



National Institutes of Health
National Cancer Institute
Bethesda, Maryland 20205

March 23, 1984

Our Reference: Interagency Agreement No. Y01-CP-90203

Department of Energy
Oak Ridge Operations
P.O. Box E
Oak Ridge, TN 37830

Attention: Mr. William R. Bibb

Dear Mr. Bibb:

The above referenced interagency agreement expired on February 28, 1982. We are in the process of administratively closing out this agreement. According to our records, an unexpended balance of \$66.00 is still remaining in that agreement.

We would like to deobligate the unexpended funds and would appreciate your office confirming this figure with your records. Also, please inform us if there are any unpaid expenses associates with this agreement.

If additional information is needed or you have any questions please feel free to call me on (301) 427-8888.

Sincerely,

Elizabeth J. Osinski
Contracting Officer

SEP 27 1983

Contracting Officer
Research Contracts Branch, CCS
National Cancer Institute
Blair Building, Room 2A07
Bethesda, Maryland 20205

Dear Sir:

ORNL PROJECT, "DNA REPAIR IN CARCINOGENESIS" (INTERAGENCY AGREEMENT DOE NO. 40-1011-79, NCI NO. Y01-CP-90203)

The work under the subject agreement has been completed by the Oak Ridge National Laboratory, and total final costs of \$390,991 were incurred against your total funding authorization of \$391,057. The uncosted balance of \$66 has been deobligated.

Sincerely,

Original signed by
W. D. Adams

William R. Bibb, Director
Energy Programs and Support Division

ER-112:ROS

- cc: W. T. Carter, UCCND
- H. Postma, ORNL
- J. E. Carr, ORNL
- W. P. Snyder, CC-10, ORO
- H. S. Oster, AD-43, ORO
- M. M. Dare, PB-10, ORO (2)

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D 3354

DOE F 1325.10
(7-79)

ER-11:WRBibb:mam:6-4502:9-26-83 OFFICIAL FILE COPY

40-1011-79

| | |
|---------------|-------------|
| CONCURRENCES | |
| RTG. SYMBOL | ER-112 |
| INITIALS/SIG. | Spradlen |
| DATE | 9/26/83 |
| RTG. SYMBOL | PB-123 |
| INITIALS/SIG. | Marcizante |
| DATE | 9-27-83 |
| RTG. SYMBOL | ER-11 |
| INITIALS/SIG. | WRA |
| DATE | SEP 27 1983 |
| RTG. SYMBOL | |
| INITIALS/SIG. | |
| DATE | |
| RTG. SYMBOL | |
| INITIALS/SIG. | |
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| DATE | |
| RTG. SYMBOL | |
| INITIALS/SIG. | |
| DATE | |
| RTG. SYMBOL | |
| INITIALS/SIG. | |
| DATE | |



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

March 19, 1982

National Institutes of Health
Bethesda, Maryland 20205

Our Reference: Interagency Agreement No. Y01-CP-90203

Department of Energy
Oak Ridge Operations
P.O. Box E
Oak Ridge, Tennessee 37830

Attention: William R. Bibb
Director, Research Division

Ladies and Gentlemen:

Performance of the subject interagency agreement was completed on February 28, 1982. To permit us to close this contract administratively, it is requested that the following documents be submitted within 30 days.

- (1) As stated in Article IV, Paragraph B of our agreement, 4 copies of a final report are required within thirty days of the expiration date. Please forward in accordance with the distribution called for in your agreement.
- (2) A Standard Form 1081, Voucher and Schedule of Withdrawals and Credits, for the final quarter, in sextuplicate, covering costs incurred for final quarter.

The above referenced report shall be submitted to:

Contract Specialist
National Cancer Institute
Blair Building, Room 2A07
National Institutes of Health
9000 Rockville Pike
Bethesda, Maryland 20205

Sincerely yours,

Vernon Rainey

Vernon Rainey
Contracting Officer
Carcinogenesis Contracts Section
Research Contracts Branch
National Cancer Institute

1078627

Copies sent to
appropriate ORNL

40-1011-79

MAR 27 1981

Union Carbide Corporation
Nuclear Division
ATTN: Dr. Herman Postma, Director
Oak Ridge National Laboratory
Post Office Box 7
Oak Ridge, Tennessee 37830

Gentlemen:

ORNL PROJECT, "DNA REPAIR IN CARCINOGENESIS" (INTERAGENCY AGREEMENT DOE NO. 40-1011-79, NCI NO. Y01-CF-90203)

The Department of Energy and the National Cancer Institute (NCI) have executed Modification No. 2 to the subject agreement. The modification provides additional funding of \$129,279 for the performance period through February 28, 1982. The agreement funding has been reduced from \$417,358 to \$391,057.

You are authorized to conduct the project for NCI in accordance with the enclosed modification. The \$129,279 authorized by this letter will be included in the UCCND contract for reimbursable work under Activity 40 04 12.

Please confirm your willingness to conduct the requested work for NCI as incidental or related to the approved DOE program at ORNL pursuant to Article III, Paragraph (c) of Contract No. W-7405-Eng-26 by signing and dating a copy of this letter and returning it to us.

Sincerely,

Original Signed by
William R. Bibb

Joseph A. Lenhard, Assistant Manager
for Energy Research and Development

ER-13:MRB

Enclosure:
Modification

- cc w/encl:
- R. F. Hibbs, UCCND
- G. W. Morde, UCCND
- J. K. Denton, UCCND
- W. T. Carter, UCCND
- H. S. Oster, AD-43, ORO
- W. P. Snyder, CC-10, ORO
- M. M. Dore, PB-10, ORO (2)

Accepted *S/H Postma*

Date *4/16/81*

40-1011-79

| |
|-----------------------------------|
| CONCURRENCE |
| RTG. <i>BB-12</i> <i>Smida</i> |
| INITIALS/SIG. <i>RPS/wh</i> |
| DATE <i>3/25/81</i> |
| RTG. <i>ER-13</i> <i>Bibb</i> |
| INITIALS/SIG. <i>WAB</i> |
| DATE <i>3-26-81</i> |
| RTG. SYMBOL |
| INITIALS/SIG |
| DATE |
| RTG. SYMBOL |
| INITIALS/SIG |
| DATE |
| RTG. SYMBOL |
| INITIALS/SIG |
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| DATE |
| RTG. SYMBOL |
| INITIALS/SIG |
| DATE |
| RTG. SYMBOL |
| INITIALS/SIG |
| DATE |

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B 1323



April 3, 1981

National Institutes of Health
Bethesda, Maryland 20205

Our Reference: Interagency Agreement No. Y01-CP-90203
Modification No. 2

Department of Energy
Oak Ridge Operations
P.O. Box E
Oak Ridge, Tennessee 37830

Attention: William R. Bibb, Director
Research Division

Gentlemen:

We are enclosing an executed copy of the subject agreement for your retention. If you have any questions regarding its administration call this office (301) 427-8771 or write to:

Rodolfo M. Reyes
Contract Specialist
Research Contracts Branch, CCS
National Cancer Institute
National Institutes of Health
Blair Building, Room 2A07
Bethesda, Maryland 20205

Sincerely yours,

Vernon Rainey
Contracting Officer
Carcinogenesis Contracts Section
Research Contracts Branch
National Cancer Institute

Enclosure

1078629

50-1011-79
1637



DEPARTMENT OF HEALTH AND HUMAN SERVICES

PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
BETHESDA, MARYLAND 20014

March 5, 1981

NATIONAL CANCER INSTITUTE

Our Reference: Contract No. Y01-CP-90203
Modification No. 2

Department of Energy
Oak Ridge Operations
P.O. Box E
Oak Ridge, Tennessee 37830

Attention: William R. Bibb, Director
Research Division

Gentlemen:

Enclosed are three copies of the referenced proposed agreement.
Please sign and return two copies to:

Rodolfo M. Reyes
Contract Specialist
Carcinogenesis Contracts Section, RCB
National Institutes of Health
Blair Building, Room 2A07
Bethesda, Maryland 20205

This modification has already been signed (copy enclosed),
however, it is not binding because we do not have an original
signature. The modification should be back-dated to March 1,
1981 to comply with the effective date of this increment.

When this agreement is accepted by the Government, an executed
copy of this agreement will be returned to you.

Sincerely,


Vernon Rainey
Contracting Officer

4 Enclosures

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401011-79
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AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

| | | | |
|---|-----------------------------------|-----------------------------------|-------------------------------|
| 1 AMENDMENT/MODIFICATION NO 2 | 2 EFFECTIVE DATE 3/1/81 | 3 REQUISITION/PURCHASE REQUEST NO | 4 PROJECT NO. (If applicable) |
|---|-----------------------------------|-----------------------------------|-------------------------------|

| | |
|---|--|
| 5 ISSUED BY National Cancer Institute, NIH Carcinogenesis Contracts Section, RCB Blair Building, Room 2A09 Bethesda, Maryland 20205 | 6 ADMINISTERED BY (If other than block 5) Division of Cancer Cause and Prevention Type of Agreement: Cost-Reimbursement Segment: Molecular Carcinogenesis |
|---|--|

| | |
|--|--|
| 7 CONTRACTOR NAME AND ADDRESS (Street, city, county, state, and ZIP Code) Department of Energy Oak Ridge Operations P.O. Box E Oak Ridge, Tennessee 37830 | 8 AMENDMENT OF SOLICITATION NO DATED _____ (See block 9) MODIFICATION OF CONTRACT/ORDER NO Y01-CP-90203 DATED 4-1-79 (See block 11) |
|--|--|

9. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in block 12. The hour and date specified for receipt of Offers is extended, is not extended. Offerors must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as amended, by one of the following methods:

(a) By signing and returning _____ copies of this amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

10. ACCOUNTING AND APPROPRIATION DATA (If required)

CAN 1-8422563 Subsubject Class Code: 25.1R
EIN No: 1-530197006 Document No.: Y1CP90203 Current Obligation: \$129,279

11. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS

(a) This Change Order is issued pursuant to _____
The Changes set forth in block 12 are made to the above numbered contract/order

(b) The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation data, etc.) set forth in block 12

(c) This Supplemental Agreement is entered into pursuant to authority of The Economy Act of 1932 (31 USC 686)
It modifies the above numbered contract as set forth in block 12

12. DESCRIPTION OF AMENDMENT/MODIFICATION

The purpose of this modification is to allot additional funds to the subject agreement in the amount of \$129,279 in accordance to the "Limitation of Funds" clause, and to reduce the total amount of the agreement by \$26,301.

The agreement is hereby changed as reflected in the attached pages 1 through 3.

The agreement amount is hereby changed from \$417,358 to \$391,057.

The expiration date remains unchanged at February 28, 1982.

Except as provided herein, all terms and conditions of the document referenced in block 8, as heretofore changed, remain unchanged and in full force and effect.

13. CONTRACTOR/OFFEROR IS NOT REQUIRED TO SIGN THIS DOCUMENT CONTRACTOR/OFFEROR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 2 COPIES TO ISSUING OFFICE

| | | | |
|--|--|---|--------------------------|
| 14. NAME OF CONTRACTOR/OFFEROR BY <u>William Bell</u> (Signature of person authorized to sign) | 17 UNITED STATES OF AMERICA BY <u>Vernon Rainey</u> (Signature of Contracting Officer) | | |
| 15 NAME AND TITLE OF SIGNER (Type or print) Research Division | 16 DATE SIGNED MAR 1 1981 | 18 NAME OF CONTRACTING OFFICER (Type or print) Vernon Rainey | 19 DATE SIGNED 3/5/81 |

1078631

THIS MODIFICATION #2 IS BEING ENTERED INTO BETWEEN THE DEPARTMENT OF ENERGY, OAK RIDGE NATIONAL LABORATORY AND THE NATIONAL INSTITUTE OF HEALTH, NATIONAL CANCER INSTITUTE (NCI).

NOW THEREFORE, THE PARTIES DO MUTUALLY AGREE TO AMEND THE AGREEMENT AS FOLLOWS:

ARTICLE IV - CONSIDERATION - is hereby amended as follows:

- A. For performance of this Agreement, the Sponsor agrees to reimburse the Agency in the estimated amount of \$391,057 instead of \$417,358.
- B. Total funds currently available for payment and allotted to this agreement are \$391,057. Further allocation of funds hereunder will be accomplished at the option of the Sponsor, depending upon the progress and results of the work and services performed under ARTICLE I during the period of this Agreement.
- C. It is estimated that the amount of funds currently allotted under B. above, will cover the performance from March 1, 1981 through February 28, 1982. The Contracting Officer may allot additional funds to the Agreement without the concurrence of the Agency.

MAR 27 1981

Mr. Rodolfo M. Reyes
Contract Specialist
Carcinogenesis Contracts Section, RCB
National Institutes of Health
Blair Building, Room 2A07
Bethesda, Maryland 20205

Dear Mr. Reyes:

ORNL PROJECT, "DNA REPAIR IN CARCINOGENESIS" (INTERAGENCY AGREEMENT DOE NO. 40-1011-79, HCl NO. Y01-CP-90203)

Modification No. 2 to the subject agreement is acceptable, and two copies signed on behalf of the Department of Energy are enclosed.

Upon receipt of a fully executed copy of the agreement, we will authorize the Oak Ridge National Laboratory to conduct the project, as described in the agreement, through February 28, 1982, with additional funding of \$129,279.

Sincerely,

Original Signed by
William R. Bibb
William R. Bibb, Director
Research Division

ER-13:WRB

Enclosure:
Modification (2) *RCB*

cc w/o encl:
J. E. Carr, ORNL
W. P. Snyder, CC-10, ORO

ER-13:WRB ibb:mac:6-0742:3-23-81

B 1127

40-1011-79

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|--------------------------|
| CONCURRENCES |
| ER-13:WRB Smiddy |
| INITIALS/SIG. RPS/EDM |
| DATE 3/25/81 |
| ER-13:WRB Bibb |
| INITIALS/SIG. WAB |
| DATE 3-26-81 |
| RTG. SYMBOL |
| INITIALS/SIG. |
| DATE |
| RTG. SYMBOL |
| INITIALS/SIG. |
| DATE |
| RTG. SYMBOL |
| INITIALS/SIG. |
| DATE |
| RTG. SYMBOL |
| INITIALS/SIG. |
| DATE |
| RTG. SYMBOL |
| INITIALS/SIG. |
| DATE |



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
BETHESDA, MARYLAND 20814

March 26, 1980

NATIONAL CANCER INSTITUTE

Reference: Interagency Agreement No. Y01-CP-90203
Modification No. 1

Department of Energy
Oak Ridge Operations
P.O. Box E
Oak Ridge, Tennessee 37830

Attention: Mr. William R. Bibb
Director, Research Division

Gentlemen:

The attached modification referenced above was signed and returned to our office. The Contractor's signature was not required on this modification and we are therefore returning your copy to you for retention.

Sincerely,

Rodolfo M. Reyes
Contract Specialist
Carcinogenesis Contracts Section
Research Contracts Branch
National Cancer Institute

1078634

40-1011-79

2177

1. AMENDMENT/MODIFICATION NO. 1 2. EFFECTIVE DATE 3-1-80 3. REQUISITION/PURCHASE REQUEST NO. 4. PROJECT NO. (If applicable)

5. ISSUED BY CODE 6. ADMINISTERED BY (If other than block 5) CODE

National Cancer Institute, NIH
 Carcinogenesis Contracts Section, RCB
 Blair Building, Room E-24
 Bethesda, Maryland 20205

Division of Cancer Cause & Prevention
 Type of Agreement: Cost-Reimbursement
 Segment: Molecular Carcinogenesis

7. CONTRACTOR NAME AND ADDRESS CODE FACILITY CODE

(Street, city, county, state, and ZIP Code)

Department of Energy
 Oak Ridge Operations
 P.O. Box E
 Oak Ridge, Tennessee 37830

8. AMENDMENT OF SOLICITATION NO. _____ DATED _____ (See block 9)

MODIFICATION OF CONTRACT/ORDER NO. Y01-CP-90203 DATED 4-1-79 (See block 11)

9. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in block 12. The hour and date specified for receipt of Offers is extended, is not extended. Offerors must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as amended, by one of the following methods:

(a) By signing and returning _____ copies of this amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter of agreement which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

10. ACCOUNTING AND APPROPRIATION DATA (If required)

CAN 0-8422563 Subsubject Class Code: 25.1R Current Oblig.: \$143,643
 EIN: 1-530197006 Document No. Y1CP90203

11. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS

(a) This Change Order is issued pursuant to _____
 The Changes set forth in block 12 are made to the above numbered contract/order.

(b) The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation data, etc.) set forth in block 12.

(c) This Supplemental Agreement is entered into pursuant to authority of P.L. 92-218, as amended; 41 USC 252(c)(15)
 It modifies the above numbered contract as set forth in block 12.

12. DESCRIPTION OF AMENDMENT/MODIFICATION

The purpose of this modification is to allot additional funds to this agreement.
 The agreement amount is unchanged at \$417,358.
 The expiration date is unchanged at February 28, 1982.

13. EXCEPT AS PROVIDED HEREIN, ALL TERMS AND CONDITIONS OF THE DOCUMENT REFERENCED IN BLOCK 8, AS HERETOFORE CHANGED, REMAIN UNCHANGED AND IN FULL FORCE AND EFFECT

CONTRACTOR/OFFEROR IS NOT REQUIRED TO SIGN THIS DOCUMENT CONTRACTOR/OFFEROR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN _____ COPIES TO ISSUING OFFICE

14. NAME OF CONTRACTOR/OFFEROR
 BY William R. Bitb
 (Signature of person authorized to sign)

17. UNITED STATES OF AMERICA
 BY Daniel J. Longen
 (Signature of Contracting Officer)

15. NAME AND TITLE OF SIGNER (Type or print)
William R. Bitb, Director
Research Division

16. DATE SIGNED
3-14-80

18. NAME OF CONTRACTING OFFICER (Type or print)
Daniel J. Longen

19. DATE SIGNED
2/25/80

1078635

This modification #1 is being entered into between the Department of Energy, Oak Ridge National Laboratory and the National Institutes of Health, National Cancer Institute (NCI).

Now therefore, the parties do mutually agree to amend the agreement as follows:

ARTICLE IV - CONSIDERATION - Paragraphs B and C are amended to read as follows:

- B. Total funds currently available for reimbursement and allotted to this Agreement is \$261,778. Further allocation of funds hereunder will be accomplished at the option of the Sponsor, depending upon the progress and results of the work and services performed under Article I during the period of this Agreement.
- C. It is estimated that the amount of funds currently allotted under B. above will cover the performance through February 28, 1981. The Contracting Officer may allot additional funds to the Agreement without the concurrence of the Agency.

1078636



Department of Energy
 Oak Ridge Operations
 P.O. Box E
 Oak Ridge, Tennessee 37830

MAR 14 1980

Union Carbide Corporation
 Nuclear Division
 ATTN: Dr. Herman Postma, Director
 Oak Ridge National Laboratory
 Post Office Box X
 Oak Ridge, Tennessee 37830

Gentlemen:

ORNL PROJECT, "DNA REPAIR MECHANISMS IN CARCINOGENESIS"
 (INTERAGENCY AGREEMENT DOE NO. 40-1011-79, NCI Y01-CP-90203)

The Department of Energy and the National Cancer Institute (NCI) have executed Modification No. 1 to the subject agreement authorizing additional available funds of \$143,643.

You are authorized to continue the project for NCI in accordance with the enclosed modification. The \$143,643 authorized by this letter will be included in the UCCND contract for reimbursable work under Activity 40 04 04.

Please confirm your willingness to conduct the requested work for NCI as incidental or related to the approved DOE program at ORNL pursuant to Article III, Paragraph (c) of Contract No. W-7405-Eng-26 by signing and dating a copy of this letter and returning it to us.

Sincerely,

William Bill

Joseph A. Lenhard, Assistant Manager
 for Energy Research and Development

ER-13:WRB

Enclosure:
 Modification

Accepted *S/A Postma*

cc w/encl:
 R. F. Hibbs, UCCND
 G. W. Horde, UCCND
 J. K. Denton, UCCND
 W. T. Carter, UCCND
 H. S. Oster, AD-43, ORG
 W. P. Snyder, CC-10, ORG
 M. M. Dare, PB-10, ORG (2)

Date *3/2/80*

A729

40-1011-79

1078637



Department of Energy
Oak Ridge Operations
P.O. Box E
Oak Ridge, Tennessee 37830

MAR 14 1980

Mr. Daniel J. Longen
Contracting Officer
Carcinogenesis Contracts Section
Research Contracts Branch
National Cancer Institute
Bethesda, Maryland 20205

Dear Mr. Longen:

ORNL PROJECT, "DNA REPAIR MECHANISMS IN CARCINOGENESIS"
(INTERAGENCY AGREEMENT DOE NO. 40-1011-79, NCI Y01-CP-90203)

Modification No. 1 to the subject agreement is acceptable, and the original copy signed on behalf of the Department of Energy is enclosed.

We have authorized the Oak Ridge National Laboratory to continue the project, as described in the agreement, with additional funding of \$143,643.

Sincerely,

William R. Bibb
William R. Bibb, Director
Research Division

ER-13:WRB

Enclosure:
Modification

cc w/o encl:
J. E. Carr, ORNL
W. P. Snyder, CC-10, ORO

A728

1078638

4-10-79



DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
OFFICE OF THE ASSISTANT SECRETARY FOR
RESEARCH CONTRACTS
NATIONAL CANCER INSTITUTE

February 25, 1980

Our Reference: Interagency Agreement No. Y01 CP 90203
Modification No. 1

Department of Energy
Oak Ridge Operations
P.O. Box E
Oak Ridge, Tennessee 37830

Attention: Mr. William R. Bibb
Director, Research Division

Ladies and Gentlemen:

We are enclosing an executed copy of the subject agreement for your retention: If you have any questions regarding its administration call this office (301-427-8771) or write to:

Rodolfo M. Reyes
Contract Specialist
Research Contracts Branch
National Cancer Institute
National Institutes of Health
Blair Building, Room B-24
Bethesda, Maryland 20205

Sincerely yours,

Daniel J. Longen
Contracting Officer
Carcinogenesis Contracts Section
Research Contracts Branch
National Cancer Institute

Enclosure

42-11
7. 1/333

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AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

| | | | |
|--|-----------------------------|---|-------------------------------|
| 1. AMENDMENT/MODIFICATION NO 1 | 2. EFFECTIVE DATE 3-1-80 | 3. REQUISITION/PURCHASE REQUEST NO | 4. PROJECT NO (If applicable) |
| 5. ISSUED BY National Cancer Institute, NIH Carcinogenesis Contracts Section, RCB Blair Building, Room B-24 Bethesda, Maryland 20205 | | 6. ADMINISTERED BY (If other than block 5) Division of Cancer Cause & Prevention Type of Agreement: Cost-Reimbursement Segment: Molecular Carcinogenesis | |

| | |
|---|---|
| 7. CONTRACTOR NAME AND ADDRESS (Street, city, county, state, and ZIP Code) Department of Energy Oak Ridge Operations P.O. Box E Oak Ridge, Tennessee 37830 | 8. AMENDMENT OF SOLICITATION NO DATED _____ (See block 9) MODIFICATION OF CONTRACT/ORDER NO Y01-CP-90203 DATED 4-1-79 (See block 11) |
|---|---|

9. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS
 The above numbered solicitation is amended as set forth in block 12. The hour and date specified for receipt of Offers is extended, is not extended.
 Offerors must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as amended, by one of the following methods:
 (a) By signing and returning _____ copies of this amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

10. ACCOUNTING AND APPROPRIATION DATA (If required)
 CAN 0-8422563 Subsubject Class Code: 25.1R Current Oblig.: \$143,643
 EIN: 1-530197006 Document No. Y1CP90203

11. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS
 (a) This Change Order is issued pursuant to _____
 The Changes set forth in block 12 are made to the above numbered contract/order.
 (b) The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation data, etc.) set forth in block 12.
 (c) This Supplemental Agreement is entered into pursuant to authority of P.L. 92-218, as amended; 41 USC 252(c)(15)
 It modifies the above numbered contract as set forth in block 12.

12. DESCRIPTION OF AMENDMENT/MODIFICATION
 The purpose of this modification is to allot additional funds to this agreement.
 The agreement amount is unchanged at \$417,358.
 The expiration date is unchanged at February 28, 1982.

Except as provided herein, all terms and conditions of the document referenced in block 8, as heretofore changed, remain unchanged and in full force and effect.

13. CONTRACTOR/OFFEROR IS NOT REQUIRED TO SIGN THIS DOCUMENT CONTRACTOR/OFFEROR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN _____ COPIES TO ISSUING OFFICE

| | | | |
|--|--|---|----------------------------|
| 14. NAME OF CONTRACTOR/OFFEROR BY <u>William R. Ebb</u> (Signature of person authorized to sign) | 17. UNITED STATES OF AMERICA BY <u>Daniel J. Longen</u> (Signature of Contracting Officer) | | |
| 15. NAME AND TITLE OF SIGNER (Type or print) William R. Ebb, Director Research Division | 16. DATE SIGNED 3-14-80 | 18. NAME OF CONTRACTING OFFICER (Type or print) Daniel J. Longen | 19. DATE SIGNED 2/25/80 |

This modification #1 is being entered into between the Department of Energy, Oak Ridge National Laboratory and the National Institutes of Health, National Cancer Institute (NCI).

Now therefore, the parties do mutually agree to amend the agreement as follows:

ARTICLE IV - CONSIDERATION - Paragraphs B and C are amended to read as follows:

- B. Total funds currently available for reimbursement and allotted to this Agreement is \$261,778. Further allocation of funds hereunder will be accomplished at the option of the Sponsor, depending upon the progress and results of the work and services performed under Article I during the period of this Agreement.
- C. It is estimated that the amount of funds currently allotted under B. above will cover the performance through February 28, 1981. The Contracting Officer may allot additional funds to the Agreement without the concurrence of the Agency.

FEB 21 1980

Mr. Daniel J. Longen
Contracting Officer
Carcinogenesis Contracts Section
Research Contracts Branch
National Cancer Institute
National Institutes of Health
Bethesda, Maryland 20014

Dear Mr. Longen:

ONHL RESEARCH PROJECT, "DNA REPAIR MECHANISMS IN CARCINOGENESIS"
(INTERAGENCY AGREEMENT DOE NO. 40-1011-79, NCI NO. 101-CF-90203)

Pursuant to your letter dated February 4, 1980, it is estimated that
total NCI funding allocated to this agreement will be expended by
February 28, 1980.

Sincerely,

Original Signed by
William R. Bibb

William R. Bibb, Director
Research Division

ER-13:WRB

cc: J. E. Carr, ONHL
W. P. Snyder, CC-10, OPO

ER-13:WRBibb:j1:6-0742:2-19-80

| |
|------------------------------|
| CONCURRENCES |
| RTG. SYMBOL ER-13 |
| INITIALS/SIG. Bibb WRB |
| DATE 2-21-80 |
| RTG. SYMBOL |
| INITIALS/SIG. |
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| DATE |

A 527

40-1011-79



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
BETHESDA, MARYLAND 20014

February 4, 1980

NATIONAL CANCER INSTITUTE

Our Reference: Contract No. Y01-CP-90203
Title: DNA Repair Mechanisms in Carcinogenesis

Department of Energy
Oak Ridge Operations
P. O. Box E
Oak Ridge, Tennessee 37830

Attention: Mr. William R. Bibb
Director Research Division

Gentlemen:

In reference to the subject contract, a funding increment is due March 1, 1980 for the period through February 28, 1981. Please inform this office in writing, by February 20, 1980 whether there will be any unexpended funds for the period ending February 28, 1980. This information will expedite the process of the action to add the next funding increment.

Sincerely,

Daniel J. Longen
Contracting Officer
Carcinogenesis Contracts Section
Research Contract Branch
National Cancer Institute

10-101-79
2 1980

1078643



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
BETHESDA, MARYLAND ~~20014~~ 20205

Department of Energy
Oak Ridge Operations
P.O. Box E
Oak Ridge, Tennessee 37830

Attention: Mr. William R. Bibb, Director
Research Division
Subject : Interagency Agreement No. Y01-CP-90203

Gentlemen:

We are enclosing an executed copy of the referenced agreement for your retention. If you have any questions regarding this document, call this office (301-427-8771) or write to:

Contract Specialist
Carcinogenesis Contracts Section, RCB, NCI
National Institutes of Health
Blair Building, Room B-20
Bethesda, Maryland ~~20014~~ 20205

Sincerely yours,

Joseph Federline

Joseph Federline
Contracting Officer

Enclosure

NIH-FL-2
Rev. 4-76

40-1011-79
MAY 18 1979

Y 4485

1078644

INTRAGENCY AGREEMENT

Agreement No.

Y01 CP 90205

Economy Act of 1979,
as amended (51 U.S.C. 135)

1550000 - F 12

National Cancer Institute
Carcinogenesis Contracts Section
Research Contracts Branch
Blair Building, Room B-16
Silver Spring, Maryland 20205

IC 10 INT F01

DNA REPAIR MECHANISMS IN CARCINOGENESIS

AGENCY (Name and Address)
Department of Energy
1000 Independence Avenue, N.W.
Washington, D. C. 20545

AGENCY (Name and Address)

CAN No. 9-S422563 FIN: 1-530197006
Subject Class
Doc. No. Y01 CP 90205

PLACE OF PERFORMANCE

Oak, Ridge, Tennessee

Segment: LMC

Agreement Amount: \$417,358 Subject to the
terms and conditions of ARTICLE IV

Total Funds Allotted: \$118,135

MAIL VOUCHERS TO

S. C. ...

SPONSOR

National Cancer Institute

EFFECTIVE DATE: FEBRUARY 28, 1982

April 1, 1979

February 28, 1982

The Agency agrees to furnish and deliver all the supplies and perform all the services set forth in the attached Special Provisions, for the consideration stated herein. The rights and obligations of the parties of this Agreement shall be subject to and governed by the Special Provisions. To the extent of any inconsistency between the Special Provisions and any specifications or other provisions which are made a part of this contract, by reference or otherwise, the Special Provisions shall control.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year last specified below.

| | |
|--|-----------------------------|
| DEPARTMENT OF ENERGY | National Cancer Institute |
| BY <i>RL Egli</i> | BY <i>Joseph Federline</i> |
| Richard L. Egli Deputy Assistant Manager for Energy Research and Development | SPONSOR Joseph Federline |
| TITLE | April 1, 1979 |
| March 29, 1979 | |

1078645

THIS AGREEMENT CONSISTS OF:

1. COVER PAGE
2. CONTENTS OF AGREEMENT
3. SPECIAL PROVISIONS

| | |
|--------------|----------------------------|
| ARTICLE I | SUBSTANCE OF THE AGREEMENT |
| ARTICLE II | DESCRIPTION OF WORK |
| ARTICLE III | PERIOD OF PERFORMANCE |
| ARTICLE IV | CONSIDERATION |
| ARTICLE V | TECHNICAL REPORTING |
| ARTICLE VI | PROJECT OFFICER |
| ARTICLE VII | KEY PERSONNEL |
| ARTICLE VIII | BILLING PROCEDURES |

ARTICLE I
SUBSTANCE OF THE AGREEMENT

A. GENERAL

WHEREAS, the U. S. Department of Energy (DOE) hereinafter referred to as the agency operating through its Contractor, the Union Carbide Corporation and the National Cancer Institute (NCI), hereinafter referred to as the "Sponsor", desire to enter into an Agreement for the conduct of a research program entitled "DNA Repair Mechanisms in Carcinogenesis". The primary objective of the project is to elucidate the molecular events in human cells when cellular macromolecules such as DNA are damaged by radiation or chemical agents.

NOW, THEREFORE, the parties do agree as follows:

ARTICLE II
DESCRIPTION OF WORK

A. SCOPE The Agency shall exercise its best efforts to perform the work and services hereinafter set forth and as described more fully in the Agency's Proposal entitled "DNA Repair Mechanisms in Carcinogenesis". The agency will conduct the research for Projects C, E, F as contained in the December 4, 1978 Technical Proposal, pages 9 through 13 and modified as follows:

1. PROJECT C: Induced Damage and its Repair in the DNA of human Cells

Determine how the molecular effects of near UV-light (sunlight stimulating FS40 light) are quantitatively related to the proportion of pyrimidine dimers and other photolesions, e.g. (thymine glycols) in DNA, and to determine the capacity of human cells to cope with these lesions. The aim is to compare UVC (200-290 nm) damage and its repair with that produced by UVB (290-320 nm).

2. PROJECT E: Inhibition of DNA Repair

Perform a detailed study of the effect of ara-C on the incision and excision steps of UV-irradiated XP variant cells. Ara-C may become a useful tool in characterizing excision repair in normal as well as abnormal cells. These studies are to be performed in collaboration with Dr. James Cleaver (University of California, San Francisco).

3. PROJECT F: Postreplication Repair Effect of Rousar Leukemia Virus

To continue investigation of the role of RLV in the IN VIVO induction of leukemia in the following ways:

- a. The inhibition of postreplication repair due to viral infection could be due to either of two distinct causes. First, it could simply be a consequence of the insertion of the viral DNA (provirus) into the host genome which in an as yet unspecified manner disrupts normal postreplication repair. Second, it could be a consequence of the interaction of a viral gene product or products (perhaps the entire virion) with either host cell DNA or the repair apparatus itself. A distinction between these alternative hypotheses by using temperature condition lethal (TS) mutants of RLV will be made.
- b. Briefly, the mutants fall into three distinct physiological categories (39). First, there are mutants which are infective at the nonpermissive temperature, but fail to insert a provirus into the host cell genome. This class of mutants will be represented by a particular mutant which produces a temperature sensitive reverse transcriptase (40). Second, there are mutants which are infective at the nonpermissive temperature, insert pro-viral DNA, and produce intracellular viral antigen, but fail to make virions. This class, will be represented by a mutant which is deficient in the ability to cleave a large precursor polypeptide into subunits which compose part of the viral core (41). The third class of mutants produces intact viral particles at the nonpermissive temperature, but these progeny particles are themselves not infectious (38).
- c. Experiments with cells chronically infected with these mutants will be performed as follows. The mouse diploid fibroblast cell line A31 (ATCC) will be used as a host cell for each of the TS mutant and wild type viruses. The cells will be infected and maintained at the permissive temperature, 32°C. Prior to repair measurements, the cells will be plated and shifted to 38°C, the nonpermissive temperature, for 48 hours. Control cells will be left at 32°C. Measurements of postreplication repair of 4NQO and UV light damage will then be made at both temperatures. Repair will be measured by alkaline sucrose gradient sedimentation of cellular DNA labeled with (3H)-thymidine after the insult is delivered.
- d. The repair measurements described in previous paragraphs will be correlated with measurements of transformation by 4NQO in the same TS mutant infected cell lines. These measurements will be performed in collaboration with Dr. Giampiero DiMayorca.

B. LEVEL OF EFFORT

1. In accomplishing the work set forth in ARTICLE I hereof, the Contractor shall provide 6.0 direct labor man-years during the period set forth in ARTICLE III. It is estimated that the man-years are constituted as follows:

| <u>Category</u> | <u>Estimated Man-Years</u> | | |
|------------------------|----------------------------|--------------|--------------|
| | <u>Yr. 1</u> | <u>Yr. 2</u> | <u>Yr. 3</u> |
| Principal Investigator | .21 | .28 | .28 |
| Research Support (2) | 1.63 | 1.80 | 1.80 |
| Total | 1.84 | 2.08 | 2.08 |

ARTICLE III
PERIOD OF PERFORMANCE

The period of performance of the Agreement shall be from April 1, 1979 through February 28, 1982.

ARTICLE IV
CONSIDERATION

- A. For performance of this Agreement, the Sponsor agrees to reimburse the Agency in the estimated amount of \$417,358.
- B. Total funds currently available for reimbursement and allotted to this Agreement is \$118,135. Further allocation of funds hereunder will be accomplished at the option of the Sponsor, depending upon the progress and results of the work and services performed under Article I during the period of this Agreement.
- C. It is estimated that the amount of funds currently allotted under b above will cover the performance through February 28, 1980. The Contracting Officer may allot additional funds to the Agreement without the concurrence of the Agency.

ARTICLE V
TECHNICAL REPORTS

The agency shall submit to the Sponsor the following types of reports and in the quantities listed below:

| <u>Type</u> | <u>No. of Copies</u> | <u>Date Due</u> | <u>Addressee</u> |
|-------------|----------------------|-----------------|--|
| Semi-Annual | 4 | 10/1/79 | Program Manager Chemical/Molecular Carcinogenesis Program CPCB, NCI Landover Bldg. Room 8C-29 2910 Woodmont Ave. Bethesda, Maryland 20209 |
| | | 10/1/80 | |
| | 34 | 10/1/81 | |

| <u>Type</u> | <u>No. of Copies</u> | <u>Date Due</u> | <u>Addressee</u> |
|-------------|----------------------|-----------------|--|
| Semi-Annual | 1 | 10/1/79 | Contracting Officer |
| | 1 | 10/1/80 | CCS, RCB, MCI |
| | 1 | 10/1/81 | Blair Bldg., Room 3-15 8300 Colesville Road Bethesda, Maryland 20205 |

The semi-annual report should be a brief technical report between 6-10 pages in length. The report should discuss Scientific Progress, Problem Area, Future Course. It must be descriptive, clear and concise.

2. Annual/Final Report

The Agency shall submit detailed annual and final reports which document and summarize the results of the entire agreement work for the period covered. For final reports, this will be the entire agreement period of performance. These reports shall be in sufficient detail to explain comprehensively the results achieved. Specific requirements, if any, are set forth in ARTICLE I, Description of Work, above. An annual report, shall be submitted as follows;

| <u>Type</u> | <u>No. of Copies</u> | <u>Date Due</u> | <u>Addressee</u> |
|-------------|----------------------|-----------------|---------------------|
| Annual | 4 | 3/1/80 | Program Manager |
| | 34 | 3/1/81 | Program Manager |
| | 1 | 3/1/80 | Contracting Officer |
| | 1 | 3/1/81 | Contracting Officer |
| Final | 4 | 3/31/82 | Program Manager |
| | 1 | 3/31/82 | Contracting Officer |

- The Agency shall also submit semiannually, a brief summary of salient results to date and a summary of the final report upon completion or termination of the agreement. Neither summary shall exceed 100 words.
- In all publications resulting from research performed under the contract, the Agency shall acknowledge support of the National Cancer Institute under this Agreement.

ARTICLE VI PROJECT OFFICER

The following Project Officer will represent the Government for the purpose of this agreement:

Dr. David Longfellow
Chief, Molecular Carcinogenesis Section, CPOB
National Cancer Institute
Landow Bldg., Room 8C-29
7910 Woodmont Avenue
Bethesda, Maryland 20205

The Project Officer is responsible for: (1) monitoring the contractor's progress, including the surveillance and assessment of performance, and reporting to the Contracting Officer changes in requirements; (2) interpreting scope of work; (3) performing technical evaluation as required; (4) performing technical inspections and acceptances required by this contract; and (5) assisting the Contractor in the resolution of technical problems encountered during performance. The Contracting Officer is responsible for directing or negotiating any changes in terms, conditions, or amounts cited in the contract.

For guidance from the Project Officer to the Contractor to be valid, it must: (1) Be consistent with the description of work set forth in this contract; (2) not constitute new assignment of work or change to the expressed terms, conditions, or specifications incorporated into this contract; (3) not constitute a basis for an extension to the period of performance or contract delivery schedule; (4) not constitute a basis for any increase in the contract cost.

ARTICLE VII KEY PERSONNEL

The individuals cited below are considered to be key personnel essential to the work and services to be performed under this Agreement and in the event that such Personnel leave the Agency's employ or are reassigned to other programs, the Agency shall notify the Sponsor's Contracting Officer reasonably in advance, and shall submit their proposed replacements with qualifications, in sufficient detail to permit evaluation of the impact on the program. No diversion or replacement shall be made by the Agency without the written consent of the Sponsor's Contracting Officer.

| <u>NAME</u> | <u>TITLE</u> |
|------------------|------------------------|
| Dr. James Reagan | Principal Investigator |

ARTICLE VIII BILLING PROCEDURES

The Agency shall submit vouchers for cost reimbursement on Government Standard Form 1081, Voucher and Schedule of Withdrawals and Credits, on a monthly basis. An original and five (5) copies of all such vouchers shall be sent to the following address:

Contracting Officer
Carcinogenesis Contracts Section
Research Contracts Branch
National Cancer Institute
Blari Building, Room E-16
8300 Colesville Road
Silver Spring, Maryland 20205

The following cost categories will be reported as backup cost information submitted with the monthly loss.

- A. Direct Labor
- b. Fringe Benefits
- C. Travel
- D. Materials/Supplies
- E. Histology
- F. Animal Care
- G. Maintenance/Craft Support
- H. Computer Service
- I. Technical Information
- J. Glassware washing
- K. Division Administration
- L. Utilities
- M. G & A

1078652

APR 25 1979

Union Carbide Corporation
Nuclear Division
ATTN: Dr. Herman Postma, Director
Oak Ridge National Laboratory
Post Office Box X
Oak Ridge, Tennessee 37830

Gentlemen:

NCI PROJECT "DNA REPAIR MECHANISM IN CARCINOGENESIS" (INTERAGENCY
AGREEMENT DOE NO. 40-1011-79, NCI NO. Y01 CP 90203)

The Department of Energy and National Cancer Institute have executed the subject agreement as described in the proposal transmitted by your letter of February 23, 1979 and the enclosed agreement. The period of performance will be through February 28, 1982. Current funding of \$118,135 is provided for the period of April 1, 1979 through February 28, 1980.

You are authorized to conduct the project for NCI in accordance with the ORNL proposal and enclosed agreement. The \$118,135 authorized by this letter will be included in the UCCND contract for reimbursable work under Activity 40 04 04. This work is of programmatic interest to DOE and shall be conducted on an actual cost basis, depreciation and DOE added factor waived.

Y 3699

DOE FORM AD-6 (12-77)

OFFICIAL FILE COPY

1078653

40-1011-79

Please confirm your willingness to conduct the requested work for HCl as incidental or related to the approved DOE program at ORNL pursuant to Article III, Paragraph (c) of Contract No. W-7405-eng-26 by signing and dating a copy of this letter and returning it to us.

Sincerely, ORIGINAL SIGNED BY
RICHARD L. EGLI

Joseph A. Lenhard, Assistant Manager
for Energy Research and Development

ER-13:WRB

Enclosure:
Agreement

- cc w/encl:
- R. F. Hibbs, UCCND
- G. W. Horde, UCCND
- W. T. Carter, UCCND
- C. W. Hill
- H. S. Oster
- T. W. White (2)

ACCEPTED BY: S/H. Postema

DATE: 5/1/79

| CONCURRENCES | |
|---------------|------------------|
| RTG. SYMBOL | AD-41 |
| INITIALS/SIG. | Penry |
| DATE | |
| RTG. SYMBOL | ER-13 |
| INITIALS/SIG. | Bibb |
| DATE | |
| RTG. SYMBOL | ER-13 |
| INITIALS/SIG. | Bibb |
| DATE | 4/25/79 |
| RTG. SYMBOL | ER-10 |
| INITIALS/SIG. | Lenhard |
| DATE | 4-25-79 |
| RTG. SYMBOL | |
| INITIALS/SIG. | |
| DATE | |
| RTG. SYMBOL | |
| INITIALS/SIG. | |
| DATE | |
| RTG. SYMBOL | |
| INITIALS/SIG. | |
| DATE | |

ER-13:WRBibb:mac:6-0742:4-16-79

APR 25 1979

Mr. Joseph Federline
Contract Specialist
Carcinogenesis Contracts Section, RCB
National Institutes of Health
Blair Building, Room B-24
Bethesda, Maryland 20205

Dear Mr. Federline:

ORNL PROJECT "DNA REPAIR MECHANISMS IN CARCINOGENESIS" (INTERAGENCY AGREEMENT NCI NO. Y01 CP 90203, DOE NO. 40-1011-79)

The interagency agreement transmitted by your letter of April 5, 1979 is acceptable, and two copies signed on behalf of the Department of Energy are enclosed. The agreement provides NCI funding the amount of \$118,135 to support the DOE's Oak Ridge National Laboratory subject project.

Please return a copy of the enclosed agreement to this office when it has been signed on behalf of the National Cancer Institute. Upon receipt of the fully executed agreement, we will authorize ORNL to conduct the project in accordance with the ORNL proposal transmitted to NCI by Mr. Joseph A. Lenhard's letter February 23, 1978, and as modified by the enclosed agreement.

Sincerely,

Original Signed by
William R. Bibb
William R. Bibb, Director
Research Division

ER-13:WRC

Enclosure: *[Signature]*
Agreement (2)

cc w/encl:
C. W. Hill, ORNL

OK cc w/o encl:
J. E. Carr, ORNL
H. Postma, ORNL

Y 3588

DOE FORM AD-9 (12-77)

OFFICIAL FILE COPY

1078655

| | |
|---------------------------------|------------------|
| CONCURRENCES | |
| REG. SYMBOL AD-41 | Penry |
| INITIALS/SIG. | |
| DATE | |
| REG. SYMBOL AD-41 | Penry |
| INITIALS/SIG. | |
| DATE | |
| REG. SYMBOL ER-13 | Bibb |
| INITIALS/SIG. | <i>WRB</i> |
| DATE | 4/25/79 |
| REG. SYMBOL | |
| INITIALS/SIG. | |
| DATE | |
| REG. SYMBOL | |
| INITIALS/SIG. | |
| DATE | |
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| INITIALS/SIG. | |
| DATE | |
| REG. SYMBOL | |
| INITIALS/SIG. | |
| DATE | |

210-10



DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
OFFICE OF CONTRACTS AND GENERAL SERVICES
WASHINGTON, D. C. 20205

Department of Energy
Oak Ridge Operations
P.O. Box E
Oak Ridge, Tennessee 37830

Attention: **K.M. Haythorn, Director**
Energy Programs and Support Division
Subject : Interagency Agreement No. Y01 CP 90203
Modification No.

Gentlemen:

Enclosed are three copies of the referenced proposed agreement.
Please sign and return two copies to:

Contract Specialist
Carcinogenic Contracts Section, RCB
National Institutes of Health
Blair Building, Room B-24
Bethesda, Maryland 20205

When this agreement is accepted by the Government, an executed copy
of the agreement will be returned to you.

Sincerely yours,

Joseph Federline
Contracting Officer, CCS, RCB, NCI

3 Enclosures

40-1011-79

APR 05 1979

Y 2849

1078656

INTERAGENCY AGREEMENT

Agreement No.

Y01 CP 90203

Economy Act of 1982,
as amended (31 U.S.C. 636) Cost-Plus-Fixed-Fee

PERFORMER

National Cancer Institute
Carcinogenesis Contracts Section
Research Contracts Branch
Blair Building, Room B-16
Silver Spring, Maryland 20205

AGREEMENT FOR

DNA REPAIR MECHANISMS IN CARCINOGENESIS

AGENCY (Name and Address)

Department of Energy
1000 Independence Avenue, N.W.
Washington, D. C. 20545

ACCOUNTING AND APPROPRIATION DATA

CAN No. 9-8422563 EIN: 1-530197006
Subobject Class
Doc. No. Y01 CP 90203

PLACE OF PERFORMANCE

Oak, Ridge, Tennessee

Segment: LMC

Agreement Amount: \$417,358 Subject to the
terms and conditions of ARTICLE IV
Total Funds Allotted: \$118,135

MAIL VOUCHERS TO

Specializing in...

SPONSOR

National Cancer Institute

April 1, 1979

February 28, 1982

The Agency agrees to furnish and deliver all the supplies and perform all the services set forth in the attached Special Provisions, for the consideration stated herein. The rights and obligations of the parties of this Agreement shall be subject to and governed by the Special Provisions. To the extent of any inconsistency between the Special Provisions and any specifications or other provisions which are made a part of this contract, by reference or otherwise, the Special Provisions shall control.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year last specified below.

DEPARTMENT OF ENERGY

BY *RL Egl*

Richard L. Egl
Deputy Assistant Manager for
Energy Research and Development

TITLE

APR 15 1979

National Cancer Institute

SPONSOR

BY

Joseph Federline

TITLE

1078657

THIS AGREEMENT CONSISTS OF:

1. COVER PAGE
2. CONTENTS OF AGREEMENT
3. SPECIAL PROVISIONS

| | |
|--------------|----------------------------|
| ARTICLE I | SUBSTANCE OF THE AGREEMENT |
| ARTICLE II | DESCRIPTION OF WORK |
| ARTICLE III | PERIOD OF PERFORMANCE |
| ARTICLE IV | CONSIDERATION |
| ARTICLE V | TECHNICAL REPORTING |
| ARTICLE VI | PROJECT OFFICER |
| ARTICLE VII | KEY PERSONNEL |
| ARTICLE VIII | BILLING PROCEDURES |

ARTICLE I
SUBSTANCE OF THE AGREEMENT

A. GENERAL

WHEREAS, the U. S. Department of Energy (DOE) hereinafter referred to as the agency operating through its Contractor, the Union Carbide Corporation and the National Cancer Institute (NCI), hereinafter referred to as the "Sponsor", desire to enter into an Agreement for the conduct of a research program entitled "DNA Repair Mechanisms in Carcinogenesis". The primary objective of the project is to elucidate the molecular events in human cells when cellular macromolecules such as DNA are damaged by radiation or chemical agents.

NOW, THEREFORE, the parties do agree as follows:

ARTICLE II
DESCRIPTION OF WORK

A. SCOPE The Agency shall exercise its best efforts to perform the work and services hereinafter set forth and as described more fully in the Agency's Proposal entitled "DNA Repair Mechanisms in Carcinogenesis". The agency will conduct the research for Projects C, E, F as contained in the December 4, 1978 Technical Proposal, pages 9 through 13 and modified as follows:

1. PROJECT C: Induced Damage and its Repair in the DNA of Human Cells

Determine how the molecular effects of near UV-light (sunlight stimulating FS40 light) are quantitatively related to the proportion of pyrimidine dimers and other photolesions, e.g. (thymine glycols) in DNA, and to determine the capacity of human cells to cope with these lesions. The aim is to compare UVC (200-290 nm) damage and its repair with that produced by UVB (290-320 nm).

2. PROJECT E: Inhibition of DNA Repair

Perform a detailed study of the effect of ara-C on the incision and excision steps of UV-irradiated XP variant cells. Ara-C may become a useful tool in characterizing excision repair in normal as well as abnormal cells. These studies are to be performed in collaboration with Dr. James Cleaver (University of California, San Francisco).

3. PROJECT F: Postreplication Repair of Rouscher Leukemia Virus

To continue investigation of the role of RLV in the IN VIVO induction of leukemia in the following ways:

- a. The inhibition of postreplication repair due to viral infection could be due to either of two distinct causes. First, it could simply be a consequence of the insertion of the viral DNA (provirus) into the host genome which in an as yet unspecified manner disrupts normal postreplication repair. Second, it could be a consequence of the interaction of a viral gene product or products (perhaps the entire virion) with either host cell DNA or the repair apparatus itself. A distinction between these alternative hypotheses by using temperature condition lethal (TS) mutants of RLV will be made.
- b. Briefly, the mutants fall into three distinct physiological categories (3). First, there are mutants which are infective at the nonpermissive temperature but fail to insert a provirus into the host cell genome. This class of mutants will be represented by a particular mutant which produces a temperature-sensitive reverse transcriptase (40). Second, there are mutants which are infective at the nonpermissive temperature, insert pro-viral DNA, and produce intracellular viral antigen, but fail to make virions. This class, will be represented by a mutant which is deficient in the ability to cleave a large precursor polypeptide into subunits which compose part of the viral core (41). The third class of mutants produces intact viral particles at the nonpermissive temperature, but these progeny particles are themselves not infectious (36).
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- d. The repair measurements described in previous paragraphs will be correlated with measurements of transformation by 4NQO in the same TS mutant infected cell lines. These measurements will be performed in collaboration with Dr. Giampiero DiMayorca.

B. LEVEL OF EFFORT

1. In accomplishing the work set forth in ARTICLE I hereof, the Contractor shall provide 6.0 direct labor man-years during the period set forth in ARTICLE III. It is estimated that the man-years are constituted as follows:

| <u>Category</u> | <u>Estimated Man-years</u> | | |
|------------------------|----------------------------|--------------|--------------|
| | <u>Yr. 1</u> | <u>Yr. 2</u> | <u>Yr. 3</u> |
| Principal Investigator | .21 | .23 | .28 |
| Research Support (2) | 1.63 | 1.80 | 1.80 |
| Total | 1.84 | 2.08 | 2.08 |

ARTICLE III
PERIOD OF PERFORMANCE

The period of performance of the Agreement shall be from April 1, 1979 through February 28, 1982.

ARTICLE IV
CONSIDERATION

- A. For performance of this Agreement, the Sponsor agrees to reimburse the Agency in the estimated amount of \$417,358.
- B. Total funds currently available for reimbursement and allotted to this Agreement is \$118,135. Further allocation of funds hereunder will be accomplished at the option of the Sponsor, depending upon the progress and results of the work and services performed under Article I during the period of this Agreement.
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TECHNICAL REPORTS

The agency shall submit to the Sponsor the following types of reports and in the quantities listed below:

| <u>Type</u> | <u>No. of Copies</u> | <u>Date Due</u> | <u>Addressee</u> |
|-------------|----------------------|-----------------|--|
| Semi-Annual | 4 | 10/1/79 | Program Manager Chemical/Molecular Carcinogenesis Program CPCB, NCI Landover Bldg. Room 8C-29 2910 Woodmont Ave. Bethesda, Maryland 20209 |
| | | 10/1/80 | |
| | | 10/1/81 | |

| <u>Type</u> | <u>No. of Copies</u> | <u>Date Due</u> | <u>Addressee</u> |
|-------------|----------------------|-----------------|--|
| Semi-Annual | 1 | 10/1/79 | Contracting Officer |
| | 1 | 10/1/80 | CCS, RCB, NCI |
| | 1 | 10/1/81 | Blair Bldg., Room B-16 8300 Colesville Road Bethesda, Maryland 20205 |

The semi-annual report should be a brief technical report between 6-10 pages in length. The report should discuss Scientific Progress, Problem Area, Future Course. It must be descriptive, clear and concise.

2. Annual/Final Report

The Agency shall submit detailed annual and final reports which document and summarize the results of the entire agreement work for the period covered. For final reports, this will be the entire agreement period of performance. These reports shall be in sufficient detail to explain comprehensively the results achieved. Specific requirements, if any, are set forth in ARTICLE I, Description of Work, above. An annual report, shall be submitted as follows;

| <u>Type</u> | <u>No. of Copies</u> | <u>Date Due</u> | <u>Addressee</u> |
|-------------|----------------------|-----------------|---------------------|
| Annual | 4 | 3/1/80 | Program Manager |
| | 34 | 3/1/81 | Program Manager |
| | 1 | 3/1/80 | Contracting Officer |
| | 1 | 3/1/81 | Contracting Officer |
| Final | 4 | 3/31/82 | Program Manager |
| | 1 | 3/31/82 | Contracting Officer |

- The Agency shall also submit semiannually, a brief summary of salient results to date and a summary of the final report upon completion or termination of the agreement. Neither summary shall exceed 100 words.
- In all publications resulting from research performed under the contract, the Agency shall acknowledge support of the National Cancer Institute under this Agreement.

ARTICLE VI PROJECT OFFICER

The following Project Officer will represent the Government for the purpose of this agreement:

Dr. David Longfellow
Chief, Molecular Carcinogenesis Section, CPCB
National Cancer Institute
Landow Bldg., Room 8C-29
7910 Woodmont Avenue
Bethesda, Maryland 20205

The Project Officer is responsible for: (1) monitoring the contractor's technical progress, including the surveillance and assessment of performance and recommending to the Contracting Officer changes in requirements; (2) interpreting scope of work; (3) performing technical evaluation as required; (4) performing technical inspections and acceptances required by this contract; and (5) assisting the Contractor in the resolution of technical problems encountered during performance. The Contracting Officer is responsible for directing or negotiating any changes in terms, conditions, or amounts cited in the contract.

For guidance from the Project Officer to the Contractor to be valid, it must: (1) Be consistent with the description of work set forth in this contract; (2) not constitute new assignment of work or change to the expressed terms, conditions, or specifications incorporated into this contract; (3) not constitute a basis for an extension to the period of performance or contract delivery schedule; (4) not constitute a basis for any increase in the contract cost.

ARTICLE VII
KEY PERSONNEL

The individuals cited below are considered to be key personnel essential to the work and services to be performed under this Agreement and in the event that such Personnel leave the Agency's employ or are reassigned to other programs, the Agency shall notify the Sponsor's Contracting Officer reasonably in advance, and shall submit their proposed replacements with qualifications, in sufficient detail to permit evaluation of the impact on the program. No diversion or replacement shall be made by the Agency without the written consent of the Sponsor's Contracting Officer.

| <u>NAME</u> | <u>TITLE</u> |
|------------------|------------------------|
| Dr. James Reagan | Principal Investigator |

ARTICLE VIII
BILLING PROCEDURES

The Agency shall submit vouchers for cost reimbursement on Government Standard Form 1081, Voucher and Schedule of Withdrawals and Credits, on a monthly basis. An original and five (5) copies of all such vouchers shall be sent to the following address:

Contracting Officer
Carcinogenesis Contracts Section
Research Contracts Branch
National Cancer Institute
Blair Building, Room B-16
8300 Colesville Road
Silver Spring, Maryland 20205

The following cost categories will be reported as backup cost information submitted with the monthly 1081.

- A. Direct Labor
- B. Fringe Benefits
- C. Travel
- D. Materials/Supplies
- E. Histology
- F. Animal Care
- G. Maintenance/Craft Support
- H. Computer Service
- I. Technical Information
- J. Glassware washing
- K. Division Administration
- L. Utilities
- M. G & A