


THE UNIVERSITY OF CHICAGO
OFFICE OF THE VICE PRESIDENT • SPECIAL PROJECTS

10 May 1963

Dear Dr. Szilard:

It has just come to ~~my~~ attention that the attached items were not mailed to you. You will want them to complete your records.

Note on the reverse side of the award letter the new policies. In connection with IV and your particular budget, you will wish to know, if you do not already, 1) that any travel which would create an overdraft in the Travel Subaccount requires prior institutional and NIH approval and 2) that any international travel not specifically described in the application, ^{also} requires prior institutional and NIH approval. If we may be of assistance, please let us know.


R. Johnson
Grants Administrator

THE UNIVERSITY OF CHICAGO

DATE 2 January 1963

TO Mr. W. R. Rossman

DEPARTMENT Assistant to the Comptroller

FROM Irene E. Fagerstrom

DEPARTMENT Assistant Vice President for
(Special Projects)

IN RE: Grant No. PHS-GM-06876-04
Dr. Leo Szilard
1/1/63 - 12/31/63

The attached award letter is self-explanatory. Will you please budget the available funds as follows:

Salaries	\$12,000
Employee Benefits	
a. Academic	974
b. Soc. Security Tax, etc.	120
Travel	7,500
Other Expense	3,467
Indirect Cost Allowance	<u>3,609</u>
Total	<u>\$27,670</u>

Also attached is copy of the application for the grant.

JRJ:rf

Encls. (2)

cc: Dr. Leo Szilard, w/encl. ✓
Prof. H. L. Anderson, w/encl.
Dean A. A. Albert, w/o encl.
Mr. A. W. Gieseeman, w/o encl.
Purchasing, w/o encl.
Bookstore, w/o encl.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
National Institutes of Health
Bethesda 14, Maryland

DATE December 19, 1962

NOTIFICATION AND STATEMENT OF GRANT AWARD

Dr. W. B. Harrell
Vice President for Special Projects
The University of Chicago
5801 South Ellis Avenue
Chicago 37, Illinois

In reply refer to our: **GM 06876-04**
(Formerly RG 6876(C3))
Dr. Leo Szilard
Professor of Biophysics
1155 East 57th Street
Chicago 37, Illinois

Dear Dr. Harrell:

Upon recommendation of the appropriate National Advisory Council, the Surgeon General has approved the Public Health Service grant described below.

The attached explanation* outlines Public Health Service policy relative to the payment and management of grant funds, as well as to the scientific and budget freedom afforded grantees in their work.

STATEMENT OF GRANT AWARD MADE UNDER THE PUBLIC HEALTH SERVICE ACT

SECTION OF ACT 301(d)	TYPE OF AWARD Research Grant	NATIONAL ADVISORY COUNCIL National Advisory Health Council
GRANT PERIOD January 1, 1963 - December 31, 1963	ABBREVIATED TITLE OF PROJECT OR PROGRAM GM 06876-04 "Quantitative Studies of General Biological Phenomena"	
GRANTEE INSTITUTION The University of Chicago	PRINCIPAL INVESTIGATOR(S) OR PROJECT DIRECTOR(S) Dr. Leo Szilard	
PAYEE (CHECK WILL BE DRAWN AS FOLLOWS) Bursar The University of Chicago 5801 South Ellis Avenue Chicago 37, Illinois	600602	FUTURE SUPPORT (Provided Funds Are Appropriated—See Attached Sheet Concerning Continuation) <input checked="" type="checkbox"/> Amounts Include Indirect Costs if applicable 1st Additional Year \$ 30,475 (05) 2nd Additional Year 30,475 (06) 3rd Additional Year 30,475 (07) 4th Additional Year 30,475 (08) 5th Add. Yr. 30,475 (09) <input type="checkbox"/> Approved for Support for <u>one</u> Additional Years Ending 12/31/69 in the amount of \$ 30,475. the Amounts to be Determined Annually
BUDGET ALLOCATION	AMOUNT	Signature Carl R. Brewer, Ph.D.
DIRECT COSTS (EXCLUSIVE OF TRAINEE STIPENDS)	\$ 24,061	Name and Title Chief, Research Grants Branch
TRAINEE STIPENDS	- - - -	Division of General Medical Sciences
INDIRECT COST ALLOWANCE (OVERHEAD)	3,609	
TOTAL GRANT	\$ 27,670	
AMOUNT OF FIRST PAYMENT	\$ 6,919	
BALANCE DUE	\$ 20,751	
LIST NUMBER GM- 100-63		
ALLOTMENT NUMBER 30001-05 7530348		

cc: **Principal Investigator**
Principal Investigator
Co-investigator(s)
Payee
~~Public Relations Officer~~
IBM
SS-
Grants Finance **SSS**
Renewal Desk

REMARKS: Refer to PHS policies regarding restrictions on rebudgeting of funds and allowable direct expenditures on which indirect costs may be claimed.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE

ITEMS IDENTIFIED FOR SPECIAL ATTENTION IN CONNECTION WITH THE ADMINISTRATION OF
A PUBLIC HEALTH SERVICE RESEARCH GRANT

November 1, 1962

I. PUBLIC HEALTH SERVICE POLICY REQUIREMENTS: The institution to which the grant is awarded and the principal investigator or program director whose research is being supported have joint responsibility for the proper and prudent utilization of the funds awarded. The grantee institution is obligated to administer any Public Health Service grant or award in accordance with the policies of the Public Health Service. The institution and the principal investigator or program director have joint responsibility for abiding by Public Health Service patent policy and for reporting any conflicting commitment or obligation entered into by the institution, principal investigator, or other professional personnel engaged in the project. Early reporting of inventions resulting from research grant support is required; that is, no later than at the time a manuscript is prepared for publication.

II. PERIOD OF GRANT: The Notification and Statement of Grant Award indicates the period for which the grant is being made. Funds may be obligated or expended within the period shown and for an additional period not to exceed twelve (12) months, if approval by the Public Health Service is obtained prior to the end of the original period. FUNDS MAY NOT BE OBLIGATED OR EXPENDED PRIOR TO THE ESTABLISHED BEGINNING DATE SHOWN ON THE NOTIFICATION AND STATEMENT OF GRANT AWARD, OR SUBSEQUENT TO THE TERMINATION DATE SHOWN ON THE NOTIFICATION AND STATEMENT OF GRANT AWARD OR OF THE ADDITIONAL EXTENDED PERIOD, IF ANY, APPROVED BY THE PUBLIC HEALTH SERVICE.

III. PAYMENT OF GRANT: Payment of the grant will be made in full if the total approved amount is \$5,000 or less. If it is in excess of \$5,000, it will normally be paid in four installments. If Public Health Service support for this project is continued, any unexpended balance up to \$5,000 or one half of the amount of the continuation grant, whichever is less, will be transferred to and remain available for expenditure during the period of the continuation grant. Subject to the decision of the Public Health Service, any unexpended funds in excess of the allowable amount, will be available as partial payment of the amount approved for that year except where an approved request makes these funds available as additional funds. DEFICITS MAY NOT BE TRANSFERRED to the continuation grant or to any other Public Health Service grant account.

IV. USE OF FUNDS: Expenditures for direct costs must be initiated by the principal investigator and approved by the appropriate administrative official of the grantee institution. These expenditures must be made within the regulations and policies of the Public Health Service and the grantee institution. Funds may not be transferred from other categories and used for the following purposes without prior approval of the Public Health Service:

1. Alterations and renovations.
2. Patient costs (hospitalization or outpatients).
3. Publication of books, monographs, or pamphlets.
4. Travel.
5. Fixed equipment.
6. Items of movable equipment costing in excess of \$1,000 each.
7. Equipping and furnishing of offices, conference rooms, reception rooms, or similar space.

V. EQUIPMENT PURCHASED WITH GRANT FUNDS: Title to equipment purchased with research grant funds resides with the grantee institution during and after the termination of a grant project, without further obligation to the Public Health Service, except that the Public Health Service reserves the right to transfer any such equipment in those cases where the principal investigator transfers to a different institution and receives Public Health Service grant support there.

Special provisions apply to equipment purchased from grants awarded to individuals and to institutions located outside the United States and its possessions.

VI. FUTURE SUPPORT: The Notification and Statement of Grant Award indicates in the column entitled "FUTURE SUPPORT" the amounts recommended for the future years of support for this project. Actual amounts to be paid will be negotiated annually. In addition to the actual amount determined annually for direct costs, an allowance for indirect costs can be negotiated within the prevailing policy. The annual amounts thus determined will be awarded provided the Congress appropriates the necessary funds. If no future support is indicated, an application for continuation support must compete with other applications for available funds. In either instance the necessary application forms and instructions will be sent to the grantee institution at the appropriate time.

PHS-1533 (Reverse)
Rev. 12-58

June 6, 1963

J.R. Johnson
Grants Administrator
Office of the Vice President - Special Projects
Administration Building
The University of Chicago
Chicago 37, Illinois

Dear Mr. Johnson:

You wrote me on May 10th, drawing my attention to the rules under which I have to ask prior institutional and NIH approval for any expenses which I may wish to charge to my research grant and which result from international travel.

To-day, I am writing to ask for prior institutional approval for such expenses. The facts involved are described in the attached copy of a letter which I have written, to-day, to the National Institutes of Health.

Yours sincerely,

Leo Szilard

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Public Health Service

(42 CFR Part 52)

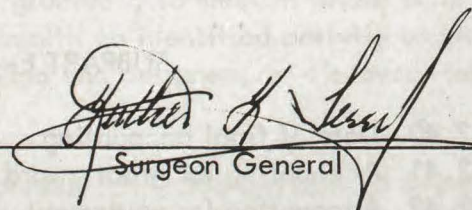
GRANTS FOR RESEARCH PROJECTS

Notice of Proposed Rule Making

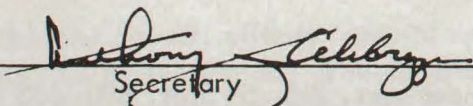
Notice is hereby given that the Surgeon General of the Public Health Service, with the approval of the Secretary of Health, Education, and Welfare, proposes to adopt new regulations as set forth below relating to Public Health Service grants in support of research projects. This proposal relates solely to grants and is therefore exempt from the requirements of section 4 of the Administrative Procedure Act regarding public participation in rule making. Since a large number of universities, institutions and other members of the public has a direct interest in these grants, however, public participation in the formulation of these regulations is invited.

Therefore inquiries may be addressed, and data, views and arguments may be presented, in writing in duplicate to the Surgeon General, Public Health Service, Washington 25, D.C. All relevant material received not later than 60 days after publication of this notice in the Federal Register will be carefully considered.

Dated: May 3, 1963


Surgeon General

Approved: May 27, 1963


Secretary

PART 52--GRANTS FOR RESEARCH PROJECTS

SUBPART A--APPLICABILITY AND DEFINITIONS

- 52.1 Applicability.
- 52.2 Definitions.

SUBPART B--ELIGIBILITY, AWARD AND
TERMINATION

- 52.10 Nature and purpose of research project grant.
- 52.11 Eligibility for grant.
- 52.12 Application for grant
- 52.13 Evaluation and disposition of applications.
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- 52.15 Termination

SUBPART C--GRANT CONDITIONS--OBLIGATIONS
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- 52.20 Use of funds; changes.
- 52.21 Principal investigators.
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- 52.30 Allocation of costs.
- 52.31 Direct costs in general.
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- 52.40 Date of final accounting.
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- 52.42 Accounting for equipment, materials or supplies.
- 52.43 Interest.
- 52.44 Project net income
- 52.45 Final settlement.

AUTHORITY: § 52.1 to 52.45 issued under secs. 215, 58 Stat. 690; 633 (a), 60 Stat. 1041; 5, 69 Stat. 322; and 10 (a), 70 Stat. 506; 42 U.S.C. 216, 291k, 1857d; 33 U.S.C. 466i. Interpret or apply secs. 301, 58 Stat. 691; 636, 63 Stat. 900; 5, 69 Stat. 322; 4 (a), 70 Stat. 499; and sec. 303, 70 Stat. 929; 42 U.S.C. 241, 291a, 1857d; 33 U.S.C. 466c; 42 U.S.C. 242a.

SUBPART A--APPLICABILITY AND DEFINITIONS

§ 52.1 Applicability

The regulations of this part apply to Public Health Service grants for the support of health related research projects as set forth in section 52.10. They do not apply to general research support grants, demonstration grants, grants for studies in providing services outside hospitals, or other grants as may be authorized by law, such as grants for the construction of research facilities (see Part 57), for the construction of hospital or other medical facilities (see Part 53), or the award of fellowships (see Part 61), traineeships (see Part 63), or training grants (see Part 64).

§ 52.2 Definitions

As used in this part:

(a) "Surgeon General" means the Surgeon General of the Public Health Service and any other officer or employee of the Service to whom he delegates the authority involved, except that as used in sections 52.11 (a) (3) and 52.15 (b), the term shall mean only the Surgeon General, the Deputy Surgeon General, or an acting Surgeon General, as provided in section 205 of the Public Health Service Act, as amended (42 U.S.C. 206).

(b) "Project period" means the period of time, not exceeding 7 years, which the Surgeon General finds is reasonably required to initiate and conduct a research project meriting support by means of one or more research project grants within the scope of section 52.10. The period may include the time required for initial staffing and acquisition of facilities and for the preparation and publication of the results of the project.

SUBPART B--ELIGIBILITY, AWARD AND TERMINATION

§ 52.10 Nature and purpose of research project grant.

A research project grant is the award by the Surgeon General of funds to an institution, organization or other person, hereinafter called the "grantee", to meet in whole or in part the costs of conducting for the benefit of the public health an identified activity or program, hereinafter termed the "project", that is intended and designed, to discover, develop, elucidate or confirm information relating to:

(a) the cause, diagnosis, treatment, control or prevention of the physical or mental diseases, injuries, or impairments of man as authorized by sections 301, 303 and related provisions of the Public Health Service Act, as amended (42 U.S.C. 241, 242 (a));

(b) the causes, effects, control or prevention of water pollution or air pollution, as authorized by section 301 of the Public Health Service Act, as amended (42 U.S.C. 241), section 4 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 466c), and section 5 of P.L. 159, 84th Congress, as amended (42 U.S.C. 1857d);

(c) the development, utilization and coordination of services, facilities and resources

of hospitals or other medical facilities, agencies or institutions as authorized by section 636 of the Public Health Service Act, as amended (42 U.S.C. 291n); or

(d) improved methods of operation and administration of State institutions for the mentally ill as authorized by section 303 of the Public Health Service Act, as amended (42 U.S.C. 242a).

§ 52.11 Eligibility for grant.

(a) Persons eligible. Except where otherwise prohibited by law, any individual, corporation, public or private institution or agency, or other legally accountable person found by the Surgeon General to be authorized and qualified by scientific or other relevant competence to carry out a proposed research project in accordance with the regulations of this part shall be eligible for a grant award except:

(1) Federal agencies or institutions not specifically authorized by law to receive such a grant;

(2) Any corporation, institution, agency or other such person, other than an individual, that is organized or operated for profit; and

(3) Any individual, corporation, institution, agency or other such person who, having previously received a grant award from the Public Health Service, has failed materially in the judgment of the Surgeon General to comply with accounting or other requirements applicable to such prior award, such disqualification to continue until terminated in the public interest by the Surgeon General.

(b) Projects eligible. Any project found by the Surgeon General to be a research project within the meaning of section 52.10 shall be eligible for a grant award. Eligible projects may consist of laboratory, clinical, population, field, statistical, basic, applied or other types of investigations, studies or experiments, or combinations thereof, and may either be limited to one, or a particular aspect of a, problem or subject, or may consist of two or more related problems or subjects for concurrent or consecutive investigation and involving multiple disciplines, facilities and resources.

§ 52.12 Application for grant.

Any person eligible for a grant award under section 52.11 may file application therefor with the Surgeon General on such forms as he may prescribe. Such application shall set forth adequately the nature, duration, purpose and plan of the research project, the qualifications of the principal staff members to be responsible for the project, the total facilities and resources that will be available, a justification of the amount of grant funds requested, and such other pertinent information as the Surgeon General may require. The application shall be executed by an individual authorized to act for the institution or other applicant and to assume on behalf of the applicant the obligations imposed by the terms and conditions of any award, including the regulations of this part.

§ 52.13 Evaluation and disposition of applications.

(a) Evaluation. All applications filed in accordance with section 52.12 shall be evaluated by the Surgeon General through such officers and employees of the Service and such experts or consultants engaged for this purpose as he determines are specially qualified in the areas of research involved in the project, including review by appropriate National Advisory Council or other body as may be required by law. The Surgeon General's evaluation shall take into account among other pertinent factors the scientific merit and significance of the project, the competency of the proposed staff in relation to the type of research involved, the feasibility of the project, the likelihood of its producing meaningful results, the proposed project period, and the adequacy of the applicant's resources available for the project and the amount of grant funds necessary for completion.

(b) Disposition. On the basis of his evaluation of an application pursuant to paragraph (a) and subject to such approvals, recommendations or consultations by the appropriate National Advisory Council or other body as may be required by law, the Surgeon General shall (1) approve, (2) defer because of either lack of funds or a need for further evaluation, or (3) disapprove, support of the proposed project in whole or in part. With respect to approved projects, the Surgeon General shall determine the project period during which the project may be supported. Any deferral or disapproval of an application shall not preclude its reconsideration or a reapplication.

§ 52.14 Grant awards.

(a) General. Within the limits of funds available for such purpose, the Surgeon General shall award a grant to those applicants whose approved projects will in his judgment best promote the purposes of section 52.10. The date specified by the Surgeon General as the beginning of the project period shall be no later than 9 months following the date of any initial or new award unless the Surgeon General finds that because of the nature of a project or the grantee's particular circumstances, earlier assurance of grant support is required to initiate the project. All grant awards shall be in writing, shall set forth the amount of funds granted and shall constitute for such amounts the encumbrance of Federal funds available for such purpose on the date of the award.

(b) Determination of award amount. The amount of any award shall be determined by the Surgeon General on the basis of his estimate of the sum necessary for all or a designated portion of direct project costs (as set forth in §§52.31 and 52.33) for either the project period or for such lesser period as he may designate in making the award, plus an additional amount, if any, for overhead or indirect costs (as set forth in § 52.32). Neither the approval of any project nor a grant award shall commit or obligate the United States in any way to make any additional, supplemental, continuation or other award with respect to any approved project or portion thereof.

(c) Multiple, concurrent, initial awards. Whenever a research project involves a number of different but related problems, activities or disciplines so as to require evaluation by different groups within the Public Health Service, or whenever support for a pro-

ject could be more effectively administered by separate handling of separate aspects of the project, the Surgeon General may evaluate and approve two or more concurrent applications each dealing with one or more specified aspects of the project, and he may make two or more concurrent grant awards with respect to such a project.

(d) Supplemental and continuation awards. The Surgeon General may from time to time within the project period make additional grant awards with respect to any approved project continued without change except as provided in section 52.20 (b) and (c) where he finds, on the basis of such progress and accounting reports as he may require, either that (1) the amount of any prior award was less than the amount necessary to carry out the approved project within the period used for estimating the amount of such prior award (a supplemental grant), or (2) the progress made within the period with respect to which any prior awards were made justifies support for an additional, specified portion, or the remainder, of the project period (a continuation grant). The amount of any supplemental or continuation grant shall be determined as provided in paragraph (b).

(e) Payments. The Surgeon General shall from time to time make payments to a grantee of all or a portion of any grant award, either in advance or by way of reimbursement for expenses to be incurred or incurred in the project period, to the extent he determines such payments necessary to promote prompt initiation and advancement of the approved project. All such payments shall be recorded by the grantee in accounting records separate from all other fund accounts, including funds derived from other grant awards. Amounts paid shall be available for expenditure by the grantee in accordance with the regulations of this part throughout the project period subject to such limitations as the Surgeon General may prescribe.

§ 52.15 Termination.

(a) Discontinuance by agreement. Whenever in the judgment of the Surgeon General and the grantee continuation of an approved project would produce results of no value in furthering the purposes of section 52.10, grant support shall be terminated as provided in paragraph (b) of this section.

(b) Termination by Surgeon General. Any grant award may be revoked or terminated by the Surgeon General in whole or in part at any time within the project period whenever in his judgment he finds either that the grantee has failed in a material respect to comply with the regulations of this part or that there is other compelling reason in the public interest for termination. The grantee shall be promptly notified of such finding in writing and given the reasons therefor. Upon such termination, the grantee shall render an accounting pursuant to Subpart E: Provided, however, That to the extent any termination is due in the judgment of the Surgeon General to no fault of the grantee, credit shall be allowed for the amount required to settle at minimum costs any noncancellable obligations properly incurred by the grantee prior to receipt of notice of termination.

(c) Termination by the grantee. A grantee may at any time terminate or cancel its conduct of an approved project by notifying the Surgeon General in writing setting forth

the reasons for such termination. Upon such termination, the grantee shall render an accounting pursuant to Subpart E.

SUBPART C--GRANT CONDITIONS--OBLIGATIONS OF GRANTEE

§ 52.20 Use of funds; changes.

(a) Use of funds. Any funds granted pursuant to section 52.14 shall be expended by the grantee solely for carrying out the approved project in accordance with the regulations of this part. The grantee may not in whole or in part delegate or transfer this responsibility for the use of such funds to any other person.

(b) Changes in project. Subject to such limitations if any as may be adopted by the grantee, the permissible changes by the principal investigator in the approved project shall be limited to changes in methodology, approach or other aspects of the project that would expedite achievement of its research objectives, including changes that grow logically out of the approved project and serve the best scientific strategy.

(c) Changes in project period. The project period determined pursuant to section 52.13 (b) may be extended by the Surgeon General, with or without additional grant support, for an additional period not exceeding one year where he determines that such extension is required to assure adequate completion of the approved project and the total period as extended does not exceed 7 years.

§ 52.21 Principal investigators.

All grant awards shall be subject to the condition that the principal investigator designated in the application as responsible for the conduct of the approved project shall continue responsible for the duration of the project period. Whenever any such investigator shall become unavailable for any reason to discharge this responsibility, the grant shall be terminated as provided in section 52.15 unless the grantee replaces such investigator with another person found by the Surgeon General to be qualified to direct and conduct the approved project.

§ 52.22 Inventions or discoveries.

Any grant award pursuant to section 52.14 is subject to the regulations of the Department of Health, Education, and Welfare as set forth in Title 45, C.F.R., Parts 6 and 8, as amended. Such regulations shall apply to any activity for which grant funds are in fact used whether within the scope of the project as approved or otherwise. Appropriate measures shall be taken by the grantee and by the Surgeon General to assure that no contracts, assignments or other arrangements inconsistent with the grant obligation are continued or entered into and that all personnel involved in the supported activity are aware of and comply with such obligation. Invention reports, laboratory notes and related technical data or information shall be maintained for such periods, and filed with or otherwise made available to the Surgeon General or those he may designate at such times and in such manner, as he may determine necessary to carry out such Department regulations.

§ 52.23 Records, reports, inspections.

(a) Records and reports. Each grant award pursuant to section 52.14 shall be subject to the condition that the grantee shall maintain such progress and fiscal records, and file with the Surgeon General such progress and fiscal reports relating to the conduct and results of the approved project and the use of grant funds as the Surgeon General may prescribe. No such records shall be destroyed or otherwise disposed of within 3 years after termination of the project period unless a shorter or longer period of time is, respectively, permitted or required in writing by the Surgeon General as to all, or particular types of, records.

(b) Inspection and audit. Any application for a grant award filed pursuant to section 52.12 shall constitute the consent of the applicant to inspections at reasonable times by persons designated by the Surgeon General of the facilities, equipment and other resources of the applicant and to interviews with principal staff members to the extent such resources and personnel will be, or are, involved in the project. In addition, the acceptance of any grant award under section 52.14 shall constitute the consent of the grantee to inspections and fiscal audit by such persons of the supported activity and of progress and fiscal records relating to the approved project.

§ 52.24 Other conditions.

The Surgeon General may with respect to any grant award or class of awards impose additional conditions prior to or at the time of any award when in his judgment such conditions are necessary to assure or protect advancement of the approved project, the interests of the public health, or the conservation of grant funds.

SUBPART D--EXPENDITURES BY GRANTEE

§ 52.30 Allocation of costs.

Except as may otherwise be provided by or pursuant to the regulations of this part, the allocation of expenditures by a grantee as between direct and indirect costs shall be in accordance with generally accepted and established accounting practices and in accordance with the same policies and methods that the grantee applies to all its research and related activities whether self-sponsored or supported by contracts or grants.

§ 52.31 Direct costs in general.

Funds granted for the direct costs of an approved project may be expended by the grantee for personal services, rental of space, materials and supplies, and other cost items as provided in the regulations of this part only to the extent such services, materials, supplies or other items are required to carry out the approved project. The Surgeon General may issue rules, instructions, interpretations or limitations supplementing the regulations of this part and prescribing the extent to which particular types of expenditures, including those set forth in section 52.33, may be charged as direct costs to granted funds.

§ 52.32 Indirect costs.

(a) Purpose and nature. The amount awarded for indirect costs is provided for the purpose of meeting the approved project's share of the general administrative and other overhead expenses of the grantee. Indirect costs are those which, because of their incurrence for common or joint objectives, are not readily identified with individual research projects. Expenditures representing an institution's auxiliary services or supportive activities to research, such as personnel management, accounting or purchasing, and the cost of the usual utilities or the normal maintenance and protection of the grantee's facilities, shall not be charged as direct costs, unless because of special circumstances such a charge is specifically approved by the Surgeon General in advance of expenditure.

(b) Determination of amount of award for indirect costs. Subject to such maximum amounts or percentages as may be prescribed by law and to accountability as provided in section 52.41, the amount of any award for the indirect costs of any project shall be calculated by the Surgeon General either (1) on the basis of his estimate of the actual indirect costs reasonably related to the approved project, or (2) on the basis of a percentage of all, or a portion of, the estimated direct costs of the approved project when there are reasonable assurances that the use of such percentage will not exceed the approximate actual indirect costs.

§ 52.33 Particular direct costs.

(a) Personal services. The costs of personal services are payable from grant funds substantially in proportion to the time or effort the individual devotes to carrying out the approved project. In such proportion, such costs may include all direct costs incident to such services, such as salary during vacations and retirement and workmen's compensation charges, in accordance with the requirements applicable by law to the grantee and where in accordance with the policies and accounting practices consistently applied by the grantee to all its activities.

(b) Equipment and materials. The cost of acquiring materials or fixed or movable equipment not available to the grantee for the approved project but required for its execution may be charged to grant funds as a direct cost. Such acquisition may be by lease or other arrangement for use during the project period or by outright purchase subject to accounting as provided in section 52.42. Such costs may include those incurred for delivery, installation and maintenance services.

(c) Travel costs. Costs of travel of individuals engaged in carrying out the approved project may be payable as direct costs where such travel is required by the nature of the project, such as field surveys or studies or transportation of patients participating in a project conducted at a central clinic or other place. Not chargeable as direct costs are expenses for staff attendance at scientific meetings or conferences not related in the judgment of the Surgeon General to advancing the approved project. To the extent the grantee has not established rules or policies which it uniformly applies regardless of source of funds in determining the amounts and types of reimbursable travel expenses,

the Standardized Government Travel Regulations shall be applied in determining the amount of grant funds chargeable for travel expenses.

(d) Alterations and renovations. The costs of altering or renovating buildings or other structures in which the approved project is to be, or is being, conducted may be charged as direct costs to the extent such alteration or renovation is essential to the accomplishment of the specific objective of such project. Such costs may not include enlarging or adding to such structures or the erection of new structures.

(e) Publication costs. Costs required to assure effective publication or other distribution of the research results of any approved project may be charged as direct costs. Where such costs relate to charges imposed by scientific journals, they may be payable from grant funds only where they are imposed on a uniform basis to all contributors to such journals and, if assessed to secure early or accelerated publication date, only where the Surgeon General determines in advance that such acceleration is of significant value to the public health.

SUBPART E--GRANTEE ACCOUNTABILITY

§ 52.40 Date of final accounting.

In addition to such other accounting as the Surgeon General may require, a grantee shall render, with respect to each approved project, a full account, as provided herein, as of a termination date which shall be either (a) the end of the project period as determined pursuant to section 52.13 (b) or its extension as provided in section 52.20 (c), or (b) the date of any termination of grant support as provided in section 52.15, whichever first occurs.

§ 52.41 Accounting for grant award payments.

With respect to each approved project, the grantee shall account for the sum total of all amounts paid under section 52.14 (e) by presenting or otherwise making available vouchers or any other evidence satisfactory to the Surgeon General of expenditures for direct and indirect costs meeting the requirements of Subpart D: Provided, however, That where in accordance with section 52.32 (b) the amount awarded for indirect costs was based on a percentage of estimated direct costs, the amount allowed for indirect costs shall be that percentage of actual direct costs, or approved portion thereof, unless the Surgeon General has reason to believe that such application of the percentage would result in an allowance in excess of actual indirect costs.

§ 52.42 Accounting for equipment, materials or supplies.

Expenditures of grant funds for movable or fixed equipment, materials or supplies, termed in this subpart "materials", may be charged to grant funds as direct costs only to the extent such materials are used or consumed for approved project purposes during the

project period. Any materials on hand on the date of termination (excluding expendable supplies within such limitations as the Surgeon General may prescribe) shall be accounted for, or accountability waived, by one or a combination of the following methods:

(a) Waiver of equipment accountability. Where the grantee is an organization within the terms of the Act of September 6, 1958 (72 Stat. 1793; P.L. 85-934), the obligation to account for the value of any fixed or movable equipment may be waived by the Surgeon General as provided by such Act.

(b) Retention for other health research projects. If the grantee is other than an individual, the materials may be used, without adjustment of accounts, in other related research projects within the scope of section 52.10, and no other accounting for such materials shall be required: Provided, however, (1) That during such period of use no charge for depreciation, amortization or for other use of the materials shall be made against any existing or future Federal grant or contract, and (2) if within the period of their useful life the materials are transferred by sale or otherwise for use outside the scope of section 52.10, the fair market value at the time of transfer shall be payable to the United States.

(c) Sale or other disposition; crediting of proceeds or value. The materials may be sold by the grantee and the net proceeds of sale credited to the grant account, or they may be used or disposed of in any manner by the grantee by crediting to the grant account their fair market value on the termination date.

(d) Transfer to the United States. To the extent the Surgeon General so requires or approves, title to such materials will be transferred to the United States for such authorized use or disposition as he may direct.

§ 52.43 Interest.

Any interest earned through any deposit or investment by the grantee of the funds paid pursuant to section 52.14 (e) shall be credited to the grant account as such interest is received by the grantee.

§ 52.44 Project net income.

Except as may otherwise be provided pursuant to regulations of the Department of Health, Education, and Welfare with respect to income from patentable inventions or discoveries, the Surgeon General may impose on any grant award or class of grant awards conditions that will assure return to the United States of its equitable share of any net income derived by the grantee from the activity supported by grant.

§ 52.45 Final settlement.

There shall be payable to the United States as final settlement with respect to each approved project the total sum of (a) any amount not accounted for pursuant to section 52.41, (b) any credits for materials on hand as provided in section 52.42, and (c) any

credits for earned interest and for net income of the project pursuant to sections 52.43 and 52.44. Such total sum shall constitute a debt owed by the grantee to the United States and shall be recovered from the grantee or its successors or assignees by setoff or other action as provided by law.



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

BETHESDA 14, MD.

NATIONAL INSTITUTES OF HEALTH
Area Code 301 Tel: 656-4000

Refer to:

MEMORANDUM

June 12, 1963

To : Study Section Members
Principal Investigators on Research Grants
Grantee Institution Officials

From : Surgeon General *Julius B. Searl*

Subject: Proposed Research Project Grant Regulations

I am transmitting to you a copy of the regulations which were published as a proposal in the Federal Register. These regulations are the legal implementation of the statutory authority and, with the statutes, will govern the development of administrative policies released through manual issuances.

The regulations are being sent to members of the PHS advisory groups, business officers, deans of schools at grantee institutions, and all principal investigators shown on research grants. This action is being taken so that the members of the scientific community may have an opportunity to comment and thus participate in the formulation of the final regulations.

In drafting the regulations, the Public Health Service has intended to continue the operation of a system of research support for the effective furtherance of scientific achievement in the health sciences, with every effort made to preserve the necessary conditions of scientific freedom for the investigator. Furthermore, the Service hopes to continue to operate this program with only the minimum administrative requirements which are needed to assure the prudent use of Federal funds.

There is attached a brief statement of the procedure followed in developing the regulations. This information outlines a series of actions which the Service and members of the scientific community have taken in developing these regulations. The Service is pleased with the advice and assistance given by members of the advisory groups. We believe that the regulations, as written, are responsive to the interests and needs of the research community as well as the Public Health Service.

The attached proposal allows a period of 60 days from Federal Register publication in which inquiries, data, views, and comments may be submitted. If you wish, you should feel free to comment on these proposed regulations.

Attachments

Development of the Proposed Regulations

In preparing these proposed regulations the Service has sought the advice and assistance of the public advisory groups which have worked with the health research grant programs. Members of the National Advisory Councils, Chairmen of the Study Sections, and other special advisory groups were invited to comment on draft proposals. The provisions of the regulations were discussed at the most recent series of Council meetings. In addition, a special intercouncil meeting, with a representative from each of the Councils, was held to discuss issues which required further clarification. Suggestions and comments from these various sources were taken into account in preparing the proposed regulations.

At the intercouncil meeting, the committee members and the PHS staff reviewed the regulations in great detail. The comments which had been submitted by members of advisory groups were carefully considered in determining the revisions to be made. After careful consideration of the issues and comments, agreements were reached on the changes to be incorporated in the proposal for publication in the Federal Register. With respect to Changes in Project, the Service was pleased to be able to develop a statement relating to scientific freedom which should satisfy essentially all our grantees.

Following the meeting between PHS personnel and the Intercouncil Committee, the regulations were rewritten to include the changes. In many situations, provisions were clarified by making changes of an editorial nature. There were four changes, however, which involved substantive revisions in the text:

1. A new statement has been prepared to describe the permissible changes in projects which may be made by the principal investigator. The new statement provides: "Subject to such limitations if any as may be adopted by the grantee, the permissible changes by the principal investigator in the approved project shall be limited to changes in methodology, approach, or other aspects of the project that would expedite achievement of its research objectives, including changes that grow logically out of the approved project and serve the best scientific strategy."

2. The requirements for the maintenance of laboratory notes and related technical data have been clarified to show that records of such information must be retained only where they are related to possibly patentable inventions and discoveries which are made or developed with use of Federal grant funds.

3. The cost of attending scientific meetings or conferences where related to advancing the approved project is chargeable to grant funds. The final determination as to whether the attendance is so related, in case of audit exception, is that of the Surgeon General. Expenses for attendance at scientific meetings or conferences not related in the judgment of the Surgeon General to advancing the approved project will not be chargeable as direct costs.

4. The regulation regarding the evaluation of applications has been revised to reflect more clearly the role of the Councils in this process.

The regulations have been published as a notice of rule making in the Federal Register. A period of 60 days is allowed in which inquiries, data, views, and comments may be submitted to the Surgeon General, Public Health Service, Washington, D. C.

THE UNIVERSITY OF CHICAGO
CHICAGO 37 • ILLINOIS
OFFICE OF THE VICE PRESIDENT • SPECIAL PROJECTS
5801 ELLIS AVENUE

August 16, 1963

Re: GM-06876-05

VIA AIR MAIL

Dr. Leo Szilard
c/o Dr. Martin Kaplan
World Health Organization
Palais des Nations
Geneva, Switzerland

Dear Dr. Szilard:

Enclosed are the application materials for the renewal of your NIH grant as listed below. As you know, the application is due at Bethesda by 1 October 1963.

Please note that (1) we have completed the application insofar as we are able at this time; (2) we have appended instructions for each page that is incomplete and for which you must supply additional information.

We have also sent to Miss Cherin a draft copy of the Worksheet (and note thereto) so that she may be of assistance in its completion (a copy of our letter to her is attached).

When the application materials are completed, please return them to us (keeping the instructions, etc.) and we will do whatever remains to put them in final form for submission to NIH. Please note that each form and the two letters require your signature (six signatures in total). We will furnish you with complete copies of all items submitted and advise you later when NIH acknowledges receipt of the originals.

We are in receipt of the required number of the two papers to which you referred in your letters of July 12 and August 7, 1963. We will, of course, include them with the application before it is forwarded to NIH.

We trust that together with the instructions furnished by NIH and the notes we have attached, preparation of the application will go smoothly. However, do not hesitate to cable us should you need further assistance.

Dr. Leo Szilard
GM-06876-05
August 16, 1963
Page 2

We will appreciate your acknowledging receipt of these materials.

Sincerely yours,

Irene E. Fagerstrom

Irene E. Fagerstrom
Assistant Vice President
(Special Projects)

Enclosures

1. Letter to S. Cherin
2. Application Materials as follows:
 - a. Transmittal letter
 - b. Patent conflict letter (draft)
 - c. PHS-2590, pp. 1, 2 (draft cy)
2, and Worksheet (draft cy)
 - d. PHS-3945
 - e. PHS-166
 - f. PHS-3991-3
3. Information Sheets as follows:
 - a. Preparation of application
 - b. Submission of annual Invention statement
 - c. Definition of terms used in invention statement
 - d. Purpose of "Notice of Research Project" form
 - e. PHS patent policy requirements
 - f. "Research Grant Programs of the PHS"

cc: Shirley Cherin

21 August, 1963

- 1.) It has been shown that the observed frequent occurrence of a striking resemblance between a child and one of its parents might be explained in one of two ways:
 - a) The perceptible phenotype might be determined by a number of different genetic loci, all of which are located on one pair of homologous autosomes. Such an autosome might possess a certain "strength" and a "strong" autosome might suppress the homologous autosome if it is substantially less "strong". (For details see the enclosed paper "On the occasional dominance of the 'perceptible phenotype' in Man", dated July 12, 1963.)
 - b) The genes which determine the perceptible phenotype might all be located within the same operon and different operons might be more strongly or less strongly repressed. This could then account for the observed resemblances, if one assumes that the perceptible phenotype is determined by the ratio of the quantities of the products of these genes in the diploid cell.
- 2.) An experimental method has been devised for determining whether the competition which exists between spermatozoa for fertilising an ovum might serve the purpose of protecting the ova against being fertilised by a spermatozoon which might contain genetic material that has deteriorated as a result of the aging process. This method ^{is intended} consists in inseminating females with a mixture of spermatozoa, derived from two donors, and in determining how the fraction of the offspring which is derived from the older donor, decreases with increasing age difference ^{of} between the two donors. (For details see the enclosed paper "The aging process and the 'competitive strength' of spermatozoa", dated July 25, 1963.) Arrangements for carrying out experiments of this type are at present under discussion.

August 21st, 1963

4. TRAVEL

I plan to make two trips to Europe.

On one of these trips to Europe I plan to visit one of the three institutes listed below:

- (a) The World Health Organization, Geneva, Switzerland
- (b) The Institute of Genetics (Cavalli Sforza) at the University of Pavia, Italy.
- (c) The National Institute for Medical Research (Peter B. Medawar), Mill Hill, London, England.

Work on population genetics which I am planning to perform will make it necessary for me to visit one out of these three places in Europe, in order to assemble data in vital statistics which are difficult to obtain in the United States.

On the other trip to Europe, I plan to visit the Institute of Animal Genetics (C.H. Waddington), at the University of Edinburgh, England. The purpose of this trip is to discuss and if possible to make arrangements for the insemination of female animals with mixtures of spermatozoa derived from two different males.

During the coming grant year I also plan to make three trips from the East coast to the Salk Institute for Biological Studies at La Jolla, California.

My travel expenses are estimated as follows:

2 trips to Europe	\$ 3000
3 trips to La Jolla	\$ 2000
Other travel within the U.S.	\$
	<hr/>
	\$

~~Of these expenses there would come out of the anticipated free balance~~

~~Charged to regular budget the difference of~~

\$
<hr/>
\$

encl 1

THE UNIVERSITY OF CHICAGO
CHICAGO 37 • ILLINOIS
OFFICE OF THE VICE PRESIDENT • SPECIAL PROJECTS
5801 ELLIS AVENUE

16 August 1963

Re: Dr. Leo Szilard
GM-06876-04

Miss Shirley Cherin
22 East 40th Street
New York City 16, N. Y.

Dear Miss Cherin:

Enclosed is a copy of our letter to Dr. Leo Szilard dated 16 August 1963 in connection with his renewal application to the National Institutes of Health. Also enclosed is a draft copy of a Budget Worksheet which he must complete in this connection.

We are sending this Worksheet to you for two reasons. First, we anticipate he will need to refer to you for the current figures and second, since the application must be submitted before 1 October 1963, we are hopeful that we, with your assistance, may be able to save him some time.

The figures shown on the Worksheet, Section I, Column 1: "Actual Obligations through _____", were based on the 30 June 1963 ledger (the July ledger is not yet available) and, therefore, need to be brought up to date. It appears also that only travel expenditures through 25 March 1963 have been recorded on the ledger. Since Dr. Szilard will need himself to make the estimates for the remainder of the current grant year, will you please advise him as soon as possible what the present actual obligations are for each subaccount.

Your assistance in this regard is greatly appreciated.

Sincerely yours,

Irene E. Fagerstrom
Assistant Vice President
(Special Projects)

Enclosures (2)

cc: Dr. Leo Szilard ✓

Miss Irene Fagerstrom
Assistant Vice President
Office of the Vice President - Special Projects
The University of Chicago
5801 Ellis Avenue
Chicago 37, Illinois
United States of America.

Geneva, 27th August, 1963.

Dear Miss Fagerstrom,

I am returning to you enclosed the budget work sheet which you sent me. Please note that I do not wish to ask for more funds for the coming grant year than those to which I am entitled on the basis of the research grant, taking into account the anticipated free balance during the coming grant year.

In case the expense items which I am communicating to you with this letter should exceed the amount of funds to which I am entitled, then please cut each item in the same proportion, in order to bring the total within the limits of the funds that are available to me.

I understand from Miss Cherin that she has received cheques for me relating to expenses incurred prior to June 30th, and taking these cheques into account, it should now be possible for you to fill in the column under "Actual obligations through to 30th June, 1963". I would suggest that in the column "Estimated Additional Expenditures through remainder of current grant period" the same amount be put down for travel expenses, secretarial services and office expenses as had been actually spent for the period ending June 30th, 1963.

Please note that I have typed in the information requested that I was supposed to supply under "III. Planned use of anticipated free balance during coming grant year".

I am enclosing another draft sheet, to which I have attached a text relating to "~~4~~ Travel".

I trust that I have now given you all the information that you need in order to be able to fill in the figures on the two sheets

which are enclosed.

I am sending a copy of this letter to Miss Cherin in New York and if she should write you to correct any of the data that I gave you, she will be speaking for me and so you may accept her suggestions.

Please write me airmail, whether you now have all that you need from me in order to enable you to complete and to file the application for the renewal of the grant.

With best wishes.

Yours sincerely,

Leo Szilard
c/o Dr. Martin Kaplan
World Health Organization
Palais des Nations
Geneva, Switzerland.

Encs.

Dup. [S-37]

21st August, 1963

Division of Research Grants
National Institutes of Health
Bethesda 14, Maryland

Gentlemen:

Attached is an application for continued support of research grant, GM-06876-04.

The papers listed below are at present privately circulated among scientists who may be assumed to be interested, as a result of work done under this grant. Ten multigraphed copies of each paper are enclosed with this application.

Sincerely yours

Leo Szilard

Papers

"On the Occasional Dominance of the 'Perceptible Phenotype' in Man", dated July 12, 1963.

"The Aging Process and the 'Competitive Strength' of Spermatozoa", dated July 25, 1963.

Miss Irene Fargerstrom
Assistant Vice President
Office of the Vice President - Special Projects
Administration Building
The University of Chicago
5801 Ellis Avenue
Chicago 37, Illinois
United States of America.

Geneva, 23rd August, 1963

Dear Miss Fargerstrom,

Enclosed you will find all the material which you sent me, except the reproductions of the two forms which relate to budgetary data. These will follow later. You will find enclosed:

- page 1, which has to be completed by you
- page 3, which I have completed
- the "Notice of Research Project", which I have completed
- the letter of transmission which I have signed and which starts "Gentlemen: Attached is an application ..."
- the letter relating to patent obligations, which I have signed
- the annual invention statement, which I have signed, but on which you have to fill in the period covered, which should pick up where the last statement left off,
- and another form, which I signed on the reverse side, which is marked "FY 64".

With best wishes.

Sincerely yours,



Leo Szilard

c/o Dr. Martin Kaplan
World Health Organization
Palais des Nations
Geneva, Switzerland.

Miss Shirley Cherin
c/o Galef and Jacobs
22 East 40th Street
New York 16, N.Y.

United States of America.

Geneva, 27th August, 1963

Dear Miss Cherin,

Miss Irene Fagerstrom of the University of Chicago has written to you concerning the budgetary items which have to be inserted in the budget work sheet, attached to my application for the renewal of my research grant. This application must be on file by September 30th and because things are slowed down at the University of Chicago in September, on account of September being vacation time at the University, I am very anxious that everything that still needs to be done, be now done as fast as possible.

I am enclosing a copy of a letter which I have written to Miss Fagerstrom and which is self-explanatory. I should be very grateful if you could call up Miss Fagerstrom on the telephone to make sure that she now has all the data that she needs. If she is lacking some data, I should appreciate your supplying it to her directly in writing, and sending me a copy of your letter to my Geneva address.

With best wishes,

Sincerely,

Leo Szilard

c/o Dr. Martin Kaplan
World Health Organization
Palais des Nations
Geneva, Switzerland.

Encs.

Miss Irene Fagerstrom
Assistant Vice President
Office of the Vice President - Special Projects
Administration Building
The University of Chicago
5801 Ellis Avenue
Chicago 37, Illinois
United States of America

Geneva, 30th August, 1963

Dear Miss Fagerstrom,

Since I wrote you on August 27th, I have received a letter from my accountant, Miss Shirley Cherin, of which I enclose a copy. Miss Cherin also transmitted to me the Appropriation Ledger, fiscal year through July 31st, 1963, of which I also attach a copy.

In filling in the column for the application for the renewal of my grant which relates to "Actual obligations through 30th June, 1963", you might have to take into account two cheques, cited in Miss Cherin's letter if they relate, as I believe they do, to obligations incurred prior to June 30th, 1963.

I should appreciate your writing me whether you now have all that you need from me, in order to be able to complete and file the application for the renewal of the grant.

With best wishes,

Sincerely,

Leo Szilard

c/o Dr. Martin Kaplan
World Health Organization
Palais des Nations
Geneva, Switzerland.

cc. Miss Shirley Cherin

GALEF & JACOBS

22 EAST 40TH STREET

NEW YORK 16, N. Y.

GABRIEL GALEF
VICTOR JACOBS
HENRY MAYER
SHIRLEY CHERIN
WILLIAM M. IVLER
STUART J. GORDON

MURRAY HILL 3-7866
CABLE ADDRESS: "VICLEF"

N. Y. & CONN. BARS

August 26, 1963

Dr. Leo Szilard
c/o Dr. Martin Kaplan
World Health Organization
Palais de Nations
Geneva, Switzerland

Dear Dr. Szilard:

In accordance with communication from the University of Chicago dated August 16, 1963 re your GM-06876-04 copy of which was sent to you, I enclose University of Chicago Appropriation Ledger Sheet for the fiscal year through July 31, 1963. This only arrived at my office today and I hasten to send it to you so that the work sheet can be completed.

According to the records in my file in addition to the payments shown on the July statement, the University remitted from the numbered account \$209.00 on August 21, 1963 for travel expenses incurred prior to July 31, 1963 and on the same date an additional sum of \$1227.88 for travel expenses incurred prior to July 31, 1963. All other items and expense would be in your possession. If you have any questions communicate with me without delay.

Kindest regards.

Sincerely,


SHIRLEY CHERIN

SC/bg
enc.

APPROPRIATION LEDGER

ACCOUNT: 3-5420-00-1673 USPHS GM06876-04 MED RES 822

FISCAL YEAR THRU JULY 31, 1963 PAGE # 1

SUB NO.	APPROPRIATIONS AND BALANCES REAPPROPRIATED *=-NEGATIVE APPROP.	REFERENCES-COL 2 & 7				EXPENDITURES			ENCUMBRANCES				APPROPRIATION BALANCE AVAILABLE *=-OVERDRAFT
		ENTRY CODE	COMPTROLLER VOUCHER NO.	DOCUMENT OR REFERENCE NO.	TYPE OF CHARGE	MONTH	TO DATE	ENTRY CODE	NUMBER	AMOUNT	BALANCE	DATE-LAST TRANSACTION	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
20	SALARIES												
	6,499.98	06	00154										
		31	00284		10	916.67							
	6,499.98		SUB	TOTAL		916.67	916.67						5,583.31
34	TRAVEL												
	5,759.84	06	00154										
	5,759.84		SUB	TOTAL									5,759.84
36	OTHER EXPENSE												
	3,398.90	06	00154										
	3,398.90		SUB	TOTAL									3,398.90
81	ACAD RETIRE												
	324.98	06	00154										
		41	00373	07/31	80	108.17							
	324.98		SUB	TOTAL		108.17	108.17						216.81
83	SOCIAL SECURITY ETC												
	120.00	06	00154										
	120.00		SUB	TOTAL									120.00
90	INDIRECT COST ALLOW												
	2,415.39	06	00154										
		41	00800		39	16.23							
		41	00800		39	137.50							
	2,415.39		SUB	TOTAL		153.73	153.73						2,261.66
	18,519.09			TOTAL		1,178.57	1,178.57						17,340.52

FORM #213-REV. 7-63

NOTE: COLUMN 14 = COLUMN 2 MINUS COLUMNS 8 AND 12

THE UNIVERSITY OF CHICAGO
CHICAGO 37 • ILLINOIS
OFFICE OF THE VICE PRESIDENT • SPECIAL PROJECTS
5801 ELLIS AVENUE

4 September 1963

Dr. Leo Szilard
c/o Dr. Martin Kaplan
World Health Organization
Palais des Nations
Geneva, Switzerland

Dear Dr. Szilard:

We are in receipt of your letters of 27 and 30 August 1963.

We are able to complete the work sheet as you directed, i.e. by using the actual costs for the first six months (including the two travel vouchers referred to by Miss Cherin) as the estimated amount of the remaining six months.

Enclosed is the draft of the Budget Worksheet for 1963 expenditures which may be summarized as follows:

Total funds available -		
New Grant	\$27,670	
Carried forward from 1962	<u>5,000</u>	\$32,670
Less actual and estimated expenditures - 1963		<u>22,585</u>
Estimated balance as of 31 Dec 1963		<u>\$10,085</u>
Estimated balance to be carried forward to-05 (1964)		<u>\$ 5,000</u>

Also returned is the draft of the Budget page. Will you kindly provide the following information in order that we may complete the budget:

1. Travel - Amount needed during 1964 for travel within the United States other than the 2 trips to California. Will you also please indicate some of the places likely to be visited.
2. Other expenses - Amount needed during continuation period 1964 for secretarial expense and communications.

Dr. Leo Szilard

9/4/63

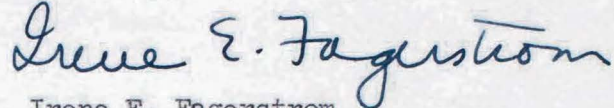
Page 2

Please note that \$26,500 is available for direct costs for the purposes of the budget to be submitted to NIH at this time. The carry-over of \$5,000 (\$4,166 for direct costs) can be budgeted as needed after the final fiscal report for 1963 is submitted to and approved by NIH, and the carry-over is also approved by NIH. Note also that an explanation is requested if there are significant differences between the annual rates of expenditures as shown in columns (2) and (3) of the budget page. Will you please return this sheet with the additional information.

We believe that your assistance on these final matters will enable us to complete the application for submission to NIH.

Best wishes.

Sincerely,



Irene E. Fagerstrom
Assistant Vice President
for Special Projects

Enclosures

Worksheet

Budget Page

cc: Miss Cherin

file copy

10 September 1963

Miss Irene E. Fagerstrom
Assistant Vice President
Office of the Vice President - Special Projects
University of Chicago
5801 Ellis Avenue
Chicago 37
Illinois
USA

Dear Miss Fagerstrom,

I am writing to you in response to your letter of September 4. My comments are as follows.

1. Travel - Please budget \$2,000 for travel inside the United States other than the two trips to California. Places to be visited are expected to be the National Institute of Health, Bethesda, Maryland and Massachusetts Institute of Technology, Cambridge, Massachusetts.
2. Other expenses - Please schedule for secretarial and office expenses \$4,000 and for communications \$20.

If my arithmetic is correct, this brings the total direct cost to \$26,500, which I understand we must not exceed at this point. The amount scheduled for communications is obviously not sufficient but I understand from your letter that we might be able to use, for purposes of this sort, part of the \$5,000 which might be carried over if approved by NIH.

Since it will be difficult to reach me from this point on, and since occasionally letters get lost, I shall send a confirmation copy of this letter to you under separate cover.

Whilst my address remains c/o Dr Martin Kaplan, World Health Organization, Palais des Nations, Geneva, I am leaving Geneva during this week for points South. Communications will be held for me at this address but I might not be able to pick them up before October 1. A communication from you might reach me on Tuesday September 17 if sent c/o Professor Buzzati-Traverso, International Laboratory of Genetics and Biophysics, Napoli, Italy, via Claudio, casella postale 104; telephone 611.224, 615.464, 616.991; cable address labgebi.

Miss Irene E. Fagerstrom

10.9.63

A communication from you might also reach me between September 18 - 24 at Dubrovnik, Yugoslavia at the Neptun Hotel. Telegraphic address: Pugwash, Umjetnicka Galerija, Dubrovnik.

I should appreciate your writing me to my Geneva address confirming that you now have all the information you need

Many thanks and sincerely,

Leo Szilard

cc: Miss Cherin

THE UNIVERSITY OF CHICAGO
CHICAGO ~~IL~~ • ILLINOIS 60637
OFFICE OF THE VICE PRESIDENT • SPECIAL PROJECTS
5801 ELLIS AVENUE

24 September 1963

Dr. Leo Szilard
c/o Dr. Martin Kaplan
World Health Organization
Palais des Nations
Geneva, Switzerland

Dear Dr. Szilard:

Attached are your file copies of the materials which were submitted on September 23, 1963 to NIH in behalf of your research project, GM-06876-05.

If we may be of further assistance, please advise.

Sincerely,

Irene E. Fagerstrom
Irene E. Fagerstrom
Assistant Vice President
(Special Projects)

cc: Dean A. A. Albert

Prof. Szilard

21st August, 1963

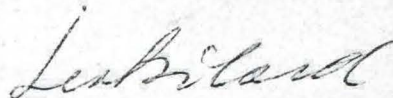
Division of Research Grants
National Institutes of Health
Bethesda 14, Maryland

Gentlemen:

Attached is an application for continued support of research grant, GM-06876-04.

The papers listed below are at present privately circulated among scientists who may be assumed to be interested, as a result of work done under this grant. Ten multigraphed copies of each paper are enclosed with this application.

Sincerely yours



Leo Szilard

Papers

"On the Occasional Dominance of the 'Perceptible Phenotype' in Man", dated July 12, 1963.

"The Aging Process and the 'Competitive Strength' of Spermatozoa", dated July 25, 1963.

Prepared for the Science Information Exchange.
Not for publication or publication reference.

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

PROJECT NO. (DO NOT USE THIS SPACE)

Submit with completed Application to: Division of Research Grants, National Institutes of Health, Bethesda 14, Md.

TITLE OF PROJECT:

QUANTITATIVE STUDIES OF GENERAL BIOLOGICAL PHENOMENA

Give names, departments, and official titles of PRINCIPAL INVESTIGATORS or PROJECT DIRECTORS and ALL OTHER PROFESSIONAL PERSONNEL engaged on the project. Include day-month-year of birth of principal investigators.

Principle investigator: Leo Szilard, Professor of Biophysics in the Enrico Fermi Institute for Nuclear Studies at the University of Chicago. Born February 11th, 1898. No other professional personnel is engaged on the project.

NAME AND ADDRESS OF APPLICANT INSTITUTION:

The University of Chicago
5801 S. Ellis Avenue
Chicago 37, Illinois

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.

In a population, like for instance the population of the United States, within one cohort, the ages at death have a considerable scattering around the median value. The curve which gives for a cohort the number of deaths per year, as a function of the age, resembles a Gaussian with a standard deviation of about 10 years. Some of the scattering of the ages at death is likely to be due to the genetic differences between the individuals who make up the population and the remainder of the scattering must be attributed to non-genetic causes.

It is proposed to develop a method that would permit us to determine how much of the observed scattering of the ages at death is due to the genetic differences between individuals, i.e. to determine what the mean deviation of the curve, giving the number of deaths per year as a function of the age for a cohort, would be if there were no scattering of the ages at death, other than that which is due to genetic causes.

SIGNATURE OF
PRINCIPAL

Leo Szilard

INVESTIGATOR or PROJECT DIRECTOR

Identify the Professional School (medical, dental, public health, graduate, or other) with which this project should be identified:

SCHOOL

Research Inst. Lakes

INVESTIGATOR -- DO NOT USE THIS SPACE

BUDGET WORK SHEET FOR
PHS-2590 (REV. 2-62)

Name of Principal Investigator Szilard, Leo
 Current Grant No. GM-06876-04
 Current Grant Period 1/1/63 - 12/31/63

I. ESTIMATED CURRENT YEAR LEVEL OF EXPENDITURES:

The following table has been developed to help you in arriving at figures to be inserted in Column 3 of the detailed budget page. Please return this work sheet with your completed application for continuation support.

Budget Categories	Actual Obligations through 30 June 1963 (insert date)	Estimated Additional Expenditures through remainder of current grant period.	TOTAL ESTIMATE FOR ENTIRE CURRENT YEAR (Entries for Column 3 of Budget Page shown by "x")
1. Personnel	\$ 6,149.04	\$ 6,944.96	\$ 13,094.00 x
2. Movable Equipment	-		x
3. Consumable Supplies			x
4. Travel	1,740.16)	3,200.00	6,377.04 x
5. Other expenses on which indirect costs are allowed	1,436.88) 68.10	100.00	168.10 x
6. Sub-total	9,394.18	10,244.96	19,639.14 -
7. Indirect Cost Allowance	1,409.13	1,536.74	2,945.87 -
8. Other expenses on which indirect costs are not allowed	-0-	-0-	-0- x
9. TOTAL ESTIMATE	\$10,803.31	\$11,781.70	\$22,585.01 -

II. ESTIMATED UNOBLIGATED BALANCE AT TERMINATION OF CURRENT GRANT YEAR:

1. Total funds available in current grant for the entire year (include funds that were permitted to be carried over from prior year grant, if any).....\$ 32,670.00
2. Less total estimated expenditures under current grant (from line I.9., above).....- 22,585.01
3. Estimated free balance at termination of current grant (1 minus 2) \$ 10,084.99

III. PLANNED USE OF ANTICIPATED FREE BALANCE DURING COMING GRANT YEAR: (Public Health Service research grant policy permits any unspent funds UP TO \$5,000 OR ONE HALF OF THE CONTINUATION GRANT, whichever is smaller, to carry forward to the continuation grant account and remain available for use during the continuation grant year. Explain below your planned use of the estimated free balance shown in item II.3.)

I anticipate to use the free balance during the coming grant year for secretarial services, communications, and travel expenses.

The increased office and secretarial expenses, as well as the increased travel expenses, are anticipated because, in pursuance of work relating to population genetics and vital statistics which I am about to begin (manuscript in preparation), I expect to have to step up communications with a number of different institutions, who are engaged in similar work.

(continue on reverse if more space is needed)

Grant Number
GM-06876-05

BUDGET JUSTIFICATION

4. TRAVEL

I plan to make two trips to Europe.

On one of these trips to Europe I plan to visit one of the three institutes listed below:

- (a) The World Health Organization, Geneva, Switzerland
- (b) The Institute of Genetics (Cavalli Sforza) at the University of Pavia, Italy.
- (c) The National Institute for Medical Research (Peter B. Medawar), Mill Hill, London, England.

Work on population genetics which I am planning to perform will make it necessary for me to visit one out of these three places in Europe, in order to assemble data in vital statistics which are difficult to obtain in the United States.

On the other trip to Europe, I plan to visit the Institute of Animal Genetics (C. H. Waddington), at the University of Edinburgh, England. The purpose of this trip is to discuss and if possible to make arrangements for the insemination of female animals with mixtures of spermatozoa derived from two different males.

During the coming grant year I also plan to make three trips from the East coast to the Salk Institute for Biological Studies at La Jolla, California.

DO NOT TYPE IN THIS SPACE - BINDING MARGIN

APPLICANT: REPEAT GRANT NUMBER SHOWN ON PAGE 1 →	GRANT NUMBER 024-06376-05	
SUMMARY PROGRESS REPORT		
PRINCIPAL INVESTIGATOR (Name) Leo Sillard	SUMMARY OF ACCOMPLISHMENTS COVERING PERIOD	
INSTITUTION The University of Chicago	FROM 15 Sept 1962	THROUGH 21 Aug. 1963
TITLE OF PROJECT (Repeat title shown in Item 1 on first page) Quantitative Studies of General Biological Processes		

- 1.) It has been shown that the observed frequent occurrence of a striking resemblance between a child and one of its parents might be explained in one of two ways:
- a) The perceptible phenotype might be determined by a number of different genetic loci, all of which are located on one pair of homologous autosomes. Such an autosome might possess a certain "strength" and a "strong" autosome might suppress the homologous autosome if it is substantially less "strong". (For details see the enclosed paper "On the occasional dominance of the 'perceptible phenotype' in Man", dated July 12, 1963.)
- b) The genes which determine the perceptible phenotype might all be located within the same operon and different operons might be more strongly or less strongly repressed. This could then account for the observed resemblances, if one assumes that the perceptible phenotype is determined by the ratio of the quantities of the products of these genes in the diploid cell.
- 2.) An experimental method has been devised for determining whether the competition which exists between spermatozoa for fertilising an ovum might serve the purpose of protecting the ova against being fertilised by a spermatozoon which might contain genetic material that has deteriorated as a result of the aging process. The method devised consists in inseminating females with a mixture of spermatozoa, derived from two donors, and in determining how the fraction of the offspring which is derived from the older donor, decreases with increasing age differences of the two donors. (For details see the enclosed paper "The aging process and the 'competitive strength' of spermatozoa", dated July 25, 1963.) Arrangements for carrying out experiments of this type are at present under discussion.

Leo Sillard

Re: GM-06876-05

Chief
Division of Research Grants
National Institutes of Health
Public Health Service
Department of Health, Education,
and Welfare
Bethesda 14, Maryland

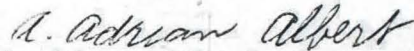
Dear Sir:

This is to certify that neither The University of Chicago nor the professional personnel to be associated with the project referenced above and entitled, "Quantitative Studies of General Biological Phenomena" have made any commitments or obligations which would be in conflict with the patent policy of the Public Health Service as stated in the application herewith submitted.

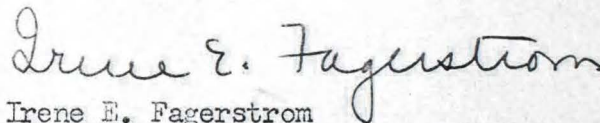
Yours truly,



Leo Szilard
Professor of Biophysics and
Principal Investigator



A. Adrian Albert, Dean
Division of Physical Sciences



Irene E. Fagerstrom
Assistant Vice President for
Special Projects

PHS-3945
REV. 2-63

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE

**ANNUAL INVENTION STATEMENT ON
PUBLIC HEALTH SERVICE GRANT OR AWARD**

I hereby certify that, to the best of my knowledge and belief, all inventions are listed below which might possibly be construed in any manner to be Public Health Service grant or award supported or related and which were conceived and/or reduced to practice, or made the subject of patent application by persons engaged in the performance of work under Public Health Service grant or award

No. GM-06876-04, for the period 18 Sept. 1962 through Aug 21st 1963

(Period dates should NOT extend beyond the date Statement is submitted to The Public Health Service)

(For General Research Support grants the Annual Invention Statement would include only those inventions related to a specific research project aided by such funds. If no inventions have been made under any Public Health Service grant or award, insert the word "None" under Title of Invention.)

NAME OF INVENTOR	TITLE OF INVENTION	DATE REPORTED TO PHS
	<i>none</i>	

Use Continuation Sheet if Necessary

**Signature, in ink, is required in the space provided below, appropriate to the type of grant or award being supported:
SIGNATURE OF INSTITUTIONAL OFFICIAL REQUIRED IN ALL INSTANCES.**

TYPE OF GRANT OR AWARD	SIGNATURES
1. FOR A RESEARCH GRANT.....	<i>Leo Biland</i> (PRINCIPAL INVESTIGATOR OR PROJECT DIRECTOR)
2. FOR A TRAINING GRANT.....	(PROGRAM DIRECTOR)
3. FOR THE RESEARCH CAREER AWARD PROGRAM.....	(AWARDEE)
4. FOR A FELLOWSHIP AWARD.....	(a) (FELLOW)
	(b) (SPONSOR)
5. FOR A GENERAL RESEARCH SUPPORT GRANT (SEPARATE INVENTION STATEMENT FOR EACH IDENTIFIABLE RESEARCH PROJECT).....	(PRINCIPAL INVESTIGATOR)

APPROVED:	SIGNATURE (INSTITUTION OFFICIAL RESPONSIBLE FOR PATENT MATTERS) <i>Irene E. Fagerstrom</i>	TITLE Assistant Vice President (Special Projects)	DATE Sept. 23, 1963
	NAME OF INSTITUTION THE UNIVERSITY OF CHICAGO	MAILING ADDRESS 5801 So. Ellis Ave. Chicago, Illinois 60637	

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE

APPLICANT: LEAVE BLANK EXCEPT FOR GRANT NUMBER		
TYPE	PROGRAM	GRANT NUMBER 68-06876-05
NOTICE OF RESEARCH PROJECT <input type="checkbox"/> YES <input type="checkbox"/> NO		INVENTION STATEMENT <input type="checkbox"/> YES <input type="checkbox"/> NO

**APPLICATION FOR PREVIOUSLY RECOMMENDED
YEAR OF RESEARCH GRANT SUPPORT
(A Privileged Communication)**

1. TITLE OF RESEARCH PROJECT (limit to 53 letters and spaces) QUANTITATIVE STUDIES OF GENERAL BIOLOGICAL FREQUENCIES				
2. NAME AND TITLE OF PRINCIPAL INVESTIGATOR OR PROJECT DIRECTOR (Last, first, middle) Szilard, Leo Professor of Biophysics		DEGREE Ph.D.	3. AMOUNT REQUESTED (Should be same as Item 9, Page 2) \$ 30,475	4. DATES OF GRANT PERIOD FROM 1 January 1964 THROUGH 31 December 1964
MAILING ADDRESS 1155 East 57th Street Chicago 37, Illinois		5. NAME AND TITLE, CO-INVESTIGATOR (if any) DEGREE None		
TELEPHONE NUMBER RT3-4621		6. ADDRESS WHERE RESEARCH IS BEING CONDUCTED "The University of Chicago and other major research centers"		
7. NAME OF SCHOOL AND DEPARTMENT (or service if applicable) Division of Physical Sciences Enrico Fermi Institute for Nuclear Studies		9. NAME, TITLE AND MAILING ADDRESS OF FINANCIAL OFFICER TO WHOM CHECKS SHOULD BE MAILED V. E. Marshall, Vice President for Special Projects The University of Chicago 5801 S. Ellis Avenue Chicago 37, Illinois		
8. NAME AND MAILING ADDRESS OF INSTITUTION SUBMITTING APPLICATION The University of Chicago 5801 S. Ellis Avenue Chicago 37, Illinois		10. TYPE OF INSTITUTION <input type="checkbox"/> PUBLIC <input type="checkbox"/> FEDERAL <input type="checkbox"/> STATE <input type="checkbox"/> LOCAL <input checked="" type="checkbox"/> PRIVATE <input type="checkbox"/> NON-PROFIT, IRS TAX EXEMPTION NO. _____ <input type="checkbox"/> PROFIT		
11. (LEAVE BLANK)		12. TERMS AND CONDITIONS <p>Any grant awarded on the basis of this application is subject to the following terms and conditions: (1) grant funds are to be expended solely for the research purposes described herein and in the award document and for related purposes; (2) the grant may be revoked in whole or in part at any time by the Surgeon General of the Public Health Service, provided that a revocation shall not include any amount obligated previous to the effective date of the revocation if such obligation was made solely for the purposes authorized in Clause (1); (3) all reports of investigations supported by the grant shall acknowledge such support; and (4) the applicant and principal investigator (project director) agree that, in accordance with Department of Health, Education, and Welfare regulations, 45 C.F.R. Parts 6 and 8, any invention arising out of the activities assisted by the grant shall be promptly and fully reported to the Surgeon General. Whether patent protection on such an invention shall be sought and how the rights in the invention, including rights under any patent issued thereon, shall be disposed of and administered in the public interest shall be determined either (a) by the Surgeon General or (b) where a separate formal institutional patent agreement has been reached by the Surgeon General with a nonprofit grantee institution, by such grantee institution in accordance with its own policies.</p>		
THE UNDERSIGNED ACCEPT AND AGREE TO THE ABOVE TERMS AND CONDITIONS				
13. PRINCIPAL INVESTIGATOR OR PROJECT DIRECTOR (SAME AS ITEM 2)		SIGN IN INK ON ORIGINAL ONLY		DATE
14. OFFICIAL AUTHORIZED TO SIGN FOR INSTITUTION		SIGN IN INK ON ORIGINAL ONLY. (Type name and title below signature)		DATE Sept. 23, 1963
		A. A. Albert, Dean, Division of Physical Sciences		

APPLICANT: REPEAT GRANT NUMBER SHOWN ON PAGE 1 →	GRANT NUMBER			
	GM-05876-05			
	(1)	(2)	(3)	
DETAILED BUDGET FOR PERIOD SHOWN ON PAGE 1	Time Spent on This Project		AMOUNT REQUESTED (OMIT CENTS)	ESTIMATED TOTAL CURRENT YEAR EXPENDITURES
	Percent of Time	Hours Per Week		
*Percent of Effort				
1. PERSONNEL: (List all positions and indicate time spent on project.)				
PRINCIPAL INVESTIGATOR Leo Sallard	100	-	\$ 15,000	
Social Security Tax, etc. 3.2%			450	
				\$ 13,094
2. MOVABLE EQUIPMENT: (ITEMIZE) (Identify any proposed item of equipment requested in an earlier application but not yet purchased and any item of equipment which duplicates equipment already available. Provide justification for present need.)				
NONE				\$
3. CONSUMABLE SUPPLIES: (Itemize)				
NONE				\$
4. TRAVEL (Itemize)				
Two (2) trips to Europe**			3,000	
Two (2) trips to La Jolla, California**			2,000	
Other domestic (to NIH, Bethesda; MIT, Cambridge; etc.)			2,000	\$ 6,377
** See p. 2.A., Budget Justification.				
5. OTHER EXPENSES ON WHICH INDIRECT COSTS ARE ALLOWED				
Secretarial Assistance			4,000	
communications			20	\$ 168
6. SUB-TOTAL ITEMS 1 THRU 5				
Total available for direct costs			\$ 26,500	
7. INDIRECT COST ALLOWANCE ON ABOVE ITEMS (SEE INSTRUCTIONS)				
15% of Items 1 - 5, incl.			\$ 3,975	
8. EXPENSES ON WHICH INDIRECT COSTS ARE NOT ALLOWED OR MUST BE NEGOTIATED. (Note that funds may not be used for alterations and renovations without prior PHS approval. See instructions regarding indirect costs.)				
				\$
9. TOTAL BUDGET (Same as amount shown on Page 1 of application)			\$	20,475

Miss Irene Fagerstrom
Assistant Vice President
Office of the Vice President - Special Projects
The University of Chicago
5801 Ellis Avenue
Chicago 37, Illinois
United States of America.

Geneva, 27th August, 1963.

Dear Miss Fagerstrom,

I am returning to you enclosed the budget work sheet which you sent me. Please note that I do not wish to ask for more funds for the coming grant year than those to which I am entitled on the basis of the research grant, taking into account the anticipated free balance during the coming grant year.

In case the expense items which I am communicating to you with this letter should exceed the amount of funds to which I am entitled, then please cut each item in the same proportion, in order to bring the total within the limits of the funds that are available to me.

I understand from Miss Cherin that she has received cheques for me relating to expenses incurred prior to June 30th, and taking these cheques into account, it should now be possible for you to fill in the column under "Actual obligations through to 30th June, 1963". I would suggest that in the column "Estimated Additional Expenditures through remainder of current grant period" the same amount be put down for travel expenses, secretarial services and office expenses as had been actually spent for the period ending June 30th, 1963.

Please note that I have typed in the information ~~requested~~ that I was supposed to supply under "III. Planned use of anticipated free balance during coming grant year".

I am enclosing another draft sheet, to which I have attached a text relating to "~~4~~. Travel".

I trust that I have now given you all the information that you need in order to be able to fill in the figures on the two sheets

which are enclosed.

I am sending a copy of this letter to Miss Cherin in New York and if she should write you to correct any of the data that I gave you, she will be speaking for me and so you may accept her suggestions.

Please write me airmail, whether you now have all that you need from me in order to enable you to complete and to file the application for the renewal of the grant.

With best wishes.

Yours sincerely,

Leo Szilard
c/o Dr. Martin Kaplan
World Health Organization
Palais des Nations
Geneva, Switzerland.

Encs.

This is a reproduction of the form supplied. It has been partially completed (items 6 and 1) based on the recommended amount and the original application. In completing this in draft form please note:

- Item 1: The requirement that 3.2% of salary for yourself to cover social security was not anticipated in the original application. The per cent of effort would be 100% if 100% of total salary is requested.
- Items 2, 3, 4, & 5: These should be completed. When taken with Item 1 they cannot exceed \$26,500. Note that itemization is asked for.

We will complete Items 7, 8, & 9 as appropriate (carrying item 9 forward to the face page). Note that column 3 derives from the Worksheet and may total to \$32,670. Refer also to instructions (marked passage) regarding significant differences between columns 2 and 3.

This is a reproduction of the form supplied. We are also sending a copy of this form to Miss Cherin with instructions for her to correct our figures in column 1 and to forward to you for completion (See attached copy of our letter to her). In completing the form note the following:

Section I, Category 1: Personnel - This includes employee benefits.

Category 7: Indirect Cost Allowance - Estimate for remainder of current grant period (col.2) should be 15% of line 6.

Section II, Item 1 - The free balance to be reported to NIH for the C2 (or O3) year as transmitted by Mr. Rossman on 7/17/63 to New York (c/o of Shirley Cherin) for your signature was \$10,183.84 of which \$5,000 could be carried forward to the O4 year. Therefore, the current grant amount of \$29,670 plus the amount to be carried forward would be \$32,670.

Section III - Explanation of use should be provided.

Please return a final draft of the form and we shall type it on the form supplied.

DRAFT

APPLICANT: REPEAT GRANT NUMBER SHOWN ON PAGE 1 →		GRANT NUMBER GM-06876-05		
DETAILED BUDGET FOR PERIOD SHOWN ON PAGE 1		(1)	(2)	(3)
* Percent of Effort		Time Spent on This Project		ESTIMATED TOTAL CURRENT YEAR EXPENDITURES
		Percent of Time *	Hours Per Week	
1. PERSONNEL: (List all positions and indicate time spent on project.)				
PRINCIPAL INVESTIGATOR Leo Szilard		100	-	\$ 15,000
Social Security Tax, etc. 3.2%				480
				\$ 13,094
2. MOVABLE EQUIPMENT: (ITEMIZE) (Identify any proposed item of equipment requested in an earlier application but not yet purchased and any item of equipment which duplicates equipment already available. Provide justification for present need.)				
<i>none</i>				\$
3. CONSUMABLE SUPPLIES: (Itemize)				
<i>none</i>				\$
4. TRAVEL (Itemize)				
<i>see attached sheet</i>				\$
5. OTHER EXPENSES ON WHICH INDIRECT COSTS ARE ALLOWED				
				\$
6. SUB-TOTAL ITEMS 1 THRU 5				\$ 26,500
7. INDIRECT COST ALLOWANCE ON ABOVE ITEMS (SEE INSTRUCTIONS)				\$
8. EXPENSES ON WHICH INDIRECT COSTS ARE NOT ALLOWED OR MUST BE NEGOTIATED. (Note that funds may not be used for alterations and renovations without prior PHS approval. See instructions regarding indirect costs.)				
				\$
9. TOTAL BUDGET (Same as amount shown on Page 1 of application)				\$

August 21st, 1963

4. TRAVEL

I plan to make two trips to Europe.

On one of these trips to Europe I plan to visit one of the three institutes listed below:

- (a) The World Health Organization, Geneva, Switzerland
- (b) The Institute of Genetics (Cavalli Sforza) at the University of Pavia, Italy.
- (c) The National Institute for Medical Research (Peter B. Medawar), Mill Hill, London, England.

Work on population genetics which I am planning to perform will make it necessary for me to visit one out of these three places in Europe, in order to assemble data in vital statistics which are difficult to obtain in the United States.

On the other trip to Europe, I plan to visit the Institute of Animal Genetics (C.H. Waddington), at the University of Edinburgh, England. The purpose of this trip is to discuss and if possible to make arrangements for the insemination of female animals with mixtures of spermatozoa derived from two different males.

During the coming grant year I also plan to make three trips from the East coast to the Salk Institute for Biological Studies at La Jolla, California.

My travel expenses are estimated as follows:

2 trips to Europe	\$ 3000
3 trips to La Jolla	\$ 2000
Other travel within the U.S.	\$
	<hr/>
	\$
Of these expenses there would come out of the anticipated free balance	\$
Charged to regular budget the difference of	\$

D R A F T

BUDGET WORK SHEET FOR
PHS-2590 (REV. 2-62)

Name of Principal Investigator Szilard, Leo
 Current Grant No. GM-06876-04
 Current Grant Period 1/1/63 - 12/31/63

I. ESTIMATED CURRENT YEAR LEVEL OF EXPENDITURES:

The following table has been developed to help you in arriving at figures to be inserted in Column 3 of the detailed budget page. Please return this work sheet with your completed application for continuation support.

Budget Categories	Actual Obligations through <u>30 June 1963</u> (insert date)	Estimated Additional Expenditures through remainder of current grant period.	TOTAL ESTIMATE FOR ENTIRE CURRENT YEAR (Entries for Column 3 of Budget Page shown by "x")
1. Personnel	\$ 6,147.04	\$ 6,944	\$ 13,094 x
2. Movable Equipment			x
3. Consumable Supplies			x
4. Travel	1,740.16		x
5. Other expenses on which indirect costs are allowed	28.12		x
6. Sub-total	7,957.32		-
7. Indirect Cost Allowance	1,150.91		-
8. Other expenses on which indirect costs are not allowed			x
9. TOTAL ESTIMATE	9,150.91		-

II. ESTIMATED UNOBLIGATED BALANCE AT TERMINATION OF CURRENT GRANT YEAR:

1. Total funds available in current grant for the entire year (include funds that were permitted to be carried over from prior year grant, if any).....\$ _____
2. Less total estimated expenditures under current grant (from line I.9., above).....-
3. Estimated free balance at termination of current grant (1 minus 2) \$ _____

III. PLANNED USE OF ANTICIPATED FREE BALANCE DURING COMING GRANT YEAR: (Public Health Service research grant policy permits any unspent funds UP TO \$5,000 OR ONE HALF OF THE CONTINUATION GRANT, whichever is smaller, to carry forward to the continuation grant account and remain available for use during the continuation grant year. Explain below your planned use of the estimated free balance shown in item II.3.)

I anticipate to use out of the free balance during the coming grant year \$2000 for office expenses and secretarial services, beyond the amount which has been scheduled for this purpose (but not used) for the current grant year.

The remainder of the anticipated free balance during the coming grant year, I expect to use for travel expenses, beyond the amount which was scheduled (and perhaps not fully used) for the current grant year.

(continue on reverse if more space is needed)

.1.
P.T.O.

The increased office and secretarial expenses, as well as the increased travel expenses, are anticipated because, in pursuance of work relating to population genetics and vital statistics which I am about to begin (manuscript in preparation), I expect to have to step up communications with a number of different institutions, who are engaged in similar work.

<p>U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE PUBLIC HEALTH SERVICE</p> <p>INSTRUCTIONS FOR PREPARING APPLICATION FOR PREVIOUSLY RECOMMENDED YEAR OF RESEARCH PROJECT GRANT SUPPORT ON FORM PHS-2590* (Rev. June 1962)</p>	TYPE	PROGRAM	GRANT NUMBER <i>GM-16876-05</i>
	CONTINUATION OF		
	PERIOD DATES January 1, 1964 - December 31, 1964		
	RETURN BEFORE October 1, 1963		

The current year of support for your Public Health Service research project will end soon. The enclosed application must be completed and returned to the DIVISION OF RESEARCH GRANTS, NATIONAL INSTITUTES OF HEALTH, BETHESDA 14, MARYLAND, by the date indicated, in order to obtain additional funds previously recommended to continue your project for another year.

You will be allowed to carry forward and continue to use any funds that remain unspent at the close of your current grant account, UP TO \$5,000, OR ONE-HALF OF THE CONTINUATION GRANT, WHICHEVER IS SMALLER. The amount requested in the enclosed application should therefore reflect only your additional needs beyond this amount for the coming year.

The maximum amount of additional funds that may be requested in the enclosed application was shown on your last Notification and Statement of Grant Award (PHS-1533) as the "first additional year" of future support.

If your operating budget for the coming 12-month period exceeds the total amount of previously recommended support, plus any anticipated carryover funds, you will have to submit a second application for the SUPPLEMENTAL needs on form PHS-398.

I. INSTRUCTIONS FOR COMPLETING FORM PHS-2590.

Insert the above GRANT NUMBER at the top of each page of the application.

Page 1 - Face Sheet. - The amount requested (item 3) should be the same as item 9 of the budget page. It must not exceed the amount previously recommended for the coming 12-month period.

The dates inserted in item 4 should cover the 12-month period immediately following termination of your current grant. These dates are shown above.

The principal investigator and co-principal investigator (if any) should be the same as those approved for the current year of your project. If a change is to be made, a request for approval of the new investigator or co-investigator and his curriculum vitae must be submitted with the application.

*Do not use form PHS-2590 for any other purpose. A different application form (PHS-398) is to be used for applications for new projects, supplemental funds, and for renewal support not previously recommended.

Page 2 - Detailed Budget. - Salaries charged to Public Health Service Grants must be comparable to the salary rates for other similar positions within the grantee institution. Grant funds may not be used to supplement regular institutional salaries. In column 1, enter both the percentage of time and the hours per week to be spent by personnel directly employed under this grant. Show the TOTAL time for all personnel, including principal investigator, even though the salaries may in some cases be budgeted for less than the maximum that could be charged.

Itemize your budget for the coming year in column 2. If you anticipate carrying over unused funds from your current grant, these carryover funds should be taken into consideration in arriving at your additional needs, but should not be reflected in column 2.

Entries in column 3 should reflect your best estimate of expenses, by category totals, that will be incurred during the full 12-month period of your current grant. The enclosed worksheet will be of help to you in arriving at the figures for insertion in column 3 of the budget page. Any significant differences between the proposed annual rate of expenditures for the year that is being requested (column 2), and the estimated total expenditures for the prior year (column 3) should be explained.

If the Public Health Service has questions concerning proposed expenditures, additional information may be requested from you to justify the total amount requested in this application.

An indirect cost allowance of up to 15 percent on most budgeted direct cost items may be requested on line 7; however, there are certain items of direct costs on which indirect costs normally may not be claimed, including (1) research patient hospitalization, (2) fixed equipment which becomes a part of real property, (3) tuition and fees, (4) rental of equipment or space, and (5) alterations and renovations. These items are to be listed under category 8 on the budget page.

The amount of indirect cost requested on line 7 should be adjusted downward if any single item of movable equipment listed in category 2 exceeds a cost of \$2,500. The maximum indirect cost allowance on any unit item of equipment is \$375 or 15 percent of \$2,500.

No indirect cost allowance may be requested in applications from individuals who are applying without institutional sponsorship or applications that are purely for the support of conferences.

Page 3 - Progress Report. - A summary progress report is required as a part of the application for previously recommended research grant support. The report must (1) summarize progress made during the past grant year, (2) explain any major changes in objectives and their significance, (3) include a record of any foreign travel undertaken under the grant, its purpose, the places and persons visited, and the time spent abroad, and (4) list all publications resulting from the grant during the reporting period.

II. ACKNOWLEDGMENT POST CARD.

Receipt of your application will be acknowledged if you will fill out both sides of the enclosed post card and submit it with your application. The card will be dated and returned to you.

III. ANNUAL INVENTION STATEMENT (FORM PHS-3945).

Follow instructions attached to this form. A completed and properly signed annual invention statement must accompany all renewal or continuation grant applications submitted to the Public Health Service.

IV. NOTICE OF RESEARCH PROJECT (FORM PHS-166).

The Science Information Exchange will enter the amount and project period dates of your grant on this form when the grant is awarded and will send information copies to other agencies that make research grants. This procedure provides each major granting agency with a comprehensive picture of current support in the various fields of biological and medical research.

V. ENTRIES FOR THE RESEARCH GRANT INDEX.

The Division of Research Grants issues an annual Research Grants Index to disseminate information pertaining to Public Health Service research grants. Attached

is a list of suggested indexing terms describing your current work for inclusion in the next issue of the Index. Please indicate your approval or recommended changes on the reverse of the enclosed list and return it with your renewal application.

VI. SUMMARY (USE AS APPLICATION CHECK LIST FOR PHS-2590).

Forward your completed application in the enclosed envelope, addressed to the Division of Research Grants. The envelope should contain the following documents:

- (1) The signed original and first six carbon copies of Application for PREVIOUSLY RECOMMENDED YEAR OF RESEARCH GRANT SUPPORT PHS-2590 (face sheet, budget page, and progress report). Do not collate into sets.
- (2) Justification of budget when required.
- (3) Budget worksheet (yellow paper).
- (4) Separate transmittal form letter listing papers that have been published during the current grant year.
- (4.5) Patent Conflict Letter
- (5) Annual invention statement PHS-3945.
- (6) Notice of research project PHS-166.
- (7) List of edited and approved index terms that describe your current work.
- (8) Acknowledgment post card.

encl 3/6

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

PROCEDURE FOR SUBMISSION OF ANNUAL INVENTION STATEMENT

(Please read carefully)

Under Department of Health, Education, and Welfare regulations (45 C.F.R., Parts 6 and 8), Public Health Service patent policy provides that all inventions arising out of the activities assisted by Public Health Service grants and awards shall be promptly and fully reported to the Surgeon General. Determination of ownership, and whether patent protection on such an invention shall be sought and how the rights in the invention, including rights under any patent issued thereon, shall be disposed of and administered in the public interest shall be determined either (a) by the Surgeon General, or (b) by the grantee institution in accordance with its own policies, where a separate formal institutional agreement has been reached by the Surgeon General with the grantee institution concerned.

When inventions are to be reported, the person concerned should ask the appropriate official of his institution to request of the Division of Research Grants, National Institutes of Health, Bethesda 14, Maryland, the reporting form and pertinent detailed instructions.

In addition to the formal reports described in the first paragraph, an Annual Invention Statement must be provided as part of the request for renewal of each type of Public Health Service grant and award. This statement must be submitted whether or not an invention has occurred during the period of grant or award support for which renewal is being requested, and whether the invention was partially or fully supported by PHS funds.

The Statement should include all inventions which might possibly be construed in any manner to be PHS grant or award supported or related.

Should a request for renewal be received without the inclusion of the Annual Invention Statement, the grant or award will not be paid until such time as the Invention Statement has been received.

The Invention Statement does not relieve the grantee institution or the scientist of responsibility for prompt reporting of inventions or discoveries.

When a grant or award terminates and no renewal application is planned, an Annual Invention Statement must be submitted as part of the required final progress report.

The certification statement governing each type of Public Health Service grant and award appears on the attached page. Return original and first carbon to:

Division of Research Grants
National Institutes of Health
Bethesda 14, Maryland

With the exception of the Fellowship award, each Statement will require two signatures: (1) the person responsible for the grant or award concerned and (2) the institution official responsible for patent matters. For the Fellow, the signature of the sponsor is also required.

DEFINITION OF TERMS USED IN ANNUAL INVENTION STATEMENT

Definition of an Invention. Any process, art or method, machine, manufacture, or improvement thereof may constitute an invention if it is new and useful, and would not have been obvious to a person having skill in the art to which it relates. A "process" may be either a connected series of steps or a new use of a process, machine, manufacture, or composition of matter. In a patent sense, the word "new" has a broader meaning than it has in common usage. The usual test of novelty applied by the Patent Office is the novelty search in which available printed matter is consulted to find if there is a previous description of the invention claimed. This search brings forth prior published knowledge. Any reference prior to the patent application is considered by the Patent Office to be prior art. A description published more than one year prior to the date of an application for patent constitutes a statutory bar to patenting. Prior unpublished experimental uses, abandoned experiments, or lost arts are not proper references.

An invention is useful in a patent sense if it is capable of performing some beneficial function.

Conception of the Invention. An invention begins with its mental visualization or conception. However, the conception must be complete and include the result as well as the means for bringing about that result. Because the conception is a mental process, it must be communicated to others who understand it before it can be proved satisfactorily. The date of conception is the earliest date to which an inventor can be entitled for priority purposes. If the inventor can demonstrate reasonable, continuous diligence in carrying out (constructing and testing) the conceived invention, for purposes of priority, he may be considered as having made the invention when he began the continuous diligence. If this diligence began immediately after conception, then the date to which the inventor is entitled is the date on which the invention was conceived.

Reduction to Practice of the Invention. The act of transforming an inventive concept into physical reality (construction and testing) is referred to as "reduction to practice" of the invention. The general rules of reduction to practice for the four most important classes of invention are:

- (1) For a process — when it is successfully performed; this normally requires a test of results to demonstrate the success.
- (2) For a machine — when it is assembled and tested or used.
- (3) For an article of manufacture — when it is completely manufactured and tested or used.
- (4) For a composition of matter — when it is completely composed and tested or used.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

National Institutes of Health
Bethesda 14, Maryland

DEFINITION OF TERMS USED IN ANNUAL INVENTION STATEMENT

Form PHS 3945
March 1962

Definition of an Invention. Any process, art or method, machine, manufacture, or improvement thereof may constitute an invention if it is new and useful, and would not have been obvious to a person having skill in the art to which it relates. A "process" may be either a connected series of steps or a new use of a process, machine, manufacture, or composition of matter. In a patent sense, the word "new" has a broader meaning than it has in common usage. The usual test of novelty applied by the Patent Office is the novelty search in which available printed matter is consulted to find if there is a previous description of the invention claimed. This search brings forth prior published knowledge. Any reference prior to the patent application is considered by the Patent Office to be prior art. A description published more than one year prior to the date of an application for patent constitutes a statutory bar to patenting. Prior unpublished experimental uses, abandoned experiments, or lost arts are not proper references.

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- (1) For a process when it is successfully performed; this normally requires a test of results to demonstrate the success.
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- (3) For an article of manufacture when it is completely manufactured and tested or used.
- (4) For a composition of matter when it is completely composed and tested or used.

PURPOSE OF NOTICE OF RESEARCH PROJECT FORM (PHS-166)

The attached standard form of the Science Information Exchange entitled "Notice of Research Project" is to be completed by the investigator to show name of institution, name of principal investigator, descriptive title of the research project and a descriptive summary of the proposed research. If the research proposal becomes the subject of a Public Health Service grant, the summary will be registered at the Science Information Exchange and may be released to other research scientists who request references on research currently under way in specified subject fields. This exchange of information operates to provide a more comprehensive picture of the latest projected work in the respective fields of research. Over 50,000 current projects annually registered in the Exchange are reviewed and indexed by a staff of qualified scientists. To cover the many multi-disciplinary aspects of modern research, more than 18,000 reference points are used to assure retrieval of information in technical detail and from many highly specialized points of view.

ANY SCIENTIST at a research institution, foundation or research laboratory may request and receive without charge information on who is currently working on specified projects or problems simply by writing or calling the Exchange. Since all questions are answered by qualified scientists, special key words or prescribed vocabularies are not required. Inquiries should be in the language used among scientists with mutual research interests. The Exchange is organized to provide information covering broad subjects and fields of research. However, it should be noted that the latter are difficult to define, especially in regard to related and interdisciplinary areas and they are apt to yield large and unwieldy number of records. For instance, all research on cancer can be furnished, but would run to about 6,500 records at the present time.

If you should have other research projects that have not been registered with the Exchange, a completed Notice of Research Project would be a worthwhile contribution to the service. Blank forms and detailed information may be obtained by writing or calling the -

Science Information Exchange
311 Universal Building
1825 Connecticut Avenue, NW
Washington 9, D. C.

Telephone: NATIONAL 8-1810; Ext. 514

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE

PUBLIC HEALTH SERVICE PATENT POLICY REQUIREMENTS

Statement on Commitments or Obligations Which
Would be in Conflict with PHS Patent Policy

In order for the Public Health Service to carry out its responsibility under Department of Health, Education, and Welfare patent regulations, it is essential that the Service be advised prior to the award of government funds of any commitments or obligations made by the institution or by the professional personnel to be associated with the project, which would be in conflict with the inventions agreement in this application.

When submitting an application for PHS support, provide, in letter form, either (1) a statement indicating no previous commitments or obligations have been made, or (2) a detailed explanation of such commitments or obligations where they do exist.

The individuals whose signatures are required vary according to the type of application. Signatures should be in ink with name typed below. "Per" signatures are not acceptable. The table below is for your guidance.

- I. In all instances, the letter must be signed by an official responsible for patent matters at the involved institution, and by the person(s) indicated under II. for the pertinent program.

<u>II. Type of Grant or Award</u>	<u>Signatures</u>
Research Grant	Principal Investigator
Training Grant	Program Director
Research Career Program	Awardee
Fellowship	(a) Fellow
	(b) Sponsor
General Research Support (for each identifiable research project)	Principal Investigator

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FOR ADMINISTRATIVE USE

RESEARCH GRANT PROGRAMS

of the

PUBLIC HEALTH SERVICE

This brochure has applications for Public Health and Information... Vol. 11... Further information can be obtained... U.S. Department of Health, Education, and Welfare

January 1963

Guiding Principles for Applicants

January 1963

U.S. Department of Health, Education, and Welfare
Public Health Service
Washington 25, D. C.

PREFACE

This brochure has been developed to aid investigators in preparing applications for Public Health Service research grants. It revises the Policy and Information Statement on Research Grants (PHS Publication No. 415, 1959, Vol. 1) formerly distributed with each set of application forms. Further information can be obtained from the business officer of the sponsoring institution, or from the Division of Research Grants, National Institutes of Health, Bethesda 14, Maryland.

January 1963

RESEARCH GRANT PROGRAMS OF THE PUBLIC HEALTH SERVICE

Guiding Principles for Applicants

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RESEARCH GRANT PROGRAMS OF THE PUBLIC HEALTH SERVICE

Guiding Principles for Applicants

I. Authority and Purpose

The award of research grants by the Public Health Service is authorized in the Public Health Service Act (PL 410, 1944). The Act provides that the Surgeon General shall encourage, cooperate with, and render assistance to appropriate public authorities, scientific institutions, and scientists, in the conduct and coordination of research, investigations, experiments, demonstrations and studies relating to the cause, diagnosis, treatment, control and prevention of the physical and mental diseases and impairments of man. In addition, research grants are authorized for environmental health projects in the Air Pollution Research and Technical Assistance Act (1955) for air pollution research and in the Federal Water Pollution Control Act (1956) for research in the purification of water and prevention of pollution.

Public Health Service research grants are provided to expand research activities throughout the country, and also to encourage investigators and institutions to undertake research in relatively neglected scientific areas.

Research grants are also made to Public Health Service hospitals, St. Elizabeths Hospital, Washington, D.C., and the Bureau of Prisons, Department of Justice, under the authority given in the yearly PHS appropriation acts.

Under these authorities grants are made to encourage and support research in the biomedical sciences and health-oriented disciplines in universities and colleges, schools of medicine, dentistry, veterinary medicine, nursing schools, schools of public health, hospitals, laboratories, State and local health departments, and other public or private non-profit institutions, and to individuals. Research grants are also made to support studies in the planning, development, utilization, financing and evaluation of hospital and other community health services, facilities, and resources, and the application of the results of such studies.

Since the optimum exchange of information turned up in health research is vital to the purposes of its grants program, the Public Health Service assists in securing the publication of the results of research within the limits and restrictions of printing laws and regulations.

II. Size and Scope of Research Grant Programs

No limit has been set on the number or dollar value of research grants that may be awarded to any one investigator or to any one institution. Matching funds are not required.

Any research proposal relating to problems of health or disease, including research in the biological, behavioral, and physical sciences, is eligible for support.

The following types of grant requests are not generally approved:

- (1) a clinical project having only a limited research component;
- (2) alteration or renovation of space, or for purchase of equipment unless justifiably connected with a research project;
- (3) travel grants, except when applied for by professional societies or similar agencies responsible for selecting individuals to attend a meeting or conference;
- (4) research by full-time federal employees, except employees in Public Health Service hospitals, St. Elizabeths Hospital, the Bureau of Prisons, and Veterans Administration employees affiliated with an educational institution;
- (5) publication grants, in which the printing and distribution of a publication or periodical is involved, except with prior approval of the Public Health Service.

Applications for research grant support will be accepted by the Public Health Service at any time. They are, however, reviewed on a fixed schedule as shown in the table below. At least six months should be allowed between the time of submittal and the desired beginning date of an approved grant. It is the responsibility of the principal investigator and the applicant institution to plan for submittal at a time that will assure continuity of support or initiation of new support at the proper time. The Division of Research Grants routinely advises principal investigators of the date on which grantees should submit applications for renewal support.

<u>Deadlines for New and Supplemental Applications</u>	<u>Date of Council Meeting</u>
November 1	March
March 1	June - July
July 1	November

III. Review of Applications

Applications for Public Health Service research grants are reviewed by study sections or special committees of non-federal consultants expert in their respective scientific and technical fields, and by the appropriate national advisory council.

The study sections and special review committees were established in order that the advisory councils and the Surgeon General might have the benefit of the best scientific and technical advice on all applications for

research grants.

In their impartial evaluation of applications, the study sections, committees and councils take into consideration (1) the scientific merit and significance of the project, the competency of the proposed staff in relation to the type of research involved, the feasibility of the project and the likelihood of its producing results; and (2) the adequacy of the applicants' resources available for the project and the amount of grant funds necessary for completion.

The study section recommendations are submitted to the Advisory Councils for final review. The councils, which are established by Acts of Congress, then recommend to the Surgeon General those applications which merit support. The Surgeon General may not approve any research grant that is not favorably recommended by the appropriate council. The councils also advise on matters relating to programs and activities in their respective areas of research.

IV. Responsibilities of Recipients of Public Health Service Research Grants

The terms and conditions governing any grant awarded by the Public Health Service are set forth in the application form. The form must be signed by the principal investigator and an official authorized to sign for the institution that will receive the funds in his behalf.

In accepting a research grant, the investigator and the grantee institution jointly accept an obligation to expend the grant funds solely for the research purposes set forth in the application and in the award document. The grantee institution is further obligated to administer any Public Health Service research grant in accordance with the regulations and the policies governing the grant and award programs of the Public Health Service or, in the absence thereof, the policies and practices of the institution.

Grants are generally made to the sponsoring institution; however, if a grant is made to an individual investigator not associated with an institution, responsibility for management of the grant is placed on the individual investigator. Where a grant is awarded to an individual, the Public Health Service requires bonding of the investigator as assurance of financial stability.

All Public Health Service investigators are required to submit annual progress reports on their projects and final reports on termination of the grant. These reports are treated confidentially within the Public Health Service.

V. Scientific Freedom - Changes in Project

Grants are awarded to support the research project described in an approved application. The investigator may make changes in methodology, approach, or other aspects of the project which, in his judgment, would expedite achievement of the research objectives of the project; however, no change may be made which would constitute a significant deviation from the

nature and purpose of the approved project or which would impair the achievement of the purpose for which the project was approved. If the investigator is in doubt concerning the significance of a desired change, he may consult with appropriate officials in his institution and with the Public Health Service Institute or Division that awarded the grant. Approval of any significant deviation would have to be requested from the Public Health Service.

VI. Use of Research Grant Funds

Research grant funds are intended to supplement the support of research in an institution rather than to replace support already being furnished by the institution or to reimburse an institution for expenses previously incurred. In general, research grant funds may be used for salaries of professional and non-professional research personnel, equipment, consumable supplies, travel, other direct research expenses, and indirect costs.

1. Salaries

The salary level of personnel paid from Public Health Service research grant funds may be determined by a grantee institution under its own standards, provided that no monetary differential is allowed for such personnel because they receive salaries from grants. Grant funds may be used to provide salaries, in whole or in part, in proportion to the time or effort personnel spend directly on the project being supported. For professional personnel quarterly effort reports must be completed within one month following the quarter in which work was performed on the project. Salaries charged to a grant may include employee benefit expenses and pension plan costs to the extent that they are consistently treated by the institution as a direct rather than an indirect cost. Sabbatical leave costs may not be charged as direct costs to a grant.

2. Equipment

Equipment required for the conduct of a research project supported by a Public Health Service grant may be purchased after determination by an appropriate administrative official of the grantee institution that no other equipment is available or suitable for the intended use. Use of grant funds for the purchase of any single item of equipment costing in excess of \$1,000, or for the purchase of fixed equipment, printing equipment, or for equipping or furnishing offices, reception rooms, conference rooms, and similar space must be approved by the Public Health Service either as a part of the application or as permission to rebudget for this purpose.

3. Domestic Travel

Public Health Service grant funds may be used for domestic travel by individuals engaged in a grant-supported research project up to the amount specified in the approved application. In exceptional cases funds may be transferred to the travel category from other budget categories if adequately justified as essential by the responsible budget official of the grantee institution but only if such a request has the prior approval of the Public Health Service.

4. International Travel

Public Health Service grant funds may be used for international travel by individuals engaged in a grant-supported research project where such travel was described in the approved application. When an investigator proposes to use funds for international travel not described in the formal application and approved as part of the award, he must submit a request in writing to the Public Health Service prior to the proposed travel, and must receive written approval before Public Health Service funds are obligated. The request must show specifically why the proposed travel is needed for effective performance of the project supported by the grant. No such request should be made when a reasonable substitute for the advice, instruction, or information is available within the investigator's own country. The written request must have the countersignature of the dean of the investigator's school, or the director of his hospital or similar operating official, indicating that such travel is in the interest of and within the operating policies of the institution and considered essential to the progress of the research being supported.

Public Health Service grants may be awarded to professional societies or other similar agencies to provide support for a specified number of individuals to travel to a single specific international meeting or conference. This policy is deemed to provide the most effective mechanism for adequate participation of an American contingent at an international meeting.

5. Other Expenditures

Grant funds may be used for other direct costs considered essential to the research project being supported. Prior approval of the Public Health Service is required for expenditure of grant funds for alterations and renovations, hospitalization, outpatient costs, publication of a book, monograph, or pamphlet, and payments to Federal employees. Grant funds may not be used for bonus payments, support of libraries, consultant fees to individuals in the grantee institution, contingency funds, sub-grants, deposits for containers or other equipment, depreciation, dues, entertainment, regular laundry expenses, petty cash funds, and tuition and related fees.

6. Indirect Costs

The institution official who signs the research grant application may add indirect costs in accordance with the instructions accompanying the application form. Indirect costs on direct costs for rental of space and contracts for services and for all grants involving a Federal institution must be negotiated. Indirect costs may not be claimed on alterations and renovations, equipment, hospitalization, conference grants, foreign grants, or grants to individuals.

VII. Publication and Publicity

1. Acknowledgement of Support

Investigators whose research is supported by Public Health Service research grant funds are encouraged to make the results of their research widely and freely available to the scientific community as promptly as possible. Since prior approval by the Public Health Service for publication of research results is not required, no responsibility for the results should be ascribed to the Public Health Service. When a report based upon grant support is published, Public Health Service support should be acknowledged. For the sake of uniformity, the following footnote is suggested:

This investigation was supported (in whole) (in part) by
Public Health Service Research Grant (number),
from the _____,
(Name of Institute or Division)

2. Reprints

Investigators are requested to provide the Division of Research Grants of the Public Health Service with ten reprints of publications resulting from work supported in whole or in part by a grant. If reprints are submitted in lieu of, or to supplement a comprehensive progress report, forty copies are required. When research project results are published in the form of a book or other document where reprints are not feasible, the investigator should consult with the sponsoring Institute or Division on the number of copies required.

3. Copyright

The author is free to arrange for copyright without approval by the Public Health Service.

VIII. Conference Grants and Grants for Research Abroad

Investigators requiring support for conferences and meetings or for research projects in institutions located outside the United States and its possessions should request additional information before preparing an application.

IX. Small Grants in Mental Health Programs

The National Institute of Mental Health has set up special procedures for handling small grants of \$3,500 or under. Such grants are supported for one year only and are not renewable. Applications may be submitted at any time without regard to the deadlines established for all other grant applications. There are no special procedures for handling small grants in the other Institutes or Divisions.

X. Mental Health Project Grants

These grants are available from the National Institute of Mental Health to public or private agencies, institutions and laboratories on regional, State, or local levels, and to individuals, for the purpose

of conducting investigations, demonstrations, experiments, surveys, studies, and research which will promote the development of improved methods of care, treatment, and rehabilitation of the mentally ill and stimulate the growth of interest and development of skills in mental health programs.

Applications are reviewed in the same way as research grant applications by the appropriate review committees composed of experts in the fields of mental health and illness.

The same policy guidelines prescribed for research grants apply to the administration and operation of the Mental Health Project Grants Program.

XI. Withdrawal of Pending Applications

An investigator who wishes to withdraw a pending grant application for any reason may do so by having an authorized official of his institution submit a written request for withdrawal to the Division of Research Grants, National Institutes of Health, Bethesda 14, Maryland.

XII. Patents

1. Formal Reports of Inventions

Department of Health, Education, and Welfare regulations (45 CFR, Parts 6 and 8) provide that all inventions arising out of the activities assisted by Public Health Service grants and awards shall be promptly and fully reported to the Surgeon General. In respect to inventions reported, the institution and the principal investigator agree either: (a) to refer the inventions to the Surgeon General for determination, in accordance with Department patent regulations, of the ownership and manner of disposition of all rights therein and whether patent protection on such inventions shall be sought, and, if so, the manner of obtaining, administering, and disposing of the patents in the public interest; or (b) where the institution has a separate formal patent agreement with the Surgeon General covering inventions deriving from Public Health Service support, to make a determination of ownership and disposition in accordance with its policies as approved or as modified by such agreement. In no event, shall patent applications be filed on inventions reported under (a) above, without prior written consent of the Surgeon General.

The Public Health Service patent policy is a part of the terms and conditions of a grant, and is accepted by the principal investigator and the institution when an application for Public Health Service support is completed and signed. The grantee institution and the principal investigator have joint responsibility for abiding by Public Health Service patent policy and for reporting any conflicting commitment or obligation entered into by either entity. Early reporting of inventions and related technical data is required; that is, no later than at the time a manuscript is prepared for publication, or at such other time and in such manner as the Surgeon General may prescribe.

Progress Reports, which may include descriptions of possibly patentable inventions, may not substitute for formal reports of inventions.

2. Annual Invention Statement

An Annual Invention Statement must be provided as part of the request for renewal of each type of Public Health Service grant and award. This statement must be submitted even if no invention has occurred during the current period of grant support for which renewal is being requested, and even if an invention to be reported was only partially supported by Public Health Service funds. The statement should include all inventions which might possibly be construed in any manner to be Public Health Service grant supported or related. Renewal of a grant will not be paid until the Invention Statement has been received.

When an award terminates and no renewal is planned, an Annual Invention Statement must be submitted as part of the required final progress report.

3. Amended Patent Agreement

In the following instances, procedure requires the completion of an amended patent agreement, which, when signed, becomes a part of the terms and conditions of a grant or award:

- (1) Where the institution proposes to subcontract with a commercial organization for a portion of the research to be conducted under the grant.
- (2) Where the investigator proposes to submit compounds to be synthesized and/or developed with Public Health Service support to a commercial company for screening purposes.

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Please add the publication titles, sign and attach eleven (11) copies (one for this office) of any publications other than those already sent.

Division of Research Grants
National Institutes of Health
Bethesda 14, Maryland

Gentlemen:

Attached is an application for continued support of research grant, GM-06876-04.

The papers listed below have been published during the current year (or are now in press) as a result of work done under this grant. Ten reprints of each paper have been submitted or will be furnished as soon as they are available.

Sincerely yours,

Publications

TO BE COMPLETED AND RETURNED WITH APPLICATION FOR CONTINUED SUPPORT

(Date)

Division of Research Grants
National Institutes of Health
Bethesda 14, Maryland

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Sincerely yours,

Publications

File = Current GRANT CHERIN

THE UNIVERSITY OF CHICAGO

CHICAGO 37 • ILLINOIS 60637

OFFICE OF THE VICE PRESIDENT • SPECIAL PROJECTS
5801 ELLIS AVENUE

14 January 1964

VIA AIR MAIL

Dr. Leo Szilard
c/o Salk Institute
Post Office Box 9499
San Diego, California

Dear Dr. Szilard:

As will be noted from the attached enclosures, we are in receipt of your NIH grant award for 1964 and have requested the Comptroller's Office to assign a new account to cover expenditures thereunder.

As will be noted further, all concerned with administration of the grant have been advised.

We will contact you later concerning the \$5,000 "carry-over" from the 1963 grant to be added to the 1964 account.

Will you kindly let us know how long you expect to be at the San Diego address.

Sincerely,

Irene E. Fagerstrom

Irene E. Fagerstrom
Assistant Vice President
Special Projects

Enclosures

THE UNIVERSITY OF CHICAGO
CHICAGO 37 • ILLINOIS 60637
OFFICE OF THE VICE PRESIDENT • SPECIAL PROJECTS
5801 ELLIS AVENUE

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Sincerely,

Irene E. Fagerstrom
Assistant Vice President
Special Projects

Enclosures

THE UNIVERSITY OF CHICAGO

DATE 14 January 1964

TO Mr. W. R. Rossman

DEPARTMENT Assistant to the Comptroller

FROM Irene E. Fagerstrom

DEPARTMENT Assistant Vice President
Special Projects

IN RE: Dr. Leo Szilard
NIH Grant GM-06876-05
Jan. 1 - Dec. 31, 1964 - \$25,046

Enclosed is copy of NIH award notification for the above-referenced grant. Will you have an account assigned to the grant and budget the available funds as follows:

1. Salaries	\$11,000
2. Social Security Tax (3.2% of Item 1)	352
3. Travel	5,500
4. Other Expense	<u>4,020</u>
5. Total Direct Costs	\$20,872
6. Allowance for Indirect Costs (20% of Item 5)	<u>4,174</u>
Total Grant 1964	<u><u>\$25,046</u></u>

Also enclosed is copy of grant application.

Enclosures (2)

cc: ✓ Dr. Szilard, w/encl.
Dr. Allison, w/encl.
Dean Albert, w/encl.
Provost Levi, w/encl.
Mr. Gieseeman, w/o encl.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
National Institutes of Health
Bethesda 14, Maryland

DATE January 30, 1964

NOTIFICATION AND STATEMENT OF GRANT AWARD

Dr. A. A. Albert
Dean, Division of
Physical Sciences
The University of Chicago
5801 South Ellis Avenue
Chicago 37, Illinois

In reply refer to our: **GM 06676-05**

Dr. Leo Sallard
3155 East 57th Street
Chicago 37, Illinois

Dear Dr. Albert:

Upon recommendation of the appropriate National Advisory Council, the Surgeon General has approved the Public Health Service grant described below.

The attached explanation* outlines Public Health Service policy relative to the payment and management of grant funds, as well as to the scientific and budget freedom afforded grantees in their work.

STATEMENT OF GRANT AWARD MADE UNDER THE PUBLIC HEALTH SERVICE ACT

SECTION OF ACT 301 (d)	TYPE OF AWARD Research Grant	NATIONAL ADVISORY COUNCIL National Advisory General Medical Sciences Council
GRANT PERIOD January 1, 1964 - December 31, 1964		ABBREVIATED TITLE OF PROJECT OR PROGRAM "Quantitative Studies of General Biological Processes"
GRANTEE INSTITUTION The University of Chicago		PRINCIPAL INVESTIGATOR(S) OR PROJECT DIRECTOR(S) Dr. Leo Sallard
PAYEE (CHECK WILL BE DRAWN AS FOLLOWS) Vice President for Special Projects The University of Chicago 5801 South Ellis Avenue Chicago 37, Illinois		FUTURE SUPPORT (Provided Funds Are Appropriated—See Attached Sheet Concerning Continuation) <input checked="" type="checkbox"/> Direct Costs only 1st Additional Year \$ 26,500 (06) 2nd Additional Year \$ 26,500 (07) 3rd Additional Year \$ 26,500 (08) 4th Additional Year \$ 26,500 (09) 5th Add. Yr. \$ 26,500 (10) None
BUDGET ALLOCATION	AMOUNT	
DIRECT COSTS (EXCLUSIVE OF TRAINEE STIPENDS)	\$ 20,872	
TRAINEE STIPENDS	-	
INDIRECT COST ALLOWANCE (OVERHEAD) 20% allowable direct costs	\$ 4,174.00	
TOTAL GRANT	\$ 25,046	
AMOUNT OF FIRST PAYMENT	\$ 6,263	
BALANCE DUE	\$ 18,783	
LIST NUMBER GM- 54 -64	ALLOTMENT NUMBER 348-40101-0 7540348	

Signature *Carl R. Brewer*
Name and Title
Carl R. Brewer, Ph.D.
Chief, Research Grants Branch
National Institute of General Medical Sciences

cc:
Principal Investigator
Co-investigator(s)
Payee
Public Relations Officer
IBM
SS- 213
Grants Finance
Renewal Desk

REMARKS: This grant is awarded subject to the attached research project grant regulation (42 CFR Pt 52). The Grants Manual provides the more specific administrative terms and conditions implementing these regulations. *Computed as 20% of allowable direct costs, subject to reduction of total grant if the University of Chicago's substantiated indirect cost rate for off-campus research is determined to be less than 20%.

AW
EOW:geb

(5) *see reverse

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE

ITEMS IDENTIFIED FOR SPECIAL ATTENTION IN CONNECTION WITH THE ADMINISTRATION OF
A PUBLIC HEALTH SERVICE RESEARCH GRANT

November 1, 1962

I. PUBLIC HEALTH SERVICE POLICY REQUIREMENTS: The institution to which the grant is awarded and the principal investigator or program director whose research is being supported have joint responsibility for the proper and prudent utilization of the funds awarded. The grantee institution is obligated to administer any Public Health Service grant or award in accordance with the policies of the Public Health Service. The institution and the principal investigator or program director have joint responsibility for abiding by Public Health Service patent policy and for reporting any conflicting commitment or obligation entered into by the institution, principal investigator, or other professional personnel engaged in the project. Early reporting of inventions resulting from research grant support is required; that is, no later than at the time a manuscript is prepared for publication.

II. PERIOD OF GRANT: The Notification and Statement of Grant Award indicates the period for which the grant is being made. Funds may be obligated or expended within the period shown and for an additional period not to exceed twelve (12) months, if approval by the Public Health Service is obtained prior to the end of the original period. FUNDS MAY NOT BE OBLIGATED OR EXPENDED PRIOR TO THE ESTABLISHED BEGINNING DATE SHOWN ON THE NOTIFICATION AND STATEMENT OF GRANT AWARD, OR SUBSEQUENT TO THE TERMINATION DATE SHOWN ON THE NOTIFICATION AND STATEMENT OF GRANT AWARD OR OF THE ADDITIONAL EXTENDED PERIOD, IF ANY, APPROVED BY THE PUBLIC HEALTH SERVICE.

III. PAYMENT OF GRANT: Payment of the grant will be made in full if the total approved amount is \$5,000 or less. If it is in excess of \$5,000, it will normally be paid in four installments. If Public Health Service support for this project is continued, any unexpended balance up to \$5,000 or one half of the amount of the continuation grant, whichever is less, will be transferred to and remain available for expenditure during the period of the continuation grant. Subject to the decision of the Public Health Service, any unexpended funds in excess of the allowable amount, will be available as partial payment of the amount approved for that year except where an approved request makes these funds available as additional funds. DEFICITS MAY NOT BE TRANSFERRED to the continuation grant or to any other Public Health Service grant account.

IV. USE OF FUNDS: Expenditures for direct costs must be initiated by the principal investigator and approved by the appropriate administrative official of the grantee institution. These expenditures must be made within the regulations and policies of the Public Health Service and the grantee institution. Funds may not be transferred from other categories and used for the following purposes without prior approval of the Public Health Service:

1. Alterations and renovations.
2. Patient costs (hospitalization or outpatients).
3. Publication of books, monographs, or pamphlets.
4. Travel.
5. Fixed equipment.
6. Items of movable equipment costing in excess of \$1,000 each.
7. Equipping and furnishing of offices, conference rooms, reception rooms, or similar space.

V. EQUIPMENT PURCHASED WITH GRANT FUNDS: Title to equipment purchased with research grant funds resides with the grantee institution during and after the termination of a grant project, without further obligation to the Public Health Service, except that the Public Health Service reserves the right to transfer any such equipment in those cases where the principal investigator transfers to a different institution and receives Public Health Service grant support there.

Special provisions apply to equipment purchased from grants awarded to individuals and to institutions located outside the United States and its possessions.

VI. FUTURE SUPPORT: The Notification and Statement of Grant Award indicates in the column entitled "FUTURE SUPPORT" the amounts recommended for the future years of support for this project. Actual amounts to be paid will be negotiated annually. In addition to the actual amount determined annually for direct costs, an allowance for indirect costs can be negotiated within the prevailing policy. The annual amounts thus determined will be awarded provided the Congress appropriates the necessary funds. If no future support is indicated, an application for continuation support must compete with other applications for available funds. In either instance the necessary application forms and instructions will be sent to the grantee institution at the appropriate time.