

# A Famous Turkish Physician from Military Medical School: Dr. Refik Saydam and His Public Health Works

Ayşegül DEMİRHAN ERDEMİR<sup>1</sup>, Öztan ÖNCEL<sup>2</sup>

<sup>1</sup> Prof. Dr., Department of History of Medicine and Medical Ethics, Faculty of Medicine, University of Uludag, Bursa –Turkey  
e-mail: ademirer@yahoo.com

<sup>2</sup> Prof. Dr., Department of History of Medicine and Medical Ethics, Faculty of Medicine, University of İstanbul, İstanbul – Turkey  
e-mail: oztanoncel@superonline.com

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## Summary

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**Dr. İbrahim Refik Saydam** (1881-1942) was born in İstanbul in Turkey in 8 September, 1881. He graduated from **Military Medical School** in İstanbul in 1905 as Doctor Captain. Afterwards, he studied in the military medical academy in Berlin. Moreover, **Dr. Saydam** worked for the therapy of cholera in Balkan War in Antalya. He was appointed as Health Inspector in 1914 and established Institute of Bacteriology and prepared typhoid, dysentery, cholera etc. vaccines and provided vaccine and serum need of Turkish Army in the First World War.

**Dr. Saydam** became deputy in 1920. Moreover, he was the first health minister of Turkish Republic. He also established **Refik Saydam Hygiene Institute**. This institute is very famous and is interested with public health works.

**Dr. Refik Saydam** became prime-minister during 1939-1942. This famous physician died in 1942.

In this paper, Refik Saydam's biography and his works in the field of public health are pointed out.

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Dr. Refik Saydam who was the son of Abdurrahman Aga from Dolap Village Bayramören was born in İstanbul in 8 September, 1881.

He graduated from Military School of Medicine with the rank of Physician captain. He received education in Berlin Military Academy of Medicine in Germany.

He carried out studies for preventing Cholera epidemic during the Balkan War fighting in Antalya and Çatalca front. At the time he was appointed as military field general health deputy inspector in 1914, he organized the bacteriology institution. Thus, he provided the production of Typhoid, Dysentery, Plague and Cholera vaccines as well as tetanus and dysentery sera and met the requirements of the army throughout the I. World War. He maintained his struggle with epidemic diseases while serving in Hasankale front. The vaccine he produced against Typhus was recorded in Literature of Medicine and was used in the German army in the I. World War and in Turkish War of Independence. In 1919, he landed in Samsun in **Mustafa Kemal's** team with the rank of 9th Corps health deputy inspector and was appointed to the contagious diseases service directorship of

Erzurum military hospital after **Mustafa Kemal's** headquarters in Erzurum was scattered. However, he refused this assignment and left the army. He participated in Erzurum and Sivas congress activities.

In 1920, he became Beyazıt member of the **Turkish Grand National Assembly and Head of Sanitary Department** which is affiliated to the Attorneyship of National Defence. Beginning from the second period, he maintained his membership as İstanbul member of the **Turkish National Assembly**. The same year, he was elected Minister of Health and Social Services (Sanitary and Social Welfare). **Refik Saydam**, the first Minister of Health of the Turkish Republic, established the basic fundamentals of health services in term of 14 years. He localized domestic hospitals and maternity child welfare centers in Ankara in 1924 and subsequently in Erzurum, Diyarbakır, Sivas and many other provinces. Moreover, he attached importance to staff training in this field and organized sanitary courses; established medical student hostels, **Hygiene Institution** in 1928 and afterwards School of Public Health, tuberculosis dispensaries in İstanbul and Ankara. Between 1931-1938, Refik Saydam served as deputy minister of

Education and Minister of Finance at different dates. Following Atatürk's death, he fulfilled the tasks of Ministry of Internal Affairs, general secretariat of **Republican People's Party** and 15 years of **Red Crescent Presidency**. During his Prime Ministerial duty between 1939 and 1942, he laid special emphasis on sanitary matters. He expressed that "State Regimen is decayed from A to Z; it needs to be renewed" and followed a radical reform in state administration. He died in 1942 at the time of a study trip organized for regulation of food problem in İstanbul. His graveyard is at Cebeci in Ankara.

**Refik Saydam Hygiene Center Institute** is the **National Reference Laboratory** established in order to conduct basic laboratory services related with production, control and diagnosis for protection of Public Health in Turkey.

**The Refik Saydam Hygiene Institute** was established by the Law no. 1267 issued on 27 May 1928 as an affiliated body of the Ministry of Health and Social Services. Later on, this Law was amended in accordance with the rising needs of the Institution and its responsibilities, duties and activities were redefined by the Law no. 3959 issued on 4 January 1941.

Finally, the name of the Institution was amended as "**Refik Saydam Hygiene Center Presidency**" by the Decree Law no. 181 which has been published in the double edition of Official Journal no. 18251 dated 14 December 1983; and the Institution was made an affiliated body of the Ministry of Health. The Institution was reorganized by the Decree Law.

Developments of **Refik Saydam Hygiene Center** are as follows:

In the establishment years, there were 4 main service departments: **Bacteriology, Chemical Analysis, Pharmacology and Immunology**. Furthermore, there was a meteorology station, special conference saloon and a library.

In order to deal with new health problems, the scope of Institution's activities has been extended within the framework of below list.

In 1931, BCG Vaccine, which is applied orally, started to be produced.

In 1932, import of sera was terminated as a consequence of the fact that sera production reached the required level to meet the country's need.

In 1933, production of rabies vaccine was handled by the Simple Method.

In 1934, **Istanbul Vaccine House** was translocated to the Institution and production of smallpox vaccine reached the required level to meet the country's need.

In 1935, the **Department of Pharmacology** was founded and thus, control of local and foreign drugs as well as other vital materials was realized.

In 1936, **Public Health School** was opened.

In 1937, rabies serum started to be produced.

In 1942, typhus vaccine and scorpion serum started to be produced.

In 1947, **Biological Control Laboratory** was established. A vaccine station was opened within the Institution. As of this year, intradermal BCG vaccine has started to be produced.

In 1948, whooping-cough (pertussis) vaccine started to be produced in our country for the first time. During the same year, **Departments of Virology and Virus Vaccines** have been established and researches have been conducted for the first time on influenza virus, New-Castle virus and Avian influenza.

In 1950, the **Influenza Laboratory** was recognized by the **World Health Organization** as the International Regional Influenza Center and Influenza vaccine started to be produced.

In 1951, quality control of antibiotics and specific vitamins was realized for the first time.

In 1954, **Drugs Control Department** was founded.

In 1956, **Tetanus Vaccine** started to be produced by using more modern methods.

In 1958, **Diagnosis of Syphilis** was handled by modern methods for the first time.

In 1965, **Dry Smallpox Vaccine** started to be produced for the first time and systematic serum concentration and purification was realized.

In 1966, **Cholera Reference Laboratory** was founded.

In 1968, **Hematology Laboratory** and Anti-test Serum Production Laboratory were opened.

In 1969, **Departments of Pharmacology and Toxicology** were extended as separate departments; **Pyrogen Test and Analytical Toxicology Laboratories** were put into service.

In 1970, fibrinogen, albumin and gamma globulin started to be produced.

In 1973, **Laboratory of Pesticide** was opened and thus, registration and market controls of insecticide, rodenticide and molluscicide as well as their efficiency and survival controls started to be realized.

In 1974, **Mycology Laboratory** was opened.

In 1976, experimental production of dry BCG vaccine was realized.

In 1979, **Toxoplasm-Listeria and ASO, Latex Laboratories** began to carry out activities.

In 1982, **Public Health School** was joined to our Presidency by the Act no. 1214 dated 26.08.1982.

In 1983, dry BCG vaccine started to be produced.

In 1984, **Poison Consultancy Center** was opened.

In 1987, **AIDS Research and Confirmation Center** was opened.

In 1987, **Drugs Control Laboratories** were modernized and state-of-the-art technology devices were put into service.

In 1987, **Instrumental Analysis Laboratory** was opened.

In 1987, public housing purchase was realized in order to improve social opportunities of the staff. **Kids Club** was opened.

In 1988, **Poison Consultancy Center** began to work on a 24 hour basis.

In 1990, reorganization project of the **Refik Saydam Hygiene Center Presidency** was initiated.

In 1991, studies were completed for serving of the **Public Health School** once again.

In 1991, "The project on improving the quality of the produced vaccines and sera and production depending on export potential along with non-producible vaccines" was drawn up to be realized by the Institution and was included in the capital investment program of the **State Planning Organization** for the first time.

In 1992, viral inactivation of blood products was initiated.

In 1994, potency controls of blood products were initiated in viral aspect.

## General Working Fields

**The Refik Saydam Hygiene Center Presidency** successfully carries out the following studies at present:

- Production
- Control
- Diagnosis and Verification
- Education
- Consultancy

## Fields Of Production

Products presented for use and produced in the central laboratories are mainly as follows:

- Antigens and antisera for diagnosis (Salmonella, Brucella, Proteus, etc.)
- Antisera for treatment and protection (Scorpion, Tetanus, Diphtheria, Anthrax)
- Test animals (specific pathogen-free mice, rabbit, guinea pig, etc.)

## Laboratory Analysis

### A- Control and Measurement Analysis

Within the Presidency, analysis for registration and import license is carried out as well as analysis required for market control or export-import processes. Products submitted to examination are mainly as follows:

- Drugs and Cosmetics
- Vaccines, sera and other biological products
- Blood and blood products
- Food, water (drinking water, thermal water and spring water) and food additives

## B- Environment and Health Services

Cleaning materials, disinfectants, quality of air, water and soil, analysis of toxic materials.

## C- Reference Laboratory Services

### Diagnosis and Verification Process

**The Refik Saydam Hygiene Center** Laboratories give reference laboratory services in many fields. Routine diagnosis, verification and diagnosis of infectious diseases are carried out in these laboratories:

- Hematology
- Bacteriology and serology (Legionella, Enteric pathogens, Diphtheria)
- Virology (HIV, Hepatitis B, Hepatitis C, Polio virus, measles, Crimean-Congo hemorrhagic fever, etc.)
- Biochemistry
- Hormone
- Tuberculosis (diagnosis and antimicrobial resistance)
- Parasitology
- Poison research (Toxicology)

## Educational Studies

Some of the educational activities performed in the Center are:

### Medical Specialist Training (Residency Microbiology and Clinical Microbiology)

**Public Health School** (It is important on behalf of our Institution and developments in health to make mention of the fact that **Public Health School**, which was opened in 1937 for the first time, began to serve again in 2003 after a long time.)

In-service training programs

Educational studies carried out in various institutions and organizations as well as Regional Institutes

## Consultancy Services

**Poison Consultancy Center**, which is located within the Presidency, provides consultancy service throughout the country working on a 7 day and 24 hour basis. The Center provides on-line information to primary healthcare professionals (physicians, nurses...) who are concerned with the fact of poison. In some cases such as Botulismus, specific therapeutics are sent to the healthcare institutions where the patient is.

Furthermore, all units carry out consultancy services concerning their own working fields.

## Towards New Goals

Having given significant services for our country in the field of public health during its history of 80 years, the **Refik Saydam Hygiene Center Presidency** shall make a long step towards success in the coming days within the framework of new projects.

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**Figure 1:** Dr. Refik SAYDAM (September 8, 1881 - July 8, 1942)



**Figure 2:** The First Refractometry in Refik Saydam Hygiene Center



**Figure 3:** Dr. Refik Saydam and Ataturk, Founder of Turkish Republic



**Figure 4:** Administrative Committee in the First Years of the Center



**Figure 5:** The First Tools of Refik Saydam Hygiene Center