Section A. Purpose and Scope

This INSTRUCTION prescribes the cash awards for inventions, suggestions, and scientific achievements established under the Public Health Service (PHS) Commissioned Officers' Incentive Awards Program (COIAP). The authorities and responsibilities for administering this program are also prescribed.
Section B. Authority

The authority for cash awards to PHS commissioned officers for inventions, suggestions, and scientific achievements is set forth in Title 42 U.S.C. 213a(a)(15) and Title 10 U.S.C. 1124.

Section C. General

1. The COIAP provides a means to encourage officers to take part fully in improving Government operations. The program recognizes officers for suggestions, inventions, and scientific achievements, above those normally expected, that contribute to the efficiency, economy, or other improvement of Government operation.

2. The COIAP will be administered by the Commissioned Personnel Operations Division (CPOD) and operated within the procedural framework of the civilian personnel program. The Commissioned Officer Awards Program (COAP) will continue to be administered as a separate program as provided in Chapter 27, Subchapter CC27.1, of this manual.

3. Awards under this INSTRUCTION will not be made to officers for superior performance of assigned duties or for contributions which reasonably may be considered to be within the scope of those duties. In determining whether an officer's contribution is eligible for an award, explicit assignments and responsibilities implicit in grade or organizational position shall be carefully considered by line management.

4. The COIAP is available to active-duty PHS commissioned officers, regular and reserve corps. A suggestion, invention, or scientific achievement award nomination submitted prior to the officer's retirement or release from active duty will remain eligible for consideration for a period of two years from the date of submittal.

5. Within PHS, Agency Heads and Regional Health Administrators, and major organizational heads may approve cash awards which are consistent with those granted under the civilian personnel program. Award recommendations above $1500 shall be forwarded to the Assistant Secretary for Health.

6. Except those on leave without pay, officers detailed from PHS to other agencies may receive cash awards in accordance with this INSTRUCTION. All approved cash awards will be sent to PHS for concurrence and payment as outlined in this subchapter. Officers on leave without pay detail may participate in the awards program of the agency or institution to which detailed.

7. Awards records are maintained in officers' official personnel folders which are subject to the provisions of the Privacy Act of 1974. INSTRUCTION 7, Subchapter CC26.1, "Rights and Responsibilities of PHS Commissioned Officers Under the Privacy Act," of this manual, sets forth the procedures to be followed in the maintenance of these records. The applicable systems of
records are: 09-37-0002, PHS Commissioned Corps Personnel Records, HHS/OASH/OM; and 09-37-0008, PHS Commissioned Corps Unofficial Personnel Records and Other Station Files, HHS/OASH/OM. Any officer who wishes access to the employee suggestion, cash award, or scientific achievement record systems should contact the program coordinators of those systems.

Section D. Suggestions

1. General

a. A suggestion is an idea submitted in writing by one or more eligible persons intended to contribute directly to economy or efficiency, or to increase effectiveness of Government operations directly.

b. Not acceptable as suggestions are ideas that deal with employee services, benefits, working conditions, housekeeping, routine safety practices, or maintenance of building and grounds.

2. Procedures

a. Suggestions are to be submitted in accordance with established PHS, agency, and program procedures. These procedures normally include the following:

(1) The suggestion is to be submitted on Form HHS-170, "Employee Suggestion Form" (See Exhibit I). The suggester must:

(a) Describe a specific problem, offer a solution, and estimate the benefits or savings, if known.

(b) Sign the form to signify agreement that the United States may use the idea without incurring any further claims by the suggester or his/her heirs.

(c) Note on the form (item 10) if the suggester wishes to remain anonymous.

(d) For a group suggestion, submit one complete form, designating "Group Suggestions." Each suggester should complete the top (items 1-10) and sign the back (items 15-16) of a separate Form HHS-170, which will be retained by the suggestion coordinator. There is no limit to the number of cosuggesters who can be involved in the joint effort. Both commissioned officers and civil service employees may be members of the group.

(2) The suggestion should be submitted through the immediate supervisor; however, it may be submitted directly to the appropriate suggestion coordinator.
3. **Evaluation.**

   a. The evaluation of a suggestion is to be done promptly within established agency timeframes. Normally, the office having responsibility for the area described in the suggestion has primary responsibility for evaluating the suggestion.

   b. The evaluator should forward the completed evaluation report, along with the suggestion package, to the appropriate suggestion coordinator. If the suggestion is adopted, the suggestion will be considered for a cash award if the benefits to the Government have a value of at least $250.

   c. If the criteria for a cash award are met, Form HHS-171, "Recommendation for Cash Award," shall be prepared (See Exhibit II). The amount of the cash award will be determined by the tangible and intangible benefits that can be assigned to the suggestion (See Exhibit III).

4. **Process**

   a. The award recommendation shall be forwarded through established award channels to the official to whom approval authority has been delegated.

   b. The organization's fiscal officer shall certify on the approved Form HHS-171 that funds are available and have been obligated to pay the award.

   c. The appropriate suggestion coordinator shall review the award recommendation for conformity with the requirements and will forward the completed Form HHS-171 for commissioned officer(s) to:

      Officer Services Branch  
      Commissioned Personnel Operations Division/OPM/OM  
      Parklawn Building, Room 4-35  
      Rockville, Maryland 20857

   d. The Officer Services Branch (OSB) shall issue a personnel order authorizing payment through the commissioned officer payroll system.

---

**Section E. Inventions**

1. **General**

   a. Monetary awards are granted for inventions that are of interest to PHS and for which patent coverage is sought or granted. The purpose of granting such awards is to gain maximum value for the research and development expenditures of the Government.

2. Procedures

a. Inventions shall be submitted in accordance with established PHS, agency, and program procedures. To report an invention, employees shall submit a Form HHS-570, "Employee Invention Report," in triplicate (See Exhibit IV). The report is submitted to the Patents Branch, Office of the General Counsel (OGC), HHS, Room 5A-03, Westwood Building, NIH, Bethesda, Maryland 20892.

b. In general, an initial award should be granted in all cases where a reported invention has been favorably evaluated and a patent application has been filed. It is suggested that this award be $100.

c. When a patent application is granted and the Federal Government either owns or has a license for the invention, further monetary recognition should be provided upon notification that the U.S. Patent and Trademark Office has issued a patent. It is suggested that this added award be $300.

d. An additional award of up to $35,000 may be granted on an invention owned by the U.S. Government as referenced in the Federal Personnel Manual, Chapter 451, Subchapter 9, whenever:

(1) The invention benefits the public as evidenced by the number of patent licenses granted, reports on commercializations from patent licenses, and other information pertaining to the commercial use of the invention; or

(2) Whenever such inventions provide benefit to the Government as evidenced by Government use.

3. Process

a. After HHS, OGC Patents Branch receives notification of a filed patent application or patent issuance, they will request the inventor's organization to prepare an award recommendation.

b. The organization shall prepare a Form HHS-171 and forward it through established channels to the official to whom approval authority has been delegated.

c. The organization's fiscal officer shall certify on the approved Form HHS-171 that funds are available and have been obligated to pay the award.
d. The awards/suggestion coordinator shall review the award recommendation for conformity with requirements and forward the completed Form HHS-171 to the OSB at the address given in D.4.c., above.

e. OSB shall issue a personnel order authorizing payment through the commissioned officer payroll system.

Section F. Special Act Award for Scientific Achievement

1. General

a. Scientific achievement is defined as:

   (1) An act, deed, or accomplishment that establishes a scientific or technological basis for later technical improvements of PHS function or that has national significance.

   (2) A scientific or technical accomplishment of such quality and effectiveness as to have materially advanced the research and development achievements of an activity, group, or project.

   (3) A significant scientific or technological achievement that contributes materially to the welfare of PHS and the Nation.

   (4) A technical paper presented to professional societies that constitutes a substantial contribution to scientific knowledge.

b. This award shall not be used to recognize superior performance. Superior performance shall be recognized through the Commissioned Officer Awards Program as contained in Chapter 27, Subchapter CC27.1 of this manual.

c. A monetary award shall not be granted for an act that reasonably would be considered to be within the scope of the officer's assigned duties. Further, the act must contribute significantly to the efficiency, economy, or other improvement of Government operations or otherwise be in the public interest.

d. The scientific achievement may or may not involve measurable monetary benefits and may involve more than one employee.

e. The cash award shall depend upon the scientific achievement being recognized. The amount of the award is determined according to the cash award criteria for tangible or intangible benefits for suggestions awards.

2. Procedures

a. Nomination of an officer for a Special Act Award shall be done in compliance with PHS, agency, and program procedures.
b. A supervisor or any official having direct knowledge of the scientific achievement may initiate the nomination. Nominations shall be submitted through line management within agency and PHS timeframes.

c. A nomination shall be submitted on Form HHS-171. The recommendation must clearly define the extent of the scientific achievement and its contribution to PHS and the Nation. The recommendation must include information regarding the officer's assignment and responsibilities implicit in grade or organizational position. When the recommendation for this award is based on measurable tangible benefits, the supporting data will show in detail how these benefits were computed. Recommendations based on intangible benefits will identify the value of benefits and extent of application appropriate for the achievement to be recognized.

3. Process

a. The award recommendation shall be forwarded through established award channels to the official to whom approval authority has been delegated.

b. The organization's fiscal officer shall certify on the approved Form HHS-171 that funds are available and have been obligated to pay the award.

c. An award recommendation requiring approval by ASH shall be forwarded from the agency head to the Executive Secretary, Scientific Achievement Review Board. The Board shall consist of the Assistant General Counsel for Public Health, the Surgeon General, and two agency heads not party to the recommendation. The Board shall meet in formal session with the Director, Office of Personnel Management, serving as Executive Secretary. The board shall forward its recommendation to the Assistant Secretary for Health for approval.

d. The appropriate suggestion coordinator shall review the approved nomination for conformity with the requirements and will forward the completed Form HHS-171 to OSB at the address given in D.4.c, above.

e. OSB shall issue a personnel order authorizing payment through the commissioned officer payroll system.
Employee Suggestion Form

INSTRUCTIONS TO SUGGESTER

1. NAME OF SUGGESTER (First, middle initial, last name)
2. SOCIAL SECURITY NO.
3. PAYROLL NO.
4. DEPARTMENT
5. TIMEKEEPER NO.
6. POSITION TITLE
7. ORGANIZATION (Branch, Division, etc.)
8. OFFICE ADDRESS
9. OFFICE PHONE
10. MAY YOUR NAME BE USED DURING THE PROCESSING OF THIS SUGGESTION?
    YES    NO
11. THIS SUGGESTION CONCERNS
    SUGGESTION NUMBER

12. THE SITUATION AS IT EXISTS (Identify current procedure, method, etc. which you believe should be improved)
13. SUGGESTED IMPROVEMENT (State your idea in clear, concise, technical and accurate manner as to where it may be used and what it will accomplish)

DEPARTMENT OF HEALTH AND HUMAN SERVICES  T.S.  PHS-CC 470  5/5/86
EXHIBIT I (Continued)

11. IDEAS FOR IMPROVEMENT CONTINUED

4. BENEFITS AND OTHER BENEFITS WHICH WILL RESULT FROM YOUR IDEA

12. SIGNATURE

16. DATE

SUGGESTION ACKNOWLEDGMENT

17. SUBJECT OF SUGGESTION

SUGGESTION NUMBER

Thank you for submitting your suggestion which has been accepted for further study. As soon as a feasibility study and a final decision is made, you will be notified of the action taken. Your interest in improving Government operations is appreciated.

Support Officer

Date

TO:

Please print your name and the address to which you want this acknowledgment sent. Your office address is preferred.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

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Exhibit II

RECOMMENDATION FOR CASH AWARD

Prepare original and as many copies as your organization needs. Send original only to the Division of Central Payroll and Reports Processing, Office of the Secretary.

For an employee to be considered for a special achievement award for sustained superior performance the following criteria must be met: During the period of service to be recognized (a) one or more of the most important job elements must have been performed in a manner substantially exceeding normal requirements and (b) the employee's total performance must be of sufficient level to merit a regular within-grade increase. Since a special achievement award for sustained superior performance is a one-time, lump-sum cash award and is based solely on past performance. The employee's level of future performance is not a major consideration. Individuals or groups may be considered for a cash award for a special act or service when performance exceeds job requirements as a one-time occurrence. Cash awards may also be given to an individual or a group for an adopted suggestion, whether adopted as submitted or in part, that directly contributes to economy or efficiency, or directly increases effectiveness of Government operations.

I. IDENTIFICATION OF EMPLOYEE (OR GROUP)

| INSTRUCTIONS: FOR AN INDIVIDUAL, COMPLETE ITEMS 1 THRU 4 BELOW. FOR A GROUP, ENTER "GROUP AWARD" IN ITEM 1. COMPLETE ITEMS 5 AND ATTACH LIST SHOWING NAME, POSITION, GRADE AND SALARY, SOCIAL SECURITY NO., PAYROLL NO., AND TIMEKEEPER NO. FOR EACH MEMBER OF THE GROUP. |
|---------------|-----------------|-----------------|
| 1. NAME (first, middle initial, and last) | 2. POSITION TITLE | 3. GRADE AND SALARY |
| Mr. | | |
| Mrs. | | |
| 4. ORGANIZATION AND LOCATION | 5. SOC SECURITY NO. | 6. PAYROLL NO. | 7. TIMEKEEPER NO. |

II. DESCRIPTION OF EMPLOYEE CONTRIBUTION

<table>
<thead>
<tr>
<th>TYPE OF CONTRIBUTION</th>
<th>SUGGESTION NO.</th>
<th>DATE SUBMITTED</th>
<th>DATE ADOPTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Act or Service</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Period Performance exceeds requirements
- Period of last award

Attach summary of job description, list the function or functions which the employee has performed in a manner substantially exceeding normal requirements and provide answers for each criterion:
- Standard of performance
- New performance exceeded standard
- How performance increased productivity, economy, or effectiveness of Government operations (identify dollar benefits where possible).

III. COMPUTATION OF BENEFITS AND CASH AWARD

<table>
<thead>
<tr>
<th>10. TANGIBLE BENEFITS</th>
<th>11. INTANGIBLE BENEFITS</th>
<th>12. RECOMMENDED AWARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMOUNT</td>
<td>BASIS</td>
<td>DEGREE OF BENEFIT</td>
</tr>
<tr>
<td>☐ Experience</td>
<td>☐ Estimate</td>
<td></td>
</tr>
</tbody>
</table>

INSTRUCTIONS: REFER TO GENERAL ADMINISTRATION MANUAL, SECTION 889.100, FOR COMPUTING SUGGESTION AWARDS AND FPM 451, SUBCHAPTER 5 3.5.13 FOR COMPUTING SUPERIOR PERFORMANCE AWARD.

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EXHIBIT II (Continued)

IV. ACTION ON RECOMMENDATION

INSTRUCTIONS: THE SUPERVISOR OR OFFICIAL WHO PREPARES THIS FORM SHOULD COMPLETE THE FIRST LINE, RECOMMENDING OR CONCURRING OFFICIALS, THE INTERMEDIATE LINES, AND THE OFFICIAL WITH AUTHORITY TO APPROVE THE AWARD THE LAST LINE.

THIS AWARD IS RECOMMENDED AND MADE IN CONFORMANCE WITH THE PROVISIONS OF TITLE III OF PUBLIC LAW 83-783 AND THE REGULATIONS ISSUED THEREUNDER

<table>
<thead>
<tr>
<th>13. ACTION</th>
<th>SIGNATURE</th>
<th>TITLE</th>
<th>DATE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>INITIATE AWARD RECOMMENDATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RECOMMENDED APPROVAL OF AWARD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APPROVE AWARD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

V. OBLIGATION OF FUNDS

<table>
<thead>
<tr>
<th>14. FUNDS OBLIGATED FOR PAYMENT</th>
<th>15. SIGNATURE OF FISCAL OFFICER</th>
<th>16. DATE</th>
</tr>
</thead>
</table>

DEPARTMENT OF HEALTH AND HUMAN SERVICES  T.S.  PHS-CC 470  5/5/86
Table 2-1. Contributions With Tangible Benefits

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Award</th>
<th>Benefits</th>
<th>Award</th>
<th>Benefits</th>
<th>Award</th>
<th>Benefits</th>
<th>Award</th>
<th>Benefits</th>
<th>Award</th>
<th>Benefits</th>
<th>Award</th>
<th>Benefits</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to $10,000</td>
<td>$10,000</td>
<td>$25,000</td>
<td>$10,000</td>
<td>$50,000</td>
<td>$10,000</td>
<td>$30,000</td>
<td>$10,000</td>
<td>$40,000</td>
<td>$10,000</td>
<td>$60,000</td>
<td>$10,000</td>
<td>$80,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>$10,000-$100,000</td>
<td>$25,000</td>
<td>$50,000</td>
<td>$25,000</td>
<td>$75,000</td>
<td>$25,000</td>
<td>$100,000</td>
<td>$25,000</td>
<td>$150,000</td>
<td>$25,000</td>
<td>$200,000</td>
<td>$25,000</td>
<td>$300,000</td>
<td>$25,000</td>
</tr>
<tr>
<td>$100,001 or more</td>
<td>$50,000</td>
<td>$100,000</td>
<td>$50,000</td>
<td>$200,000</td>
<td>$50,000</td>
<td>$300,000</td>
<td>$50,000</td>
<td>$500,000</td>
<td>$50,000</td>
<td>$1,000,000</td>
<td>$50,000</td>
<td>$2,000,000</td>
<td>$50,000</td>
</tr>
</tbody>
</table>

Quick Guide for Calculating Awards Based on Tangible Benefits

- Up to $10,000: $10,000 + $5,000 = $15,000
- $10,000-$100,000: $10,000 + $10,000 = $20,000
- $100,001 or more: $10,000 + $20,000 = $30,000

**Maximum award authorized by the Office of Personnel Management:**

- For the Office of Personnel Management:
  - $25,000
  - $50,000
  - $100,000

- For the award of up to $10 million may be paid in addition to the $25,000.
### Table 2-2. Scale of Awards Based on Intangible Benefits

<table>
<thead>
<tr>
<th>Value of Benefit</th>
<th>Limited</th>
<th>Expanded</th>
<th>Broad</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MEDIUM VALUE</strong>—Change or modification of an operating principle or procedure which has moderate value sufficient to meet the minimum standard for a cash award; an improvement of rather limited value of a product, activity, program, or service to the public.</td>
<td>$1,000 - 3,000</td>
<td>$2,000 - 3,000</td>
<td>$5,000 - 10,000</td>
<td>$10,000 - 15,000</td>
</tr>
<tr>
<td><strong>SUBSTANTIAL VALUE</strong>—Substantial change or modification of an operating principle or procedure; an important improvement in the value of a product, activity, program, or service to the public.</td>
<td>$3,000 - 10,000</td>
<td>$5,000 - 15,000</td>
<td>$15,000 - 25,000</td>
<td>$25,000 - 50,000</td>
</tr>
<tr>
<td><strong>HIGHER VALUE</strong>—Complete pervasion of a basic principle or procedure; a highly significant improvement in the value of a product, major activity, or program, or service to the public.</td>
<td>$10,000 - 25,000</td>
<td>$25,000 - 50,000</td>
<td>$50,000 - 100,000</td>
<td>$100,000 - 200,000</td>
</tr>
<tr>
<td><strong>EXCEPTIONAL VALUE</strong>—Innovation of a new principle or major procedure; a significant improvement in the quality of a product, activity, program, or service to the public.</td>
<td>$25,000 - 50,000</td>
<td>$50,000 - 100,000</td>
<td>$100,000 - 200,000</td>
<td>$200,000 - 300,000</td>
</tr>
</tbody>
</table>
## EXHIBIT IV

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**EMPLOYEE INVENTION REPORT**

(See Chap. 5-10 General Admin. Manual)

### EXHIBIT IV

**INSTRUCTIONS:** HHS employees shall use this form to submit invention disclosures to the Department.

If necessary, add 2 pages and forward through appropriate channels to the Patent Branch, Office of the General Counsel, Div. If additional space is needed, enter "see attached page" and refer to line number. When completed, this form becomes an important legal document useful in establishing priority of invention.

<table>
<thead>
<tr>
<th></th>
<th>OHH PATENT BRANCH USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE DISCLOSURE RECEIVED</td>
<td>CASE NUMBER</td>
</tr>
</tbody>
</table>

1. **NAME & TITLE OF INVENTOR**

2. **CITIZENSHIP**
   - U.S.
   - OTHER

3. **HOME ADDRESS OF INVENTOR (Street, City, State, ZIP Code, Area Code and Telephone Number)**

4. **NAME, TITLE, CITIZENSHIP, HOME ADDRESS OF JOINT INVENTOR(S), IF ANY:**

5. **TITLE AND ADDRESS OF THE FACILITY WHERE THE INVENTION WAS DEVELOPED**

6. **DESCRIPTIVE TITLE OF INVENTION**

7. **DOCUMENTARY RECORDS - List notebooks, drawings, reports, etc., documenting the invention**

<table>
<thead>
<tr>
<th>TYPE OF DOCUMENT</th>
<th>DATE</th>
<th>PRESENT LOCATION</th>
</tr>
</thead>
</table>

8. **PUBLICATION**

A. **PRIOR PUBLICATION** - List any descriptions of the invention you may have published which would enable someone skilled in the art to make and use the invention without experimentation. Identity publication by title and date, and attach copy, if available.

B. **PLANNED PUBLICATION** - Is publication contemplated? □ Yes □ No

   If yes, the approximate date publication is expected:

9. **PUBLIC USE**

   a. Is, or was, the invention in use in the United States? □ Yes □ No

   b. Type of Use: □ operational □ feasibility demonstration

   c. Date of last operational use:

   d. Was any effort made to maintain the invention in secrecy after operational use? □ Yes □ No

10. **PATENT APPLICATIONS**

    If any patent application has been filed by or for you on the subject matter of this invention, identify the application by date of filing, serial number, title, and name of parties representing you.

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**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**T.S.**

**PHS-CC 470**

**5/5/86**
EXHIBIT IV (Continued)

2. CITE ANY PREVIOUS WORK PERTINENT TO THIS INVENTION OF WHICH YOU ARE AWARE (Papers, articles, books, etc.).

12. UTILIZATION
   A. Indicate any action taken to ensure availability of a marketable product to science and/or the public.

   B. Indicate research and development needed before invention could be successfully marketed.

   C. List names and organizational affiliation of those familiar with this invention.

   D. List names and addresses of potential manufacturers or others who might agree to promote the invention.

   E. List names and addresses of manufacturers of comparable equipment.

   F. Commercial possibilities, including quantity and estimated price.

13. DETERMINATION

   This report is submitted pursuant to Executive Order 10096 and 10830, and/or Department regulations in order that formal determination may be made as to the Government's rights and interests in the invention and as to whether domestic or foreign patent protection thereof should be sought.

   (Check one or more)

   ☐ I agree to abide by the results of such determination and to execute assignments, licenses and applications for patent, without cost to me, with respect to such invention as may be required pursuant to such determination.

   ☐ I wish to dedicate the invention to the public.

   ☐ I claim specific rights to the invention.

   (Attach statement of the nature and extent of your claim.)

   ☐ I have received an employee incentive award for this invention.

   SIGNATURE OF INVENTOR(S):

   DATE

   DISCLOSED TO AND UNDERSTOOD BY (Witnesses)

   SIGNATURE(S):

   DATE

   HMS 570 (Rev. 1/81)

DEPARTMENT OF HEALTH AND HUMAN SERVICES    T.S. PHS-CC 470 5/5/86
EXHIBIT IV (Continued)

PART II - DISCLOSURE OF INVENTION

Describe the invention completely, using the outline given below. Sketches, prints, photos, and any permanent manuscript should be attached to this disclosure. Statements generally following the outline are acceptable substitutes. If additional space is needed, continue on separate sheets, referring to items in the outline by alphabetical letter.

A. State in general terms the purpose and object of the invention:

B. Describe prior art by patent number or journal citation, if possible, and indicate how the invention overcomes its disadvantages.

C. Describe the construction of the invention. Use reference numbers to identify components in attached illustrations. Give a description of one complete operational cycle. If the invention relates to the synthesis or identification of a new composition of matter, describe the product in structural form, if possible, and the process of making it. Include all available information regarding its physical characteristics and all test data evidencing its utility.

<table>
<thead>
<tr>
<th>NAME OF INVENTOR(S)</th>
<th>DATE RECEIVED</th>
<th>CASE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</table>

DEPARTMENT OF HEALTH AND HUMAN SERVICES T.S. PHS-CC 470 5/5/86