

**INFORMATION REPORT INFORMATION REPORT**

CENTRAL INTELLIGENCE AGENCY

This material contains information affecting the National Defense of the United States within the meaning of the Espionage Laws, Title 18, U.S.C. Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

C-O-N-F-I-D-E-N-T-I-A-L

50X1-HUM  
50X1-HUM

COUNTRY USSR

REPORT

SUBJECT *Evaluation of Dental Research in the USSR / Soviet Stomatological Institutes and Clinics / Georgian Minister of Health*

DATE DISTR.

*14 Dec 61*

NO. PAGES 1

REFERENCES

DATE OF INFO.  
PLACE & DATE ACQ

THIS IS UNEVALUATED INFORMATION

50X1-HUM

50X1-HUM

50X1-HUM

[redacted] an 11 page report entitled "Comments on Dental Research in the USSR". This report commences with a discussion of the difficulties of assessing the scope and focus of Soviet dental program because of a philosophical point of departure of variance with western views on dental care. Described in general terms are [redacted] the following institutes:

50X1-HUM

- a. Moscow Stomatological Institute
- b. Various Dental Clinics in Leningrad
- c. Kiev Stomatological Institute
- d. Kiev Medical Institute
  - (1) Department of Embryology and Histology
  - (2) Department of Anatomy
  - (3) Department of Therapeutic Stomatology
- e. Georgian Minister of Health, Tbilisi
- f. Various Polyclinics in Tbilisi
- g. Dental Clinics in Rest Homes in Sochi

50X1-HUM

- end -

50X1-HUM

C-O-N-F-I-D-E-N-T-I-A-L

5  
4  
3  
2  
1

5  
4  
3  
2  
1

|       |      |      |     |     |     |  |  |  |  |
|-------|------|------|-----|-----|-----|--|--|--|--|
| STATE | ARMY | NAVY | AIR | FBI | AEC |  |  |  |  |
|-------|------|------|-----|-----|-----|--|--|--|--|

**INFORMATION REPORT INFORMATION REPORT**

**NOFORN NO DISSEM ABROAD**  
**LIMITED:** Dissemination limited to full-time employees of CIA, AEC and FBI; and, within State and Defense, to the intelligence component offices producing NIS elements, and higher echelons with their immediate supporting staffs. Not to be disseminated to consultants, external reserve personnel on short term active duty (excepting individuals who are normally full-time employees of CIA, AEC, FBI, State or Defense)


**Page Denied**



**FOR OFFICIAL USE ONLY**

COMMENTS ON DENTAL RESEARCH IN THE U.S.S.R.



General Remarks:

 From an American point of view, dental research in Russia today is limited. From the Russian viewpoint, however, this is not necessarily true. One explanation of this apparent contradiction lies in the knowledge that in dental research, as well as other areas of investigation, the Russian scientist observes his national effort somewhat out of context with the remainder of the world. Moreover, the contemporary Russian is prone to date all significant events, including advances in dentistry, to the Soviet Revolution some forty-five years ago. One must compare this with the beginning of the dental profession in the United States more than 100 years ago. In actuality, the current Russian efforts in research seem to be more directly related to the increased activities in the total dental health field now in operation under the new Soviet 7-year plan.

The problem of communication made it extremely difficult to determine the scope and focus of dental research in the Soviet Union. However, there was considerable evidence of studies being carried out in basic biologic research, some of which was related to dentistry. This research, on the other hand, was not necessarily the type seen in  dental schools, poly-clinics, and other dental treatment installations in Russia. For this reason, the following report will be limited to observations made in the various cities where dental schools and treatment clinics were 



**FOR OFFICIAL USE ONLY**

50X1-HUM

50X1-HUM

50X1-HUM

50X1-HUM

**FOR OFFICIAL USE ONLY**

- 2 -

50X1-HUM

Moscow

50X1-HUM

[redacted] the Moscow Stomatological Institute was the first opportunity to view dentistry in the U.S.S.R. [redacted]

[redacted] The only evidence of research [redacted] was related to clinical research. In the field of oral surgery, many patients were seen being treated for cancerous or malignant tumors in which much tissue had to be removed. The director of this department, a trained stomatologist, was interested in various grafting techniques for replacing lost tissues in the facial areas. Considering the facilities available to him and the problems involved in this type of work, one is amazed at the successful treatment of several of the cases which were presented. While this may not be considered research under certain definitions, it was presented to the group as a research project in the field of oral surgery. There also was some evidence of research activity in the department that would be classified as crown and bridge works in American dental schools. A small group was working to develop better materials for filling teeth and in particular developing techniques for handling the steel crowns that were being used. The department head did not seem to have any true method of evaluating his results, and as far as could be determined, he evaluated the material on the basis of how soon his patient had to return for treatment of recurrent caries. Equipment in use was completely out-moded and of poor design for the job at hand. In spite of the fact that the laboratory facilities were very crowded, there were several laboratory assistants who may have been graduate or post-graduate students.

**FOR OFFICIAL USE ONLY**

**FOR OFFICIAL USE ONLY**

- 3 -

These two activities represented the extent of research activity [redacted] 50X1-HUM

[redacted] the Moscow Institute of Stomatology.

[redacted] arrangements had been made [redacted] to [redacted] 50X1-HUM  
50X1-HUM

visit: some of the basic science department laboratories. [redacted]

[redacted] the histology department, biological chemistry department, and the 50X1-HUM

[redacted] equivalent of an oral pathology department [redacted] 50X1-HUM

[redacted] were headed by persons who appeared quite competent in their fields. Their laboratories were of average size and, with the exception of oral pathology, the equipment in these laboratories was not particularly up to date. In oral pathology they were conducting certain studies on bone metabolism using radio-active calcium for evaluation of bone metabolism. The equipment being used in this experiment was quite up to date and efficient looking. Another study being conducted in this department, for example, had to do with studies of saliva and the function of the salivary glands in experimental animals. The Russians believe that saliva plays a role in the mineral metabolism of the external surfaces of the enamel and can effect the caries susceptibility of these surfaces.

In the three departments there were assigned from three to six graduate students, and there appeared to be a couple of graduate students at work in each department. Two of these department chairmen said that they had published only in Russian journals. The chairman of the histology department had just submitted a paper in English which was scheduled to appear in an early issue of the Archives of Biology. He is also working with the Archives of Biology in supplying bibliographical references for dental research in Russian journals.

**FOR OFFICIAL USE ONLY**

**FOR OFFICIAL USE ONLY**

- 4 -

Leningrad

50X1-HUM

[REDACTED]

[REDACTED] One of the clinics [REDACTED] was principally a teaching clinic where persons in their fifth year of schooling received clinical experience.

It was considered more or less as a special treatment center and was set up for handling special referral patients. [REDACTED] most of

50X1-HUM

the clinics throughout Leningrad send their special or difficult patients to this clinic. The individual [REDACTED] in charge of the clinic [REDACTED] was especially interested in the general field of prosthetics.

His research interest was in the area of measuring muscle movement and occlusal pressures, with particular reference to prosthetic appliances.

He had a rather crude electromyograph, that looked "home made". It appeared to be a very crude piece of equipment, and we wondered whether it would be at all possible to get usable readings of muscle movement. The remaining laboratory equipment was in average condition but appeared to be out-dated.

In answer to the question of how this electromyograph was developed, [REDACTED] 50X1-HUM

[REDACTED] the chief of the clinic that there is in Leningrad a special 50X1-HUM electronic workshop for the fabrication of medical research equipment. The people in this workshop worked with investigators to develop equipment in accordance to specification.

50X1-HUM

[REDACTED] graduate students were accepted both on a part-time basis and on what was indicated to be a full-time study basis. It would appear, however, that only a small amount of the principal

**FOR OFFICIAL USE ONLY**

**FOR OFFICIAL USE ONLY**

- 5 -

investigator's time is spent in research, with the remaining time spent in running the clinic and assisting dental treatment of special patients. This was the only evidence of research activities observed in Leningrad.

Kiev

50X1-HUM

[redacted] Kiev [redacted] Department of Hygiene of the Stomato- 50X1-HUM  
 logical Institute. Again, this clinic was where clinical training was given to the 3rd, 4th, and 5th year students in stomatology. The Hygiene Department had ten full-time teachers; the chairman, three full professors and six associates and assistants. [redacted] some research must be 50X1-HUM  
 done in all classes at this Institute. In the Hygiene Department there were four graduate students who were training themselves for research careers. They also had six graduate students who were getting added experience and were planning to get supervisory positions in clinics. A group of under- 50X1-HUM  
 graduate students were working in the clinic [redacted] One of the graduate students was engaged in research on the blood circulation of the masseter muscles and another was doing research in developing special impression techniques for dentures. 50X1-HUM

[redacted] the Kiev Medical Institute, established some 140 years ago. The present building was rather new having been built only 7 years ago. [redacted]

[redacted] The first department was that of embryology 50X1-HUM  
 and histology. These subjects are taught during the first two years of the student's educational career in stomatology. The head of the department started his career in the field of general medicine and then went into 50X1-HUM  
 academic life. [redacted]

**FOR OFFICIAL USE ONLY**

**FOR OFFICIAL USE ONLY**

- 6 -

[redacted] The 50X1-HUM  
 department head mentioned that research was being conducted and that he  
 takes one to three graduate students for special studies each year. At  
 the present time he has a total of 12 graduate students studying under  
 him; none of them are stomatologists.

50X1-HUM

The second department [redacted] was that of anatomy. [redacted] 50X1-HUM

[redacted] the chief of this department [redacted]  
 [redacted] particular interests  
 were centered in the field of neuro-anatomy. Presently he is interested  
 in the embryological development of the sympathetic nervous system. In  
 his library and museum, [redacted] an outstanding collection of teaching 50X1-HUM  
 models of the anatomy of the lymphatic system and of the nervous system.

[redacted] at the present time he had 15 graduate students study- 50X1-HUM  
 ing in his department, none of which were stomatologists.

The dissecting laboratory for gross anatomy for student study was not made  
 available [redacted] The laboratory chief admitted a serious 50X1-HUM  
 difficulty in obtaining cadavers, and as best as could be determined there  
 were only some 20 cadavers for 2 to 3 hundred students per year. The  
 stomatology students concentrated their studies on the anatomy of the head  
 and neck, and it was questionable as to just how much practical dissection 50X1-HUM  
 work they were allowed to do. [redacted] the student headed  
 for stomatology was not getting the same type of anatomy course as those  
 headed for other branches of medicine. There can be no doubt, however, of  
 the competency of the heads of the two departments [redacted] in the Kiev 50X1-HUM

**FOR OFFICIAL USE ONLY**



**FOR OFFICIAL USE ONLY**

- 7 -

Medical Institute. In neither department was there any evidence of, nor any comments relative to, interests in dental problems.

At the Medical Institute in Kiev [REDACTED]

50X1-HUM

[REDACTED] the Chairman of the Therapeutic Stomatology Department [REDACTED] pointed out that this was one of the newest fields being taught at the Medical Institute. In this department the students received training in the diagnosis and treatment of decay, parodontitis, and other mucuos membrane diseases. There were four laboratories for research. In these laboratories research studies were underway on the protein content of saliva and tooth substance using paper chromatography techniques. Investigators were also studying capillary reaction of the gingival tissue. The technique to measure capillary reaction in the gingival tissue, for example, was done by a very crude type of apparatus designed to create a vacuum in the gingival tissue area. They compared the response or resonance of the capillary bed of those tissues to similar or greater amounts of vacuum on the epidermal tissues of the upper chest area. There was a rather crude freezing type microtome for the preparation of biopsy material in the laboratory, but it was not in use [REDACTED]

50X1-HUM

50X1-HUM

There was also a relatively well kept clinical laboratory area at the Medical Institute. [REDACTED] in this laboratory students were taught how to do blood counts, routine urinalysis and sedimentation tests, and all other types of clinical pathology examinations. However, there was no visible evidence of available tissue staining equipment. [REDACTED]

50X1-HUM

[REDACTED] there were 12 graduate students in this department,

50X1-HUM

**FOR OFFICIAL USE ONLY**

**FOR OFFICIAL USE ONLY**

- 8 -

but they were not stomatologists.

There was a new building under construction at the Medical Institute.

This nearly complete building will have an increased amount of laboratory space, and plans are to combine three of the stomatological departments of the Institute. The building will also have a limited number of hospital beds for stomatological study purposes.

Another interesting aspect of the dental activities at Kiev had to do with the emphasis upon the field of orthodontics. [redacted] one of the 50X1-HUM kindergarten schools [redacted] the Russians were using, under supervision, muscular exercise and pressures to correct certain types of malocclusion. One wonders about two things. Whether the fact that the wife of the Minister of Health is an orthodontist results in this increased emphasis on orthodontics in treatment programs, and, also, just how much research is being conducted to evaluate the treatment by muscular exercise in small school population groups. Certainly it is an opportunity for a good scientific research project and one which, under the social concepts of the U.S.S.R. and the way they handle school children, could be conducted efficiently.

A further observation made in Kiev was that many of the patients in the 25 and over age group seemed to have a low caries rate. The children in the kindergarten and the younger children in the school dental clinic appeared to have a relatively high or at least average caries rate as based on U. S. standards. It is not easy to determine if this variation related to geographic areas in the city or whether it is a question of fluoride intake.

**FOR OFFICIAL USE ONLY**

**FOR OFFICIAL USE ONLY**

- 9 -

The water supplies of several years ago had an increased fluoride content, but now the original well water supply is being diluted by water from a surface source. The Russians recognize the potential of fluoride in this dental health picture, however, the one or two persons [redacted] [redacted] preferred to say that the low caries rate was a result of good nutrition. Their educational program is emphasizing "good nutrition for good teeth."

50X1-HUM

50X1-HUM

Tbilisi

50X1-HUM

[redacted] in Tbilisi [redacted] the Minister of Health.

50X1-HUM

[redacted] gave [redacted] a very good briefing on the development of health service

in his republic. It is apparent that in the past few years they have put

a lot of emphasis on controlling contagious diseases, particularly malaria

50X1-HUM

The Russians also seem to be placing more emphasis on dental health [redacted]

[redacted]

there were only 200 "dentists" in this republic, the remainder being stomatologists. Under the present plan these 200 "dentists" will have become qualified as stomatologists within the next 2 to 3 years. They are not training additional "dentists" as such. Another statement of interest is that they had 100 stomatologists per year taking advanced training. These individuals spend 4 months in training at the Institute of Advanced Science, and a description of the course content indicates it is designed for graduate training in clinical specialties.

It seemed rather obvious that the dental health program in Tbilisi emphasized dental treatment for school children and those in nursery and kindergarten school. Also there were well equipped polyclinics. There was evidence

**FOR OFFICIAL USE ONLY**

50X1-HUM

from the apparently low DMF rate that there was an almost optimum fluoride content in the water supply. [redacted]

[redacted]

50X1-HUM

[redacted] very little evidence of basic laboratory research activities in the areas we visited in Tbilisi. This may be due to the fact that dental students take their basic science courses in the Medical Institute and their clinical experience is obtained in polyclinics [redacted]

50X1-HUM

[redacted] It was interesting to note that the Russians emphasized physiotherapy and hydrotherapy for treatment of periodontal disease more than in other

50X1-HUM

republics [redacted] Without doubt, there is some type of research back

50X1-HUM

ground supporting the use of this technique in treatment of periodontal disease. It could be that this type of treatment was emphasized in this area, because there is a special research institute to study the effects of climate, mineral water, hot baths, etc., in the treatment of all chronic diseases. The Russians did indicate there was basic research going on in the Medical Institute facilities, however, these were closed at the time and we were not invited to visit them.

Sochi

50X1-HUM

[redacted]

[redacted] the dental clinic of one of the rest homes [redacted]

was a very efficient looking dental clinic and the stomatologist in charge

50X1-HUM

seemed to be quite knowledgeable. [redacted] treat a case of a fistula from a periapical abscess. [redacted] using a high frequency electric current

**FOR OFFICIAL USE ONLY**

- 11 -

technique which he said was used for the purpose of destroying the bacteria. He had read about such a procedure and he considered this his personal research project. The area he was treating on the muco-buccal fold did seem to be progressively healing in reasonable fashion. That is the only evidence of research [redacted] in this city.

50X1-HUM

Summary

50X1-HUM



[redacted] There was evidence in most places of some type of clinical research activity, however, this was at a level well below similar research activities [redacted] There was also evidence of the presence of persons trained and capable of doing fundamental dental research. The rather complete lack of necessary facilities for carrying out such research in the stomatological departments of the institutes [redacted] suggests that such activities have low priority at the present time, and the emphasis is being placed on producing stomatologists. One can assume, that in the present 7-year plan as the number of stomatologists is increased and more emphasis is placed on dental health, more and more scientific research will be conducted. At the present time, however, the Soviets are using all their energy and their facilities in increasing the number of qualified persons to bring better dental health to the people in the U.S.S.R.

50X1-HUM

50X1-HUM

October 1961

**FOR OFFICIAL USE ONLY**