

85-1

[REDACTED]

7 November 1960

MEMORANDUM FOR: THE RECORD  
SUBJECT : MKULTRA Subproject 85

1. The purpose of this memorandum is to correct an error made in the original memorandum for the record of this Subproject by amending it to delete the requirement expressed therein for an accounting for the funds granted to Dr. [REDACTED] beyond his receipt for those funds. C

2. The transaction with Dr. [REDACTED] involved his agreement to produce a technical monograph on a specific subject for the sum of \$1,000.00 and as such represents an agreed upon price for a specified product rather than an accumulation of expenses for which an accounting could be made.

[REDACTED]

Chief  
TSD/Research Branch A

CONCURRED:  
[REDACTED] A  
Research Director  
11/10/60  
Date

Orig only.

[REDACTED]

85-2

1 July 1958

[REDACTED]

B

Gentlemen:

We are pleased to be able to transmit to you the following funds:

Check #159085 drawn on the [REDACTED] for \$1,000.00

E

Check #159088 drawn on the [REDACTED] for \$40.00.

These funds represent a contribution for the use of your directors in carrying out the very worthwhile research goals of your organization.

Yours truly,

Enclosures: (2)

[REDACTED]

18 June 1958

Support the research

18 June 1958

Support the research

of Dr. [REDACTED] on

human blood groups.

Satisfactory

18 June 1959

Col. [REDACTED]

2650  
29

8-2502-11-001

Jul. 55

DATE	DESCRIPTION	AMOUNT	AMOUNT	AMOUNT
19 JUN 1958	Authorization	1040.00		1040.00
24 JUN 1958	Invoice #		1040.0	

85-3


10 June 1958

MEMORANDUM FOR: CONTROLLER

ATTENTION: Finance Division

SUBJECT: MULLRA, Subproject 85

Under the authority granted in the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda, Subproject 85 has been approved and \$1,040.00 of the over-all MULLRA project funds has been obligated to cover the subproject's expenses. This obligation of funds should be charged to Allotment 9-2502-10-001.

  
 Chief  
 TSS/Chemical Division

A

APPROVED FOR OBLIGATION OF FUNDS:

Original signed by   
 Research Director

*Subject to availability*  
 I CERTIFY THAT FUNDS ARE AVAILABLE  
 CHECKED REFERENCE NO. 21  
 CHARGED TO ALLOTMENT 9-2502-10-001  
 ASSISTANT OFFICER

Date: 13 JUN 1958

- Distribution:
- Orig & 2 - Addresses
  - 1 - TSS/OC
  - ✓ 1 - TSS/FASB
  - 1 - TSS/SRB
  - 2 - TSS/CD

I CERTIFY THAT FUNDS ARE AVAILABLE  
 CHECKED REFERENCE NO. 21  
 CHARGED TO ALLOTMENT NO. 9-2502-10-001

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19 June 1958

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSS/Budget Officer

SUBJECT : MQUITRA, Subproject 85, Invoice No. 1,  
Allotment 9-2502-10-001

1. Invoice No. 1 covering the above subproject is attached. Payment should be made as follows:

Cashier's check in the amount of \$1,000.00  
drawn on [REDACTED]

E/B

Cashier's check in the amount of \$40.00,  
drawn on [REDACTED]

E/B

2. Please forward the checks to Chief, TSS/Chemical Division, through TSS/Budget Officer, no later than Friday, 27 June 1958.

3. This invoice represents the total amount currently authorized under Subproject 85. However, since it is anticipated that additional funds will be obligated for this project, the files should not be closed.

CHECK # 12254 IN THE AMOUNT OF \$1225.40  
RECEIVED 27 JUN 1958

A

[REDACTED] Chief  
TSS/Chemical Division

Attachments:  
Invoice and Certifications

Distribution:  
Orig & 2 - Addressee

Dr 888 002680 600.1 2502-10-001 17.2 1040.00  
Cr Cash 1040.00

[REDACTED] 25 June 58 [REDACTED] 12  
A

**INVOICE**

For services

\$1,040.00

B

**CERTIFICATIONS**

(1) It is hereby certified that this is Invoice No. 1 applying to Subproject 85 of MKULTRA, that performance is satisfactory, that services are being accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipts is on file in TSS/CD, that this bill is just and correct and that payment thereof has not yet been made.

Chief, TSS/Chemical Division

Date:

(2) It is hereby certified that this invoice applies to Subproject #85 of MKULTRA which was duly approved, and that the project is being carried out in accordance with the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda.

Research Director

Date:

DRAFT  
10 June 1958

MEMORANDUM FOR: THE RECORD

SUBJECT : MKULTRA Subproject 85

1. The purpose of Subproject 85 is to support the research of Dr. [redacted] of the [redacted] on human blood groups. Dr. [redacted] is one of the leading investigators on blood groups in man from both the immunological and genetic standpoints. B

2. The scope of Dr. [redacted] study will include a literature survey on blood groupings from the forensic standpoint. He will also include in his survey the latest information available on the minor groupings. The attached proposal gives in detail the nature of the work to be done. C

3. The total cost of the project for one year is estimated to be \$1,000.00. To this sum must be added \$40.00 representing a four percent service charge to the [redacted] making the total amount \$1,040.00. The [redacted] will function as cutout and cover for this grant. The cover title of the project is [redacted] B

[redacted] and is presumably being supported by a research grant from the Foundation. Charges should be made against Allotment 9-2502-10-001. The project commences 1 July 1958. C

4. The Foundation has requested Dr. [redacted] to submit a (summary) accounting of monies received and to return any unexpended grant funds C



at the end of the project year.

5. It was mutually agreed that documentation and accounting for travel expenses which are reimbursable by the University shall conform with the accepted practices of that institution.

6. The requirement for a six months' informal accounting on the part of the principal investigator is waived.

7. Dr. [redacted] is cleared through TOP SECRET and is aware of the true purpose of the program.

[redacted]

TSS/Chemical Division

APPROVED:

A

[redacted]

Chief

TSS/Chemical Division

APPROVED FOR OBLIGATION OF FUNDS:

[redacted]

A

Research Director

Date:

June 15 - 1953

Distribution:

Original only

Attachment:

Proposal

85-6

### BLOOD GROUPINGS

**PURPOSE :** Establishing and substantiating "true identity" of individuals, either agent or staff, through the medium of blood groupings.

The fact of belonging to a definite blood group is a fixed character of every human being and can be altered neither by the lapse of time, blood transfusions, nor intercurrent disease. By determining the presence of factors in the blood, the degree of accuracy in identification is greatly increased. Furthermore, by increasing the number of factors to be determined also increases by logarithmic progression the chances of definite exclusion. Mendelian Law of inheritance and derivation of offspring also holds true for all the specific blood groupings.

Today, because of rapid changes and reassignments of our overseas case officers, coupled with the long continuing operations of agent nets within denied areas for varying periods of time beyond our control and sight, the paramount question upon the exfiltration of the agent (S) is : Is this agent the same one we sent in ?

It is hoped that this type of identification can be accomplished through the medium of blood groupings previously filed for such reference. If nothing more, positive exclusion can be made, if not positive identification. What could be a better method for detecting a penetration? Since Mendelian Law of inheritance and derivation of offspring holds true, the screening and identification of displaced persons, immigrants, line crossers, or any questioned individual claiming familial relationships and direct lineage can be greatly enhanced and expedited.

### IMPLEMENTATION :

In order to implement this highly specialized technique, a definite program of research is indicated that will encompass the following :

- A. A feasibility study to determine the worthiness and effectiveness of such a technique. This can be easily effected by a cover study on "the determination of paternity vs non-paternity through blood examinations".
  1. Introduction
  2. Historical aspects
  3. Identification of blood

TABLE 3  
THE HUMAN BLOOD GROUPS

System	Antigens	Possible genotypes n(a + f) 2	Antigens which have caused		Frequency erythroblastosis per 1000 births	Frequency of transfusions incompatible for these antigens if matched for A, B, D
			Hemolytic transfusion reactions	Erythroblastosis fetalis		
ABO(H) Rh-It	A <sub>1</sub> ; A <sub>2</sub> ; B; O	10	A; B	A; B	0.3-1.2	
	C; C <sup>M</sup> ; C <sup>N</sup> ; c	78 <sup>a</sup> or more	C; C <sup>M</sup> ; c	C; C <sup>M</sup> ; c	6.1	
MNS	D; D <sup>s</sup> ; d		D	D	6.0	
	E; e (F); f		E; e f	E	0.1	
MNS	M; N	10†	M	M	2 cases	0.37
	S; s H <sub>s</sub> H <sub>u</sub>		S	S; s (cf. 139)	1 case each	0.35
Kell- Collano	K	3	K; k	K	0.1	0.09
	k			k	1 case	
Duffy	Fy <sup>a</sup>	3	Fy <sup>a</sup>	None		0.23
	Fy <sup>b</sup>			Fy <sup>b</sup>	1 case	
Kidd	Jk <sup>a</sup>	3	Jk <sup>a</sup>	Jk <sup>a</sup>	Very few	0.38
	Jk <sup>b</sup>					
Lewis	Le <sup>a</sup> ; Le <sup>b</sup> ; (Le <sup>x</sup> )	3 or more	Le <sup>a</sup>	None		0.37
Lutheran	Lu <sup>a</sup> (Lu <sup>b</sup> )	3	None	None		
PQ	P; Q; Q <sup>i</sup> ; (p); (q)	21	None	None		

HIGH OR LOW INCIDENCE BLOOD GROUP FACTORS

					Incidence of factor in population tested	Source of antigenic stimulus
Jay (144, 143a, 144a, b)	Tj <sup>a</sup> (Tj <sup>b</sup> )	3	None	3 individuals. Repeated miscarriages. 8 cases of anti-Tj <sup>a</sup>	5000/5000	Pregnancy?
Miltenberger (143) Barré (147)	Mi <sup>a</sup> (Mi <sup>b</sup> ) Bo <sup>a</sup>	3 3		1 case 1 case	0/320 0/448	Pregnancy Transfusions of husband's blood; pregnancy transfusion
Levy (128a)		3		None to date	0/350	Transfusion
Graydon (140)	Gr	3	None	None	0/191	Unknown
Jobbins (141)		3	None	1 case	0/120	Pregnancy
Becker (148)		3	None	1 case	0/373	Pregnancy

## THE HUMAN BLOOD GROUP FACTORS

TABLE 3—Continued

					Incidence of factor in population tested	Source of antigenic stimulus
Wright (150)	W <sub>r</sub> <sup>a</sup>	3	None	1 case	1/1277	Pregnancy <sup>§</sup>
Vel (149, 149a)		3	3 cases		99.98%	Transfusion
Ven (146)		3	None	1 case	9/170	Pregnancy
Diago (151)		3		1 case	0/200	Pregnancy
U (152, 153, 153)		3	1 case		1100/1100 caucoids; 977/989 negroids	Unknown
Verweyst (151)	V <sub>w</sub> (Same as M <sub>i</sub> ) <sup>§</sup>	3		?	0/740	Pregnancy
Batty (152a)	By	3	None	?	0/500	Pregnancy
Chr <sup>a</sup> (152b)	Chr <sup>a</sup>	3	None	None	2/500	Unknown
Cavaliere (153c)	Ca	3	None	?	0/48 D-	Pregnancy <sup>†</sup>
V (153d)	V				106/371 Negroes	Related to Rh-Irr system
					2,831 Whites	
Romunde (154)	R <sub>m</sub>	3	None	None	0/200	Pregnancy

( ) Assumed, not actually identified.

<sup>a</sup> Based on C, C<sup>w</sup>, c, D, d, and E, e giving twelve chromosomes. If F, f are included, the number of possible genotypes becomes 300. E<sup>w</sup>, E<sup>v</sup>, and G<sup>w</sup> have also been described (159-162).

<sup>†</sup> Excluding Henshaw (H<sub>c</sub>) and Hunter (H<sub>w</sub>).

<sup>‡</sup> Some of antisera hemolyze as well as agglutinate.

<sup>§</sup> Anti-W<sub>r</sub><sup>a</sup> found widely distributed very frequently in association with anti-E.

<sup>¶</sup> Levine, P. Personal Communication.

Branch II

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TABLE 3  
THE HUMAN BLOOD GROUPS

System	Antigens	Possible genotypes $n(n+1)$ 2	Antigens which have caused		Frequency erythroblastosis per 1000 births	Frequency of transfusions incompatible for these antigens if matched for A, B, D
			Hemolytic transfusion reactions	Erythroblastosis fetalis		
ABO(H) Rh-Hr	A; A <sub>2</sub> ; B; O	10	A; B	A; B	0.3-1.2	
	C; C <sup>w</sup> ; C <sup>x</sup> ; e	78 <sup>a</sup> or more	C; C <sup>w</sup> ; e	C; C <sup>w</sup> ; e	0.1	
	D; D <sup>w</sup> ; d		D	D	6.0	
	E; e (F); f		E; e f	E	0.1	
MNS	M; N	10 <sup>1</sup>	M	M	2 cases	0.37
	S; s		S	S; s (cf. 139)	1 case each	0.35
	He					
	Hu					
Kell- Cullano	K	3	K; k	K	0.1	0.09
	k			k	1 case	
Duffy	Fy <sup>a</sup>	3	Fy <sup>a</sup>	None		0.23
	Fy <sup>b</sup>			Fy <sup>b</sup>	1 case	
Kidd	Jk <sup>a</sup>	3	Jk <sup>a</sup>	Jk <sup>a</sup>	Very few	0.58
	Jk <sup>b</sup>					
Lewis	Le <sup>a</sup> ; Le <sup>b</sup> ; (Le <sup>3</sup> )	3 or more	Le <sup>a</sup>	None		0.37
Lutheran PQ	Lu <sup>a</sup> (Lu <sup>b</sup> )	3	None	None		
	P; Q; Q <sub>2</sub> ; (p); (q)	21	None	None		

HIGH OR LOW INCIDENCE BLOOD GROUP FACTORS

					Incidence of factor in population tested	Source of antigenic stimulus
Jay (144, 143a, 143b, b)	Ty <sup>a</sup> (Ty <sup>b</sup> )	3	None	3 individuals, Repeated miscarriages. 5 cases of anti-Ty <sup>a</sup>	5000/5000	Pregnancy?
Miltenberger (145)	Mi <sup>a</sup> (Mi <sup>b</sup> )	3		1 case	0/320	Pregnancy
Berrens (147)	Bo <sup>a</sup>	3		1 case	0/445	Transfusions of husband's blood; pregnancy
Levy (138a)		3		None to date	0/350	Transfusion
Graydon (140)	Gr	3	None	None	0/191	Unknown
Jobbins (141)		3	None	1 case	0/130	Pregnancy
Becker (142)		3	None	1 case	0/272	Pregnancy

TABLE 2—Continued

					Incidence of factor in population tested	Source of antigenic stimulus
Wright (150)	W <sup>a</sup>	3	None	1 case	1/1277	Pregnancy†
Vel (148, 149a)		3	2 cases		99.98%	Transfusion
Yen (146)		3	None	1 case	0/170	Pregnancy
Diego (151)		3		1 case	0/200	Pregnancy
U (152, 153, 153)		3	1 case		1100/1100 caucoids; 977/989 negroids	Unknown
Yerweyst (154)	V <sub>W</sub> (Same as M <sup>a</sup> ) ‡	3		?	0/740	Pregnancy
Batty (154a)	By	3	None	?	0/500	Pregnancy
Chr <sup>a</sup> (154b)	Chr <sup>a</sup>	3	None	None	2/500	Unknown
Cavaliere (154c)	Ca	3	None	?	0/48 D-	Pregnancy?
V (154d)	V				105/371 Negroes	Related to
					2/851 Whites	Rh-Hr system
Romunde (154)	R <sub>m</sub>	3	None	None	0/200	Pregnancy

( ) Assumed, not actually identified.

<sup>a</sup> Based on C, C<sup>+</sup>, c; D, d; and E, e giving twelve chromosomes. If F, f are included, the number of possible genotypes becomes 300. E<sup>+</sup>, E<sup>-</sup>, and C<sup>+</sup> have also been described (159-162).

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