



FEDERAL SECURITY AGENCY
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
BETHESDA 14, MARYLAND

IN REPLYING ADDRESS

Division of Research
Grants and Fellowships

April 4, 1949

In reply refer to
our RG-1970

CONFIDENTIAL

Dr. Robert A. Kehoe
Director, Kettering Laboratory of
Applied Physiology
University of Cincinnati College of Medicine
Cincinnati, Ohio

Dear Doctor Kehoe:

The research project outlined in the accompanying application submitted by Dr. Frank Princi, University of Colorado Medical Center, is being prepared for review by the Hematology Study Section of the National Institutes of Health. Your opinion of the scientific merits of the proposed research and the qualifications of the investigator would be of considerable assistance to the Study Section members in their formulation of a recommendation concerning the desirability of supporting Doctor Princi's project.

All applications for research grants are treated as strictly confidential and, except in special circumstances, are not circulated beyond the membership of the study sections and councils that review the applications. Any information or opinion that you would be willing to furnish also will be held in strict confidence.

For your information, the membership of the Hematology Study Section is given below:

Dr. Chas. A. Doan (Chairman)	Dr. Kenneth M. Endicott
Dr. K. M. Brinkhous	Dr. Roy R. Kracke
Dr. Edwin J. Cohn	Dr. Carl V. Moore
Lt. Comdr. E. P. Cronkite	Lt. Col. Howard A. Van Auken
Dr. Louis K. Diamond	Dr. Maxwell M. Wintrobe

A self-addressed envelope which requires no postage is enclosed for your convenience in replying.

Sincerely yours,

J. Franklin Yeager
J. Franklin Yeager
Executive Secretary
Hematology Study Section

APPLICATION FOR GRANT FOR RESEARCH PROJECT

Received 1/17/49

- I. APPLICANT: University of Colorado Medical Center
Denver 7, Colorado
- II. DIRECTOR OF PROJECT: Frank Princi, M.D., Director,
Division of Industrial Medicine;
Assistant Professor of Medicine
- III. SUBJECT: "The Value of Different Diagnostic Methods
in Lead Absorption and Lead Intoxication."
- IV. FUNDS REQUESTED: (July 1, 1949 - June 30, 1950)

Personnel:

Chemist	\$ 3,600.	
2 Laboratory technicians	<u>4,800.</u>	\$ 8,400.

Consumable Supplies:

Stains, glassware, reagents	<u>3,000.</u>	3,000.
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Travel:

At .08 per mile	<u>1,000.</u>	<u>1,000.</u>
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Subtotal		\$12,400.
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Overhead:

Total		<u>992.</u>
		\$13,392.

- V. FUNDS FROM OTHER SOURCES: None
- VI. OTHER SUPPORT FOR THIS OR RELATED RESEARCH: None
- VII. EXPLANATION OF RESEARCH PROJECT:

A. Results to date:

1. Investigator:

Stipple cell counts are done routinely in this laboratory in all cases of occupational disease. Many toxic substances do produce stippling of the red cells. However, there is no information on the degree of stippling in the vast majority of diseases.

2. Others:

Johnstone, R. T., "Occupational Medicine and Industrial Hygiene", C. V. Mosley Company, St. Louis, 1948, pp. 237-242: "Stipple cells are not pathognomonic of lead intoxication".

Despite this statement, no studies have been systematically carried out to prove this point and the medical literature continues to recommend stipple cell counts as diagnostic.

B. Proposed research plan:

Stipple cell counts would be done on all possible hospital and outpatient patients. This work would be done in the thirteen hospitals of the Medical Center. At the same time, blood and urine samples would be collected and analyzed for lead content. Particular attention would be paid to attempt to study patients who present a large variety of diseases and the various stages of disease. A number of men who are actually exposed to lead would be studied in the same manner, and similar studies would be made on a group of healthy unexposed individuals.

After the data is accumulated, the following information should be derived:

1. The incidence of stipple cells in exposed and non-exposed individuals would be compared.
2. The incidence of stipple cells in the various diseases and in their different stages would be established.
3. The amount of stippling in the different stages of lead absorption would be found.
4. The specificity of stipple cells in the diagnosis of lead intoxication would be determined.

C. Bibliography submitted with application: None

D. Reprints submitted with application: None

E. Anticipated duration of study:

1 - 2 years.