Pasteur and Malta

by Paul Cassar, MD

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THE IDEA of commemorating the death of Louis Pasteur (1822-95) by the Malta Postal Administration with the issue of a postage stamp was a noteworthy one. The relative leaflet, *The Malta Stamp,* distributed by the Malta Philatelic Bureau, gives a biographical sketch of the distinguished French scientist but it does not refer to his links with Malta.

The considerable importance of the biological discoveries by Pasteur and their practical application in the control of infectious diseases was recognised in Malta in 1871 by Dr Amabile Gulia. This Maltese medical practitioner publicly supported and propagated Pasteur's concept that fermentation and putrefaction were caused by microorganisms that are present in the air around us but are invisible to the naked eye.[1]

Dr Gulia was instrumental in pioneering Pasteur's idea of the germ theory of disease especially with its impact on the British surgeon Joseph Lister (1827-1912) who adopted the use of carbolic acid as a disinfectant to avoid the possibility of infection of the body tissues during surgical operations (1865).

Another significant contribution by Pasteur in the medical field was the preparation and use of a vaccine on July 6, 1885 against the virus that causes rabies (hydrophobia).[2] Malta benefited from this measure in 1888 when six persons who had been bitten by rabied dogs were sent to Naples at government expense to receive treatment with Pasteur's vaccine.[3]

Further outstanding links between Malta and the French scientist were forged by two other medical men – Professor (later Sir) Themistocles Zammit[4] and Professor Alphonse Portelli Carbone.[5]

In 1891 Professor Zammit, then Government analyst at the Public Health Department, went to Paris to widen his knowledge and experience in laboratory procedures at the *École Superieure de Pharmacie.* In Paris he met Louis Pasteur. Zammit's admiration – verging on reverence – for Pasteur remained a lifelong sentiment and is vouched for by his attachment to an 1886 photogravure, after a painting by A. Edelfelt, showing the French researcher at work in his laboratory and bearing Pasteur's signature.

Zammit kept this picture hanging on the wall above his desk in his office at the Public Health Department. That picture is still extant and is now preserved with other memorabilia of Zammit in the restored old laboratory at the Public Health Department where Zammit worked at the beginning of this century during the investigations on Brucellosis by the Mediterranean Fever Commission of which Zammit was the only Maltese member.

The centenary of the birth of Pasteur (1822) was celebrated at our university on January 2, 1923. Professor Alphonse Portelli Carbone in his capacity of *Officier de l'Instruction Publique de France* delivered an oration on Pasteur and his work. "The audience," wrote a correspondent of a daily newspaper, "was made up of representatives of constituted bodies, political parties with their leaders, members of the medical profession, foreign consuls and *les amis de la France.* Attendance "of the fair sex," he remarked, "was conspicuous".[6]

The Rector of the University, Professor Themistocles Zammit, presided over the meeting while the Consul-General of France occupied the *place d'honneur.* On that occasion Professor Portelli Carbone told the story of how 14 Maltese children were bitten by a rabied dog and how they were cured and saved from certain death by being treated by Pasteur himself at his institute in Paris. They were sent to the French capital by the Government of Malta on the recommendation of Professor Portelli Carbone.

How life-saving this intervention had been is borne out by the fact that another boy who had been bitten by the same dog died of rabies because his parents had refused to allow their son to be sent to Paris for the needed inoculation.[7]

"The humanitarian glory of France," continued the correspondent, "was enthusiastically ovated by the deeply moved audience". As a token of Malta's gratitude, Professor Portelli Carbone proposed that the street "in front of the Lyceum" in Merchant Street, be named after Louis Pasteur. This proposal was "most enthusiastically acclaimed" by the audience with shouts of "honour to Pasteur the purest glory of France and of this century".[8]

On February 3, the same orator repeated his oration, this time with a "cinematographic presentation" and the projection of slides at St Aloysius' College at Birkirkara.[9]

A talk on Pasteur was also given by Dr Alfredo Stilon, MD, at the *Giovine Malta* club in Valletta on February 3.[10]

The Maltese medical profession showed its appreciation of Pasteur's work when the *Camera Medica* presented a bronze bust of Pasteur to the University on October 17, 1923. The bust was received, very fittingly, by the Rector, Professor Themistocles Zammit.[11]

That bust is now at the Medical School. How appropriate it would have been, from the historical and documentary aspects, had a design of this bust been requested by the postal administration to portray Pasteur in the commemorative stamp instead of the likeness actually shown on the 25 cents stamp issued on February 27!

No action was taken to implement Professor Portelli Carbone's proposal of 1923 to name "the street in front of the Lyceum" in Valletta after Louis Pasteur as an acknowledgement of Malta's gratitude to the French scientist; yet Malta owes Pasteur another debt – this time in the field of preventive medicine – in connection with the control of Undulant Fever (Brucellosis) by means of the "pasteurisation" of goats' milk.[12]

This process was introduced in Malta in 1904 by the British military forces stationed in the island by means of an Aymard apparatus. The "pasteurised (goats') milk" thus produced was issued to the sick soldiers at the Valletta and Cottonera military hospitals. Thus the *Micrococcus (Brucella) melitensis,* which had been recognised as being the causative agent of Undulant Fever (Brucellosis), was eliminated from goats' milk supplied to these hospitals.[13]

In 1938 and the following years the pasteurisation of goats' milk was established on a national scale by the Malta Government, thus ensuring the provision of a bacteriologically safe milk supply for all consumers in the Maltese Islands; and yet how many of us today ever stop to reflect that the unfolding of this beneficial enterprise harks back to Louis Pasteur's original concept of the germ causation of infectious diseases enunciated over a century ago?