GEORGIA INSTITUTE OF TECHNOLOGY
OFFICE OF CONTRACT ADMINISTRATION
SPONSORED PROJECT INITIATION

Date: 7/25/78

Project Title: Studies on Fatty ACYL COA Dehydrogenase and ETF

Project No: G-33-K01

Project Director: Dr. Carole L. Hall

Sponsor: DHF/PHS/NIH - National Institute of General Medical Sciences; Bethesda, MD 20014

Agreement Period: From 7/1/78 Until 6/30/79 (01 Year)

Type Agreement: Grant No. 1 R01 GM25494-01

Amount:
- $67,045 New PHS Funds (G-33-K01)
- 5,287 GIT Contribution (G-33-327)
- $72,332 Total

Reports Required: Annual Progress Reports with Continuation Applications
Terminal Progress Report upon Grant Expiration

Sponsor Contact Person(s):

Technical Matters
John C. Dalton, PH.D. (Dr. Eugene J. Oliver)
Deputy Associate Director for Program Activities
National Institute of General Medical Sciences
Bethesda, MD 20014
Phone: 301-496-7518

Contractual Matters (thru OCA)
Ms. Evelyn W. Carlin
Grants Management Officer
Office of Associate Director for Program Activities
National Institute of General Medical Sciences
Bethesda, MD 20014

Defense Priority Rating: None

Assigned to: Chemistry (School/Laboratory)

COPIES TO:

Project Director
Division Chief (EES)
School/Laboratory Director
Dean/ Director - EES
Accounting Office
Procurement Office
Security Coordinator (OCA)
Reports Coordinator (OCA)
Library, Technical Reports Section
EES Information Office
EES Reports & Procedures
Project File (OCA)
Project Code (GTRI)
Other:

CA-3 (3/76)
GEORGIA INSTITUTE OF TECHNOLOGY
OFFICE OF CONTRACT ADMINISTRATION

SPONSORED PROJECT TERMINATION

Date: 6/19/79

Project Title: Studies on Fatty ACYL COA Dehydrogenase and ETF

Project No: G-33-K01

Project Director: Dr. Carole L. Hall

Sponsor: DHEW/PHS/NIH - National Institute of General Medical Sciences

Effective Termination Date: 6/30/79 (End of 01 year)

Clearance of Accounting Charges: 6/30/79

Grant/Contract Closeout Actions Remaining:

TERMINATED

- Final Invoice and Closing Documents
- Final Fiscal Report
- Final Report of Inventions
- Govt. Property Inventory & Related Certificate
- Classified Material Certificate
- Other Annual Report of Expenditures due by 9/30/79.

NOTE: Follow-on project (02 Year) is G-33-K02.

Assigned to: Chemistry (School/Laboratory)

COPIES TO:

Project Director
Division Chief (EES)
School/Laboratory Director
Dean/Director—EES
Accounting Office
Procurement Office
Security Coordinator (OCA)
Reports Coordinator (OCA)

Library, Technical Reports Section
EES Information Office
Project Files (OCA)
Project Code (GTRI)
Other

CA-4 (1/79)
APPLICANT: REPEAT GRANT NUMBER SHOWN ON PAGE 1

SECTION IV—SUMMARY PROGRESS REPORT

PRINCIPAL INVESTIGATOR OR PROGRAM DIRECTOR (Last, First, Initial)

Hall, Carol L.

NAME OF ORGANIZATION

School of Chemistry, Georgia Institute of Technology

TITLE (Repeat title shown in Item 1 on first page)

1. List publications: (a) published and not previously reported; (b) in press. Provide five reprints if not previously submitted.
2. List all additions and deletions in professional personnel and any changes in effort.
3. Progress Report. (See instructions)

1. Carole L. Hall, Federation Proceedings (1979), Studies on Electron Transfer from Fatty Acyl CoA to General Acyl CoA Dehydrogenase and ETF, 38 639 (Abs.)

(b) Carole L. Hall and J. E. Bell, UV and Visible Spectroscopy," in Spectroscopy in Biochemistry, J.E. Bell, ed. CRC Uniscience, Boca Raton, Florida, in press.

(c) Carole L. Hall, Abstract accepted for presentation at the XIIth International Congress of Biochemistry in Toronto, Cananda, July 8-14, 1979.

(d) Carole L. Hall and J. David Lambeth, Manuscript in preparation. Electron Transfer from Fatty Acyl CoA to General Acyl CoA Dehydrogenase and ETF.

2. Professional Personnel

Additions: Teresa M. DeTar

Changes in Effort: Carole L. Hall taught at Georgia Tech during 1978-1979 and effort was reduced to 67%. Compensation was provided by Georgia Tech. No commitment to teach has been made for 1979-1980.

3. The long term goal is to elucidate the interaction of the two flavoproteins required in α,β-dehydrogenation of fatty acyl CoA’s in β oxidation with each other, with the substrate and products of the dehydrogenation and with the rest of the β-oxidation enzymes, and to determine the mechanisms of the electron transfers involved and fate of product. This is being approached by rapid reaction and anaerobic titration techniques (utilizing the characteristic absorbance and fluorescences of those enzymes) displacement studies, and studies of catalytic activity in dye-complexed systems.

The aims of the research are:

(a) to determine if 2 e to 1 e transduction occurs on the dehydrogenase, between the two flavoproteins, on the ETF or at some other site (e.g., interaction with the electron transport chain).

(b) To probe the relationship between these flavoproteins and the rest of the β-oxidation enzymes as possible effectors of the dehydrogenation.

(c) To determine the redox properties of the two flavoproteins both separately and together.

(d) To probe the nature of the apparent oxidized acyl CoA complex (green) of the short chain enzyme by attempting to displace and replace the complexing agent and to probe the postulated effects of hypoglycemic agents.

(e) To identify two additional flavoproteins which have been isolated and interact with acyl CoA derivatives.
### 1. Expenditures of DHEW Funds for this Reporting Period

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>$21,054.13</td>
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<tr>
<td>Consultant services</td>
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<tr>
<td>Equipment</td>
<td>17,963.46</td>
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<tr>
<td>Supplies</td>
<td>4,701.09</td>
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<tr>
<td>Travel, domestic</td>
<td>616.19</td>
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<tr>
<td>Travel, foreign</td>
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<tr>
<td>Patient care costs</td>
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</tr>
<tr>
<td>Alterations and renovations</td>
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</tr>
<tr>
<td>Retirement</td>
<td>2,069.60</td>
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<tr>
<td>Total direct costs</td>
<td>46,404.47</td>
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<tr>
<td>Indirect costs:</td>
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</tr>
<tr>
<td>Rate 76% S&amp;W</td>
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<tr>
<td>Base $21,054.13</td>
<td>16,001.14</td>
</tr>
<tr>
<td>Total</td>
<td>$62,405.61</td>
</tr>
</tbody>
</table>

### 2. Expenditures from Prior Periods (previously reported)

-0-

### 3. Cumulative Expenditures

62,405.61

### 4. Total Amount Awarded — Cumulatively

67,045.00

### 5. Unexpended Balance (Item 4 less Item 3)

4,639.39

### 6. Unliquidated Obligations

-0-

### 7. Unobligated Balance (Item 5 less Item 6)

-0-

### 8. Cost Sharing Information — Grantee Contribution This Period

-0-

### 9. Interest/Income (enclose check)

-0-

### 10. Remarks

I hereby certify that this report is true and correct to the best of my knowledge, and that all expenditures reported herein have been made in accordance with appropriate grant policies and for the purposes set forth in the application and award documents.

Carole L. Hall, Manager, Grants & Contracts Acctg.

Dr. C.L. Hall, Res. Sci. 1/3/19

David V. Welch, Manager, Grants & Contracts Acctg.

[Signature]

Date 12/1/19

REPORT OF RESEARCH GRANT EXPENDITURES

OMB 85R0219