December 6, 2013

JOAN HELLER BROWN
Chair, Department of Pharmacology
0636

Subject: ***Department of Pharmacology***
Audit & Management Advisory Services Project 2014-16

The final audit report for Department of Pharmacology, Report 2014-16, is attached. We would like to thank all members of the department for their cooperation and assistance during the audit.

Because we were able to reach agreement regarding corrective actions to be taken in response to the audit recommendations, a formal response to the report is not requested.

The findings included in this report will be added to our follow-up system. While management corrective actions have been included in the audit report, we may determine that additional audit procedures to validate the actions agreed to or implemented are warranted. We will contact you to schedule a review of the corrective actions, and will advise you when the findings are closed.

UC wide policy requires that all draft audit reports, both printed and electronic, be destroyed after the final report is issued. Because draft reports can contain sensitive information, please either return these documents to AMAS personnel or destroy them at this time. We also request that draft reports not be photocopied or otherwise redistributed.

David Meier
Assistant Vice Chancellor
Audit & Management Advisory Services

Attachment

cc: D. Brenner
        W. Deng
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UC San Diego

AUDIT & MANAGEMENT ADVISORY SERVICES

Department of Pharmacology
December 2013

Performed By:

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Project Number: 2014-16

Department of Pharmacology
Audit & Management Advisory Services Project 2014-16

Table of Contents

Department of Pharmacology
Audit & Management Advisory Services Project 2014-16

Executive Summary

Audit & Management Advisory Services (AMAS) has completed a review of the Department of Pharmacology (Pharmacology) as part of the approved Fiscal Year 2013-14 internal audit plan.

The objective of our review was to determine whether Pharmacology business process controls provided reasonable assurance that financial results were accurately reported, operations were effectively managed, and activities complied with relevant policies, procedures and regulations.

Based on the audit procedures performed, we concluded that Pharmacology business process controls were generally adequate, and provided reasonable assurance that financial results were accurately reported, operations were effective, and activities complied with relevant policies, procedures and regulations. We noted that the Business Office staff maintained a shared electronic repository of award documentation and reports to facilitate extramural funds management. Fund managers and the Department Business Officer regularly reviewed account activity and communicated the financial status to faculty, which helped to maintain good fiscal oversight.

We identified opportunities for an improved segregation of duties structure within transaction approval hierarchies and payroll time report approvals. We also noted that expense transactions should be reviewed on a more consistent, timely basis, as the fund management staff stabilizes. A background check was needed for department staff responsible for handling cash as required by University policy and we suggested that selected grant expenses totaling $2,615 be moved to a non-federal fund source.

Management has agreed to implement corrective actions to further improve operations and monitoring efforts.

I. Background

Audit & Management Advisory Services (AMAS) has completed a review of the Department of Pharmacology (Pharmacology) as part of the approved Fiscal Year 2013-14 internal audit plan. This report summarizes the results of our review.

Pharmacology is a department within the University of California San Diego (UC San Diego) School of Medicine (SOM). The department has 32 full-time faculty; and six salaried and 17 non-salaried adjunct faculty who educate students and conduct research projects designed to explain the basic cellular and molecular mechanisms of signal transduction that lead to drug target identification and ultimately to drug discovery. The overall research focus includes computational and molecular science, and structure guided drug design and bioinformatics.

Pharmacology interacts closely with the Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS) and many faculty members have joint appointments. Pharmacology researchers also maintain a close affiliation with the San Diego Supercomputer Center, and with adjunct faculty at the Salk Institute, and the Scripps Research Institute. The appointment of adjunct faculty from the local biotechnology and pharmaceutical industry bridges the department's basic science efforts, and enhances endeavors in drug discovery.

The Pharmacology Business Office (Business Office) staff support critical department business processes including contract and grant administration, financial analysis and reporting, human resources (HR), academic personnel, staff timekeeping and information systems (IS) support. During audit fieldwork, Pharmacology HR functions were in transition. The SOM Service Core – Academic Affairs provides administrative support to the Business Office for faculty and non-faculty performance management, and the Business Office retained responsibility for timekeeping, hiring, and budgeting of faculty salaries. Staff and student employee timekeeping and HR transaction management is being transitioned to Health Sciences HR Shared Services (HR Shared Services). The division of responsibilities between the two units is still being defined.

The SOM Corporate Statement of Revenue and Expenses for Fiscal Year 2012-13 reported total Pharmacology revenue of $26.6M. Of that amount $25.7M (97%) was received from research contracts and grants, which included National Institutes of Health (NIH) awards of $21.6M (84% of the total revenue).

II. Audit Objective, Scope, and Procedures

The objective of our review was to determine whether Pharmacology business process controls provided reasonable assurance that financial results were accurately reported, operations were effectively managed, and activities complied with relevant policies, procedures and regulations. The project scope included a review of business practices in place during audit fieldwork, and the analysis of selected business transactions completed in Fiscal Year 2012-13, or during the period July 1 through September 30, 2013.

We completed the following audit procedures to achieve the project objective:

- Reviewed applicable University policies and procedures;
- Evaluated the Pharmacology organizational structure;
- Conducted interviews with Pharmacology management including the Department Business Officer (DBO), and the Assistant DBO;
- Interviewed Business Office staff including fund managers, the Superfund Program Manager, the IS Services Support Manager, and timekeepers to discuss key business processes;
- Contacted UC San Diego Travel, Equipment Management and Marketplace staff to address certain information requests and obtain supporting documentation; and
- Performed detailed testing of a sample of business transactions to verify that transactions were processed in compliance with University policy.

Because the transition to Health Sciences HR Shared Services was in process, the audit scope included only a limited review of departmental controls for timekeeping management.

III.   Conclusion

Based on the audit procedures performed, we concluded that Pharmacology business process controls were generally adequate, and provided reasonable assurance that financial results were accurately reported, operations were effective, and activities complied with relevant policies, procedures and regulations. A summary of our audit observations by business process is provided in *Attachment A*.

We noted that the Business Office staff maintained a shared electronic repository of award documentation and reports to facilitate extramural funds management. Fund managers and the DBO regularly reviewed account activity and communicated the financial status to faculty, which helped to maintain good fiscal oversight.

During the review process, we identified opportunities to strengthen controls in selected business processes, which are discussed in detail in the remainder of the report.

IV.   Observations and Management Corrective Actions

A.   Approval Hierarchies

Expense approval hierarchies needed to be updated or created for certain transactions.

AMAS obtained and reviewed department expense approval hierarchies to determine whether approval authority had been assigned in accordance with University policy. Approvals were also reviewed as part of detailed testing of

selected expenditures. The following observations were made based on our review:

- One of the Chair's travel events selected in the review sample was approved by the DBO, which was inappropriate because the approver reported to the traveler.
- We noted that one business meeting food cost expense reimbursement for the DBO was not approved by an individual at a higher administrative level.   In addition, one travel event for a Program Manager was approved on paper by her supervisor. A travel approval template would allow the event to be approved electronically, but it had not been added to the department approval hierarchies. Ideally, all transactions would be approved electronically to provide a complete audit trail.
- We also identified several templates that were no longer being used and needed to be deleted.

The establishment of appropriate approval hierarchies helps to ensure that adequate segregation of responsibilities has been established within the procurement process, and an increased probability that purchase transactions will comply with University policy. Approval hierarchies should also include a qualified staff member to approve expenses in the absence of the primary approver to ensure that transactions are processed timely.

Management Corrective Action:

The Department Security Administrator (DSA) has updated the approval hierarchy templates to ensure that transactions will not be approved by subordinate personnel.

B. **Transaction Sampling**

Transactions selected by the campus Transaction Sampling system were not timely reviewed and reconciled by Pharmacology staff in all cases.

The campus Transaction Sampling process in Financial Link randomly selects a sample of department financial transactions to be evaluated during the ledger reconciliation and account validation process. After the review is completed, transaction processing errors are identified by error type, and corrected.

Approximately 200 transactions are selected as part of the Pharmacology sample on a monthly basis. Our review of Pharmacology Transaction Management Reports for the period July 1, 2012 through June 30, 2013 indicated that 54% of the transactions selected during that period had not been marked as reviewed in the system.

Pharmacology management defined Transaction Sampling procedures at the beginning of Fiscal Year 2012-13. It appeared that transactions were being routinely reconciled, but at times, the review and reconciliation procedures were not being performed timely due to staff shortages. The Pharmacology DBO advised AMAS that the fund manager positions had not been fully staffed for nearly two years. As a result, the Fiscal Assistant assumed responsibility for completing transaction sampling in addition to other duties, which caused a delay in the review. We also noted that the Superfund Program Manager, responsible for reconciling the Superfund transactions, was conducting the review and tracking it manually rather than updating ledger reviewer in the system.

The Transaction Sampling process provides reasonable assurance that errors are timely identified and corrected. Because only a percentage of total transactions are selected for focused review, department resources are used more effectively. If selected transactions are not timely reviewed, there could be increased risk of non-compliance with federal cost accounting regulations.

Management Corrective Actions:

1. The Superfund Manager has taken steps to update Ledger Reviewer to reflect transaction review.

2. Pharmacology management has made significant progress on completing transaction reconciliations from July 2012 through the current period. Management will continue to ensure that transactions generated by the Transaction Sampling database are reconciled timely.

C.   **Background Checks**

Background checks had not been performed for staff that processed cash payments.

Business Office staff received cash payments for service agreements, faculty reimbursements/award payments and registration fees for conferences. We determined that background checks had not been completed for all staff members who received and processed cash payments as required by UC Business and Financial Bulletin (BUS) 49, *Policy* for *Cash and Cash Equivalents Received*: Section IV.1, which states in part: "the campus must perform background checks prior to employing cashiers, cash handlers and individuals in other critical positions."   The University now requires that a background check be obtained for new staff with cash handling responsibilities included in their job description.

Management Corrective Action:

Pharmacology management has contacted HR to determine the appropriate process for completing background checks for employees that receive and process cash payments.

D. **Unallowable Grant Expenditures**

General office supplies and additional expenses were inappropriately charged to federal grants.

Office of Management and Budget (OMB) Circular A-21 establishes the principles for determining costs applicable to grants, contracts, and other agreements with educational institutions. OMB A-21 requires costs charged to the award to be allocable, reasonable, consistent and allowable. The Circular indicates that office supplies, postage, local telephone charges that are not identified with one specific project should be supported through facilities and administrative cost recovery. The Business Office actively monitored for unallowable grant expenditures and stated that they have established a procedure for transferring unallowable office supply costs off of federal grants.

AMAS selected a judgmental sample of 43 non-payroll expenses, 20 express card transactions and approximately 90 expenses from 11 research grants (for the period July 2012 through August 2013) to determine whether the expenses were allocable. As shown in the table below, we identified seven office supply, mail delivery and other miscellaneous expense transactions totaling $2,668 that were considered inappropriate to be charged to federal funds .

Fund/Index Numbers	Amount	Description
22819A/PHR2819	$1,211	Mail Delivery
28738A/PHR8108	$682	Office supplies
30798A/PHRLMCA	$441	Cellular charges (for PI 25%)
93482A/PHRSF01/PHRSF07/ PHRSFWT	$256	Computer supplies/mail services/chemistry storehouse
25708A/PHR5708	$15	Office supplies
26250A/PHR6250	$10	Parking fees
Total	**$2,615**	

The Business Office also directly allocated expenses for selected office supplies, telecommunications, mail services and cleaning supplies to awards. Those costs may be subject to additional questioning and potential disallowance by federal auditors if it is determined that the OMB A-21 direct cost principles are not satisfied.

The Office of Post Award Financial Services (OPAFS) provides general guidelines on the UCSD BLINK website to help ensure that grant administrators allocate costs in accordance with OMB Circular A-21.

Management Corrective Actions:

1. The Business Office has taken steps to ensure above unallowable costs are transferred to alternate fund sources.

2. The Business Office will continue to review federal funds each month to ensure that direct expenditures comply with OMB Circular A-21 criteria.

E. **Timekeeping Practices**

Timekeeping practices needed improvement.

University timekeeping and payroll policy requires business units to ensure that internal controls are implemented, properly documented and periodically monitored. During our audit, we noted the following areas of non-compliance with University internal control standards:

Timekeeping – Separation of Duties

University internal control guidance included in UC Business and Finance Bulletin IA-101: *Internal Control Standards: Departmental Payrolls* highly recommends separation of duties for key processes. The Department has implemented MyTime for selected categories of employees, while other employee groups continue to submit paper timesheets. During our audit, we noted the Timekeepers regularly reviewed Pharmacology personnel time entries via the Timekeeper Audit Report for employees submitting paper timesheets. However, a monthly review of a sample of timekeeping entries, including time reported by the Timekeeper, by a second person would help to validate the appropriateness and accuracy of time recorded by the timekeeper.

Non-faculty Academics (Project Scientists) Time Reporting

UCSD PPM 395-4.1, *Timekeeping: Attendance Records* requires that sufficient documentation be maintained to support the authorization of employee payroll and benefits expenses. The Payroll Time Record (PTR) or timesheet is used to report work hours for non-exempt employees, and exception time off including vacation, sick leave, and other leave requests for exempt personnel.

We reviewed the department timesheet tracking report dated September 4, 2013 and found that ten of the 16 Pharmacology project scientists had not submitted two or more timesheets for the period January through June 2013. Timesheets

must be completed and retained to provide evidence that work time is accurately captured.

Management Corrective Actions:

1. The Assistant Business Officer (AO) will completed a second review of timekeeping activity reports and will sign and date the reports to provide evidence of review

2. After reviewing the monthly time reports, timekeepers will provide the AO with a list of employees who did not submit time reports. The AO will be responsible to follow-up and obtain missing reports as required by department policy.

Business Office Process	AMAS Audit Review Procedure				Risk & Controls Balance Reasonable (Yes or No)	SAS 112 Key Control	Audit Conclusion[1]	Comments
	Analytical Review of Financial Data	Internal Control Questionnaire/ Separation of Duties Matrix	Process Walk-through (Ltd Document Review)	Transaction Testing (Sample Basis)				
Payroll Expenditure Transfers (PETs)		√		Verified eight adjusted payroll charges per operating ledgers and business justifications for reasonableness.	Yes	Yes Ledger Transaction Verification	Satisfactory	PET processing controls were working as designed. We identified only one transfer from a private funding source to a federal grant that was not copied to the Principal Investigator (PI). The Business Office was aware of the requirements and will continue to ensure compliance.
Non-Payroll Expenditure Transfers		√		Discussed the non-payroll transfer process with DBO and fund managers.	Yes	Yes Ledger Transaction Verification	Satisfactory	Controls over non-payroll expense transfers appeared satisfactory. The department only had three high risk non-payroll expense transfers for Fiscal Year 2012-13.

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[1] Audit conclusions used in this report included the following four levels from highest to lowest; Satisfactory, Satisfactory/Improvement Suggested, Satisfactory/Improvement Needed and Improvement Needed.

Business Office Process	AMAS Audit Review Procedure				Risk & Controls Balance Reasonable (Yes or No)	SAS 112 Key Control	Audit Conclusion[1]	Comments
	Analytical Review of Financial Data	Internal Control Questionnaire/ Separation of Duties Matrix	Process Walk-through (Ltd Document Review)	Transaction Testing (Sample Basis)				
Operating Ledger Review & Financial Reporting	√	√		Examined selected operating ledgers and financial reports, and reviewed overdraft balances as of June 30, 2013.	Yes	Yes Fiscal Operations Review	Satisfactory	A monthly monitoring process was established. Deficit balances were appropriately handled.
Recharge Activity		√		Discussed recharge procedures with the DBO, Fund Manager and IT Services Manager.	Yes	Yes Ledger Transaction Verification	Satisfactory	Recharge activity was documented and journals were sent to recharge users monthly.
Effort Reporting	√	√		Reviewed ECert reports and the four quarterly certification summaries for Fiscal Year 2012-13 and the fourth quarter summary for FY12.	Yes	Yes Effort Reporting	Satisfactory	Effort report certification compliance was satisfactory.

Business Office Process	AMAS Audit Review Procedure				Risk & Controls Balance Reasonable (Yes or No)	SAS 112 Key Control	Audit Conclusion[1]	Comments
	Analytical Review of Financial Data	Internal Control Questionnaire/ Separation of Duties Matrix	Process Walk-through (Ltd Document Review)	Transaction Testing (Sample Basis)				
Entertainment	√	√		Analyzed eight judgmentally selected transactions for reasonableness, and traced them to supporting documentation.	Yes	Yes Ledger Transaction Verification	Satisfactory	Entertainment approvals and processing controls were effective. One entertainment expense we reviewed included a $120 (3%) cash gratuity, which was not explained on supporting documentation. Pharmacology management has agreed to obtain a receipt or a signed statement from the payee explaining the circumstances when a receipt or other proof of payment is not available.
Equipment Management	√	√		AMAS discussed equipment acquisition and disposal processes with the custodian and verified a sample of four	Yes	Yes Physical Inventory	Satisfactory	An equipment inventory was completed in January 2013.

Department of Pharmacology
Audit Results by Business Office Functional Process
Audit & Management Advisory Services Project #2014-16
Attachment A

Business Office Process	AMAS Audit Review Procedure				Risk & Controls Balance Reasonable (Yes or No)	SAS 112 Key Control	Audit Conclusion[1]	Comments
	Analytical Review of Financial Data	Internal Control Questionnaire/ Separation of Duties Matrix	Process Walk-through (Ltd Document Review)	Transaction Testing (Sample Basis)				
				acquisitions.				
Information Systems Environment		√		Discussed the control questionnaire with the Department Information Systems (IS) Services Support Manager.	Yes	Yes Individual Security Access	Satisfactory/ Improvement Suggested	We noted that the administrator account was shared by the IS Manager and the HR Manager. Pharmacology management will establish individual accountability for administrator account transactions.
Travel	√	√		Analyzed 11 judgmentally selected transactions for reasonableness, and traced them to supporting documentation.	No	Yes Ledger Transaction Verification	Satisfactory/ Improvement Needed	We noted that a business/first class travel event for one traveler met the criteria for exception, but the business justification indicated on the event was not appropriate. Pharmacology management will include the correct policy exception when required

Business Office Process	AMAS Audit Review Procedure				Risk & Controls Balance Reasonable (Yes or No)	SAS 112 Key Control	Audit Conclusion[1]	Comments
	Analytical Review of Financial Data	Internal Control Questionnaire/ Separation of Duties Matrix	Process Walk-through (Ltd Document Review)	Transaction Testing (Sample Basis)				
								for future travel events. One travel event for the Chair was approved by an individual that reported to her due to an inadequate travel expense approval hierarchy. *Refer to Report Finding A*
Transaction Processing – Non-Payroll Expenditures	√	√		Analyzed 43 judgmentally selected transactions for reasonableness, and traced them to supporting documentation.	No	Yes Ledger Transaction Verification	Satisfactory/ Improvement Needed	When completing our review we identified the following issues: One expense reimbursement to the DBO was not approved at a higher administrative level. *Refer to Report Finding A* Two of 43 non-payroll transactions were

Business Office Process	AMAS Audit Review Procedure				Risk & Controls Balance Reasonable (Yes or No)	SAS 112 Key Control	Audit Conclusion[1]	Comments
	Analytical Review of Financial Data	Internal Control Questionnaire/ Separation of Duties Matrix	Process Walk-through (Ltd Document Review)	Transaction Testing (Sample Basis)				
								inappropriately charged to a federal award. The Business Office agreed to process expense transfers. *Refer to Report Finding D*
Non-payroll Expenditure Transactions – Transaction Sampling	√	√	√	Analyzed the Transaction Sampling Management report for FY13.	No	Yes Ledger Transaction Verification	Satisfactory/ Improvement Needed	Transactional sampling reviews were not performed timely or completely in some cases. *Refer to Report Finding B*
Cash Handling		√	√	Discuss cash handling procedures with department personnel.	No	Yes Internal Controls	Satisfactory/ Improvement Needed	Fund Managers and the Fiscal Assistant have direct access to or responsibility for cash and cash equivalents, which would require that a background check be performed. *Refer to Report Finding C*

Department of Pharmacology
Audit Results by Business Office Functional Process
Audit & Management Advisory Services Project #2014-16
Attachment A

Business Office Process	AMAS Audit Review Procedure				Risk & Controls Balance Reasonable (Yes or No)	SAS 112 Key Control	Audit Conclusion[1]	Comments
	Analytical Review of Financial Data	Internal Control Questionnaire/ Separation of Duties Matrix	Process Walk-through (Ltd Document Review)	Transaction Testing (Sample Basis)				
Express Cards	√	√		Analyzed 20 judgmentally selected transactions for reasonableness, traced to supporting documentation	No	Yes Ledger Transaction Verification	Satisfactory/ Improvement Needed	Three of the 20 Express Card transactions reviewed did not have supporting documentation. • Two of the charges appeared appropriate based on packing slip and vendor information. • AMAS was unable to draw a conclusion on reasonableness, allowability and allocability of the third transaction due to inadequate support. The Business Office will request invoices in addition to the packing slips to support Express Card purchases.

Business Office Process	AMAS Audit Review Procedure				Risk & Controls Balance Reasonable (Yes or No)	SAS 112 Key Control	Audit Conclusion[1]	Comments
	Analytical Review of Financial Data	Internal Control Questionnaire/ Separation of Duties Matrix	Process Walk-through (Ltd Document Review)	Transaction Testing (Sample Basis)				
								Two charges were for general office supplies and should not be charged to a federal grant. *Refer to Report Finding D*
Contract & Grant Activity (Post Award Admin.)	√	√		Reviewed 11 awards with total project costs over the entire award period of $121M and evaluated transactions selected judgmentally and key personnel effort.	No	Yes Internal Controls	Satisfactory/ Improvement Needed	Certain office supply, telecommunications, mail services and cleaning supply costs were charged to federal awards. Those expenses may be subject to additional scrutiny or possible disallowance by the agency if it is determined that the allocability requirement (OMB, A-21) is not satisfied. Selected expenses for grants were identified to be inappropriate to charge to

Department of Pharmacology
Audit Results by Business Office Functional Process
Audit & Management Advisory Services Project #2014-16
Attachment A

Business Office Process	AMAS Audit Review Procedure				Risk & Controls Balance Reasonable (Yes or No)	SAS 112 Key Control	Audit Conclusion[1]	Comments
	Analytical Review of Financial Data	Internal Control Questionnaire/ Separation of Duties Matrix	Process Walk-through (Ltd Document Review)	Transaction Testing (Sample Basis)				
								federal awards. *Refer to Report Finding D*
Timekeeping and Payroll	√	√	√	Reviewed timesheets, Timekeeper Audit Report and DOPE reports.	No	Yes Payroll Expense Verification	Satisfactory/ Improvement Needed	Department HR functions were being transitioned to the Health Sciences HR Shared Services and the Academic Affairs Service Core. We noted that the Distribution of Payroll Expense (DOPE) report reviews were being performed monthly but were not signed and dated by the person performing the review as specified in IA 101: *Internal Control Standards: Department Payrolls.* The DBO has established that DOPE reports include the required

Business Office Process	AMAS Audit Review Procedure				Risk & Controls Balance Reasonable (Yes or No)	SAS 112 Key Control	Audit Conclusion[1]	Comments
	Analytical Review of Financial Data	Internal Control Questionnaire/ Separation of Duties Matrix	Process Walk-through (Ltd Document Review)	Transaction Testing (Sample Basis)				
								evidence of review. The following timekeeping process observations were made: The timekeeper audit report was not being reviewed by a second individual. The timesheet submission rate for non-faculty academics needs improvement. ***Refer to Report Finding E***