

PDAM-491

UN-54982

AUDIT OF
RESEARCH GRANTS FOR
PRINCE OF SONGKLA UNIVERSITY
PROJECT NO. 398-0249

AUDIT REPORT NO. 2-493-88-05-N
JANUARY 29, 1988

UNITED STATES GOVERNMENT

Memorandum

TO: Dr. John R. Eriksson
Director, USAID/Thailand

DATE: January 29, 1988
RIG/EA-88-100

FROM: Leo L. LaMotte *Leo LaMotte*
Regional Inspector General for Audit

SUBJECT: Audit Report No. 2-493-88-05-N
Audit of the Research Grants for Prince of Songkla
University, Project No. 398-0249

Attached is a copy of the final report on the subject audit. The certified public accounting firm of Ernst & Whinney (Bangkok) prepared the report dated August 26, 1987. The purpose of the review was to determine whether project funds were being properly accounted for in compliance with the terms of the grants and other applicable A.I.D. policies and procedures and to identify and evaluate the accounting systems and internal controls of the funds.

Prince of Songkla University was the recipient of two A.I.D. grants totaling \$300,000 under the Program Development and Support Project No. 398-0249 which was to enhance science and technology development in Thailand. The first grant amounting to \$150,000 for the period April 4, 1985 to October 31, 1988 provided for research on "Natural Insecticides for Spodoptera Litura Fabr." A second grant of \$150,000 for the period June 27, 1986 to December 31, 1989 focuses on "Biotechnology Application for Characterization and Selection of Better Yielding Rubber Clones."

The auditors performed substantive and compliance tests on transactions totaling \$110,655 or 96% of actual expenditures. Of this amount, \$36,216 in costs were questioned. The grantee was found to have complied with all other material terms and conditions of the grant agreement examined.

This report recommends that USAID/Thailand resolve with Prince of Songkla University questioned costs in the amount of \$36,216, and that USAID/Thailand assist the University to resolve internal control problems identified in this report. These recommendations however will not be separately included in the Inspector General's audit recommendation follow-up system by mutual agreement of USAID/Thailand and RIG/A/Manila. Instead, these recommendations are consolidated into Audit Report No. 2-493-88-04-N entitled "Audit of Science and Technology Research Grants, Project No. 398-0249."

Ernst & Whinney

G.P.O. Box 1047
Sinthon Building, 9th Floor,
132 Wireless Road, Bangkok 10500, Thailand.

Telephone: 2500233-7
Cable: ERNSTAUDIT BANGKOK
Telex: 87661 ERNST TH
FAX: (66) 2-2501479

(formerly Turquand Youngs & Co.)

26th August, 1987

Mr. Leo L. La Motte,
Regional Inspector General/Audit,
Agency for International Development,
Ramon Magsaysay Center,
1680 Roxas Blvd., Manila 2801,
PHILIPPINES.

Dear Sir,

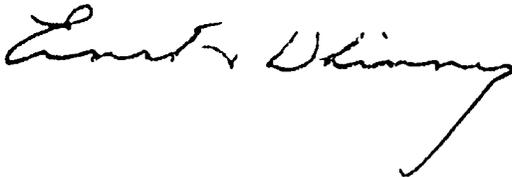
PRINCE OF SONGKLA UNIVERSITY
- Grant No. 936-5542-G-00-5032-00
- Grant No. 936-5542-G-00-6054-00

We have completed our examination of the systems and controls with respect to the above captioned in accordance with the contract no. 398-0249-C-00-6048-00 dated 19th June, 1986 as per amendment no. 1 and 2 and present herewith our findings and recommendations.

The matters dealt with in this report are based on the information and documents provided to us and therefore our comments cannot be expected to be exhaustive and to include all possible weaknesses on the systems of accounting and internal control.

Should you require clarification on the report or additional information to be added to, please feel free to contact us.

Yours faithfully,



Encl.
RT:jk

RESEARCH GRANT
PRINCE OF SONGKLA UNIVERSITY

TABLE OF CONTENTS

	<u>PAGE</u>
1. INTRODUCTION	1-2
2. INITIAL DISCUSSION	2
3. ADMINISTRATION OF GRANTS	3
4. AUDIT	3
5. SCOPE OF WORK	4
6. FINANCIAL STATEMENTS	5
7. COMPLIANCE MATTERS	6
8. STUDY AND EVALUATION OF INTERNAL ACCOUNTING CONTROL	7-13
APPENDIX I - GRANT NO. 936-5542-G-00-5032-00	
APPENDIX II - GRANT NO. 936-5542-G-00-6054-00	

1. INTRODUCTION

This report provides the results of our review of accounting system and internal control under the contract of which the contents are summarised as follow :

GRANTEE : The Royal Thai Government acting through the Department of Technical and Economic Cooperation. Prince of Songkla University will act on behalf of the Department of Technical and Economic Cooperation concerning the administration of the grant.

GRANT : The grants included in the exercise are summarised as follow :

<u>Grant No.</u>	<u>Project Outline</u>	<u>Project Period</u>	<u>Budgeted Amount</u> <u>US\$</u>
936-5542-G-00-5032-00	Natural Insecticides for Spodoptera Litura Fabr.	4/4/85- 31/10/88	150,000
936-5542-G-00-6054-00	Biotechnology Application for Characteri- zation and Selection of Better Yielding Rubber Clones	27/6/86- 31/12/89	150,000

RESULT OF AUDIT :

<u>Grant No.</u>	<u>Date of Report</u>	<u>Fund</u>	<u>Actual</u>			<u>Questioned</u>
		<u>Received</u>	<u>Spending</u>	<u>Amount Verified</u>		<u>Costs</u>
		<u>to Date</u>	<u>Reported</u>	<u>US\$</u>	<u>%</u>	<u>US\$</u>
936-5542-G-00-5032-00	30/9/86	55,012	54,996	51,229	93	23,809
936-5542-G-00-6054-00	31/3/87	<u>60,035</u>	<u>59,891</u>	<u>59,426</u>	<u>99</u>	<u>12,407</u>
		115,047	114,887	110,655	96	36,216
		=====	=====	=====	==	=====

REMARK : The above tabulation is based on the exchange rate of US\$ 1 = Baht 26 which had been adopted in translating Baht figures to U.S. dollars.

: For questioned costs, details are set out in individual grant reports in Baht value as follow :

<u>Grant Number</u>	<u>Appendix</u>
936-5542-G-00-5032-00	I
936-5542-G-00-6054-00	II

2. INITIAL DISCUSSION

Initial discussion with the principal investigators, the field work in respect of evaluating, testing the systems of internal control, reported expenditure and compliance thereto with terms of grant agreement and final discussion on findings with the principal investigators were conducted during 31st March, 1987 to 17th April, 1987.

3. ADMINISTRATION OF GRANTS

	<u>Prince of Songkla University</u>	<u>Principal Investigators</u>
- Receiving of fund		/
- Custody of project fund		
- Procurement of goods and services		/
- Receiving of goods and services		/
- Disbursement authorization		/
- Staff recruitment		/
- Recording of books of account		/
- Financial report		/
- Custody of books of account		/
- Physical control		/
- Management control		/

4. AUDIT

At the time of this exercise no audit had been conducted by the internal auditor of Prince of Songkla University or Department of Technical and Economic Cooperation and Office of the Auditor General of Thailand.

5. SCOPE OF WORK

The objective of the exercise is to review financial and internal control systems established by the research grantee institution and the principal investigators. Specifically, under the terms of the engagement this encompasses :

- 5.1 Hold initial discussion with research grantee institution and principal investigators concerning systems review and audit work to be performed.
- 5.2 Examine the accounting systems and internal controls of the research grantee institution and the principal investigators.
- 5.3 Ascertain the propriety of procedures used by the grantee to authorize and bill USAID for expenditures under the grant.
- 5.4 Examine a representative sample of expenditures reimbursed by USAID as to their compliance with USAID requirements.
- 5.5 Ascertain whether the grantee had completed with the terms of the grant.
- 5.6 Prepare an audit report for RIG/A/MANILA which include an outline of specific deficiencies as well as any recommendations for improvement.

The examination was conducted in accordance with generally accepted government auditing standards appropriate to the scope of audit as described below.

The scope of audit encompassed an examination of research grantee institution/principal investigators' financial operating procedures, financial transactions, accounts and reports and included such tests of these records and such other auditing procedures as were necessary in the circumstances. Our audit does not include coverage of the economy and efficiency of operations, nor do we attempt to assess the results of the contract performance.

Receipts and disbursements were documented and reviewed. Compliance and substantive tests were carried out.

6. FINANCIAL STATEMENTS

We have examined the Status Of Funds/And Request For Funds of Prince of Songkla University for the grants and the periods as set out in section 1 of this report.

Our examination was made in accordance with generally accepted auditing standards and the financial and compliance elements of the Standards for Auditing of Governmental Organisations, Program, Activities and Functions, issued by the U.S. Comptroller General in 1981, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The Status Of Funds/And Request For Funds includes costs in the amount of US dollars 36,216 as set out in section 1 of this report which we have questioned for the adequacy of supporting documentation and for disallowance under the terms of grant agreements.

In our opinion, subject to the effects of such adjustments, if any, as might have been required had the ultimate resolution of the allowability of the questioned costs contained in the Status Of Funds/And Request For Funds been known, the Status Of Funds/And Request For Funds of Prince of Songkla University for the grants and the periods as set out in section 1 presents fairly the expenditures, in conformity with generally accepted accounting principles.

This report is intended solely for the use of the Agency for International Development and should not be used for any other purposes.

7. COMPLIANCE MATTERS

We have examined the Status Of Funds/And Request for Funds of Prince of Songkla University for the grants and the periods as set out in section 1 of this report.

Our examination was made in accordance with generally accepted auditing standards; the provisions of Standards for Audit of Governmental Organisations, Programs, Activities and Functions, promulgated by the U.S. Comptroller General, as they pertain to financial and compliance audits; the Guidelines for Financial and Compliance Audits of AID Financed Agreements and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In connection with our examination, we found that for the grant items tested, Prince of Songkla University complied with the material terms and conditions of the terms of grant agreement, except as stated below in the individual grant reports as follow :

<u>Grant Number</u>	<u>Appendix</u>
936-5542-G-00-5032-00	I
936-5542-G-00-6054-00	II

As for the transactions not tested, based on our examination and the procedures referred to above, nothing came to our attention to indicate that Prince of Songkla University had not complied with the material terms and conditions of the terms of grant agreement.

8. STUDY AND EVALUATION OF INTERNAL ACCOUNTING CONTROL

The management of the research grantee institution is responsible for establishing and maintaining a system of internal accounting control. In fulfilling this responsibility, estimates and judgements by the research grantee institution are required to assess the expected benefits and related costs of control procedures. The objectives of a system are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorised use or disposition and that transactions are executed in accordance with the research grantee institution's authorization and recorded properly to permit the preparation of the Status Of Funds/And Request For Funds in accordance with the accounting practices prescribed by OMB Circular A-122, Cost Principles for Nonprofit Institution and the terms and conditions of the grant agreements. Because of inherent limitations in any system of internal accounting control, errors or irregularities may nevertheless occur and not be detected.

Our study and evaluation revealed weaknesses in the systems of internal control to which the weaknesses and recommendations are addressed in this section. The matters as addressed came to our notice during the conduct of financial and compliance audit which are designed primarily with a view to the expression of opinion on the accounts and compliance with the terms and conditions of the grant agreements and our comments cannot be expected to include all possible weaknesses in the systems of accounting and internal control. Accordingly, we do not express an opinion on the system of internal accounting control of Prince of Songkla University and principal investigators taken as a whole. However our study and evaluation disclosed no condition that we believe to be a material weakness.

Findings and recommendations resulting from study and evaluation of internal accounting control are as follow :

8.1 ADMINISTRATION OF GRANT FUNDS

Finding

Administration of grant funds are by the principal investigators except for the areas as set out in section 3.

Recommendation 8.1

In order to promote the efficiency and effectiveness of research undertaken by the principal investigators, (ie : to allow greater time to be devoted to research work) administration could be performed by Prince of Songkla University. Similarly, the University may be in a better position to administer due to administrative staff complement who are technically competent in administration.

8.2 BANK RECONCILIATION

Finding

For the two grants included in the exercise no reconciliation of cash balances in cash book of the project and bank statement is made.

Recommendation 8.2

Such reconciliation should be prepared and documented on a monthly basis and submitted to a higher responsible official for review and be initialled as evidence of reviewing.

8.3 DISBURSEMENT - TERMS OF GRANT AGREEMENT

Finding

For the two grants included in the exercise disbursements are neither in accordance with the terms of grant agreement nor are there prior written approval from USAID.

Recommendation 8.3

It is recommended that disbursement not in accordance with the terms of grant agreement should be made against prior written approval from USAID.

8.4 TRAVEL VOUCHER

Finding/Recommendation 8.4

For the two grants included in the exercise in order to comply with the terms of grant agreement, travel voucher should be prepared for requisition of travelling and submitted to responsible official for approval. The travel vouchers should indicate the following :

- (a) time and date of departure and arrival,
- (b) locations visited,
- (c) details of costs incurred, supported by documentation,
- (d) purpose of trip,
- (e) approval by responsible official.

8.5 EVIDENCE OF GOODS AND SERVICES RECEIVED

Finding

For the two grants included in the exercise no evidence of receiving of goods and services are available in certain cases, such that there is no proof as to the receipt of benefits.

Recommendation 8.5

It is recommended that receiving reports or acknowledgement on delivery order be prepared in order to substantiate that benefits had been received.

8.6 FIXED ASSETS

Finding

For the two grants included in the exercise no fixed assets register nor tag numbers are assigned to fixed assets of the projects.

Recommendation 8.6

In order to provide a sound control over fixed assets, acquisition date, value, location, tag number be maintained and kept up to date. Tag numbers should be affixed to assets to facilitate identification and inspection of assets against register is to be carried out annually.

8.7 SEGREGATION OF DUTIES

Finding

There is inadequate segregation of duties in Grant no. 936-5542-G-00-5032-00 of which the following functions are vested with the Accountant :

- Cashier
- Preparing withdrawal voucher for savings account
- Signing of withdrawal voucher for savings account
- Preparing payroll sheet
- Custody of unused cheques
- Preparing cheques for payment
- Signing cheques
- Arranging/distribution of pay packets
- Recording of receipt/disbursement

Recommendation 8.7

It is recommended that functions of authorisation, execution, custody and recording be segregated from each other in order to reduce risk of error whereby the work of one acts as a check on the other.

8.8 EVIDENCE OF PAYMENT APPROVAL

Finding

With reference to Grant no. 936-5542-G-00-5032-00 no evidence of payment approval is available such that there is no proof as to the approval of payment by authorised official.

Recommendation 8.8

It is recommended that all payments should be subjected to approval prior to disbursements.

8.9 TIME RECORD

Finding/Recommendation 8.9

With reference to Grant No. 936-5542-G-00-6054-00 in order to comply with the terms of grant agreement, time record should be prepared to document the time actually devoted to the project by each person.

8.10 ISSUANCE OF PAYMENT VOUCHER

Finding

With reference to Grant no. 936-5542-G-00-6054-00 payment vouchers are not prepared prior to disbursement for purchase of equipment, material and supply.

Recommendation 8.10

In order to ensure that all payments are made with prior approval, payment vouchers should be prepared and effectively authorised before disbursements.

8.11 RECORDING OF CASH BOOK

Finding

From the review of books of account of Grant no. 936-5542-G-00-6054-00, cash book is not kept up to date.

Recommendation 8.11

It is recommended that cash book should be kept up to date in order to facilitate control and administration of cash.

8.12 FINANCIAL REPORTS

Finding/Recommendation 8.12

With reference to Grant no. 936-5542-G-00-6054-00 financial reports should be submitted immediately to USAID after period ended (ie. quarterly).

Ernst & Whinney

Appendix I

RESEARCH GRANT
PRINCE OF SONGKLA UNIVERSITY
GRANT 936-5542-G-00-5032-00
NATURAL INSECTICIDES FOR SPODOPTERA LITURA FABR.

PREPARED FOR : REGIONAL INSPECTOR GENERAL/AUDIT/MANILA

PREPARED BY : ERNST & WHINNEY (BANGKOK)

14

PRINCE OF SONGKLA UNIVERSITY
NATURAL INSECTICIDES FOR SPODOPTERA LITURA FABR.

TABLE OF CONTENTS

	<u>PAGE</u>
1. INTRODUCTION	1-3*
2. INITIAL DISCUSSION	3 *
3. ADMINISTRATION OF GRANT	4 *
4. AUDIT	5 *
5. SCOPE OF WORK	5 *
6. RESULT OF VERIFICATION OF DISBURSEMENTS	6-9
7. COMPLIANCE - TERMS OF GRANT AGREEMENT	9-10
8. STUDY AND EVALUATION OF INTERNAL CONTROL	11-16
8.1 SHORTCOMINGS OR LACK OF INTERNAL CONTROL	11-14
8.2 IMPROVEMENTS	14-16
9. PRINCIPAL INVESTIGATOR'S RESPONSE TO THE REPORT	

* These pages are not included, refer to summary report.

15

6. RESULT OF VERIFICATION OF DISBURSEMENTS

<u>Description</u>	<u>Total Budgeted</u>		<u>Fund received</u>	<u>Actual</u>	<u>Verification</u>	
	<u>US\$</u>	<u>Baht</u>	<u>to date</u>	<u>Spending</u>	<u>Baht</u>	<u>%</u>
			<u>Baht</u>	<u>Baht</u>	<u>Baht</u>	
SALARY &						
WAGES	39,400	1,063,800	215,605	406,526	389,200	96
EQUIPMENTS &						
MATERIAL	76,700	2,070,900	1,015,490	829,036	777,046	94
LOCAL						
TRANSPOR-						
TATION	4,500	121,500	67,250	3,006	2,450	82
TRAVEL						
(Domestic						
& Inter.)	17,400	469,800	51,600	72,002	64,648	90
OVERHEADS	<u>12,000</u>	<u>324,000</u>	<u>80,358</u>	<u>119,326</u>	<u>98,605</u>	<u>83</u>
TOTAL	150,000	4,050,000	1,430,303	1,429,896	1,331,949	93
	=====	=====	=====	=====	=====	==

Questioned
Cost
(Baht)

6.1 Documentary evidence as to the following receipt of goods are questioned :

<u>Disbursement</u>			<u>Amount</u>	
<u>No.</u>	<u>Date</u>	<u>Description</u>	<u>(Baht)</u>	
34	27-8-85	A Magicchef refrigerator (Reason for questioned cost: No receiving report nor acknowledgement on delivery order was prepared.)	8,500	
103	22-1-86	3 sets of rotavapor EY 131/S (Ascending colling system) (Reason for questioned cost: No receiving report nor acknowledgement on delivery order was prepared.)	195,787	
121	3-2-86	Laboratory glassware Flask, woulff bottles etc. (Reason for questioned cost: No receiving report nor acknowledgement on delivery order was prepared.)	342,387	
			<u>546,674</u>	546,674

Based on discussion with the Principal Investigator the subject items were received. Physical inspection by Ernst & Whinney on a test basis provides satisfactory results.

6.2 Payments for travelling and per diem of Baht 40,406 do not state the purpose of the trips. Details of which are as follow :

<u>Disbursement</u>			<u>Amount</u>
<u>No.</u>	<u>Date</u>	<u>Description</u>	<u>(Baht)</u>
20	12- 8-85	Round trip air ticket Bkk-Hat Yai-Bkk for Khun Kwanchai Sirisombat	2,602
69	30-10-85	Round trip air ticket and per diem made to Dr. Pichaet (Principal Investigator)	6,213
88	29-11-85	- do -	4,242
122	3- 2-86	- do -	3,842
141	17- 3-86	- do -	5,142
185	16- 6-86	- do -	8,726
200	30- 6-86	- do -	9,639
			<u>40,406</u>
			=====
			40,406

- 6.3 Payment for local transportation of Baht 1,950 do not state the purpose of use. Details of which are as follow :

<u>Petty Cash Voucher</u>			<u>Amount</u>	
<u>No.</u>	<u>Date</u>	<u>Description</u>	<u>(Baht)</u>	
27	30- 8-85	Fuel for Dr. Sieng	130	
36	9-10-85	Gasoline	500	
45	31-10-85	- do -	520	
51	27- 1-86	- do -	800	
			<u>1,950</u>	1,950
			=====	

- 6.4 Overheads of Baht 30,000 paid for petty cash float to Dr. Pichaet, Dr. Sieng and Khun Jarupan amounting to Baht 10,000 each were reported as "Expenditure" in "Status of Funds/And Request for Funds".

7. COMPLIANCE - TERMS OF GRANT AGREEMENT

Based on the samples selected there has been compliance with the terms of grant agreement. The exceptions are as follow :

- 7.1 Disbursement not in budget nor is there written approval from USAID for the advances of USAID's funds to other project on 2nd July, 1986 amounting to Baht 50,000. The amount is however not reported as expenditure in the Status Of Funds/And Request For Funds.

- 7.2 Up to 31st December, 1986, interest received from the grant's bank savings accounts of Baht 27,453 was not credited to the grant at this point of time.
- 7.3 Overheads of Baht 3,915 are questioned as to whether it should be classified as "Equipment & Material" instead. Details are as follow :

<u>Description</u>	<u>Amount (Baht)</u>
1 Calculator with adaptor	700
1 Wooden shelf	1,180
2 Chairs	250
1 Steel filing cabinet	<u>1,785</u>
	3,915
	=====

- 7.4 Based on our subsequent review of the disbursement up to March 1987, per diem rates charged by Dr. Pichaet for travel to the University of Alabama to discuss with Professor M.P. Cava was over the rate approval by USAID per letter dated 10th September, 1986 (ie. Rate charged US\$ 80/day, approved rate US\$ 50/day).

Total Questioned Costs

-
619,030 *

=====

* The amount of Baht 619,030 is equal to US dollars 23,809 at the exchange rate of 1US\$ = Baht 26.

20

8. STUDY AND EVALUATION OF INTERNAL CONTROL

Findings and recommendations resulting from study and evaluation of internal control are categorised into two types as follow :

- (i) Shortcomings or lack of internal control which are fundamental :
 - in protecting an entity's resources against waste, fraud and inefficiencies.
 - in ensuring the accuracy and reliability of the entity's accounting/operating data.
 - in securing compliance with the terms of grant agreement.
- (ii) Improvements in order to supplement the existing system of internal control.

8.1 SHORTCOMINGS OR LACK OF INTERNAL CONTROL

8.1.1 Administration of Grant Funds

Administration of grant funds except for custody of the funds, are by the Principal Investigator.

In order to promote the efficiency and effectiveness of research undertaken by the Principal Investigator, (ie: to allow greater time to be devoted to research work) administration could be performed by Prince of Songkla University. Similarly, the University may be in a better position to administer due to administrative staff complement who are technically competent in administration.

8.1.2 Evidence of Payment Approval

At present, no evidence of payment approval is available such that there is no proof as to the approval of payment by authorised official.

It is recommended that all payments should be subjected to approval prior to disbursements.

8.1.3 Segregation of Duties

Cash receipt and disbursement functions are carried out by the Accountant as noted below :

- Cashier
- Preparing withdrawal voucher for savings account
- Signing of withdrawal voucher for savings account
- Preparing payroll sheet
- Custody of unused cheques
- Preparing cheques for payment
- Signing cheques
- Arranging/distribution of pay packets
- Recording of receipt/disbursement

It is recommended that functions of authorisation, execution, custody and recording be segregated from each other in order to reduce risk of error whereby the work of one acts as a check on the other.

22

8.1.4 Bank Reconciliation

Bank reconciliations are not prepared.

Bank reconciliations should be prepared and documented for all bank accounts on a monthly basis and submitted to higher responsible official for review and be initialled as evidence of reviewing.

8.1.5 Fixed Assets

No fixed assets register nor tag numbers are assigned to fixed assets.

In order to provide a sound control over fixed assets, acquisition date, value, location, tag number be maintained and kept up to date. Tag numbers should be affixed to assets to facilitate identification and inspection of assets against register is to be carried out annually.

8.1.6 Travel Voucher

With reference to 6.2 in order to comply with the terms of grant agreement, travel voucher should be prepared for requisition of travelling and submitted to responsible official for approval. The travel vouchers should indicate the following :

- (a) time and date of departure and arrival,
- (b) locations visited,
- (c) details of costs incurred, supported by documentation,
- (d) purpose of trip,
- (e) approval by responsible official.

8.1.7 Approval for Recruitment of Staff or Rate Adjustment

At present, no written approval for recruitment of staff (research associates/technical assistant) or rate adjustment is available such that there is no proof that recruitment of staff or rate adjustment is made by the authorized person.

It is recommended that a responsible person should approve any changes as to rates or personnel and notify accounting staff prior to disbursements.

8.1.8 Disbursement - Terms of Grant Agreement

Ancillary to 7.1 is that disbursements are neither in accordance with the budget nor are there prior written approval from USAID.

It is recommended that disbursements not in accordance with the budget should be made against prior approval from USAID.

8.2 IMPROVEMENTS

8.2.1 Insurance Cover

There is no insurance cover for assets purchased by USAID's fund.

Because value of fixed assets is significant we recommend that insurance policy should be made to cover valuable assets.

11

8.2.2 Official Receipt

Certain official receipts obtained are made out not in the name of project but under the name of "Faculty of Natural Resources".

It is recommended that official project's name be used in order to substantiate that payments are by the project and thus leaving no room for doubt and confusion.

8.2.3 Withholding Tax

Payments of salary and per diem allowance exceeding the rate authorised by the Revenue Authorities to project personnel are not subjected to withholding tax.

Failure to deduct withholding tax could render the project to be jointly liable for the tax shortfall and surcharge of 1.5 percent per month (maximum of 100 percent).

It is recommended that withholding tax be deducted when such payments are made to staff in order to preclude the consequences of the Revenue Code despite the fact at this point in time the amount involved is insignificant.

25

8.2.4 Payment - Cancellation

Payment voucher is not cancelled or otherwise stamped "PAID" after payments are made.

Cancellation should be made immediately on authorised payment vouchers and related supporting documents after payments had been made in order to prevent resubmission.

8.2.5 Evidence of Goods and Services Received

In certain cases no evidence of receiving of goods and services are available as set out in 6.1, such that there is no proof as to the receipt of benefits.

It is recommended that receiving reports or acknowledgement on delivery order be prepared in order to substantiate that benefits had been received.

2/6

Ernst & Whinney

9. PRINCIPAL INVESTIGATOR'S RESPONSE TO THE REPORT .

Ernst & Whinney

G.P.O. Box 1047
Sinthon Building, 9th Floor,
132 Wireless Road, Bangkok 10500, Thailand.

9th June, 1987

Telephone: 2500233-7
Cable: ERNSTAUDIT BANGKOK
Telex: 87661 ERNST TH
FAX: (66) 2-2501479

(formerly Turquand Youngs & Co.)

Dr. Pichaet Wiriyachitra,
Principal Investigator,
c/o Department of Chemistry,
Faculty of Science,
Chiang Mai University,
CHIANG MAI.

Dear Sir/Madam,

PRINCE OF SONGKLA UNIVERSITY
GRANT NO. 936-5542-G-00-5032-00
NATURAL INSECTICIDES FOR SPODOPTERA LITURA FABR.

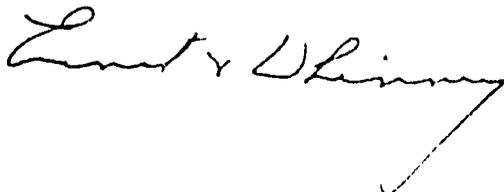
Enclosed for your consideration please find a copy of our report (draft) in conjunction with the review of financial and internal control systems of the referenced subject.

Should you concur with the accuracy of the report kindly acknowledge in writing within two weeks from the date of this letter in order that the final report can be issued to USAID. Please feel free if you wish to provide us with any additional information/documents so as to ensure the accuracy and completeness of the report.

In addition to the foregoing please advise in writing as to whether questioned disbursements as set out in sections 6.2 and 6.3 are related to the grant or not. Furthermore, whether the subject equipemtn as set out in 6.1 had been received or not.

We would like to take this opportunity to express our appreciation to all members of the staff who have assisted us in carrying out our work.

Yours faithfully,



CA/kte





RESEARCH PROGRAM ON
BIOLOGICALLY IMPORTANT NATURAL PRODUCTS

ERNST & WHINNEY RECEIVED JUL 10 1987 ANSWERED _____ INITIAL _____

July 3rd, 1987

ERNST & WHINNEY,
G.P.O. Box 1047,
Sinthon Building, 9th Floor,
132 Wireless Road,
Bangkok 10500.

Dear Sir/Madam,

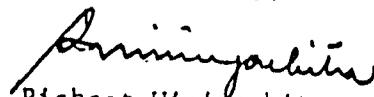
Thank you for your draft report on the review of financial and internal control systems of the referenced subject.

While we find most recommendations useful, we would like to make the following verifications :

- 6.1 The goods questioned had been received and had been used daily in the laboratory. Their deliveries have now been acknowledged.
- 6.2 We, again, confirm that the purpose of the trip relates to the grant and the per diem is in accordance with DTEC rate.
- 6.3 We, again, confirm that the subject travel relate to the grant.
- 6.4 Toward the end of the project time, any petty cash left will be returned to the grant account.
- 7.1 It should also be noted that in many occasions when the USAID's fund is short-coming, advances from other project had been made to USAID's project expenditure.
- 7.2 It has always been our intention to credit any interest received from the grant's bank savings account to the grant toward the end of the project time. Note that no attempt was made to conceal the sum. In fact, it was pointed out to Ernst & Whinney by us during the reviewing period.

I hope that you will find our response useful in the preparation of report to USAID.

Yours sincerely,


Pichaet Wiriyachitra,
Principal Investigator.

pw/jt

21

Ernst & Whinney

Appendix II

RESEARCH GRANT
PRINCE OF SONGKLA UNIVERSITY
GRANT NO. 936-5542-G-00-6054-00
BIOTECHNOLOGY APPLICATION FOR CHARACTERIZATION
AND SELECTION OF BETTER YIELDING RUBBER CLONES

PREPARED FOR : REGIONAL INSPECTOR GENERAL/AUDIT/MANILA

PREPARED BY : ERNST & WHINNEY (BANGKOK)

PRINCE OF SONGKLA UNIVERSITY
BIOTECHNOLOGY APPLICATION FOR CHARACTERIZATION
AND SELECTION OF BETTER YIELDING RUBBER CLONES

TABLE OF CONTENTS

	<u>PAGE</u>
1. INTRODUCTION	1-2 *
2. INITIAL DISCUSSION	2 *
3. ADMINISTRATION OF GRANT	3 *
4. AUDIT	3 *
5. SCOPE OF WORK	4 *
6. RESULT OF VERIFICATION OF DISBURSEMENTS	5-7
7. COMPLIANCE - TERMS OF GRANT AGREEMENT	7-9
8. STUDY AND EVALUATION OF INTERNAL CONTROL	10-15
8.1 SHORTCOMINGS OR LACK OF INTERNAL CONTROL	10-13
8.2 IMPROVEMENTS	13-15
9. PRINCIPAL INVESTIGATOR'S RESPONSE TO THE REPORT	

* These pages are not included, refer to summary report.

21

6. RESULT OF VERIFICATION OF DISBURSMENTS

<u>Description</u>	<u>Total Budgeted</u>		<u>Fund received</u>	<u>Actual</u>	<u>Verification</u>	
	<u>US\$</u>	<u>Baht</u>	<u>to date</u>	<u>Spending</u>	<u>Baht</u>	<u>%</u>
			<u>Baht</u>	<u>Baht</u>	<u>Baht</u>	
SALARY	37,800	982,800	156,000	121,300	121,300	100
EQUIPMENTS	44,700	1,162,200	1,110,200	1,128,070	1,128,070	100
MATERIAL AND						
SUPPLY	50,000	1,300,000	255,697	239,075	226,990	95
TRAVEL	14,500	377,000	13,000	42,710	42,710	100
CENTRAL RES.						
FAC. COST	<u>3,000</u>	<u>78,000</u>	<u>26,000</u>	<u>26,000</u>	<u>26,000</u>	<u>100</u>
TOTAL	150,000	3,900,000	1,560,897	1,557,155	1,545,070	99
	=====	=====	=====	=====	=====	===

Questioned
Cost
(Baht)

6.1 In certain cases there are insufficient documentary evidence as to the receipt of goods/services as detailed by the following :

<u>Date of Payment</u>	<u>Description</u>	<u>Amount (Baht)</u>	
22.8.86	Purchase 2 units of air conditioners 24,500 BTU split type	72,800	
19.9.86	Cost of NEC-642, Coenzyme A, DL 3 (glu-3-14c) -OH-3-ME Glutaryl	21,453	
12.10.86	Purchase 1 unit of air conditioner 12,500 BTU split type	18,500	
2.3.87	Cost of Micro centrifuge tube and pipet tip yellow	<u>5,900</u>	
		118,653	118,653
		=====	

6.2 "Micro gradient liquid chromatograph" of Baht 978,770 is still to be received. The transaction is supported by letter of credit from bank and proforma invoice from supplier. Furthermore, forward contract for the purchase of foreign currency (ie : US\$ 34,000) had been transacted with a total Baht value of 878,900. The discrepancy of Baht 99,870 is questioned as to the adequacy of supporting documentation.

99,870

3/

6.3 Payments for travelling and per diem of Baht 25,450 do not state the purpose of the trips. Details of which are as follow :

<u>Date of Payment</u>	<u>Description</u>	<u>Amount (Baht)</u>	
4.8.86	Travel and per diem made to Dr. Dhirayos (Co-Investigator)	5,620	
25.8.86	- do -	5,670	
10.11.86	- do -	6,980	
30.1.87	Travel and per diem made to Dr. Rapepun (Principal Investigator)	<u>7,180</u>	
		25,450	25,450
		=====	

6.4 Travelling expense paid to Khun Narisa (Technician) of Baht 886 was not supported by adequate documentation (ie. train ticket). 886

7. COMPLIANCE - TERMS OF GRANT AGREEMENT

Based on the samples selected there has been compliance with the terms of grant agreement. The exceptions are as follow :

7.1 Disbursement not in budget nor is there written approval from USAID (ie. USAID's funds are advanced to other project (s) and subsequently reimbursed on 30th January, 1987) as detailed by the following :

<u>Cheques No.</u>	<u>Date</u>	<u>Description</u>	<u>Amount (Baht)</u>
228503	17.9.86	Lab supply	3,200
228505	19.9.86	Kinetin	2,990
228506	25.9.86	Z-4625 Zeatin, Sigma	4,390
228509	7.10.86	Lab supply	9,800
228517	29.10.86	1 set of table	5,570
228523	21.11.86	Benzene 4L "JT" AR	<u>810</u>
			26,760
			=====

7.2 Interest received from the grant's bank savings accounts of approximately Baht 15,000 was not credited to the grant.

7.3 Material and supply expenses of Baht 934 were incurred during 28th March, 1985 to 3rd June, 1986 which was the period before the effective date of the grant agreement (ie. 27th June, 1986).

934

7.4 Salaries of Baht 17,100 were paid to 3 administrative staffs whom are not in the budget nor is there written approval from USAID. Details are as follow :

<u>Staff's Name</u>	<u>Amount (Baht)</u>	
Khun Supis	8,400	
Khun Punnee	5,200	
Khun Prasart	<u>3,500</u>	
	17,100	17,100
	=====	

7.5 No time sheets were prepared to document the time actually devoted to the project by the Principal Investigator and the Co-investigator. We are therefore unable to state whether such person devoted the time at percentage as set out in the budget or not. Timesheets are however prepared for Technicians and Graduate Assistants.

<u>Name</u>	<u>Position</u>	<u>Amount(Baht)</u>	
Dr. Rapepun	Principal Investigator	12,900	
Dr. Wallie	Co-investigator	11,700	
Dr. Rapiporn	- do -	11,700	
Dr. Dhirayos	- do -	11,700	
Khun Apichai	- do -	<u>11,700</u>	
		59,700	59,700
		=====	

7.6 Financial reports ie. "Status of Funds/And Request For Funds" and "Federal Cash Advance Status Report" for the period as from 1st October, 1986 to 31st December, 1986 were not submitted to USAID after period ended but were included in the financial reports for the period ended 31st March, 1987.

Total Questioned Costs	322,593 *
	=====

* The amount of Baht 322,593 is equal to US dollars 12,407 at the exchange rate of 1US\$ = Baht 26.

8. STUDY AND EVALUATION OF INTERNAL CONTROL

Findings and recommendations resulting from study and evaluation of internal control are categorised into two types as follow :

(i) Shortcomings or lack of internal control which are fundamental :

- In protecting an entity's resources against waste, fraud and inefficiencies.
- In ensuring the accuracy and reliability of the entity's accounting/operating data.
- In securing compliance with the terms of grant agreement.

(ii) Improvements in order to supplement the existing system of internal control.

8.1 SHORTCOMINGS OR LACK OF INTERNAL CONTROL

8.1.1 Administration of Grant Funds

Administration of grant funds except for custody of the funds, are by the Principal Investigator.

In order to promote the efficiency and effectiveness of research undertaken by the Principal Investigator, (ie: to allow greater time to be devoted to research work) administration could be performed by Prince of Songkla University. Similarly, the University may be in a better position to administer due to administrative staff complement who are technically competent in administration.

31

8.1.2 Issuance of Payment Voucher

Payment vouchers are not prepared prior to disbursement for purchase of equipment, material and supply.

In order to ensure that all payments are made with prior approval, payment vouchers should be prepared and effectively authorised before disbursements.

8.1.3 Recording of Cash Book

From the review of books of account, cash book is not kept up to date.

It is recommended that cash book should be kept up to date in order to facilitate control and administration of cash.

8.1.4 Bank Reconciliation

Bank reconciliations are not prepared.

Bank reconciliations should be prepared and documented for all bank accounts on a monthly basis and submitted to higher responsible official for review and be initialled as evidence of reviewing.

8.1.5 Fixed Assets

No fixed assets register nor tag numbers are assigned to fixed assets.

In order to provide a sound control over fixed assets, acquisition date, value, location, tag number be maintained and kept up to date. Tag numbers should be affixed to assets to facilitate identification and inspection of assets against register is to be carried out annually.

8.1.6 Travel Voucher

With reference to 6.3 in order to comply with the terms of grant agreement, travel voucher should be prepared for requisition of travelling and submitted to responsible official for approval. The travel vouchers should indicate the following .

- (a) time and date of departure and arrival,
- (b) locations visited,
- (c) details of costs incurred, supported by documentation,
- (d) purpose of trip,
- (e) approval by responsible official.

8.1.7 Time Record

With reference to 7.5 in order to comply with the terms of grant agreement, time record should be prepared to document the time actually devoted to the project by each person.

39

8.1.8 Disbursement - Terms of Grant Agreement

Ancillary to 7.1, 7.3 and 7.4 are that disbursements are neither in accordance with the budget nor are there prior written approval from USAID.

It is recommended that disbursements not in accordance with the budget should be made against prior approval from USAID.

8.1.9 Financial Reports

With reference to 7.6 in order to comply with the terms of grant agreement, financial reports should be submitted immediately to USAID after period ended (ie. quarterly).

8.2 IMPROVEMENTS

8.2.1 Payment - Cancellation

Authorised payment vouchers and related supporting documents are not stamped "PAID" or otherwise being cancelled upon payments.

Cancellation should be made immediately on authorised payment vouchers and related supporting documents after payments had been made in order to prevent resubmission.

8.2.2 Evidence of Goods and Services Received

No evidence of goods and services are available, in certain cases as set out in 6.1, such that there is no proof as to the receipt of benefits.

It is recommended that receiving reports or acknowledgement on delivery order be prepared in order to substantiate that benefits had been received.

8.2.3 Payment Voucher Form

Payment vouchers do not provide adequate information whereby the following are not stated on the vouchers :

1. name of account (line item) to be debited,
2. payment voucher number,
3. name of project.

8.2.4 Withholding Tax

Payments of salary and per diem allowance exceeding the rate authorised by the Revenue Authorities to project personnel are not subjected to withholding tax.

Failure to deduct withholding tax could render the project to be jointly liable for the tax shortfall and surcharge of 1.5 percent per month (maximum of 100 percent).

It is recommended that withholding tax be deducted when such payments are made to staff in order to preclude the consequences of the Revenue Code despite the fact at this point in time the amount involved is insignificant.

8.2.5 Insurance Cover

There is no insurance cover for assets purchased by USAID's fund.

Because value of fixed assets is significant we recommend that insurance policy be made to cover valuable assets.

Ernst & Whinney

9. PRINCIPAL INVESTIGATOR'S RESPONSE TO THE REPORT *

* English version of response not yet provided.

Ernst & Whinney

G.P.O. Box 1047
Sinthon Building, 9th Floor,
132 Wireless Road, Bangkok 10500, Thailand.

Telephone: 2500233-7
Cable: ERNSTAUF.IT BANGKOK
Telex: 87661 ERNST TH
FAX: (66) 2-2501479

(formerly Turquand Youngs & Co.)

Dr. Rapepun Wititsuwannakul,
Principal Investigator,
Department of Biochemistry,
Faculty of Science,
Prince of Songkla University,
SONGKLA.

Dear Sir/Madam,

PRINCE OF SONGKLA UNIVERSITY
GRANT NO. 936-5542-G-00-6054-00
BIOTECHNOLOGY APPLICATION FOR CHARACTERIZATION
AND SELECTION OF BETTER YIELDING RUBBER CLONES

Enclosed for your consideration please find a copy of our report (draft) in conjunction with the review of financial and internal control systems of the referenced subject.

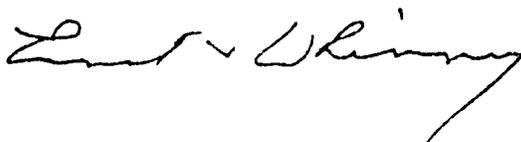
Should you concur with the accuracy of the report kindly acknowledge in writing within two weeks from the date of this letter in order that the final report can be issued to USAID. Please feel free if you wish to provide us with any additional information/documents so as to ensure the accuracy and completeness of the report.

In addition to the foregoing please advise in writing as to the following:

- (i) Set out in section 6.2 please state whether the said equipment had been received or not and the cost of the equipment.
- (ii) Set out in 7.4 please state whether or not the three staffs not addressed in the budget perform services related to this grant.

We would like to take this opportunity to express our appreciation to all members of the staff who have assisted us in carrying out our work.

Yours faithfully,



CA/kte

DEPARTMENT OF BIOCHEMISTRY
FACULTY OF SCIENCE
PRINCE OF SONGKLA UNIVERSITY
HAADYAI THAILAND



ภาควิชาชีวเคมี
คณะวิทยาศาสตร์
มหาวิทยาลัยสงขลานครินทร์
วิทยาเขตหาดใหญ่

12 มิถุนายน 2530

BRNST & WHINNEY RECEIVED 16 JUN 1987 ANSWERED _____ INITIAL _____

สำนักงานเอนไซน์แอนด์ควีนี
ตู้ ปณ. 1047
ภักดีนิเวศ ชั้น 9

132 ถนนวิบูลย์ ถนน. 10500

เรียน คุณเอนไซน์แอนด์ควีนี

ขอขอบคุณสำหรับจดหมายและ draft report ยูน USAID Grant No. 936-5542-G-00-6054-02 เรื่อง "Biotechnology application for characterization and selection of better yielding rubber clones" ที่ฉันขอชี้แจงรายละเอียดเพิ่มเติม ดังนี้.

ข้อ 6.2 "Micro gradient liquid chromatograph" ทางบริษัทตัวแทน Beckman ที่สิงคโปร์ได้รับเครื่องจากบริษัท Beckman ที่อเมริกา และส่งเครื่องมาให้แล้วตั้งแต่วันที่ 15 พฤษภาคม 2530 ขณะนี้กำลังอยู่ที่ขั้นตอนออกของยกเว้นภาษีกรมวิเทศ (DTEC) คาดว่า จะไปของก่อนสิ้นเดือน มิถุนายน นี้ ราคาของยังบอกไม่ได้ เพราะต้องรวมงบค่าดำเนินการออกของยกเว้นภาษีของกรมวิเทศ มิถุนายน จึงจะเสร็จเรียบร้อยทุกอย่าง

ข้อ 7.4 คุณสุจิต คุณพรณี และคุณประสาท ทำงานให้กับ research project โดยให้คุณสุจิต ทำหน้าที่เป็นผู้ช่วยคุณรัตนากัน มีนักศึกษาระดับปริญญาโท ๓ คน และช่วยงานห้องปฏิบัติการด้านความสะอาด คุณพรณี ทำหน้าที่ล้างเครื่องแก้วในห้องปฏิบัติการ ทำความสะอาดห้องเพาะเลี้ยงเนื้อเยื่อเป็นอย่างดี ส่วนคุณประสาท ทำหน้าที่เป็น part-time research scientist โดยทำการ assay HMG-CoA reductase คู่กับคุณบุษณา เพราะงาน project จะต้องกรีนาน่างจากต้นยางทุก 4 ชั่วโมงทอรอบวัน ทั้งคุณบุษณาและคุณประสาท ร่วมกันรับผิดชอบงานชิ้นนี้

ข้อ 6.1 ขอรับว่าเครื่อง air ทั้ง 2 unit ที่ติดตั้งอยู่ในห้องปฏิบัติการขณะนี้ยังไม่ได้ทรวจรรับของเพราะต้องดำเนินการทรวจรผ่านคณะฯ และยังไม่ได้ทำ ส่วนอีก unit ซึ่งติดตั้งที่ศูนย์วิจัยยางสงขลา ก็ทำท่านองเดียวกัน และยังไม่ได้มีเวลาดำเนินการอีกเช่นกัน แต่ก็ได้ทักข้าย USAID ไปเป็นที่เรียบร้อยแล้ว

25



- ส่วนสารที่มีกับภาพรังสี NEC-642 Coenzyme A, DL-3(Glu-3-14 C)-OH
3 HE Glutaryl เป็นสารที่ส่งเข้ามาในน้ำแข็งแห้ง (-60°C) โดยทาง บพท. ทางบริษัทสุนิสาตัวแทน
จำหน่ายที่ ก.ท. ได้แยกโมลของมาทางหาก จึงทำให้ลืมเซ็นรับของ ได้แนบหลักฐานใบขอคืนด้วย
คุณสมบัติสารเคมีที่ได้รับจากบริษัทผู้ผลิตเมืองนอกที่ได้รับส่งมากับรถมาด้วยเพื่อเป็นหลักฐานว่าได้รับของแล้ว

- ส่วน Micro centrifuge tube และ pipet tip yellow คุณสุจิต เป็น
คนรับของและเซ็นรับของ

จึงเรียนมาเพื่อโปรดทราบ

ขอแสดงความนับถือ

(ผศ.ดร. รัตนา วิกิตกุล)

หัวหน้าภาควิชาชีวเคมีและหัวหน้าโครงการวิจัย



New England Nuclear
 549 Albany St Boston Mass 02118
 CALL TOLL FREE 800-225-1572
 in Mass and International 617-482-9595

Radiochemical Specifications

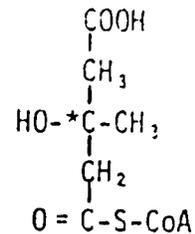
CAUTION, NOT FOR USE IN HUMANS OR CLINICAL DIAGNOSIS: This product is intended for research or manufacturing use only. It is pharmaceutically unrefined and verification of its suitability for use in humans or as a clinical diagnostic reagent and the compliance with all Federal and State laws regulating such applications is the sole responsibility of the purchaser.

NEC-642 COENZYME A, DL-3-[GLUTARYL-3-¹⁴C]-HYDROXY-3-METHYLGLUTARYL

SPECIFIC LOT DATA

LOT NUMBER: 2245-266
 SPECIFIC ACTIVITY: 43.2 mCi/μmol
 CONCENTRATION:

0.01 mCi	0.21 mg	0.5 ml
0.05 mCi	1.1 mg	2.5 ml



M.W. 911.7

100 μl
 22 μl
 300 μl
 assay

7600 cpm

PACKAGING: Aqueous solution (pH approximately 5) in a combi-vial, shipped in dry ice.

STABILITY AND STORAGE RECOMMENDATIONS: The rate of decomposition of coenzyme A, DL-3-[glutaryl-3-¹⁴C]-hydroxy-3-methylglutaryl is less than 2% for six months when stored in aqueous solution at -20°C, pH approximately 5. The purity should be checked prior to use and the material repurified if a few percent of impurities accumulate.

RADIOCHEMICAL PURITY: Initially greater than 98.2% determined on 5/02/86 by high performance liquid chromatography (HPLC) using a reverse phase microparticulate matrix. The column is eluted with methanol: water, (50:50) containing .005M tetrabutyl ammonium phosphate and the column effluent is passed through in-line radioactivity and ultraviolet (260 nm) detectors. Compound identification and purity are determined by automatic recording and electronic integration of detector signals.

Alternately the radiochemical purity may be checked by paper chromatography using the following solvent system: n-butanol:acetic acid:water (5:2:3) on Whatman #1 paper at 5°C.

CHEMICAL PURITY: Determined by ultraviolet spectrophotometry at pH 7.0 in 0.1M potassium phosphate buffer.

Ratios of Absorbance

$$\frac{250\text{nm}}{260\text{nm}} = .89$$

$$\frac{280\text{nm}}{260\text{nm}} = .16$$

$$\frac{290\text{nm}}{260\text{nm}} = .01$$

$$\frac{232\text{nm}}{260\text{nm}} = .51$$

$$\lambda_{\text{max}} = 259 \text{ nm}$$

The ratio of hydroxamic acid to adenine was 1.00 (1).

(OVER)

LIMITED WARRANTY

New England Nuclear (NEN) warrants that, at the time of shipment, the products sold by it are free from defects in material and workmanship and conform to specifications which accompany the product. NEN makes no other warranty, express or implied, with respect to the products, including any warranty of merchantability or fitness for any particular purpose. Because of the inherent susceptibility to deterioration of radioactive products, notification of any breach of warranty must be made within 60 days of receipt or within the half-life of the radioisotope contained in the product, whichever period is shorter.

unless otherwise provided in writing by NEN. No claim shall be honored if the customer fails to so notify NEN within the period specified. The sole and exclusive remedy of the customer for any liability of NEN of any kind including liability based upon warranty (express or implied, whether contained herein or elsewhere), strict liability, contract or otherwise is limited to the replacement of the goods or the refund of the invoice price of the goods. NEN shall not in any case be liable for special, incidental or consequential damages of any kind.

QUALITY CONTROL: The radiochemical purity of coenzyme A, DL-3-[glutaryl-3-¹⁴C]-hydroxy-3-methylglutaryl is checked at least every 6 months using one of the above chromatographic systems. Current purity data is available upon request.

PREPARATIVE PROCEDURE: Coenzyme A, DL-3-[glutaryl-3-¹⁴C]-hydroxy-3-methylglutaryl is prepared from coenzyme A and 3-hydroxy-3-methylglutaric anhydride, [3-¹⁴C]- according to a modification of the methods of Goldfarb and Pitot (2). The product is purified by paper chromatography. The final solution is filtered through a Millipore filter disc, and diluted to the desired concentration.

REFERENCES:

- (1) E.R. Stadtman in S.P. Colowick and N.O. Kaplan, Methods in Enzymology, Vol.III, Academic Press, New York 1957, p. 931.
- (2) S. Goldfarb and H.C. Pitot, J. of Lipid Res., 12, 512 (1971).

:0682

42

DEPARTMENT OF BIOCHEMISTRY
FACULTY OF SCIENCE
PRINCE OF SONGKLA UNIVERSITY
HAADYAI THAILAND



ภาควิชาชีวเคมี
คณะวิทยาศาสตร์
มหาวิทยาลัยสงขลานครินทร์
วิทยาเขตหาดใหญ่

15 มิถุนายน 2530

ERNST & WHINNEY RECEIVED 22 JUN 1987 ANSWERED _____ INITIAL _____

สำนักงานเอนไซน์แอนควินี่

ตู้ ป.ณ. 1047

ทีกลินทร ชั้น 9

132 ถนนวิบูลย์ ถนน. 10500

เรียน คุณเอนไซน์แอนควินี่

กิตติมขอสั่งแจงรายละเอียดเพิ่มเติมจาก จ.ม. ลงวันที่ 12 มิถุนายน 2530 ซึ่งได้ส่งถึงท่านแล้ว
เกี่ยวกับทุน USAID Grant No. 936-5542-G-00-6054-02 เรื่อง "Biotechnology
application for characterization and selection of better yielding rubber
clones" ดังนี้.

ในหัวข้อ 3 เรื่อง ADMINISTRATION OF GRANT ทางมหาวิทยาลัยไทม์หนังสือที่ นอ.
065/780 ลงวันที่ 3 กันยายน 2529 เรื่องเกี่ยวกับการดูแลและบริหารโครงการวิจัยฯ ดังกล่าว ดังได้แนบสำ-
เนามาถวาย เพื่อเป็นข้อมูลเพิ่มเติมและสนับสนุนว่าพอจะมี written grant administration rules/
regulations by the University ซึ่ง report ของท่านแจ้งว่า "not available"
อาจเป็นเพราะทางมหาวิทยาลัย (กองบริการวิชาการ) มิได้เก็บหนังสือฉบับนี้ไว้ในแฟ้มข้อมูลที่ให้ท่านถูกต้อง.

จึงเรียนมาเพื่อขอสั่งแจงเพิ่มเติม.

ขอแสดงความนับถือ

(ยศ. คร. รัตนา วิทสุวรรณกุล)

หัวหน้าภาควิชาชีวเคมีและหัวหน้าโครงการวิจัยฯ



บันทึกข้อความ

1946
310 19
11-004

ด่วนรายการ กองบริการการศึกษา โทร. 2181

ที่ นอ 065/ 780 วันที่ 3 กันยายน 2529

เรื่อง ขนรับจาก U.S. Agency for International Development

.....
.....
.....
.....
.....

เรียน คณบดีคณะวิทยาศาสตร์

ตามที่ U.S. Agency for International Development (USAID)

ได้อนุมัติเงินจำนวน 150,000 เหรียญสหรัฐอเมริกา เพื่อเป็นทุนอุดหนุนการวิจัย เรื่อง การใช้เทคโนโลยีชีวภาพสำหรับศึกษาสมบัติและคัดเลือกพันธุ์อย่างที่ได้ผลผลิตสูงและทนทาน ได้เสนอชื่อคณะทำงานโครงการวิจัยดังกล่าว โดยมี ผศ.ดร.วิจิตรพร วิจิตรสุวรรณกุล เป็นหัวหน้าคณะทำงาน เพื่อให้มหาวิทยาลัยพิจารณาแต่งตั้ง นั้น

มหาวิทยาลัยควรขอความร่วมมือจากคณะในการดูแลและบริหารโครงการดังนี้คือ

1. มหาวิทยาลัยจะเปิดบัญชีกระแสรายวันในนามโครงการ โดยมีผู้อำนวยการซึ่งจ่ายเงินจากบัญชี 2 คน คือหัวหน้าโครงการและเจ้าหน้าที่การเงินโครงการ หรือกรณีเจ้าหน้าที่การเงินโครงการไม่อยู่ให้มีเจ้าหน้าที่การเงินอีกคนหนึ่งลงนามแทนผู้กับหัวหน้าโครงการ ได้
2. เจ้าหน้าที่การเงินโครงการเป็นผู้ทำบัญชีรับ-จ่ายเงินโครงการ และเก็บรักษาเอกสารการจ่ายไว้เพื่อการตรวจสอบจากเจ้าของทุนฯ พร้อมทั้งจัดทำรายงานบัญชีการใช้จ่ายตามข้อกำหนดของเจ้าของทุนฯด้วย

3. เมื่อสิ้นสุดโครงการ ทรัพย์สินต่าง ๆ ของโครงการทั้งวัสดุ อุปกรณ์และครุภัณฑ์ ให้มอบให้คณะวิทยาศาสตร์ใช้ประโยชน์ต่อไป และขอให้ทางคณะออกใบตรวจสอบให้แก่หัวหน้าโครงการและส่งสำเนาให้มหาวิทยาลัยด้วย

จึงเรียนมาเพื่อโปรดพิจารณาดำเนินการต่อไปด้วย จักขอขอบคุณ

ศาสตราจารย์
.....

ทพพร อภินันท์

.....
.....
.....

(นายเอกไทย วิวัฒน์ธรรม)
รองอธิการบดีฝ่ายวิชาการ

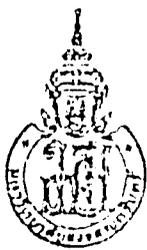
3 ก.ย. 29
3 ก.ย. 29
3 ก.ย. 29

ดำเนินการ ภาควิชา

.....
16 10 24

3 ก.ย. 29

DEPARTMENT OF BIOCHEMISTRY
FACULTY OF SCIENCE
PRINCE OF SONGKLA UNIVERSITY
HAADYAI THAILAND



ภาควิชาชีวเคมี
คณะวิทยาศาสตร์
มหาวิทยาลัยสงขลานครินทร์
วิทยาเขตหาดใหญ่

19 มิถุนายน 2530

ERNST & WHINNEY RECEIVED 23 JUN 1987 ANSWERED _____ INITIAL _____

สำนักงานเอนไซม์แอนด์
ชีวเคมี

ตู้ ป.ณ. 1047

ศึกษาลิเนอ ชั้น 9

132 ถนนวิบูลย์ ถนน. 10500

เรียน คุณเอนไซม์แอนด์ชีวเคมี

ขอส่งหลักฐานเพิ่มเติมเกี่ยวกับข้อ 6.2 "Microgradient Liquid chromatograph".

จึงเรียนมาเพื่อขอรับแจ้งเพิ่มเติม

ขอแสดงความนับถือ

(ผศ.ดร. รัตนา วิทสุวรรณกุล)

หัวหน้าภาควิชาชีวเคมีและหัวหน้าโครงการวิจัย



THE SIAM COMMERCIAL BANK, LTD.

INCORPORATED BY ROYAL CHARTER

HAT YAI
7 NIPHA
HAT YAI
TELEPHONE

CUSTOMERS' ACKNOWLEDGEMENT

PLEASE
RETURN TO

Date JUNE 17, 1987

[Our No. HY.30001

[Their No. EB87/806664

From Biotechnology Application for Characterization and Selection of Better Yielding Rubber Clones, Dept. of Biochemistry, Fac. of Science, P.S.U., Hat-Yai, Songkla.

Received From: The Chase Manhattan Bank, N.A., Maxwell Road, P.O. Box 3012, Singapore 9050.

Drawn: Beckman Instruments (S) Pte, Ltd., Singapore 0105.

Foreign Bank's Charges

Draft Amount

Shipment of:

Equipment 11 Items As per proforma invoice No. TR-QT 0005 Dated January 20, 1987

Tenor:

At Sight.

US\$34,000.00

Draft No.:

0912/87

Date Draft:

May 18, 1987

Documents received:

B/E	Inv.	P/L	Ins. Pol.	B/L	Miscellaneous Documents
1/2	9/10	3/4	1/2	2/3	

Per S.S.

"PIYA BHUM"

B/L No.

S3-339

Shipment dated:

May 29, 87

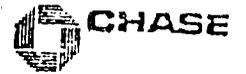
Dear Sirs,

- We acknowledge the arrival of documents detailed at the left-hand side.
- We also accept the discrepancies and hereby release you and your correspondents of any guarantee/indemnity/reserve made.

DISCREPANCY (IES): SPECIAL INSTRUCTIONS:

Rattana Suth
Reception W. S. S. S. S.

Authorized Signatures



No. 0912/87

Exchange for US\$34,000.00 Singapore, 18th May 1987



ACCEPTED
 after sight of this FIRST of Exchange
 Pay to the order of
Rattana Suth
Rajeevan W. S. Sanku
 Authorized Signatures
 Date
 Due

THE CHASE MANHATTAN BANK National Association

the sum of United States Dollars thirty-four thousand only.

Value received Drawn under The Siam Commercial Bank, Ltd., Hat-Yai Branch L/C No. HY. 30001 dated March 25, 1987.

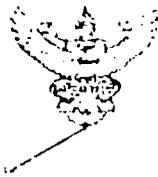
To Biotechnology Application for Characterization and Selection of Better Yielding Rubber Clones,
 Department of Biochemistry, Faculty of Science,
 Prince of Songkla University, Hat-Yai
 Songkla Thailand

BECKMAN INSTRUMENTS SINGAPORE PTE LTD

[Handwritten signature]

06 14 R 9-79

53



THE SIAM COMMERCIAL BANK, LTD.

INCORPORATED BY ROYAL CHARTER

HAT YAI BRANCH
47 NIPHAT UTHIT 3 ROAD
HAT YAI, SONGKHA
THAILAND

Date JUNE 17, 1987

Our No. HY. 30001

Telex No. EB87/806664

To: Biotechnology Application for Charterization and Selection of Better Yielding Rubber Clones, Dept. of Biochemistry, Fac. of Science, P.S.U., Hat-Yai, Songkla.		Received From: The Chase Manhattan Bank, N.A., Maxwell Road, P.O. Box 3012, Singapore 9050.	
From: Beckman Instruments (S) Pte, Ltd., Singapore 0105.		Foreign Bank's Charges: ---	Draft Amount: US\$34,000.00
Shipment of: Equipment 11 Items As per proforma invoice No. TR-QT 0005 Dated January 20, 1987		Tenor: At Sight.	Date Draft: May 18, 1987
		Draft No.: 0912/87	

Documents received:

B/E	Inv.	P/L	Ins. Pol.	B/L	Miscellaneous Documents
1/2	9/10	3/4	1/2	2/3	
in S.S.				B/L No. 52-339	
"PIYA BUKH"				Shipment dated: May 29, 87	

Dear Sirs,

Please be advised that the documents detailed at the left - hand side are already in our hands and await your disposal.

In acknowledgement, kindly have the copy of this letter signed and returned to us.

DISCREPANCY (IES): SPECIAL INSTRUCTIONS:

THE SIAM COMMERCIAL BANK, LTD.
James Rethames

Authorized Signatures

54

Pay to the order of
Biotechnology Application for Characterization and
Selection of Better Yielding Rubber Clones, Dept. of
Biochemistry, Fac. of Science, P.S.U. Hat-Yai, Songkla.
The Siam Commercial Bank Ltd.

Jamie Pattanond.

Authorized Signature.

4/27/78
The Siam Commercial Bank Ltd.

5

Distribution List

Mission Director, USAID/Thailand	5
Assistant Administrator, Bureau for Asia and the Near East (AA/ANE)	1
Thailand Desk (ANE/EA/T)	1
Audit Liaison Office (ANE/DP)	1
Bureau of External Affairs (AA/XA)	2
Office of Press Relations (XA/PR)	1
Office of Legislative Affairs (LEG)	1
Office of the General Counsel (GC)	1
Assistant to the Administrator for Management (AA/M)	2
Office of Financial Management (M/FM/ASD)	2
SAA/S&T, (AGR)	1
PPC/CDIE	3
Office of the Inspector General	
IG	1
D/IG	1
AIG/A	1
IG/PPC	2
IG/LC	1
IG/EMS	12
IG/PSA	1
AIG/II	1
IG/II	1
IIC/II	1