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CENTRAL INTELLIGENCE AGENCY 25X1 REPORT

INFORMATION REPORT

COUNTRY USSR

DATE DISTR. 14 October 1948

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2. Soviet Efforts to Obtain Penicillin Equipment
3. Nikolai Mikhailovich Borodin

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1. Penicillin was first produced in the USSR at the following two places:
 - a. Central Laboratory of Penicillin (director Kalinichenko) at the Mikoyan Meat Combine, Basmann district of Moscow;
 - b. Medical Products Factory, Kiahli district of Baku.
2. The Medical Products Factory is administratively subordinated to the Azerbaijanian Ministry of Meat and Milk Production. In the period 1937-1945, this factory, which was equipped with research laboratories, produced various medical materials such as hormones, ferments, insulin, pancreatin, aspirin, gelatine, and gelatine. Its products were sent to the Azerbaijanian Ministry of Health. In scientific matters, the director of the factory, who at that time was Nikolai Mikhailovich Borodin, was subordinated to the Chemical-Technological Institute in Moscow, the Therapeutical Institute in Baku, and the Micro-Biological Institute in Baku. During the war, the factory continued its work without much change but its products were supplied to the Army.
3. Production of penicillin at the Medical Products Factory was begun about May 1942 on the basis of information obtained from English and American publications. This work was undertaken on the initiative of Borodin. The output of the factory was very small and reached only 20-25 billion units per month by 1947-48.
4. In August 1944, Borodin was called to Moscow as a consultant by Svirnov, All-Union Minister of Meat and Milk Production, to discuss the production of penicillin. Svirnov decided to organize large-scale production of the drug and ordered that a penicillin plant attached to the Mikoyan Meat Combine, Moscow, be erected by January 1945. This was done against the advice of Borodin, who maintained that the project was based on an over-simplification of the processes involved. In charge of the project were Kalinichenko, Katkovsky, Dr. Yermolova, and other Ministry of Health

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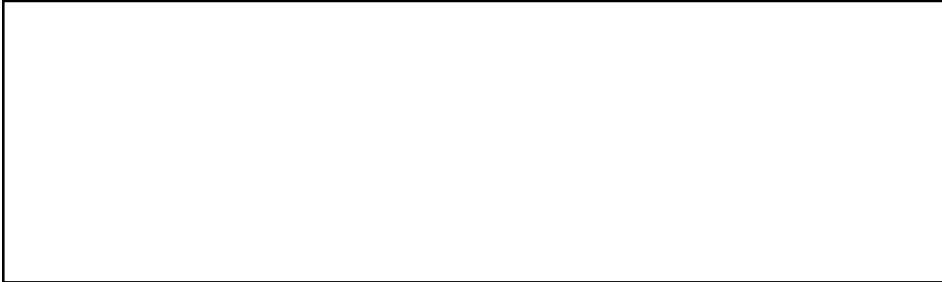
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experts. The first trickle of production from this plant did not begin until eighteen months later. Meanwhile, about February 1946, the American supply of penicillin for the use of the Kremlin and of several Moscow hospitals was temporarily interrupted. Minister of Health Smirnov was asked by the Kremlin to supply the homemade penicillin which was scheduled to be produced by the Moscow plant but he failed to do so. (Following a similar failure over insulin, Smirnov eventually was dismissed, in June 1946.)

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6. By this time, research on penicillin was being carried out at the following institutions in the USSR:

- a. Institute of Biological Prophylactics of Infection, Moscow.
Director: Dr. Yermoleva.
- b. Central Laboratory of the Leningrad Meat Combine.
In charge of penicillin research: Povolokov.
- c. All-Union Institute of Experimental Medicine, Moscow.
In charge of penicillin research: Lyubimov and Petrova.
- d. Academy of Sciences of the USSR.
Penicillin research directed by: Professor Imshanetsky,
now Deputy Director of the Microbiological Institute, Moscow.

Penicillin production was being organized on a very small scale at the following places.

- a. Medical Products Factory, Baku;
- b. Central Laboratory of Penicillin at the Mikoyan Meat Combine, Moscow;
- c. Institute of Biological Prophylactics, Moscow, which was the last of the three to start production.

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in December 1946, a project was under consideration by the Council of Ministers for the concentration of all penicillin plants under the direction of the Ministry of Medical Production, which had been created in the autumn of 1946.

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8. By this time, Smirnov had been replaced as Minister of Meat and Milk Production by Kuzmennykh. Kuzmennykh arranged for the transfer of Borodin from the Baku factory to the Ministry of Medical Production, under Minister Tretyakov. The latter appointed Borodin to the post of Chief of the Technical Department of the Ministry of Medical Production, with the task of preparing the organization of the new Antibiotics Institute which was about to be founded.

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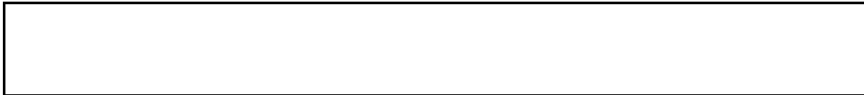
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9. In April-May 1947, the Council of Ministers approved Tretyakov's proposals for the following:

- a. The foundation of the Antibiotics Institute with a staff of 400 persons;
- b. The erection of six penicillin plants in the Soviet Union;

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10. About this time, Borodin was appointed Director of the Antibiotics Institute, the full title of which was the All-Union Institute for Research on Penicillin and Other Antibiotics. The Institute was located at Obukha Ulitsa 8, Moscow, but had an overflow of personnel quartered in the following buildings:

- a. The All-Union Chemical Pharmaceutical Institute, Zubovskaya Square;
- b. Karpov's chemical pharmaceutical plant, Moscow, Nizhne Kotly;
- c. Penicillin Plant No. 40, under construction at Lesnaya Ulitsa, Moscow. (The number of the plant is purely arbitrary.)

11. The Ministry of Medical Production, which had previously been a department of the Ministry of Health, now had a new department of its own, entitled Central Penicillin Department, which was directed by Natradze, first deputy to the Minister of Medical Production. Natradze was responsible for the organization and control of penicillin production, and, in particular, for the direction of the six new penicillin plants which were under construction. These plants were located in Moscow (Plant No. 40, above), Sverdlovsk, Kiev, Minsk, Riga, and Ordzhonikidze.

12. The plan was to achieve an output of 500 billion units of penicillin a year by 1950. Borodin considered this quantity insufficient to meet Soviet needs but was overruled by Tretyakov.

13. During this time, many conferences and meetings connected with the penicillin problem were held. In January 1947, for instance, a special conference of the Academy of Sciences of the USSR was convened to deliberate concerning research on antibiotics. A commission under the chairmanship of Academician Orbeli and the deputy-chairmanship of Academician Oparin, Director of the Institute of Biochemistry, held several meetings. In May 1947, a meeting to discuss antibiotic substances was held at the All-Union Chemical Pharmaceutical Research Institute in Moscow. Innumerable conferences concerned with penicillin research and production took place in the Ministry of Medical Production and the Antibiotics Institute.

14. Borodin's salary at this time was 6,000 rubles per month. Living accommodations for him in Moscow were arranged by special order of Mikoyan.

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16. While abroad, Borodin retained the directorship of the Antibiotics Institute in Moscow, which meanwhile was run by his deputy, Doctor of Science Passinsky. The Institute was divided into the following main departments:

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- a. Physical chemistry (Passinsky)
- b. Experimental therapy (Doctor of Science Yermoleva)
- c. Department of Physiology (Levitor)
- d. Department of Technology (Zeifman)

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20. At this time, the Ministry of Medical Production was going through a political crisis. In March 1948, Natradze, Chief of the Penicillin Department, was demoted in stages to a very inferior position and his position as head of the department was reportedly given to Grishakov. Tretyakov was dismissed, while the Ministry of Medical Production was once more made a department of the Ministry of Health. The present Minister of Health, Col. Gen. Smirnov, formerly a chief of the Army Medical Sanitary Department, who had succeeded Meteryev, was either unable or unwilling to take the responsibility for issuing clear orders for penicillin purchases, and incredible bureaucratic delays set in at the Moscow end.

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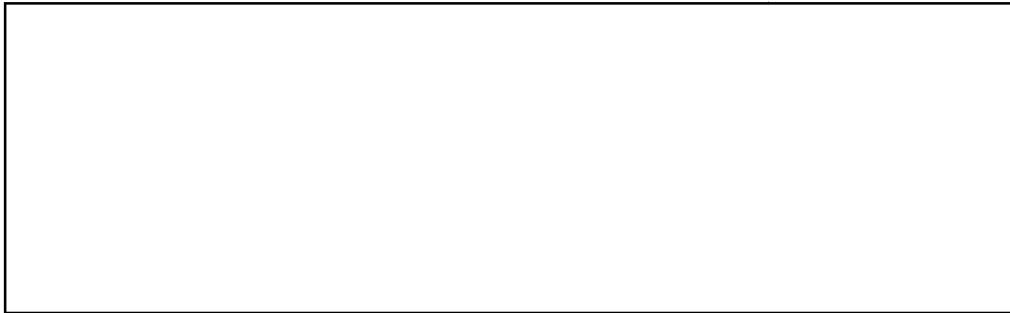
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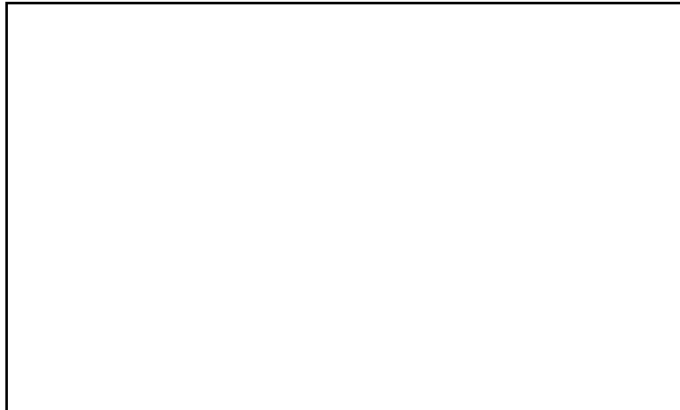
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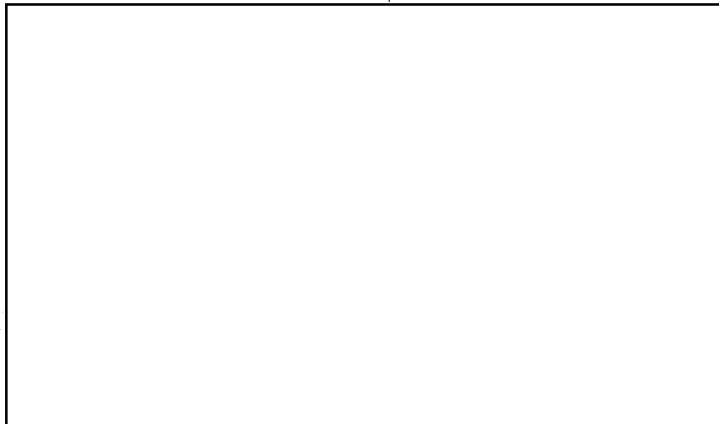
35. Soviet scientists, formerly engaged in work connected with the production of penicillin and other antibiotics, who have been purged by the Soviets:

Professor Parin:



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Nina G. Kluyeva:



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Msteryev:



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36. Other scientists caught in Soviet purges in the past:

Tsytovich:



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Yakovlev:

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Professor Gurvich:

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Professor Stutzer:

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