

A.I.D. EVALUATION SUMMARY - PART I

1. BEFORE FILING OUT THIS FORM, READ THE ATTACHED INSTRUCTIONS.  
2. USE LETTER QUALITY TYPE, NOT DOT MATRIX TYPE

15N 46232 CDIE

IDENTIFICATION DATA

<b>A. Reporting A.I.D. Unit:</b> Mission or AID/W Office: <u>S&amp;T/Health</u> (ES# _____)		<b>B. Was Evaluation Scheduled in Current FY Annual Evaluation Plan?</b> Yes <input type="checkbox"/> Skipped <input type="checkbox"/> Ad Hoc <input type="checkbox"/> Evaluation Plan Submission Date: FY <u>88 Q</u>		<b>C. Evaluation Timing</b> Interim <input checked="" type="checkbox"/> Final <input type="checkbox"/> Ex Post <input type="checkbox"/> Other <input type="checkbox"/>	
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**D. Activity or Activities Evaluated** (List the following information for project(s) or program(s) evaluated; if not applicable, list title and date of the evaluation report.)

Project No.	Project / Program Title	First PROAG or Equivalent (FY)	Most Recent PACD (Mo/Yr)	Planned LOP Cost (\$000)	Amount Obligated to Date (\$000)
936-5935	DIATECH - Diagnostic Technology for Community Health	1985	9/90	\$7.250	5.000

ACTIONS

Action(s) Required	Name of Officer Responsible for Action	Date Action to be Completed
* Revise Project Documentation to reflect realistic expectations, evaluation findings.	E. McJunkin M. Tam	June 15, 1989
* Increase emphasis on near-term development of diagnostics likely to result in usable technologies.	F. McJunkin M. Tam	June 15, 1989
* Termination of subgrants with inadequate progress.	M. Tam	Aug. 31, 1989
* Strengthen interaction with other S&T/H research, particularly on malaria diagnostics.	E. McJunkin	Sept. 30, 1989
* Collaborate with CDC (Facklam) on pneumolysin test.	R. Facklam M. Tam	Sept. 30, 1989
* State-of-Art review of diagnostics for target diseases.	PATH/TAG	1989
* Initiate summary of regulatory requirements and their impact on project standards.	M. Tam	Sept. 30, 1989
* Increase TAG input from industry.	M. Tam	Sept. 30, 1989
* Name a permanent TAG chairman.	M. Tam	Sept. 30, 1989

APPROVALS

**F. Date Of Mission Or AID/W Office Review Of Evaluation:** (Month) (Day) (Year)  
 \_\_\_\_\_ (Month) \_\_\_\_\_ (Day) 1988

**G. Approvals of Evaluation Summary And Action Decisions:**

	Project/Program Officer	Representative of Borrower/Grantee	Evaluation Officer	Mission or AID/W Office Director
Name (Typed)	F. E. McJunkin	M. S. Tam	G. Pettigrew	Ann Van Dorman
Signature	<i>F. E. McJunkin</i>	<i>M. S. Tam</i>	<i>G. Pettigrew</i>	<i>Ann Van Dorman</i>
Date	8/3/89		3/29/90	4/3/90

A B S T R A C T

H Evaluation Abstract (Do not exceed the space provided)

The evaluation team consisted of F. Eugene McJunkin, A.I.D. Project Cognizant Technical Officer; Elizabeth Beckemeyer, A.A.A.S. Science, Engineering and Diplomacy Fellow and assistant to Cognizant Technical Officer; Dr. Gale Savage, Evaluation Team Chairperson; Dr. Kaye Wachsmuth, Centers for Disease Control (CDC) Enteric Diseases Specialist; Dr. Richard Facklam, CDC Respiratory Diseases Specialist; and, during the JHU site visit Dr. George Burton, retired NIH research administrator.

This evaluation was conducted at the midpoint of the five-year Cooperative Agreement Project Number DPE-5935-A-00-5065-0, entitled Diagnostic Technology for Community Health, (DIATECH). The Agency for International Development awarded a grant to the Program for Appropriate Technology in Health (PATH) of Seattle, Washington, effective September 27, 1985. A.I.D. funding is \$7.25 million for five years. The evaluation began June 12th, 1988. The Evaluation team visited PATH June 12th and 13th and the primary subgrant recipient, Johns Hopkins University (JHU), on August 3, 1988.

The principal aim of the DIATECH project is the development of improved diagnostic technologies for malaria, diarrheal diseases, and acute respiratory infections (ARI). This effort involves the development, field-testing, and promotion of the transfer of rapid, relatively simple, cost-effective diagnostic technologies of high sensitivity and specificity suitable for use in Less Developed Countries (LDCs) to permit accurate assessment of individual and community disease burdens. The technology may be complex but its application should be appropriate to LDC settings.

By March 31, 1988, the midpoint of the five-year grant, no rapid diagnostic reagent or method for any of the three major diseases had yet been developed under any of the subprojects. It could be argued that original expectations were not realistic.

Subawards were made in FY86, FY87, and FY88. Processing of research applications averaged 12 months from receipt to award.

The two DIATECH key personnel primarily responsible for managing this agreement were a Technical Director and a Program Administrator. Both resigned in the summer of 1988 and were replaced by Dr. Milton Tam, Technical Director, and Ms. Gretchen Shively, Project Administrator.

Note: DIATECH is an acronym for Diagnostic Technologies. The Cooperative Agreement is with Partners for Technology and Health (PATH), Seattle, WA.

C O S T S

1. Evaluation Costs

1. Evaluation Team		Contract Number OR TDY Person Days	Contract Cost OR TDY Cost (U.S. \$)	Source of Funds
Name	Affiliation			
Richard Facklam	CDC	5 days	1,500	PHS .PASA
Kaye Wachsmuth	CDC	5 days	1,500	PHS PASA
George Burton	NTH	10 days	3,000	ST/H
Elizabeth Beckemeyer	AAAS	30 days		AAAS*
Eugene McJunkins	ST/H	5 days	500	ST/H
				* Fellow

2. Mission/Office Professional Staff Person-Days (Estimate) _____	40 days	3. Borrower/Grantee Professional Staff Person-Days (Estimate) _____	40 days
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## A.I.D. EVALUATION SUMMARY - PART II

### SUMMARY

J. Summary of Evaluation Findings, Conclusions and Recommendations (Try not to exceed the three (3) pages provided)

Address the following items:

- |                                                                                                                                                                                                        |                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Purpose of evaluation and methodology used</li> <li>• Purpose of activity(ies) evaluated</li> <li>• Findings and conclusions (relate to questions)</li> </ul> | <ul style="list-style-type: none"> <li>• Principal recommendations</li> <li>• Lessons learned</li> </ul> |
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Mission or Office:

S&T/H

Date This Summary Prepared:

March 1988

Title And Date Of Full Evaluation Report:

DIATECH EVALUATION

The Specific objectives of DIATECH are:

- \* Identification of needs and priorities for development for diagnostic technologies,
- \* Support of applied research for the development of diagnostic technologies,
- \* Field testing in LDCs of candidate technologies, and
- \* Promotion of the transfer of these technologies from laboratory to field use through development of instructional materials, dissemination of information, and provision of technical assistance.

Ideally, the diagnostic procedures should be performable with field kits. However, certain specific tests might require a laboratory.

As of August 1, 1988, DIATECH had received 205 research applications or proposals from 20 countries, which had been reviewed by the DIATECH Technical Director, the project Technical Advisory Group (TAG), and various other consultants including those from the primary subgrant recipients: Johns Hopkins University and the Queen Saovabha Memorial Institute of Bangkok, Thailand.

A.I.D. subsequently approved 37 subagreements distributed among four countries (32, U.S.; 3, Thailand; 1, England; and 1, The Netherlands). Six agreements were for six-month feasibility studies in the amount of \$15,000 or less. The others were awarded for one to two years, and varied in amount awarded. Two were primary subagreements, with primary collaboration of Johns Hopkins University and the Thai Red Cross Society. the remaining 25 grants, by disease, were distributed as follows: malaria, seven; diarrhea/typhoid, thirteen; ARI, ten; and other, five.

In 1987-88, with the approval of U.S.A.I.D., the DIATECH project conducted a comparative evaluation of five commercial rapid blood testing kits for AIDS in Kinshasa, Zaire, at a cost of \$350,000. This subproject was designated as technical assistance, although its subject matter lay outside the original objectives of the Cooperative Agreement. No such activity is planned during the remainder of the current agreement.

In addition to implementing the subagreements, the DIATECH project undertook the following:

A. Presentation of six workshops mostly in Washington, D.C., between September 1985 and August 1987, on the following subjects:

- \* Typhoid Fever and Diarrheal Diseases,
- \* Malaria,
- \* Technologies for the Rapid diagnosis of Infectious Disease,
- \* Acute Respiratory Infections/Tuberculosis,
- \* Acquired Immunodeficiency Syndrome in the Developing World, and
- \* Progress in the Diagnosis of Malaria.

Based on these workshops, the following disease agents were judged to warrant test development by DIATECH under the research subagreements: Plasmodium falciparum; Salmonella typhi; Shigella spp., Enteroinvasive E. coli; Enteropathogenic E. coli; Entamoeba histolytica; Vibrio cholera; Rotavirus; Campylobacter jejuni; Streptococcus pneumoniae; Hemophilus influenzae type B; Mycobacterium tuberculosis; and Human Immunodeficiency Virus (HIV-1).

The Evaluation Team recommended that future workshops be conducted and followed up in a more standard manner, including prepared presentations of papers and their internal publications.

- B. Development of two items of diagnostic equipment; a less-expensive field binocular microscope for diagnosis of malaria parasites and of bacteria; and a battery-operated Quantitative Buffy Coat (QBC) Hematology Analyzer for detection of malaria parasites.
- C. Establishment of a Biological Resources Bank containing more than 2000 specimens, mostly of malaria and HIV. The data for the specimens are stored at PATH facilities in Seattle in a computerized system called BIOSTORE.
- D. Development of a Technical Monograph database (DiaCat), containing about 1700 monographs on the treatment, prevention, and epidemiology of infectious disease. DiaCat was used primarily by DIATECH staff.
- E. Presentation of a DIATECH-supported seminar on Protection of Intellectual Property Rights, held in Bangkok, Thailand, and funded under "technical assistance". As no rapid diagnostic procedures have been fully developed for marketing, this seminar represents a premature expenditure. Further, such a seminar should have been held at a venue convenient to A.I.D. staff and to DIATECH-funded principal investigators.

The Evaluation Team also expressed concern about PATH's relationship with A.I.D. Cognizant Technical Officers and with the primary subgrant recipient Johns Hopkins University, whose initial budget of \$232,086 was small (three percent of the DIATECH budget). The Evaluation Team recommended that Johns Hopkins University's role in the project be reviewed in as much as its staff and faculty represent a major resource of experience and expertise available to the project. The Technical Advisory Group (TAG) should be utilized more effectively including use of "Taglets", i.e., meetings, specific groups of discourse, e.g., ARI's. (Since the evaluation team's visit to PATH problems in these relationships have been substantially corrected.)

The DIATECH (TAG) functioned satisfactorily at the beginning, but later had difficulties reaching consensus recommendations, which were not always adequately prepared and reported. For instance, complete documentation was not always available in the files concerning actions taken on certain proposals.

The Evaluation Team recommends that U.S.A.I.D. and PATH develop a protocol describing the functions, activities, operations, and responsibilities of a TAG. No such document currently exists.

**ATTACHMENTS**

**K. Attachments** (List attachments submitted with this Evaluation Summary, always attach copy of full evaluation report, even if one was submitted earlier; attach studies, surveys, etc. from "on-going" evaluation, if relevant to the evaluation report.)

Evaluation Report is attached.

**COMMENTS**

**L. Comments By Mission, AID/W Office and Borrower/Grantee On Full Report**

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