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U. S. Department of
HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NOTICE OF RESEARCH PROJECT

PROJECT NO. (DO NOT USE THIS SPACE)
718866

TITLE OF PROJECT

Bile Acid Transformations in Gallstone Therapy

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED ON THE PROJECT.

Peter D. Klein, Ph.D. Senior Biochemist, Division of Biological and Medical Research Argonne National Laboratory. Professor of Medicine, University of Chicago School of Medicine
David L. Hachey, Ph.D. Assistant Chemist, Division of Biological and Medical Research
Karen A. Mede, Ph.D. Research Associate, Division of Biological and Medical Research
Kou-Yi Tserng, Ph.D. Research Associate, Division of Biological and Medical Research Argonne National Laboratory

NAME AND ADDRESS OF APPLICANT INSTITUTION

Argonne National Laboratory, 9700 S. Cass Avenue, Argonne, Illinois 60439

SUMMARY OF PROPOSED WORK - (200 words or less - Omit Confidential data.)

In the Science Information Exchange summaries of work in progress are exchanged with government and private agencies supporting research in the bio-sciences and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Objectives

- A. Overall objectives of Grant AM 17862
 1. To use gas chromatography-mass spectrometry to define the biliary bile acid composition and characterize unusual bile acids in gallstone patients at the Mayo Clinic before and after treatment with chenodeoxycholic acid.
 2. To use gas chromatography-mass spectrometry to measure plasma levels of bile acids by inverse isotope dilution procedures employing deuterium-labeled bile acids.
 3. To develop and validate new methods for bile acid kinetic measurements with stable isotopes which are applicable to plasma samples.
- B. Goals for current year (1975)
 1. To develop instrumentation suitable for stable isotoperatio measurements and multipl ion detection which can be used in conjunction with gas chromatograph-magnetic secto or quadrupole mass spectrometers.
 2. To expand the existing library of bile acid identification techniques to include gas chromatographic mobilities, electron impact ionization spectra and chemical ioniza- tion spectra for all bile acids likely to occur in human bile.
 3. To apply these techniques to the examination of biliary bile acids in samples collected at the Mayo Clinic from gallstone patients before and after treatment.

REPOSITORY DOE RECORDS CENTER BOX No. 6075
COLLECTION 7723 ASEV CENTRAL FILES - 1975 FOLDER MATS - ZIANK - JUNE-DEC. 1975

PROFESSIONAL SCHOOL (medical, dental, etc.) WITH WHICH THIS PROJECT SHOULD BE IDENTIFIED Medical	SIGNATURE OF PRINCIPAL INVESTIGATOR <u>Peter D. Klein</u>	DATE June 24, 1975
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DO NOT WRITE BELOW THIS LINE - FOR OFFICE USE ONLY

SUPPORTING AGENCY

METHOD OF SUPPORT (Check one)

- Agency Staff (Intramural) Negotiated Contract Special Project Grant Research Grant Other (Specify)

FUNDS OBLIGATED CURRENT F.Y. <u>4004789</u>	NUMBER OF FUTURE YEARS TENTATIVELY ASSURED BEYOND CURRENT FISCAL YEAR	BEGINNING DATE	ESTIMATED COMPLETION DATE
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DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH

MANPOWER REPORT

GRANT OR CONTRACT NUMBER AM 17862-01	BUDGET PERIOD (Same as progress report) 10/01/74 - 09/30/75
PRINCIPAL INVESTIGATOR OR PROGRAM DIRECTOR Peter D. Klein	
GRANTEE OR CONTRACTOR INSTITUTION NAME Argonne National Laboratory	

Please complete both parts of this report:

- Part I. All persons receiving any salary from the direct cost awarded for this grant or contract during budget period.
- Part II. All persons who performed some work during budget period on the research project for which no salary was received from this grant or contract.

Individual reports will be treated as confidential and will be used only in the form of statistical summaries. Names and Social Security numbers are necessary to avoid duplicate counting.

GENERAL INSTRUCTIONS

If data are not available on all questions, please supply as much information as you can. Reasonable estimates will be satisfactory.

Please use whole numbers. Do not use fractions, decimals or cents.

All information requested applies to the budget period specified above.

Please return one copy of the questionnaire and retain the other for your files. If additional copies are needed write to: Division of Research Grants, National Institutes of Health, Westwood Building, Room 126, 5333 Westbard Avenue, Bethesda, Maryland 20014. For information on completion of form telephone (301) 496-7263.

DEFINITIONS
(Part I and Part II)

PROFESSIONAL: Individuals who hold positions which normally: (1) require a baccalaureate, equivalent, or higher degree, and (2) are considered by the grantee institution as performing professional work. *Exclude all consultants.*

Faculty Status: All professional persons working on this grant or contract—including temporary, part-time and retired—who hold appointments designated as "faculty" by an institution of higher education.

Non-Faculty: All professional persons working on this grant or contract who do not hold appointments designated as "faculty" by an institution of higher education. This includes all non-faculty professional staff employed by non-academic institutions (independent hospitals, research institutes, nonprofit foundations, and private companies). Postdoctorals considered as primarily in a training status should be reported under "In Training Status."

In Training Status: Include only those individuals who, while working on a grant or contract, are considered to be in a predoctoral or postdoctoral training status. This includes graduate students registered in institutions of higher education for part-time study leading to an academic (PhD, ScD, MA, MS, MPH, or equivalent) or professional (MD, DDS, DVM, or equivalent) degree. Predoctorate students working on their dissertation should be entered in this section. Individuals who already have an academic or professional doctorate but are considered as being primarily in a training status should be included. Residents and interns should also be included except those serving on rotation as part of their regular medical training. Undergraduate students should be counted as "All Other Staff."

ALL OTHER STAFF: All other personnel working on this grant or contract. Include undergraduate students. *Exclude all consultants.*

SPECIFIC INSTRUCTIONS FOR PART I

in Items 1, 2, and 3 the names of all professional personnel who worked on activities supported by this grant or contract during the budget period specified who received any salary from the grant or contract.

Item 4, "All Other Staff," count all other personnel who received any salary from the grant or contract during the budget period specified. Give total number of persons in each of the four categories listed and estimate total manweeks and personal costs.

Include employer payments for Social Security and other fringe benefits from all amounts reported for salaries and personal expenditures.

Item 1 Security Number (Items 1, 2, and 3, Column b): If the individual does not have a Social Security Number, enter the month and day of birth. Example: 06-15 for June 15.

Item 2 Percent of Weeks Worked (Items 1, 2, and 3, Column f): Weeks worked during the budget period specified on activities supported by the grant or contract for which salary was received from grant or contract funds. Count each week regardless of number of hours worked. Do not report percent of effort.

Item 3 Estimated Total Manweeks (Item 4, Column r): The total number of weeks all persons counted were paid for their work on the project. Reasonable estimates are acceptable. Part-time work should be computed on the basis of 40 hours a week or accepted work week in the grantee institution if it is less than 40 hours.

7. Total Personnel Expenditures (Item 5): The amount given should be the sum of the professional salaries and the expenditures reported for the "all other staff." If continuation pages have been used, be sure to include all persons listed for a given professional category regardless of the page on which the name appears.

4004790

PRIVACY ACT MATERIAL REMOVED

PART I: PERSONNEL RECEIVING ANY SALARY FROM THIS GRANT OR CONTRACT DURING BUDGET PERIOD

READ INSTRUCTIONS BEFORE COMPLETING FORM. USE TYPEWRITER. USE CONTINUATION PAGES, IF NECESSARY

NAME (Last, first initial)	SOCIAL SECURITY NUMBER	YEAR OF BIRTH	SEX		HIGHEST DEGREE HELD CODE*	HOURS AND EARNINGS IN BUDGET PERIOD**			FDS CODE FOR PROJECT EMPLOYMENT*	OTHER SOURCES OF INCOME WHILE ON PROJECT (Check more than one if appropriate)								
			M	F		NUMBER OF WEEKS WORKED	AVERAGE WEEKLY HOURS (Estimate)	TOTAL SALARY FROM PROJECT (DOLLARS ONLY)		NIH SUPPORT								
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s

1. PROFESSIONAL: FACULTY STATUS

Klein, P.			M	Ph.D.	52	4		G1										X
Hachey, D.			M	Ph.D.	52	10		S2		X								X

2. PROFESSIONAL: NON-FACULTY

Szczepanik, P.			F	B.S.	52	10		G1										X

3. PROFESSIONAL: IN TRAINING STATUS (Predoctorals and postdoctorals)

NAME	SEX	DEGREE HELD	DEGREE SOUGHT CODE*		NUMBER OF WEEKS WORKED	AVERAGE WEEKLY HOURS (Estimate)	TOTAL SALARY FROM PROJECT (DOLLARS ONLY)	FDS CODE FOR PROJECT EMPLOYMENT*	OTHER SOURCES OF INCOME WHILE ON PROJECT (Check more than one if appropriate)									
			M	F					j	k	l	m	n	o	p	q	r	s
Tserng, Kou-Yi	M	Ph.D.			13	40		S2										
Mede, K.	F	Ph.D.			13	40		S3										

4. ALL OTHER STAFF RECEIVING ANY SALARY FROM THIS GRANT OR CONTRACT DURING THIS BUDGET PERIOD

DESCRIPTION	NUMBER OF PERSONS	TOTAL MANWEEKS (estimate)	TOTAL AMOUNT PAID FROM THIS GRANT OR CONTRACT - DOLLARS ONLY (estimate)
(1.)	(2.)	(3.)	(4.)
CLINICAL SUPPORTING STAFF - those whose duties primarily involve patient care (orderlies, practical nurses, etc.)	(2.)		
TECHNICAL - includes technicians, laboratory assistants, animal caretakers, etc.	(3.)		
CLERICAL AND ADMINISTRATIVE STAFF	(4.)		
OTHER STAFF	(5.)	2	4,000
TOTAL: ALL OTHER STAFF	(1.)		

5. TOTAL SALARIES RECEIVED IN BUDGET PERIOD (Cols. h + s)
(Exclude employer payments for Social Security and fringe benefits)

\$ 23,001

NIH-1749
Rev. 3/74

* See CODE SHEET on Page 4.
** Exclude any weeks and hours worked for which no salary was received from this grant or contract. Report such time in Part II, column w.

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PART II: PERSONNEL PERFORMING SOME PROJECT WORK DURING THE GRANT OR CONTRACT BUDGET PERIOD FOR WHICH NO SALARY WAS RECEIVED

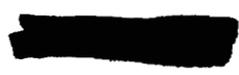
The purpose of this portion of the report form is to obtain information to help evaluate the contributions to NIH research programs by individuals who perform significant work on an NIH research project for which no salary is received from that NIH research grant or contract.

If no individuals performed unpaid work on this project as defined in the instructions below, please check box.

1. Exclude interns and residents working on this project on rotation as part of their regular medical training.
2. Column (t): Estimate the number of individuals in each occupational category given in the table below who contributed at least 80 hours of unpaid work on the research project during the budget period and received salary from the grant or contract. Enter these numbers in Column (t). Exclude those individuals who contributed less than 80 hours of unpaid work. Note that individuals reported in Part I who also performed unsalaried work should be entered in Columns (v) and (w).
3. Column (u): For each of the individuals entered in Column (t) estimate the total number of unsalaried hours worked and divide by 40 hours (or the accepted work week in the grantee institution if it is less than 40 hours) to calculate manweeks. Add the number of manweeks for all individuals in a given occupational category and enter in Column (u).
4. Column (v): Estimate the number of individuals in each occupational category who received salary for work performed on the grant or contract but also performed any amount of work on the project without receiving salary from the grant or contract. Enter this number in Column (v).
5. Column (w): For all of the individuals entered in Column (v), estimate the total number of unsalaried hours worked. Convert to occupational category manweeks as described in paragraph 3 above and enter in Column (w).

OCCUPATIONAL CATEGORY	PERSONS NOT PAID BY THIS GRANT OR CONTRACT WHO WORKED AT LEAST 80 HOURS ON PROJECT		PERSONS REPORTED IN PART I WHO ALSO PERFORMED UNPAID WORK ON PROJECT	
	NUMBER OF PERSONS (t)	TOTAL UNPAID MANWEEKS (u)	NUMBER OF PERSONS (v)	TOTAL UNPAID MANWEEKS (w)
PROFESSIONAL STAFF:				
FACULTY STATUS (3.)				
NON-FACULTY (4.)				
Predoctoral in Training Status (6.)				
Postdoctoral in Training Status (7.)			1	13
ALL OTHER STAFF: (8.)				
TOTAL (1.)			1	13

4004792



CODE SHEET

DEGREE CODES: HIGHEST DEGREE HELD AND DEGREE SOUGHT

- | | |
|-------------------|--|
| 1. Degree unknown | 5. PhD, ScD, D. Eng, DPH or equivalent foreign or domestic academic degree |
| 2. No degree | 6. MD, OD, DDS, DVM or equivalent foreign or domestic professional degree |
| 3. Baccalaureate | 7. MD and PhD (any combination of both academic and professional doctorates) |
| 4. Masters | |

FDS CODE FOR PROJECT EMPLOYMENT: FIELD, DISCIPLINE, AND SPECIALTY
(NEC = Not elsewhere classified)

Basic Medical and Biological Sciences

- A1 Anatomy, Neuroanatomy
- A2 Anatomy, NEC
- A3 Bacteriology
- A4 Biochemistry, Enzyme/Metabolism
- A5 Biochemistry, Hormone/Vitamin
- A6 Biochemistry, Protein/Amino Acid
- A7 Biochemistry, NEC
- A8 Biology, Developmental
- B1 Biology, NEC
- B2 Biophysics, Molecular Structure
- B3 Biophysics, NEC
- B4 Botany
- B5 Cell Biology, Molecular
- B6 Cell Biology, NEC
- B7 Ecology
- B8 Entomology
- C1 Genetics, Biochemical and Molecular
- C2 Genetics, NEC
- C3 Immunology
- C4 Medical, General
- C5 Microbial Biochemistry
- C6 Microbiology, NEC
- C7 Nutrition
- C8 Parasitology
- C9 Pathology, Experimental
- D1 Pathology, NEC
- D2 Pharmacology
- D3 Physiology, Cardiovas. & Pulmonary
- D4 Physiology, Endocrine
- D5 Physiology, Gastrointestinal
- D6 Physiology, Neuro and Muscular
- D7 Physiology, Renal
- D8 Physiology, NEC
- E1 Pre dental
- E2 Pre medical
- E3 Radiation, Nonclinical
- E4 Virology
- E5 Zoology
- E9 Other Basic Biomedical Sciences

Internal Medicine: Clinical

- F1 Allergy
- ular Diseases
- logy
- rology
- ry
- ry
- i Diseases
- edicine, General
- m
- y Diseases
- seses
- ernal Medicine

Clinical Medicine (Except Internal)

- H1 Anesthesiology
- H2 Chemotherapy, Cancer
- H3 Chemotherapy, Other
- H4 Dermatology
- H5 Neurology
- H6 Nuclear Medicine
- H7 Obstetrics and Gynecology
- H8 Oncology
- I1 Ophthalmology
- I2 Osteopathy
- I3 Otorhinolaryngology
- I4 Pediatrics, Cardiology
- I5 Pediatrics, NEC
- I6 Pharmacology, Clinical
- I7 Physical Medicine & Rehabilitation
- I8 Preventive Medicine & Public Health
- J1 Psychiatry
- J2 Radiology, Diagnostic
- J3 Radiology, Therapeutic
- J4 Radiology, NEC
- J5 Surgery, Cardiovascular
- J6 Surgery, General
- J7 Surgery, Neurological
- J8 Surgery, Orthopedic
- K1 Surgery, Plastic
- K2 Surgery, Thoracic
- K3 Surgery, NEC
- K4 Tropical Medicine
- K5 Urology
- K9 Other Clinical Medicine

Dentistry

- L1 Clinical Dentistry, Cleft Palate
- L2 Clinical Dentistry, Oral Pathology
- L3 Clinical Dentistry, Oral Surgery
- L4 Clinical Dentistry, Periodontia
- L5 Dentistry, General
- L9 Other Dental Specialties

Behavioral and Social Sciences

- M1 Anthropology
- M2 Economics
- M3 Psychology, Clinical
- M4 Psychology, Developmental
- M5 Psychology, General & Experimental
- M6 Psychology, Physiological
- M7 Psychology, NEC
- M8 Sociology
- M9 Other Behavioral & Social Sciences

Other Health-Related Fields

- N1 Audiology & Speech Therapy
- N2 Dental Hygiene
- N3 Dietetics
- N4 Epidemiology
- N5 Health Administration
- N6 Nursing
- N7 Optometry
- P1 Pharmacy
- P2 Physical Therapy
- P3 Social Work
- P4 Veterinary Medicine
- P9 Other Health-Related Fields

Environmental Sciences and Engineering

- Q1 Air and Water Pollution
- Q2 Engineering
- Q3 Engineering, Biomedical
- Q4 Engineering, Environmental
- Q9 Other Environmental Sciences

Mathematics, Statistics, and Computer Sciences

- R1 Biostatistics
- R2 Computer Applications
- R3 Computer & Information Systems
- R4 Mathematics
- R5 Statistics
- R9 Other Math. and Stat.

Physical Sciences

- S1 Chemistry, Inorganic
- S2 Chemistry, Organic
- S3 Chemistry, Medicinal
- S4 Chemistry, Physical
- S5 Chemistry, NEC
- S6 Physics
- S9 Other Physical Sciences

Other Fields

- T1 Arts and Humanities
- T2 Audio-Visual
- T3 Education
- T4 Library Science
- T9 Other, Specify _____

3617004

TITLE OF PERSON COMPLETING FORM

D. Klein Principal Investigator

TOTAL NO. CONTINUATION PAGES INCLUDED

0

ORGANIZATION

ine National Laboratory

OF ORGANIZATION (Street, City, State and Zip Code)

S. Cass Avenue
Argonne, Illinois 60439

TELEPHONE (Include Area Code, Number and Extension)

(312) 739-7711 X 2811