





FOREWARD

The present contractual effort is a continuation of a research project initiated in August of 1967.

This research is conducted under the overall cognizance of Col. William E. Rothe, V.C. Director of the Division of Medicinal Chemistry, and is conducted under the immediate direction of Lt. Col. Kenneth E. Kinnanon, Head of the Department of Biology.

| UCCESSION fo NTIS DDC UNANNOUNCE | White State | Section C |
|---|-------------|-------------------------|
| NUSTIFICATIO | N | UTY CODES or special |
| A A | HE DIOY | |

I. INTRODUCTION

Walter Reed Institute of Research (WRAIR) has developed a complex network of computer programming systems for storage. retrieval and association of chemical structures information and related data resulting from biology tests. Walter Reed, being the recipient of this data, is faced with accomodating it into a format that can be processed and evaluated at WRAIR.

Advanced Computer Techniques Corporation has supported the research efforts at WRAIR primarily in the area of developing Biological Programming Systems and developing necessary system interfaces with other major systems involved in WRAIR areas of interest.

During the contractual period covered by this report the following efforts were enacted:

- A. Implementation of a new biology system.
- B. Developing improvements to existing IBM 7090/94 biology systems.
- C. Providing production assistance as required.

II. OBJECTIVES

- A. Implementation of new biology system for the CDC 3500.
- B. Developing special searches, reports and other one-time requirements.

III. ACCOMPLISHMENTS DURING THE YEAR

- A. The following programs were completed for the new biology system on the CDC 3500.
 - 1. Preprocessor
 - 2. Edit
 - 3. Match/merge on sample number
 - 4. Sort on source code
 - 5. Match/merge on source code
 - 6. Biology-inventory report

7. Code-10 Address labels

8. Sort/merge biology transaction files

- 9. Update
- 10. Overdue processing
- 11. Backup/restore master files.
- 12. Conversion programs
- B. Production assistance was provided as required during the year for both regular system production/testing and parallel processing of new system.
- C. Conversion of old master files to new format for processing with new biology system.

IV. CONCLUSION

At the end of the contract year the new biology system was completed for the CDC 3500. This system was not made operational due to slippage in development of Chemistry system.

| CURITY CLASSIFICATION OF THIS PAGE (When Date Entered) REPORT DOCUMENTATION PAGE | READ INSTRUCTIONS |
|---|---|
| REPORT DUCUMENTATION FACE | BEFORE COMPLETING FORM 3. RECIPIENT'S CATALOG NUMBER |
| | |
| TITLE (and Sublitle) Research Effort to Develop Biological Programs | 5. TYPE OF REPORT & PERIOD COVERE Annual Report 1 Sept. 74 - 30 Aug. 75 6. PERFORMING ORG. REPORT NUMBER |
| AUTHOR(*) | 8. CONTRACT OR GRANT NUMBER(3) |
| William H. Smith | DADA17-68-C-8106 V |
| Advanced Computer Techniques Corporation 1501 Wilson Blvd. Arlington, Va. 22209 | 10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 62759A, 3A762759A829.00.115 |
| CONTROLLING OFFICE NAME AND ADDRESS | 12. REPORT DATE 15 May 1976 |
| U.S. Army Medical Research and Development Command, Washington, D.C. 20314 | 13. NUMBER OF PAGES |
| MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office) | 15. SECURITY CLASS. (of this report) |
| | Unclassified |
| | 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE |
| Approved for public release; distribution unlimit | ed. |
| Approved for public release; distribution unlimit | ed. |
| Approved for public release; distribution unlimit DISTRIBUTION STATEMENT (of the abstract entered in Block 20, If different fr | ed. |
| Approved for public release; distribution unlimit DISTRIBUTION STATEMENT (of the abstract entered in Block 20, If different fr | ed. |
| Approved for public release; distribution unlimit DISTRIBUTION STATEMENT (of the ebstract entered in Block 20, If different fr SUPPLEMENTARY NOTES | ed. |
| Approved for public release; distribution unlimit DISTRIBUTION STATEMENT (of the ebstract entered in Block 20, If different fr SUPPLEMENTARY NOTES | ed. |
| DISTRIBUTION STATEMENT (of the abstract entered in Block 20, 11 different fr SUPPLEMENTARY NOTES KEY WORDS (Continue on reverse side if necessary and identify by block number Biology, Information Processing, Cnemical Structu | ed. our Report) re, Computer Information |

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

.

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

-6-