not receive an over-allocation of the PI's salary. The PI has advised that his actual effort on the UMASS subaward during the 5th year of the grant was about 20%, or one day per five-day week. Because a portion of the PI's salary was funded by non-sponsored award sources, his salary was charged to the UMASS subaward at a lower percentage than his actual effort.

The 20% actual effort level represented a reduction of less than 25% of the PI's committed effort for the UMASS subaward. Therefore, his actual level of effort fell within the guidelines prescribed by the NIH Grants Policy Statement.

Monitoring Committed Effort

The University expects its departments to monitor committed effort of key personnel on sponsored awards. However, we acknowledge that the monitoring process used for the PI of the UMASS subaward was not adequately documented.

² The document used by Yale to certify labor charges during the audit period is entitled "Yale University Activity Certification and Survey Report." For purposes of this discussion, the abbreviated title "Activity Report" is used.

Achievement of Research Goals

We respectfully maintain that the achievement of the UMASS subaward's research goals is not reasonably open to question, as evidenced by the publications that have resulted from the work performed on the subaward. Moreover, the draft report's assertion regarding the achievement of research goals appears to be based on a misunderstanding of the PI's Activity Reports which, as discussed above, reflected salary distribution, not actual work effort.

RECOMMENDATIONS

The OIG draft report included the following recommendations:

- Verify that cost transfers are adequately explained and documented.
- Improve procedures for direct charging of non-labor costs.
- Comply with procedures for confirming effort reports.
- Ensure that budgeted levels of effort are satisfied and obtain prior approvals for significant changes in level of effort.

These recommendations are based on the OIG's review of transactions and processes in place during the audit period February 1, 2001 through August 31, 2002. Since that time, the University has undertaken a variety of initiatives to improve its grant administration practices. For example, we conducted an in-depth cost transfer training and certification program for employees who prepare or approve cost transfers, and an informational program for faculty with grants. Also, a Financial Research Compliance Committee was established and is currently overseeing a number of projects that will continue to enhance financial aspects of grants management, including the updating and redesign of the University's effort reporting process and system. A more comprehensive list of completed, ongoing, and planned research compliance initiatives is provided in our detailed response.

MANAGEMENT'S RESPONSE TO FINDINGS

I. COST TRANSFER CHARGES

A. Labor

1. *Fringe Benefit Rate*

We have updated the fringe benefit costs in light of additional information that the University provided us.

2. Allowability of Labor Cost Transfers

Yale did not receive notice of the subaward continuation from UMASS for the period beginning February 1, 2001 until June 2001. Notice of the continuation was delayed in connection with the move in early 2001 of [REDACTED] the former UMASS PI, to Roger Williams University, and the appointment of a new PI, [REDACTED] at UMASS. The June notice of the continuation was retroactive to February 1, confirming the parties' intent that the research continue uninterrupted pending resolution of the administrative issues. Of the \$112,693 in questioned labor costs, \$76,751 was incurred as a result of the delayed notice (see Exhibit D). After the award, these costs were transferred to the UMASS subaward account.

Because the timing of the actual continuation award date was uncertain, and there was a question as to whether the administrative issues would be resolved prior to the close of Yale's fiscal year on June 30, 2001, it was decided not to establish an unfunded "pre-award" account to accumulate labor charges allocable to this period. Instead, the salaries for most of the employees working on the UMASS subaward were charged to funded discretionary accounts pending the receipt of the UMASS subaward.³

While it may have been preferable to establish a specific UMASS subaward project account, the Yale departments that were involved did not do so. The written explanations substantiating the reasons for these labor cost transfers (copies of which were provided to the OIG during the audit) were reasonable, however, and adequately documented at the time of the transfers. Contemporaneous certified effort reports (also provided to the OIG previously) establish that the labor was appropriately transferred and charged to the UMASS subaward. Therefore, we believe \$76,751 of the questioned labor cost transfers should not be disallowed.

We believe a significant portion of the remaining \$35,942 in labor cost transfers (see Exhibit D) was allowable, reasonable and allocable to the UMASS subaward. The University acknowledges, however, that the transfer of these costs was inadequately

³ Although \$23,616 of the \$76,751 in labor costs were initially charged in error to other sponsored awards rather than to discretionary accounts (contrary to Yale University Procedure 1305 PR.2, *Transferring Salary and Other Costs on Sponsored Awards*), ultimately these costs were all correctly allocated to the UMASS subaward.

documented at the time of the transfers. Accordingly, Yale will not dispute the disallowance of these costs.

Regarding the "altered documentation" mentioned in the draft report, we want to emphasize that, when the University discovered the altered document, it considered this to be a serious matter and responded promptly. On discovering the alteration, Yale undertook an extensive internal investigation, reported the results to the OIG, and took disciplinary action against the responsible individual. Yale has cooperated fully with the OIG in connection with this isolated incident and the subject audit more generally.

B. Animal Care, Lab Supplies

The draft report questions \$38,559 in animal care and laboratory supply charges that were transferred to the UMASS subaward during the audit period.

1. Animal Care Charges

There were three principal research projects being conducted in the PI's lab during the audit period, each of which involved the use of mice and incurred costs for animal care and related services. Work under the UMASS subaward involved colonies of both wild and genetically altered mice. However, the available documentation will not allow us to determine with precision what portion of the transferred animal costs was allocable to the UMASS subaward and other concurrent projects. Accordingly, although some proportion of the questioned animal care charges was properly allocable to the UMASS subaward, Yale will not dispute a final determination that these costs are unallowable.

2. Radioisotopes and Other Laboratory Supplies

Although these laboratory supplies were of a fungible type used in the PI's lab for work performed under the UMASS subaward, and were allowable and reasonable costs under that subaward, we acknowledge that the transfer of these costs to the UMASS subaward was inadequately documented at the time of the transfers. Although we believe that a portion of these costs was properly allocable to the UMASS subaward, Yale will not dispute the OIG's determination that these costs are unallowable.

II. DIRECT CHARGES TO GRANT

A. Lab Supplies and Materials

The \$23,834 in chemicals and laboratory supply costs in question were items such as common reagents, gloves, pipettes, filters, film for photographing gels, culture media, syringes, and test tubes. The OIG has questioned whether the supplies were reasonable, allowable and allocable to the UMASS subaward.

The PI reviewed these costs and confirmed that (with the exception of \$158, for certain paper goods), these were basic, fungible research items commonly used in his lab in performing molecular and genetic research. The chemicals and supplies were used to conduct experiments related to all three of the significant research projects funded in his laboratory during the audit period, including the UMASS subaward.

It is our understanding that the OIG has questioned whether these costs were allocable to the UMASS subaward, because the persons who ordered these supplies did not charge their time to the UMASS subaward. The orders were placed by two senior research technicians, one of whom was also the PI's lab manager. As described more fully in our memorandum dated October 26, 2005, these senior research technicians each acted under the PI's direction and followed his general method of cost allocation for fungible items, which also was consistent with their understanding of the work being performed in the lab and the need to maintain stocks of standard chemicals, reagents and supplies.

OMB Circular A-21 provides in relevant part that a cost is allocable to an award if "it benefits both the sponsored agreement and other work of the institution, in proportions that can be approximated through use of reasonable methods." (Sec. C(4)(a)). Given the difficulty of ascertaining precise use levels of these common reagents and materials, the PI adopted a reasonable method of allocating their cost among the three research projects in his lab. This allocation method was described in some detail in the aforementioned October 26, 2005 memorandum.

In conclusion, \$23,676 of the \$23,834 in fungible laboratory supplies and chemicals were consumed in performance of the work under the UMASS subaward and were allocated to it on a reasonable basis. Therefore, we do not believe these costs should be disallowed. Yale will not dispute the disallowance of the remaining \$158 in questioned costs.

B. DNA Sequencing

Questioned costs totaling \$2,635 were for DNA sequencing and oligonucleotide synthesis services performed internally at a Yale laboratory. Upon examination of the detailed invoices, the PI realized that those services were not fungible among grants. The DNA sequencing and oligonucleotide sequencing services should not

have been charged to the UMASS subaward but rather to another grant. Therefore, Yale will not dispute the disallowance of these costs.

C. Equipment Maintenance

The draft report questions whether equipment maintenance costs totaling \$6,524 were allocable to the UMASS subaward. These costs consist primarily of annual maintenance contracts covering the period 7/1/2000 through 6/30/2003 for a centrifuge located in the PI's laboratory.

The PI provided a declaration averring that the centrifuge identified on the maintenance contract was used on the UMASS subaward and other research in his lab during the audit period. The PI allocated all of the maintenance contract costs for this centrifuge during the audit period to the UMASS subaward. For these and other similar equipment maintenance costs, the PI indicated that he generally employed a cost allocation methodology under which such costs were divided among the three principal research projects active in his lab during the audit period. For example, the centrifuge's purchase cost and one year warranty were allocated to a second project in his lab, and he charged other equipment maintenance costs, such as those for a sterilizer and distilled water treatment equipment, to the third project in his lab, with no portion of these charges imposed on the UMASS subaward. Purchase orders, service agreements and invoices were also provided to demonstrate that the charges in question were tied to the centrifuge in use in the PI's laboratory.

Insofar as the centrifuge maintenance agreement covered a period past the end of the UMASS subaward (*i.e.*, 9/1/2002 through 6/30/2003), we accept that this portion of the charge was not properly allocated to the subaward. Therefore, Yale will not dispute the disallowance of \$1,671 of the questioned costs. However, because the remaining questioned equipment maintenance costs -- \$4,853, for the period 7/1/2000 through 8/31/2002 -- were allocated to the UMASS subaward based on a reasonable cost allocation methodology, we believe they should not be disallowed.

D. Labor (Unsigned Effort Reports)

1. Fringe Benefit Rate Correction

We have updated the fringe benefit costs in light of additional information that the University provided us.

2. Allowability of Labor Costs

At issue are effort reports for a lab technician for the months of July and August 2002. The OIG proposes to disallow \$9,534, representing the lab technician's labor costs charged to the UMASS subaward for those two months.

Although signed effort reports for the two months could not be located, we believe this lack of documentation was an isolated occurrence. Of the 28 effort reports provided to the OIG during the audit, only these two were not properly signed. The 28 included signed effort reports for the lab technician for each of the previous six months (January through June 2002), which certified that 100% of the technician's salary was charged to the UMASS subaward. The PI has confirmed that the lab technician devoted 100% of her effort to the UMASS subaward during the questioned period. Furthermore, the effort reports for this employee for the four remaining months in 2002 (September through December) were properly signed. Her work was continuous on the UMASS subaward for the months from January through August 2002.

We believe that the history of signed effort reports for this subaward and the PI's confirmation that the lab technician devoted her effort to work on the UMASS subaward during July and August 2002 provide reasonable assurance that the labor costs in question were allowable, reasonable and allocable to the UMASS subaward. Therefore, we do not believe the \$9,534 in questioned labor costs should be disallowed.

III. LEVEL OF EFFORT

The OIG draft report alleges that (A) the PI failed to provide the 25% level of effort proposed in the subaward application and did not obtain prior approval for reducing his level of effort; (B) Yale does not have procedures for monitoring the budgeted or minimum level of effort for key personnel; and (C) the OIG has less than adequate assurance that the research goals funded under this grant were achieved. We strongly disagree with each of these contentions.

A. Proposed (Committed) Effort vs. Actual Effort

The draft report questions the PI's actual level of effort on the UMASS subaward, to which he committed in his proposal to expend 25% effort. We believe this finding is based on a misunderstanding of the purpose of the Yale University Activity Certification and Survey reports. The PI's Activity Reports reflect a salary distribution to the UMASS subaward of 11% for January through June 2001 and 5% for July through December 2001. These Activity Reports show the percentage of the PI's salary that was charged to the UMASS subaward. They also contain the PI's certification that this salary distribution was appropriate based on the actual activity for the period, but they do not identify his actual level of effort. The PI has advised that his actual effort on the UMASS subaward during the 5th year of the grant was 20%, or one day per five-day week. Because a portion of the PI's salary was funded by non-sponsored award sources, his salary was charged to the UMASS subaward at a lower percentage than his actual effort would have warranted.

The PI's 20% actual effort level represented a reduction of less than 25% of the PI's committed effort for the UMASS subaward. Therefore, his actual level of effort satisfied the guidelines prescribed by the NIH Grants Policy Statement.

Further, the PI's Activity Reports indicated that the percentage of salary charged to the subaward was *less than* the actual effort he devoted to it. We do not believe that the NIH Grants Policy Statement or OMB Circular A-21 require the recipient of a grant to charge salary to an award in a percentage equal precisely to the PI's actual effort on the grant.⁴ Our understanding is that a grant recipient may not charge salary that *exceeds* the PI's actual effort on the grant. For the period in question, the PI's Activity Reports confirm that the portion of his salary charged to the UMASS subaward did not exceed his actual level of effort on the project.

B. Monitoring Committed Effort

The draft report also questions the adequacy of the University's Activity Reports for purposes of monitoring committed effort. Yale's effort reporting system is an after-the-fact salary distribution reporting system and has been endorsed by the University's external auditors as satisfying the obligations of OMB Circular A-21.

⁴ Indeed, if the PI's salary exceeds the NIH salary cap, the PI *must* charge less salary than his actual effort would justify.

Until recently, the higher education community understood that it could rely on these provisions of OMB Circular A-21, and be judged compliant with its effort reporting duties so long as no federal grant was charged more than the actual effort justified.

Internal monitoring and certification by the knowledgeable individual (in this case, the PI) helped to assure that actual effort devoted to a grant was commensurate with committed effort. Although Yale's Activity Reports did not capture committed effort, we expected that the PI or other knowledgeable individual would document any necessary reconciliation between the Activity Report and committed effort. However, this was not the case for the Activity Reports in question.

In summary, the University expects its departments to monitor committed effort of key personnel on sponsored awards. Departments are charged with this responsibility and work with the PIs to ensure compliance. The University acknowledges, however, that for the UMASS subaward, that the monitoring process was not adequately documented.

C. Achievement of Research Goals

The OIG's statement in the draft report that it has "less than adequate assurance that the research goals funded under this subgrant were achieved" is of great concern to the University. This assertion appears to be based on a misunderstanding of Yale's Activity Reports, which, as discussed above, show salary distribution levels but do not identify the amount of actual work performed. With all due respect, we believe that the Activity Reports of the PI that were reviewed by the OIG cannot serve as a reasonable basis for questioning whether the research goals funded under this subaward were achieved.

Although we feel that a financial audit is not the appropriate forum for examining the scientific accomplishments of the UMASS subaward, we offer the following publications as well as the final progress report as a sample of available support for the University's firm belief that the research goals of this subaward were, in fact, achieved:

• [REDACTED], "The Homeodomain Gene Pitx2 is Expressed in Primitive Stem/Progenitor Cells but not in their Differentiated Progeny." *Experimental Hematology*. 29:894-902 (2001)

• [REDACTED] "Marrow Stem Cells Shift Gene Expression and Engraftment Phenotype with Cell Cycle Transit." *Journal of Experimental Medicine*. 197:1563-1572 (2003).

• [REDACTED], "Expression

of Pitx2 in Stromal Cells is Required for Normal Hematopoiesis," *Blood*
107:492-500 (2006).

- [REDACTED]
"Hematopoiesis Following Disruption of the Pitx2
Homeodomain Gene," *Experimental Hematology* (in press) (Feb.2006).
- P01-HL56920-05 "Final Progress Report – Project 4: Genes Expressed in
Stem Cells and During the Cell Cycle," submitted to UMASS by the PI (ca.
March 2003).

MANAGEMENT'S RESPONSE TO RECOMMENDATIONS

The OIG draft report included the following recommendations:

- Verify that cost transfers are adequately explained and documented.
- Improve procedures for direct charging of non-labor costs.
- Comply with procedures for confirming effort reports.
- Ensure that budgeted levels of effort are satisfied and obtain prior approvals for significant changes in level of effort.

These recommendations are based on the OIG's review of transactions and processes during the audit period February 1, 2001 through August 31, 2002. Since the audit period, and in line with developing understandings and standards in the higher education community, the University has undertaken a variety of initiatives to improve our research financial administration practices. Yale's commitment to improving research compliance is illustrated by the following initiatives, which are a sample of measures undertaken even before the instant audit, to address not only the above recommendations, but also the eight elements of an effective compliance program that were outlined in the DHHS "Draft OIG Compliance Program Guidance for Recipients of PHS Research Awards," issued November 28, 2005.

Global ("Tone at the Top") Initiatives

- Issuance of the "Yale University Standards of Business Conduct," which articulate the ethical and legal principles that govern the business dealings of all Yale employees.
- Establishment of the Business Managers Institute, a training program for department administrators, which emphasizes topics such as financial stewardship, duty to comply with policies and procedures and the importance of transaction review and approval.
- Implementation of the Yale University Fraud or Illegal Activity Hotline to enable anonymous reporting of employee concerns.
- Engagement of a consulting firm to undertake a diagnostic study of Yale's research financial administration and compliance functions.

Organizational/Structural Initiatives

- Establishment of a Financial Research Compliance Committee as a forum to facilitate communication and address issues concerning research compliance.
- Engagement of consulting firm to assist in guiding and implementing research administration improvements.
- Creation of a new senior-level position, Associate Vice President (AVP) for Research Administration (search for qualified candidates is ongoing). The AVP will oversee both pre-award and post-award research administration offices and will report dually to the VP for Finance & Administration and to the Provost.

- Establishment of a Research Financial Compliance Unit which will assess research compliance and recommend improvements on an ongoing basis (to be completed after AVP for Research Administration is hired).
- Review of staffing levels and other needs to support research financial administration (in progress).

System/Process Improvement Initiatives

- System enhancements, including new database, to facilitate identification and monitoring of non-labor cost transfers.
- System enhancement of Yale Animal Resources Center to improve cost allocation and record-keeping among research projects.
- Effort reporting process and system redesign (in progress).
- Policies and procedures improvement (in progress).
- End-of-award financial reporting and close out process improvement (in progress).

Research Financial Administration Training Initiatives

- In-depth cost transfer training and certification of employees who prepare or approve cost transfers.
- Informational cost transfer program for faculty with grants.
- Development and administration of Comprehensive research financial administration training program (in progress).