

NATIONAL SCIENCE FOUNDATION  
4201 Wilson Boulevard  
ARLINGTON, VIRGINIA 22230



OFFICE OF  
INSPECTOR GENERAL

MEMORANDUM

Date: MAR 31 2006

To: Mary F. Santonastasso, Director  
Division of Institution and Award Support and Interim  
Director of the Division of Grants and Agreements

From: *Deborah H. Cureton*  
Deborah H. Cureton  
Associate Inspector General for Audit

Subject: Audit Report No. OIG 06-1-006  
Institute for Systems Biology

Attached is the final report prepared by Conrad and Associates, an independent public accounting firm, on the audit of NSF Award Nos. EF-0313754, ESI-0224574, and DBI-0096750 awarded to the Institute for Systems Biology (ISB). The audit covered NSF-funded costs claimed from May 1, 2001 to December 31, 2004 consisting of \$1.7 million of NSF direct funded costs and \$377,330 of cost sharing.

Overall, we questioned \$23,721 of the \$1.7 million in costs claimed to NSF. Specifically, we questioned \$16,062 of salaries, fringe benefits, and related indirect costs charged to NSF award DBI-0096750 because an employee had been charged 100 percent to the award but the employee's certifications indicated that only 32 percent of labor effort was performed on the NSF award. The remaining \$7,659 of questioned costs resulted from ISB misclassifying participant support costs as consultant costs and erroneously charging its NSF award indirect costs for these misclassified amounts.

ISB had three internal control deficiencies that contributed to these questioned costs. Specifically, ISB did not obtain timely and accurate certifications and personnel activity reports. ISB also lacked a system to identify, account for, and monitor the cost sharing it claimed on its NSF award. While ISB's accounting system did capture all NSF grant expenses, it did not separately identify and track those expenses incurred as cost sharing on behalf of the NSF award as opposed to other federal awards. Additionally, ISB did not utilize employee certifications and personnel activity reports to track salary and fringe benefit costs it claimed as cost sharing on its NSF award. Finally, ISB lacked policies and procedures to ensure participant support costs were properly classified in its

accounting system. As a result, ISB misclassified \$20,382 of participant support costs as consulting costs and charged two of its NSF awards \$7,659 for indirect costs related to these misclassified participant support costs, which are unallowable award expenses.

Accordingly, we recommend that your offices ensure that ISB adhere to its policy to obtain certifications and personnel activity reports and require budget managers to review and approve such reports on a timely basis. We also recommend that your offices ensure that ISB develops policies and procedures to record and track all cost sharing expenditures in accordance with OMB Circulars, including implementing a certification and personnel activity reporting system for employees claimed as cost share. Finally, we recommend that your offices ensure that ISB develop and implement written policies and procedures to ensure participant support costs are properly classified in its accounting system.

ISB's response to the draft report indicated that it concurred with the findings that it 1) lacked certification and personnel activity reports for the period October 2003 through late 2004; 2) lacked certification and personnel activity reports during the audit period for cost sharing amounts that it had claimed were provided by ISB Education Outreach Program Administrative Staff; and 3) lacked policies and procedures to ensure that participant support costs were classified properly in its accounting system. ISB reported that it implemented several actions to address these findings. However, ISB disagreed with the finding that it overcharged the NSF Compact Waveguide Scanner Project for salaries, fringe and indirect costs.

Accordingly, to help ensure the findings are resolved within six months of issuance of the audit report, please coordinate with our office during the resolution period to develop a mutually agreeable resolution of the audit findings. The findings should not be closed until NSF determines that all recommendations have been adequately addressed and the proposed corrective actions have been satisfactorily implemented.

We are providing a copy of this memorandum to the Co-Division Directors of Emerging Frontiers, Division Director of Biological Infrastructure, and to the Acting Division Director of Elementary and Secondary Informal Education. The responsibility for audit resolution rests with the Division of Institution and Award Support, Cost Analysis and Audit Resolution Branch (CAAR). Accordingly, we ask that no action be taken concerning the report's findings without first consulting CAAR at 703-292-8244.

#### Evaluation of Conrad and Associates' Audit Performance

To fulfill our responsibilities under Government Auditing Standards, the Office of Inspector General:

- Reviewed Conrad and Associates' approach and planning of the audit;
- Evaluated the qualifications and independence of the auditors;

- Monitored the progress of the audit at key points;
- Coordinated periodic meetings with Conrad and Associates and NSF officials, as necessary, to discuss audit progress, findings, and recommendations;
- Reviewed the audit report, prepared by Conrad and Associates to ensure compliance with Government Auditing Standards and the NSF Audit Guide; and
- Coordinated issuance of the audit report.

Conrad and Associates is responsible for the attached auditor's report on the Institute of Systems Biology and the conclusions expressed in the report. We do not express any opinion on the Schedules of Award Costs, internal control, or conclusions on compliance with laws and regulations.

We thank your staff for the assistance that was extended to our auditors during this audit. If you have any questions regarding this report, please contact me at 703-292-4985 or Jannifer Jenkins at 703-292-4996.

#### Attachment

cc: Thomas Brady, Co-Division Director BIO/EF  
Maryanna Henkart, Co-Division Director BIO/EF  
Machi Dilworth, Division Director, BIO/DBI  
Barbara Olds, Acting Division Director, EHR/ESIE

**INSTITUTE FOR SYSTEMS BIOLOGY**  
1441 N. 34<sup>th</sup> STREET  
SEATTLE, WASHINGTON 98103  
**NATIONAL SCIENCE FOUNDATION**  
**AWARD NUMBERS**  
EF-0313754, ESI-0224574, DBI-0096750  
FINANCIAL AUDIT OF  
FINANCIAL SCHEDULES AND  
INDEPENDENT AUDITORS' REPORT FOR THE PERIOD  
MAY 1, 2001 TO DECEMBER 31, 2004

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# INSTITUTE FOR SYSTEMS BIOLOGY

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## **EXECUTIVE SUMMARY**

## BACKGROUND

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We audited funds awarded by the National Science Foundation (NSF) to the Institute for Systems Biology (ISB) under grant numbers EF-0313754 for the period September 1, 2003 to December 31, 2004; ESI-0224574 for the period January 16, 2002 to December 31, 2004; and, DBI-0096750 for the period May 1, 2001 to April 30, 2003. ISB, as a Federal awardee, is required to follow the cost principles specified in Office of Management and Budget (OMB) Circular A-122, *Cost Principles for Non-Profit Organizations* and the Federal administrative requirements contained in OMB Circular A-110, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations*.

The Institute for Systems Biology (ISB) is a non-profit entity established in 1999 and located in Seattle, Washington. ISB is an internationally renowned research institution dedicated to the study and application of systems biology through the integration of many sciences including biology, chemistry, physics, computation, mathematics and medicine. ISB's goal is to unravel the mysteries of human biology to identify strategies for predicting and preventing diseases such as cancer, diabetes, and AIDS. In addition to this, ISB has made a strong commitment to education programs designed to enable schools and districts to have the capacity to produce scientifically literate and capable students by creating and supporting a statewide infrastructure, comprised of collaborative and regional partnerships among schools, districts, and community partnerships that will train and support science educators.

Descriptions of the NSF awards we audited are as follows:

**EF-0313754 – The Oxygen-Stress Response in the Extremophile Halobacterium sp. NRC-1.** NSF awarded grant number EF-0313754 to ISB for the period September 1, 2003 to August 31, 2005 in the amount of \$1,749,999 for the purpose of evaluating the global oxygen-response mechanisms in Halobacterium sp. NRC-1 by dissecting the biological networks that mediate the oxygen-stress response. The project also included the development of inquiry based supplemental high school teaching modules and materials to assist students in learning the modern collaborative approaches of systems biology. Cumulative disbursements for grant number EF-0313754 reported to NSF through December 31, 2004 (the end of the audit period) were \$564,053. ISB was not required to provide cost sharing for this award.

**ESI-0224574 – Family Science: Expanding Community Support for Inquiry-Based Science Education.** NSF awarded grant number ESI-0224574 to ISB for the period January 16, 2002 to December 31, 2005 in the amount of \$748,383. The purpose of this award was to develop a five-year plan for teaching youth and families in the Seattle school district the skill of understanding science processes. Grant activities included teacher training workshops, science fairs, science exploration programs, inquiry science conferences, and community celebrations of family science programs. The program targeted grades K-5 and included a five-year plan to extend the program to middle and high school students. Cumulative disbursements for grant number ESI-0224574 reported to NSF through December 31, 2004 (the end of the audit period) were \$372,380. ISB agreed to provide \$353,215 of cost sharing for this award. Cost sharing expenses claimed as of December 31, 2004 were \$377,330.

**DBI-0096750 – Highly-Efficient and Compact Wave Guide Scanner Capable of Monitoring Microarray Hybridization Kinetics.** NSF awarded grant number DBI-0096750 to ISB for the period May 1, 2001 to April 30, 2003 in the amount of \$759,493. The purpose of this award was to support the development of a DNA-array scanner to detect fluorescence signals by means of a novel wave guide collector. The use of DNA array hybridization was widely adopted by biologists and biomedical researchers as a technique for detection of mutations in DNA and for monitoring of gene expression. Cumulative disbursements for grant number DBI-0096750 reported to NSF through April 30, 2003 were \$759,493. ISB was not required to provide cost sharing for this award.

## **AUDIT OBJECTIVES, SCOPE AND METHODOLOGY**

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The objectives of our audit were to:

1. Determine if ISB's Schedules of Award Costs present fairly, in all material respects, costs claimed on the *Federal Cash Transaction Reports* (FCTR), and if costs claimed, including cost sharing, are in conformity with NSF award terms and conditions.
2. Identify matters concerning instances of noncompliance with laws, regulations, and the provisions of the award agreements pertaining to NSF awards and weaknesses in ISB's internal control over financial reporting that could have a direct and material effect on the Schedules of Award Costs and ISB's ability to properly administer, account for, and monitor its NSF awards.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America, *Government Auditing Standards* (2003 Revision) issued by the Comptroller General of the United States, and the *National Science Foundation Audit Guide* (September 1996), as applicable. These standards and the NSF Audit Guide require that we plan and perform the audit to obtain reasonable assurance about whether amounts claimed to NSF as presented in the Schedules of Award Costs (Schedules A-1 through A-3) are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Schedules of Award Costs. An audit also includes assessing the accounting principles used and the significant estimates made by ISB, as well as evaluating the overall financial schedule presentation. We believe that our audit provides a reasonable basis for our opinion.

## **SUMMARY OF AUDIT RESULTS**

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An audit was performed on the costs claimed on the financial reports submitted to NSF by ISB on NSF award numbers EF-0313754, ESI-0224574 and DBI-0096750, as well as cost sharing provided on NSF award ESI-0224574. These costs and the costs questioned as a result of our audit are shown in the Schedules of Award Costs (Schedules A-1 through A-3) and are summarized as follows:

<u>NSF Award No.</u>	<u>Funding Source</u>	<u>Award Budget</u>	<u>Claimed Costs</u>	<u>Questioned Costs</u>
EF - 0313754	NSF-Funded	\$ 1,749,999	564,053	6,737
	Total Project	<u>\$ 1,749,999</u>	<u>564,053</u>	<u>6,737</u>
ESI - 0224574	NSF-Funded	\$ 748,383	372,380	922
	Cost Sharing	<u>353,215</u>	<u>377,330</u>	-
	Total Project	<u>\$ 1,101,598</u>	<u>749,710</u>	<u>922</u>
DBI - 0096750	NSF-Funded	\$ 759,493	759,493	16,062
	Total Project	<u>\$ 759,493</u>	<u>759,493</u>	<u>16,062</u>

Except for the \$23,721 in questioned salary, wage, fringe benefits and indirect costs described below, we determined that the costs claimed by ISB appear fairly stated and are allowable, allocable, and reasonable for all three NSF awards.

Specifically, we questioned \$16,062 of salary, fringe benefits, and the related indirect costs because an employee had been charged 100% to NSF award number DBI-0096750 even though that employee's certifications had only indicated a 32% level of effort was performed on the NSF grant. The remaining \$7,659 of questioned indirect costs resulted from ISB misclassifying participant support costs as consultant costs in its accounting system for two NSF awards and erroneously charging indirect costs for the misclassified participant support costs.

Our audit noted that ISB had internal control deficiencies that contributed to the questioned costs for salary and wages and overcharged indirect costs. Additionally, although we did not question any costs, we noted an internal control deficiency related to the administration and monitoring of cost sharing. Specifically:

- ISB did not have adequate procedures to obtain certifications or personnel activity reports to support salary, wages and fringe benefit charges made to its NSF awards during the period October 2003 through late 2004. This internal control deficiency was initially reported in ISB's 2003 Fiscal Year A-133 Single Audit Report. In response to this audit finding, ISB executed employee certification and personnel activity report procedures and retroactively distributed certifications and personnel activity reports, i.e., time sheets, which were completed by employees and approved by the appropriate ISB budget managers. We noted that one employee's salary was charged 100% to an NSF award over three pay periods even though that employee's certifications had only indicated a 32% level of effort was performed on the NSF grant.
- ISB lacked a system to identify, account for, and monitor the cost sharing it contributed to NSF award ESI-0224574. In addition, ISB did not maintain employee certifications and personnel activity reports to support the salary and fringe benefit costs it charged to its NSF award as cost share. ISB's cost share consists of 100% personnel costs. Therefore, ISB was unable to monitor the cost-sharing expenditures it claimed to NSF to ensure those costs were allowable and

allocable to the award, and were not obtained from another Federal source or claimed on another Federal award. While we were able to perform alternative audit procedures to verify the cost sharing claimed, the lack of a system to adequately record, track, and monitor cost sharing could result in ISB claiming future cost sharing expenditures that may not be allowable or allocable to its NSF award.

- ISB lacked policies and procedures for ensuring that participant support costs were classified correctly in its accounting system. During our audit, we conducted a comparison of budget to actual expenditures for NSF approved program expense categories. We noted a \$20,382 increase over the NSF approved budget in costs incurred for consulting expenses and a decrease of the same amount in expenses for participant support and costs. The difference resulted from ISB inadvertently coding stipend payments as consulting costs in its accounting system. This miscoding of participant support costs as consultant fees resulted in ISB charging its NSF grant for unallowable indirect costs. Failure to properly track and record participant support costs limits ISB's ability to ensure that participant support funds are not spent on any other types of costs without prior NSF approval.

We recommend that NSF's Directors of DIAS and DGA ensure that ISB (a) adhere to its policy to obtain certifications and personnel activity reports, i.e., time sheets, and to require budget managers to review and approve such reports on a timely basis; (b) develop policies and procedures to record and track all cost sharing expenditures in accordance with OMB Circulars, including implementing a time and effort reporting system for employees claimed as cost share; and, (c) develop and implement written policies and procedures to ensure stipends costs are properly classified as participant support in its accounting system.

The awardee responded to the draft audit report on March 24, 2006. In its response, the awardee stated that it concurred with the findings that it 1) lacked certification and personnel activity reports for the period October 2003 through late 2004, 2) lacked certification and personnel activity reports during the audit period for cost sharing amounts that it had claimed were provided by ISB Education Outreach Program Administrative Staff and, 3) lacked policies and procedures to ensure that participant support costs were classified properly in its accounting system. The awardee indicated that it has implemented several actions to address these findings. The awardee disagreed with the finding that it overcharged the NSF Compact Waveguide Scanner Project for salaries, fringe and indirect costs. The awardee also stated that the wording in the finding related to a lack of system to identify, account for, and monitor cost sharing was misleading and inaccurately suggested that it lacked any system whatsoever for monitoring its cost sharing activity for its NSF grants.

The findings in this report should not be closed until NSF has determined that all the recommendations have been adequately addressed and the proposed corrective actions have been satisfactorily implemented. ISB's response has been included in its entirety in Appendix A.

For a complete discussion of audit findings, refer to the Independent Auditor's Report on Compliance and Other Matters and on Internal Control Over Financial Reporting.

**EXIT CONFERENCE**

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We conducted an exit conference on July 1, 2005 at ISB's offices. We discussed preliminary findings and recommendations noted during the audit. Representing ISB was:

<b>Name</b>	<b>Title</b>
██████████	██

Representing Conrad and Associates, L.L.P. was:

<b>Name</b>	<b>Title</b>
██████████	Audit Manager

**COMPLIANCE AND INTERNAL CONTROLS**

National Science Foundation  
Office of Inspector General  
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**REPORT ON COMPLIANCE AND OTHER MATTERS AND ON  
INTERNAL CONTROL OVER FINANCIAL REPORTING  
BASED ON AN AUDIT PERFORMED IN ACCORDANCE  
WITH GOVERNMENT AUDITING STANDARDS**

We audited costs claimed as presented in the Schedules of Award Costs (Schedules A-1 through A-3), which summarize financial reports submitted by Institute for Systems Biology (ISB) to the National Science Foundation (NSF) and claimed cost sharing for the awards and periods listed below and have issued our report thereon dated July 1, 2005:

<u>Award Number</u>	<u>Award Period</u>	<u>Audit Period</u>
EF – 0313754	09/01/03 – 08/31/05	09/01/03 – 12/31/04
ESI – 0224574	01/16/02 – 12/31/05	01/16/02 – 12/31/04
DBI – 0096750	05/01/01 – 04/30/03	05/01/01 – 04/30/03

We conducted our audit of the Schedules of Award Costs as presented in Schedules A-1 through A-3 in accordance with auditing standards generally accepted in the United States of America; *Government Auditing Standards*, issued by the Comptroller General of the United States (2003 revision); and, the *National Science Foundation Audit Guide* (September 1996), as applicable. These standards and the *National Science Foundation Audit Guide* require that we plan and perform the audit to obtain reasonable assurance that the financial schedules are free of material misstatement.

**COMPLIANCE WITH LAWS AND REGULATIONS AND OTHER MATTERS**

Compliance with applicable Federal laws, regulations, and NSF award terms and conditions is the responsibility of ISB's management. As part of obtaining reasonable assurance about whether ISB's financial schedules are free of material misstatement, we performed tests of ISB's compliance with certain provisions of applicable laws, regulations, and NSF award terms and conditions, noncompliance with which could have a direct and material effect on the determination of financial schedule amounts. However, providing an opinion on compliance with those provisions is not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests of compliance disclosed instances of noncompliance that are required to be reported under *Government Auditing Standards* and the *National Science Foundation Audit Guide* and are described in Finding Nos. 1 through 3, below.

## **INTERNAL CONTROL OVER FINANCIAL REPORTING**

ISB management is responsible for establishing and maintaining internal control. In fulfilling this responsibility, estimates and judgments made by management are required to assess expected benefits and related costs of internal control policies and procedures. The objectives of internal control are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and that transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of financial schedules in accordance with accounting principles prescribed by the NSF. Because of inherent limitations in any internal control, misstatements due to errors or fraud may nevertheless occur and not be detected. Also, projection of any evaluation of internal control to future periods is subject to the risk that procedures may become inadequate because of changes in conditions, or that the effectiveness of the design and operation of policies and procedures may deteriorate.

In planning and performing our audit of the Schedules of Award Costs (Schedules A-1 through A-3) for the period May 1, 2001 to December 31, 2004, we considered ISB's internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing our opinion on the financial schedules and not to provide an opinion on the internal control over financial reporting. Accordingly, we do not express such an opinion.

We noted, however, certain matters described below involving the internal control over financial reporting and its operation that we consider to be reportable conditions under standards established by the American Institute of Certified Public Accountants. Reportable conditions involve matters coming to our attention relating to significant deficiencies in the design or operation of the internal control over financial reporting that, in our judgment, could adversely affect ISB's ability to record, process, summarize, and report financial data consistent with management's assertions in the financial schedules. Reportable conditions we identified are described in Finding Nos. 1 through 3, below.

A material weakness is a reportable condition in which the design or operation of one or more of the internal control elements does not reduce, to a relatively low level, the risk that misstatements caused by error or fraud in amounts that would be material in relation to the financial schedules being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. Our consideration of internal control over financial reporting would not necessarily disclose all matters related to internal control over financial reporting that might be reportable conditions and, accordingly, would not necessarily disclose all reportable conditions that are also considered to be material weaknesses. We do not consider any of the reportable conditions described below to be material weaknesses.

## **FINDINGS AND RECOMMENDATIONS**

### **Finding 1. Lack of Certifications and Personnel Activity Reports for the Period October 2003 through Late 2004**

ISB did not obtain certifications and personnel activity reports as required by Federal regulations and NSF for the period October 2003 through late 2004. In addition, ISB overcharged \$9,126 in salary and fringe benefit costs to its NSF Compact Wave grant because 100% of an employee's time was charged to the project, however the employee's certification indicated that only 32% labor effort was performed on the NSF award.

OMB Circular A-122, Cost Principles for Non-Profit Organizations, Attachment A, Section 8, Compensation For Personal Services, Paragraph M, Support of Salaries and Wages, states that, to be allowable, charges to Federal awards for salaries and wages, whether treated as direct or indirect costs, must be based on documented payrolls approved by responsible official(s) of the organization and supported by personnel activity reports. When employees are expected to work solely on a single Federal award or cost objective, charges for their salaries and wages must be supported by periodic (at least semi-annually) certifications indicating that the employees worked only on that program. The certifications should be signed by the employee or supervisory official having direct knowledge of the work performed by the employee. When employees work on multiple activities or cost objectives, a distribution of salaries or wages must be supported by personnel activity reports that reflect after-the-fact distribution of the actual activity of each employee; account for the total activity for which each employee is compensated; be prepared at least monthly; and, be signed by the employee.

ISB did not obtain certifications and personnel activity reports to support salary, wage and fringe benefit charges made to its NSF awards during the period October 2003 through late 2004. ISB's policy states that budget managers are responsible for daily research oversight, award expense approvals, and labor effort reporting review and approval to ensure all staff complete time sheets that identify the number of hours worked by project and that time charged to an award is accurate.

This internal control deficiency was initially reported in ISB's 2003 Fiscal Year A-133 Single Audit Report. In response to this audit finding, ISB executed employee certification and personnel activity report procedures and retroactively completed time sheets, including approvals from the appropriate budget managers. However, our audit testing of ISB salary expenses noted that one employee's salary was charged 100% to an NSF award over three pay periods even though that employee's certification indicated a 32% level of effort was performed on the NSF grant.

ISB indicated its time sheets were not distributed to employees for completion from October 2003 through late 2004 because it was developing and implementing an on-line time and effort system. Thus, employee time sheets were not completed by ISB personnel because of difficulties with its new personnel activity reporting system. Because time sheets were retroactively completed, ISB believes its budget manager inadvertently made an error when approving labor charges to the NSF grant because the budget manager did not remember that the employee was originally working full time on the NSF grant.

ISB's failure to follow its policy to obtain completed time sheets limited its ability to ensure that salary amounts charged to its NSF grant were accurate and properly documented. Therefore we questioned the \$9,126 in salary, wage, and fringe benefit costs and the related \$6,936 of indirect costs because the documentation reflected that the employee only performed 32 percent rather than 100 percent of effort on the NSF award.

### ***Recommendation 1:***

We recommend that NSF's Directors of DIAS and DGA ensure that ISB adhere to its policy to obtain certifications and personnel activity reports (i.e., timesheets) and require budget managers to review and approve such reports on a timely basis.

### **Awardee's Comments**

We concur with the finding as reported in our 2003 Fiscal Year A-133 Single Audit Report relating to effort reporting certifications. We do not agree, however, with the finding that ISB overcharged the NSF Compact Waveguide Scanner Project for salaries, fringe and indirect costs. We were not made aware of discrepancies found by the auditors in effort reporting during the period from October, 2003 through late 2004 as stated in Finding 1, when the effort reports were retroactively certified. The finding noted relates to effort reporting during May and June of 2001, when an employee's effort certification report claimed 32% effort but the project was billed at 100%. We reviewed the discrepancy with both the PI of the grant and the employee to which this relates and provided the auditors with written confirmation from both individuals that effort report had been correctly stated during the pay periods in question. The employee had dedicated 100% of his effort to the NSF Compact Waveguide Scanner project during this time period and was charged appropriately to the grant although the effort report showed him incorrectly allocated at 32%. The auditors had indicated that they were satisfied with our responses and documentation of the error in effort reporting during the exit conference at the conclusion of their fieldwork and the issue appeared to have been resolved at that time and we were surprised to see it resurface in the audit report. We are confident that salary, fringe and indirect costs that were charged the grant are accurate and valid and represent the correct amount of effort dedicated by our employees on the project.

### **Auditor's Response**

We concur with ISB that no errors were noted in the time and effort reports for the period of October 2003 through late 2004 and that the questioned costs relate to pay periods in 2001, when ISB was certifying time and effort reports on a timely basis. However, the fact remains that signed and certified time and effort reports for three pay periods were indicating an effort level of 32%, but the grant was still charged an effort level of 100%. We did not indicate during the exit conference that the finding was resolved. This report finding should not be closed until this recommendation has been adequately addressed and NSF determines that the corrective action has been satisfactorily implemented.

### **Finding 2. Lack of a System to Identify, Account for, and Monitor Cost Sharing**

ISB lacked a system to identify, account for, and monitor cost sharing it attributed to its NSF award. In addition, ISB did not maintain employee certifications and personnel activity reports (i.e., timesheets) to support the salary and fringe benefit costs it charged to its NSF award as cost sharing.

NSF's *Grant Policy Manual* (GPM) Section 333.6, *Cost Sharing Records and Reports*, and OMB Circular A-110, Subpart C, Section .23, require grantees to maintain records of all costs claimed as cost sharing, and states that those records are subject to audit. These regulations also state that cost-sharing expenses must be verifiable from the recipient's records and must not be included as contributions to any other Federal award or funded by any other Federal award. OMB Circular A-110 Section .23, also states that, to be accepted as part of the recipient's cost sharing, expenditures must be necessary and

reasonable for proper and efficient accomplishment of project or program objectives and allowable under applicable cost principles.

While ISB's accounting system did capture all NSF grant expenses, it did not, separately identify and track those expenses incurred as cost sharing on behalf of the NSF award as opposed to other Federal awards. All of ISB's cost share expenses are for salary and wages.

ISB did not utilize employee certifications and personnel activity reports (i.e., time sheets) to track salary and fringe benefit costs claimed as cost sharing. Instead, cost sharing expenditures related to the NSF award were compiled from payroll data each pay period. ISB personnel reviewed the data and determined which employees had worked on NSF grants. Based on discussions, an amount of cost share was calculated. However, there are no employee certifications or personnel activity reports to support the amount of calculated cost share. Because ISB did not maintain appropriate documentation to support the labor charges it claimed as cost share, we were required to perform alternative procedures to assess the reasonableness and propriety of the claimed cost share. We conducted interviews with ISB staff working on the NSF award. These individuals stated that they performed duties in accordance with the award agreements, which, in the absence of certifications and personnel activity reports, satisfied our concerns that the labor costs for cost share were related to the NSF award in the amounts claimed.

Nonetheless, although our review of cost sharing expenditures noted no exceptions, ISB did not have an adequate system to identify, account for, and monitor the cost share it charged to its NSF grant. Therefore, ISB was unable to monitor the cost sharing expenditures it claimed to NSF to ensure those costs were allowable or allocable to its NSF grant and were not obtained from another Federal source or claimed on another Federal award. ISB acknowledged that cost sharing is a new experience and their accounting department is in the process of developing policies and procedures to record, track, and review costs sharing data in order to ensure costs are allowable and allocable to its NSF award.

### ***Recommendation 2:***

We recommend that NSF's Directors of DIAS and DGA ensure that ISB develop policies and procedures to record and track all cost sharing expenditures in accordance with OMB Circulars, including implementing a certification and personnel activity reporting system for employees claimed as cost share.

### **Awardee's Comments**

The wording of the finding is misleading and inaccurately suggests that ISB lacked any system whatsoever for monitoring cost sharing activity. The cost sharing tracking component found to be inadequate, which we concur with, relates to the lack of effort certification during the audit period for cost sharing ISB had claimed was provided by ISB Education Outreach Program Administrative Staff. Our effort certifications did not include the portions of these individuals' time on the NSF Family Science Grant which we had claimed as cost sharing.

Since completion of the audit, we have corrected our monthly effort reporting procedure to include any ISB employee time claimed as cost sharing which is not otherwise recorded in the NSF Cost Sharing Volunteer Hours Workbook.

## **Auditor's Response**

We acknowledge and concur with ISB's reported change in policy to correct their monthly effort reporting procedure to include employees' time charged as cost sharing. However, ISB should establish procedures to identify, record, and associate the cost share to the NSF award at the time the costs are incurred and ensure that those costs are not funded by or claimed on another federal award. This report finding should not be closed until this recommendation has been adequately addressed and NSF determines that the corrective action has been satisfactorily implemented.

### **Finding 3. Lack of Policies and Procedures to Ensure Participant Support Costs are Properly Classified in the Accounting System**

ISB lacked policies and procedures to ensure that participant support costs were classified properly in its accounting system. As a result, ISB misclassified \$20,382 of participant support costs as consulting costs in its accounting system and charged two of its NSF awards \$7,659 for indirect costs related to these misclassified participant support costs, which are unallowable award expenses.

National Science Foundation Grant General Conditions (GC-1), Article 7 – Participant Support Costs, states that participant support costs are direct costs for items such as stipends or subsistence allowances, travel allowances, and registration fees paid to or on behalf of participants or trainees (but not employees) in connection with meetings, conferences, symposia or training projects. (See also GPM Section 618.) It also states that the awardee organization must account for participant support costs separately. Additionally, National Science Foundation Grant Policy Manual, Section 633.2 states that no indirect costs may be charged against participant support costs and that NSF generally provides no amounts for indirect costs for participant support.

During our audit, we conducted a comparison of budget to actual expenditures for NSF approved program expense categories. We noted \$20,382 more in expenditures for consulting costs and a reduction in participant support costs by that same amount. Discussions with the Budget Managers for the BE/EN GEN and Family Science awards indicated that participant support costs were potentially incorrectly coded and claimed as consulting costs. As a result of these discussions, we conducted a review of ISB's detailed general ledger and noted a total of \$20,382 of stipend payments that were erroneously coded as consulting costs.

The miscoding of participant support costs as consultant fees also resulted in ISB charging Award Nos. ESI-0224574 and DBI-0096750 for unallowable indirect costs. Thus, ISB overcharged both NSF awards by a total of \$7,659 for indirect costs. These overcharged costs resulted from ISB applying its indirect cost rate to the participant support costs which were misclassified as consulting costs in its accounting system.

ISB's failure to properly track, record, and claim stipend costs as participant support costs limited ISB's ability to ensure that participant support funds are not spent on any other types of costs without prior NSF approval.

### ***Recommendation 3:***

We recommend that NSF's Directors of DIAS and DGA ensure that ISB develop and implement written policies and procedures to ensure stipends paid to teachers and students are properly classified in its accounting system.

### **Awardee's Comments**

ISB concurs with the finding and recommendation. Since the audit, ISB states that it has taken steps to address the proper classification of participant support costs by educating staff in defining what costs qualify as participant support as well as created a new account code in its general ledger which is dedicated for NSF Participant Support and to which no indirect costs are allocated.

### **Auditor's Response**

We acknowledge and concur with ISB's reported change in policy to properly identify and record participant support costs to which no indirect costs are allocated. This report finding should not be closed until NSF determines that the corrective action has been satisfactorily implemented.

We considered these internal control deficiencies in forming our opinion of whether Schedules A-1 through A-3 were presented fairly in all material respects, in conformity with National Science Foundation policies and procedures, and determined that this report does not affect our report dated July 1, 2005 on the financial schedules.

This report is intended solely for the information and use of ISB's management, the National Science Foundation, ISB's Federal cognizant agency, the Office of Management and Budget, and the Congress of the United States of America and is not intended to be and should not be used by anyone other than those specified parties.

CONRAD and ASSOCIATES, L.L.P.

Irvine, California  
July 1, 2005

**FINANCIAL SCHEDULES AND  
SUPPLEMENTAL INFORMATION**

National Science Foundation  
Office of Inspector General  
4201 Wilson Boulevard  
Arlington, Virginia 22230

### **INDEPENDENT AUDITORS' REPORT ON FINANCIAL SCHEDULES**

We have audited the costs claimed by Institute for Systems Biology (ISB) to the National Science Foundation (NSF) on the Federal Cash Transactions Reports (FCTR) for the NSF awards listed below. In addition, we audited the amount of cost sharing claimed on Award No. ESI-0224574. The FCTRs, as presented in the Schedules of Award Costs (Schedules A-1 through A-3), are the responsibility of ISB's management. Our responsibility is to express an opinion on the Schedules of Award Costs (Schedules A-1 through A-3) based on our audit.

Award Number	Award Period	Audit Period
EF – 0313754	09/01/03 – 08/31/05	09/01/03 – 12/31/04
ESI – 0224574	01/16/02 – 12/31/05	01/16/02 – 12/31/04
DBI – 0096750	05/01/01 – 04/30/03	05/01/01 – 04/30/03

Except as discussed in the following paragraph, we conducted our audit in accordance with auditing standards generally accepted in the United States of America; *Government Auditing Standards* (2003 revision), issued by the Comptroller General of the United States; and, the *National Science Foundation Audit Guide* (September 1996), as applicable. These standards and the *National Science Foundation Audit Guide*, require that we plan and perform the audit to obtain reasonable assurance that the amounts claimed to NSF as presented in the Schedules of Award Costs (Schedules A-1 through A-3) are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Schedules of Award Costs (Schedules A-1 through A-3). An audit also includes assessing the accounting principles used and the significant estimates made by ISB, as well as evaluating the overall financial schedule presentation. We believe that our audit provides a reasonable basis for our opinion.

The Schedule of Questioned Costs (Schedule B) explains the \$23,721 (1%) of total claimed NSF funds that we have questioned for allowability. These costs include unallowable salaries and fringe benefits and incorrectly calculated indirect costs.

Questioned costs are (1) costs for which documentation exists to show that recorded costs were expended in violation of laws, regulations, or specific award conditions, (2) costs that require additional support by awardee, or (3) costs that require interpretation of allowability by NSF's Division of Institution and Award Support (DIAS). NSF will make the final determination of cost allowability. The ultimate outcome of this determination cannot presently be determined. Accordingly, no adjustment has been made to costs claimed for any potential disallowance by NSF.

In our opinion, except for the \$23,721 of questioned NSF-funded costs, the Schedules of Award Costs (Schedules A-1 through A-3) referred to above present fairly, in all material respects, costs claimed on FCTRs for the period May 1, 2001 to December 31, 2004 in conformity with the *National Science Foundation Audit Guide*, *NSF Grant Policy Manual*, terms and conditions of the NSF awards and on the basis of accounting described in the Notes to the Financial Schedules. These schedules are not intended to be a complete presentation of financial position in conformity with accounting principles generally accepted in the United States of America.

In accordance with *Government Auditing Standards*, and provisions of the *National Science Foundation Audit Guide*, we have also issued a report dated July 1, 2005, on our tests of ISB's compliance with certain provisions of laws, regulations, and NSF award terms and conditions and our consideration of ISB's internal control over financial reporting. The purpose of that report is to describe the scope of our testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be read in conjunction with this report in considering the results of our audit.

This report is intended solely for the information and use of ISB's management, NSF, ISB's Federal cognizant agency, the Office of Management and Budget, and the Congress of the United States of America and is not intended to be, and should not be used by anyone other than these specified parties.

CONRAD and ASSOCIATES, L.L.P.

Irvine, California  
July 1, 2005

## INSTITUTE FOR SYSTEMS BIOLOGY

National Science Foundation Award Number EF-0313754

Schedule of Award Costs

September 1, 2003 - December 31, 2004

Interim

<u>Cost Category</u>	<u>Approved Budget</u>	<u>Claimed Costs (A)</u>	<u>Reclassification of Costs</u>	<u>Audited Totals</u>	<u>Questioned Costs</u>	<u>Schedule Reference</u>
Direct costs:						
Salaries and wages	\$ 557,534	179,604	-	179,604	-	
Fringe benefits	167,259	58,772	-	58,772	-	
Equipment	19,164	9,458	-	9,458	-	
Travel	15,000	-	-	-	-	
Participant support	24,000	-	8,864	8,864	-	<b>B, Note B-2</b>
Other direct costs:						
Material and supplies	221,000	31,458	-	31,458	-	
Publication	9,000	-	-	-	-	
Consulting	-	12,465	(8,864)	3,601	-	<b>B, Note B-2</b>
Subcontractor	-	-	-	-	-	
Other direct costs	<u>-</u>	<u>32,882</u>	<u>-</u>	<u>32,882</u>	<u>-</u>	
Total direct costs	1,012,957	324,639	-	324,639	-	
Indirect costs	<u>737,042</u>	<u>239,414</u>	<u>-</u>	<u>239,414</u>	<u>6,737</u>	<b>B, Note B-3</b>
Total	<u>\$ 1,749,999</u>	<u>564,053</u>	<u>-</u>	<u>564,053</u>	<u>6,737</u>	
Cost sharing	<u>\$ -</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	

(A) - The total claimed costs agrees with the total expenditures reported by the Institute for Systems Biology on the Federal Cash Transaction Report - Federal Share of Net Disbursements as of the quarter ended December 31, 2004. Claimed costs reported above are taken from the awardee's books of accounts.

## INSTITUTE FOR SYSTEMS BIOLOGY

National Science Foundation Award Number ESI-0224574

Schedule of Award Costs

January 16, 2002 - December 31, 2004

Interim

<u>Cost Category</u>	<u>Approved Budget</u>	<u>Claimed Costs (A)</u>	<u>Reclassification of Costs</u>	<u>Audited Totals</u>	<u>Questioned Costs</u>	<u>Schedule Reference</u>
Direct costs:						
Salaries and wages	\$ 170,000	130,846	-	130,846	-	
Fringe benefits	52,010	35,758	-	35,758	-	
Equipment	-	-	-	-	-	
Travel	18,000	5,453	-	5,453	-	
Participant support	81,429	-	11,518	11,518	-	<b>B, Note B-2</b>
Other direct costs:						
Material and supplies	8,479	7,410	-	7,410	-	
Publication	10,800	-	-	-	-	
Consulting	126,107	66,677	(11,518)	55,159	-	<b>B, Note B-2</b>
Subcontractor	240,208	95,631	-	95,631	-	
Other direct costs	-	10,105	-	10,105	-	
Total direct costs	<u>707,033</u>	<u>351,880</u>	<u>-</u>	<u>351,880</u>	<u>-</u>	
Indirect costs	<u>41,350</u>	<u>20,500</u>	<u>-</u>	<u>20,500</u>	<u>922</u>	<b>B, Note B-3</b>
Total	<u>\$ 748,383</u>	<u>372,380</u>	<u>-</u>	<u>372,380</u>	<u>922</u>	
Cost sharing	<u>\$ 353,215</u>	<u>377,330</u>	<u>-</u>	<u>377,330</u>	<u>-</u>	

(A) - The total claimed costs agrees with the total expenditures reported by the Institute for Systems Biology on the Federal Cash Transaction Report - Federal Share of Net Disbursements as of the quarter ended December 31, 2004. Claimed costs reported above are taken from the awardee's books of accounts.

**INSTITUTE FOR SYSTEMS BIOLOGY**  
National Science Foundation Award Number DBI-0096750  
Schedule of Award Costs  
May 1, 2001 - April 30, 2003  
Final

<u>Cost Category</u>	<u>Approved Budget</u>	<u>Claimed Costs (A)</u>	<u>Questioned Costs</u>	<u>Schedule Reference</u>
Direct costs:				
Salaries and wages	\$ 235,373	319,834	7,215	<b>B, Note B-1</b>
Fringe benefits	70,612	84,709	1,911	<b>B, Note B-1</b>
Equipment	59,208	16,268	-	
Travel	2,000	543	-	
Participant support	-	-	-	
Other direct costs:				
Material and supplies	47,853	17,038	-	
Publication	2,000	-	-	
Consulting	-	-	-	
Subcontractor	-	-	-	
Other direct costs	<u>40,051</u>	<u>163</u>	<u>-</u>	
Total direct costs	<u>457,097</u>	<u>438,555</u>	<u>9,126</u>	
Indirect costs	<u>302,396</u>	<u>320,938</u>	<u>6,936</u>	<b>B, Note B-1</b>
Total	<u>\$ 759,493</u>	<u>759,493</u>	<u>16,062</u>	
Cost sharing	<u>\$ -</u>	<u>-</u>	<u>-</u>	

(A) - The total claimed costs agrees with the total expenditures reported by the Institute for Systems Biology on the Federal Cash Transaction Report - Federal Share of Net Disbursements as of the quarter ended June 30, 2003. Claimed costs reported above are taken from the awardee's books of accounts.

**SCHEDULE B**

**INSTITUTE FOR SYSTEMS BIOLOGY**

National Science Foundation Award Numbers:

EF-0313754, ESI-0224574, DBI-0096750

Schedule of Questioned Costs

From May 1, 2001 to December 31, 2004

**Note B-1 Salaries and Wages**

ISB lacked adequate procedures to ensure that employee certifications and personnel activity reports (i.e., time sheets) were completed as required by Federal regulations and NSF for the period October 2003 through late 2004. As a result, ISB overcharged \$9,126 in salary and fringe benefit costs to its NSF Compact Wave grant because 100% of an employee's time was charged to the project even though that employee only provided 32% labor effort to the award.

ISB indicated its time and effort reports were not distributed from October 2003 through late 2004 to ISB employees for completion because it was developing and implementing an on-line time and effort system. Thus, employee certifications and personnel activity reports (i.e., time sheets) were not completed by ISB personnel because of difficulties with its new personnel activity reporting system. Time certifications (i.e., time sheets) were retroactively completed, however, ISB believes its budget manager inadvertently made an error when certifying personnel activity reports and did not remember that the employee was originally working full time on the NSF grant but later changed his level of effort on the NSF award to 32%. (See Finding and Recommendation No. 1 on the *Report on Compliance and Other Matters and on Internal Control Over Financial Reporting.*)

**Grant DBI-0096750 (Compact Wave)**

<u>Pay Date</u>	<u>Claimed Amount</u>	<u>Amount per Audit</u>	<u>Questioned Salary</u>	<u>Questioned Fringe Costs (A)</u>	<u>Total Questioned Costs</u>
08/14/01					\$ 3,750
08/31/01					2,688
09/14/01					<u>2,688</u>
Totals	<u>\$ 10,610</u>	<u>\$ 3,395</u>	<u>\$ 7,215</u>	<u>\$ 1,911</u>	<u>\$ 9,126</u>

(A) – Fringe rate of 26.48% was based on total claimed fringe costs divided by total salary costs claimed.

## SCHEDULE B

### INSTITUTE FOR SYSTEMS BIOLOGY

National Science Foundation Award Numbers:

EF-0313754, ESI-0224574, DBI-0096750

Schedule of Questioned Costs

From May 1, 2001 to December 31, 2004

In addition, \$6,936 of indirect costs has been questioned as a result of the questioned salary and fringe costs.

\$ 9,126	Questioned salary and fringe benefit costs
<u>76%</u>	Approved indirect cost rate
<u>\$ 6,936</u>	Questioned indirect costs

#### **Awardee's Response**

We concur with the finding as reported in our 2003 Fiscal Year A-133 Single Audit Report relating to effort reporting certifications. We do not agree, however, with the finding that ISB overcharged the NSF Compact Waveguide Scanner Project for salaries, fringe and indirect costs. We were not made aware of discrepancies found by the auditors in effort reporting during the period from October, 2003 through late 2004 as stated in Finding 1, when the effort reports were retroactively certified. The finding noted relates to effort reporting during May and June of 2001, when an employee's effort certification report claimed 32% effort but the project was billed at 100%. We reviewed the discrepancy with both the PI of the grant and the employee to which this relates and provided the auditors with written confirmation from both individuals that the effort report had been incorrectly stated during the pay periods in question. The employee had dedicated 100% of his effort to the NSF Compact Waveguide Scanner project during this time period and was charged appropriately to the grant although the effort report showed him incorrectly allocated at 32%.

#### **Auditor's Response**

We concur with ISB in that no errors were noted in the time and effort reports for the period of October 2003 through late 2004 and that the questioned costs relates to pay periods in 2001 when ISB was certifying time and effort reports on a timely basis. However, the fact remains that signed and certified time and effort reports for three pay periods were indicating an effort level of 32%, but the grant was still charged an effort level of 100%. Discussions held during the audit indicated that the time and effort reports lead to the payroll distribution, yet this over charge went undetected for three pay periods. As such, the finding remains unchanged.

**SCHEDULE B**

**INSTITUTE FOR SYSTEMS BIOLOGY**

National Science Foundation Award Numbers:

EF-0313754, ESI-0224574, DBI-0096750

Schedule of Questioned Costs

From May 1, 2001 to December 31, 2004

**Note B-2**      **Consulting and Participant Support Costs**

During our audit, we conducted a comparison of budget to actual expenditures for NSF approved program expense categories. We noted \$20,382 more in expenditures for consulting costs and a reduction in participant support costs by that same amount. Discussions with the Budget Managers for the BE/EN GEN and Family Science awards indicated a possibility existed where participant support costs were coded and claimed as consulting costs. As a result of these discussions, we conducted a review of ISB's detailed general ledger and noted a total of \$20,382 of stipend payments that were erroneously classified as consulting costs. The miscoding of participant support costs as consulting costs resulted in ISB charging its NSF grants for unallowable indirect costs for participant support. The misclassified participant support amount of \$20,382 is segregated by grant as follows:

<b><u>Grant Number</u></b>	<b><u>Grant Name</u></b>	<b><u>Amount</u></b>
EF-0313754	BE/GEN-EN	\$ 8,864
ESI-0224574	Family Science	<u>11,518</u>
	Total	<u>\$ 20,382</u>

(See Finding and Recommendation No. 3 on the *Report on Compliance and Other Matters and on Internal Control Over Financial Reporting.*)

**Awardee's Response**

ISB concurs with the finding and recommendation. Since the audit, we have taken steps to address the proper classification of participant support costs by educating staff in defining what costs qualify as participant support as well as the creation of a new account code in our general ledger which is dedicated for NSF Participant Support and to which no indirect costs are allocated.

**Auditor's Response**

We acknowledge and concur with ISB's change in policy to properly identify and record participant support costs to which no indirect costs are allocated.

## SCHEDULE B

### INSTITUTE FOR SYSTEMS BIOLOGY

National Science Foundation Award Numbers:

EF-0313754, ESI-0224574, DBI-0096750

Schedule of Questioned Costs

From May 1, 2001 to December 31, 2004

#### Note B-3 Calculation of Indirect Costs Overclaimed on Misclassified Participant Support

As a result of the misclassification of participant support costs noted in Note B-2, ISB overclaimed indirect costs on its NSF awards. NSF award terms do not allow for the grantee to claim indirect costs on participant support costs. Therefore, \$7,659 of indirect costs (\$6,737 from EF-0313754 and \$922 from ESI-0224574) have been questioned as follows: (See Finding and Recommendation No. 3 on the *Report on Compliance and Other Matters and on Internal Control Over Financial Reporting*.)

##### Grant EF-0313754 (BE/GEN-EN)

\$ 8,864 Costs reclassified as participant support costs

76% Approved indirect cost rate

\$ 6,737 Questioned indirect costs

##### Grant ESI-0224574 (Family Sciences)

\$ 11,518 Costs reclassified as participant support costs

8% Approved indirect cost rate

\$ 922 Questioned indirect costs

##### Awardee's Response

ISB concurs with the finding and recommendation. Since the audit, we have taken steps to address the proper classification of participant support costs by educating staff in defining what costs qualify as participant support as well as the creation of a new account code in our general ledger which is dedicated for NSF Participant Support and to which no indirect costs are allocated.

##### Auditor's Response

We acknowledge and concur with ISB's change in policy to properly identify and record participant support costs to which no indirect costs are allocated.

**INSTITUTE FOR SYSTEMS BIOLOGY**

Summary Schedules of Awards Audited and Audit Results  
From May 1, 2001 to December 31, 2004

**Summary of Awards Audited**

<u>Award Number</u>	<u>Award Period</u>	<u>Audit Period</u>
EF – 0313754	09/01/03 – 08/31/05	09/01/03 – 12/31/04
ESI – 0224574	01/16/02 – 12/31/05	01/16/02 – 12/31/04
DBI – 0096750	05/01/01 – 04/30/03	05/01/01 – 04/30/03

<u>Award Number</u>	<u>Type of Award</u>	<u>Award Description</u>
EF – 0313754	Grant	Evaluate the global oxygen-response mechanisms in Halobacterium sp. NRC-1 by dissecting the biological networks that mediate the oxygen-stress response.
ESI – 0224574	Grant	To teach youth and families in the Seattle school district targeting grades K-5 with an expansion to include middle and high school students over a five year plan.
DBI – 0096750	Grant	Development of a DNA-array scanner to detect fluorescence signals by means of a novel wave guide collector.

**Summary of Questioned and Unsupported Costs by Award**

<u>Award Number</u>	<u>Award Budget</u>	<u>Claimed Costs</u>	<u>Questioned Costs</u>	<u>Unsupported Costs</u>
EF – 0313754	\$ 1,749,999	\$ 564,053	\$ 6,737	\$0
ESI – 0224574	748,383	372,380	922	0
DBI – 0096750	759,493	759,493	16,062	0

**Summary of Questioned Cost by Explanation**

<u>Category</u>	<u>Questioned Costs</u>	<u>Internal Controls</u>	<u>Non-Compliance</u>
Salaries and Wages	\$ ██████████	Yes	No
Fringe Benefits		Yes	No
Equipment		N/A	N/A
Travel		N/A	N/A
Participant Support		Yes	Yes
Material & Supplies		N/A	N/A
Publication		N/A	N/A
Consulting		Yes	Yes
Subcontractors		N/A	No
Other Direct Costs		No	No
Indirect Costs		No	Yes
Cost Sharing		Yes	No

**INSTITUTE FOR SYSTEMS BIOLOGY**  
 Summary Schedules of Awards Audited and Audit Results  
 From May 1, 2001 to December 31, 2004

**Summary of Non-Compliance and Internal Control Findings**

<b><u>Findings</u></b>	<b><u>Non-Compliance or Internal Control?</u></b>	<b><u>Material or Reportable?</u></b>
Salary and Wages & Fringe Benefit	Compliance & Internal Control	Reportable
Cost Sharing	Compliance & Internal Control	Reportable
Participant Support Costs	Compliance & Internal Control	Reportable

# INSTITUTE FOR SYSTEMS BIOLOGY

Notes to Financial Schedules  
From May 1, 2001 to December 31, 2004

## Note 1: Summary of Significant Accounting Policies

### Accounting Basis

The accompanying financial schedules have been prepared in conformity with National Science Foundation (NSF) instructions. Schedules A-1, A-2, and A-3 have been prepared from the reports submitted to NSF. The basis of accounting utilized in preparation of these reports differs from generally accepted accounting principles. The following information summarizes these differences:

#### A. Equity

Under the terms of the awards, all funds not expended according to the award agreement and budget at the end of the award period are to be returned to NSF. Therefore, the awardee does not maintain any equity in the award and any excess cash received from NSF over final expenditures is due back to NSF.

#### B. Equipment

Equipment is charged to expense in the period during which it is purchased instead of being recognized as an asset and depreciated over its useful life. As a result, the expenses reflected in the Statement of Award Costs include the cost of equipment purchased during the period rather than a provision for depreciation.

The equipment acquired is owned by ISB while used in the program for which it was purchased or in other future authorized programs. However, NSF has the reversionary interest in the equipment. Its disposition, as well as the ownership of any proceeds there from, is subject to Federal regulations.

#### C. Inventory

Minor materials and supplies are charged to expense during the period of purchase. As a result, no inventory is recognized for these items in the financial schedules.

#### D. Income Taxes

ISB is a private nonprofit corporation, incorporated under the laws of the State of Washington. ISB is exempt from income taxes under Section 501(c)3 of the Internal Revenue Code. It is also exempt from Washington franchise or income tax.

The departure from generally accepted accounting principles allows NSF to properly monitor and track actual expenditures incurred by the grantee. The departure does not constitute a material weakness in internal controls.

**INSTITUTE FOR SYSTEMS BIOLOGY**

Notes to Financial Schedules

From May 1, 2001 to December 31, 2004

**Note 2: NSF Cost Sharing and Matching**

The following represents the cost share requirements and actual cost share as of December 31, 2004:

<u>Award Number</u>	<u>Cost Share Required</u>	<u>Actual Cost Share Provided</u>	<u>Over/(Under)</u>
ESI – 0224574	\$ 353,215	\$ 377,330	\$ 24,115

**Note 3: Indirect Cost Rates**

<u>Award Number</u>	<u>Indirect Cost Rate</u>	<u>Base</u>
EF – 0313754	76.00%	Modified Total Direct Costs (Total direct salaries, fringe benefits, materials, supplies, services, travel, and sub awards (up to the first \$25,000)
ESI – 0224574	Fixed	A fixed amount of \$41,350 was approved in the original budget and subsequent amendments.
DBI – 0096750	76.00%	Modified Total Direct Costs (Total direct salaries, fringe benefits, materials, supplies, services, travel, and sub awards (up to the first \$25,000)

**APPENDIX - AUDITEE'S COMMENTS TO  
REPORT**

March 24, 2006

████████████████████  
Conrad and Associates, LLP  
2301 Dupont Drive, Suite 200  
Irvine, CA 92612

Re: NSF Draft Audit Report, your letter dated March 6, 2006

Dear ██████████

We have reviewed your draft report and provide this letter with our responses, as you have requested.

In the Background section on page one, please edit paragraph two to read as follows:

The Institute for Systems Biology (ISB) is a non-profit research institute established in 1999 and located in Seattle, Washington. ISB is an internationally renowned research institute dedicated to the study and application of systems biology through the integration of many sciences including biology, chemistry, physics, computation, mathematics and medicine. ISB's goal is to unravel the mysteries of human biology to identify strategies for predicting and preventing diseases such as cancer, diabetes and AIDS. In addition to this, ISB has made a strong commitment to education programs designed to enable schools and districts to have the capacity to produce scientifically literate and capable students by creating and supporting a statewide infrastructure, comprised of collaborative and regional partnerships among schools, districts, and community partnerships that will train and support science educators.

Regarding the specific findings:

Finding No. 1: Lack of Certifications and Personnel Activity Reports for the Period October 2003 through Late 2004

We concur with the finding as reported in our 2003 Fiscal Year A-133 Single Audit Report relating to effort reporting certifications. We do not agree, however, with the finding that ISB overcharged the NSF Compact Waveguide Scanner Project for salaries, fringe and indirect costs. We were not made aware of discrepancies found by the auditors in effort reporting during the period from October, 2003 through late 2004 as stated in Finding 1, when the effort reports were retroactively certified. The finding noted relates to effort reporting during May and June of 2001, when an employee's effort certification report claimed 32% effort but the project was billed at 100%. We reviewed the discrepancy with both the PI of the grant and the employee to which this relates and provided the auditors with written confirmation from both individuals that the *effort report* had been incorrectly stated during the pay periods in question. The employee had dedicated 100% of ██████ effort to the NSF Compact Waveguide Scanner project during this time period and was charged appropriately to the grant although the effort report showed ██████ incorrectly allocated at 32%. The auditors had indicated that they were satisfied with our responses and documentation of the error in effort reporting during the exit conference at the conclusion of their fieldwork and the issue appeared to have been resolved at that time and we were surprised to see it resurface in the audit report. We are confident that salary, fringe and indirect costs that were charged the grant are accurate and valid and represent the correct amount of effort dedicated by our employees on the project.

Finding No. 2: Lack of a System to Identify, Account for, and Monitor Cost Sharing

The wording of the finding is misleading and inaccurately suggests that ISB lacked any system whatsoever for monitoring cost sharing activity. The cost sharing tracking component found to be inadequate, which we concur with, relates to the lack of effort certification during the audit period for cost sharing ISB had claimed was provided by ISB Education Outreach Program Administrative Staff. Our effort certifications did not include the portions of these individuals' time on the NSF Family Science Grant which we had claimed as cost sharing.

A significant portion of claimed cost sharing on the grant is tied to relationships with the Woodland Park Zoo, Seattle Aquarium and the Pacific Science Center. These organizations sponsored NSF Family Science events in which discounts on admission, transportation, employee time and company resources were provided gratis as a cost sharing component on the grant. Documentation related to their claimed portions of cost sharing were provided following each of the events and these files were given to the auditors to review coupled with interviews with the project's Budget Manager, [REDACTED], in which [REDACTED] described the procedures used to review the reports in preparation for reporting the cost sharing on the grant. The files include itemizations of the all cost sharing amounts claimed by these organizations. In addition to the sponsored events through Woodland Park Zoo, Seattle Aquarium and Pacific Science Center, ISB scientists and administrative staff provided hundreds of hours annually of volunteer time to NSF Family Science grant sponsored events. These hours are tracked in an NSF Cost Sharing Volunteer Hours Workbook, copies of which were provided to the auditors for review. We have attached examples of the workbooks provided to this document.

Since completion of the audit, we have corrected our monthly effort reporting procedure to include any ISB employee time claimed as cost sharing which is not otherwise recorded in the NSF Cost Sharing Volunteer Hours Workbook.

Finding No. 3: Lack of Policies and Procedures to Ensure Participant Support Costs are Properly Classified in the Accounting System

ISB concurs with the finding and recommendation. Since the audit, we have taken steps to address the proper classification of participant support costs by educating staff in defining what costs qualify as participant support as well as the creation of a new account code in our general ledger which is dedicated for NSF Participant Support and to which no indirect costs are allocated.

Conclusion

The Institute for Systems Biology is proud of its relationship with the National Science Foundation and grateful for its support in furthering our research and collaborative partnerships in support of science education. We work very diligently to ensure that our grants are managed professionally and thoroughly and believe this has a direct relationship to our successes, both past and future.

Please do not hesitate to contact us if you have any questions or require additional information.

Sincerely,

[REDACTED]

Cc: [REDACTED]

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