No 2: The Mysterious Dr Alfred Curie

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Paul, Eugène, Jacques, Pierre, Maurice and Daniel Curie

Two male members of the Curie family were physicians – Paul and Eugène, who were Pierre Curie's grandfather and father – and both Pierre and his elder brother Jacques were physicists (figure 1). The family originated in Mulhouse, Alsace but after the Franco-Prussian war at the end of the 19th century, when Alsace and Lorraine were annexed by Germany, the family moved to Paris.

Paul Étienne François Gustave Curie (figure 2), although educated in Mulhouse and Paris, became an established physician in London working at the London Homeopathic Infirmary. Previously, he was a surgeon in the Military Hospital of Paris. Five of his publications still exist in the British Library.[1–5] These were published in 1824 in Paris, in 1832 in Mulhouse, and in 1838, 1845 and 1849 in London.

Paul's son Eugène was brought up in Paris and studied natural sciences and medicine at the Musée d'Histoire Naturelle at No. 47 rue Cuvier, where later, Henri Becquerel was to be professor of physics and to discover radioactivity. It was also in a house in the rue Cuvier, No. 16, that Pierre Curie was born. At No. 12 rue Cuvier, the Laboratoire Curie was established by the Sorbonne in 1904, and it remained on this site until 1914, when the Institut du Radium was built in the rue Pierre Curie.

Jacques Curie was Pierre Curie's brother, with whom he studied crystallography, published on piezoelectricity (which they discovered) and pyroelectricity, and developed the Curie piezoelectrometer, which was used by Marie and Pierre Curie for the measurement of polonium radium samples.[6–8]

Maurice Curie,[9–12] starting in 1913, worked for a year with Marie Curie in the Laboratoire Curie in the rue Cuvier, and throughout World War I corresponded with her. He spent 12 months in the front line before 1917, mostly near Verdun, but survived the war. His son Daniel published with his father.[12,13]

Alfred Curie

Dr Alfred Curie is famous for being referred to in artistic advertisements for Tho-Radia preparations prepared

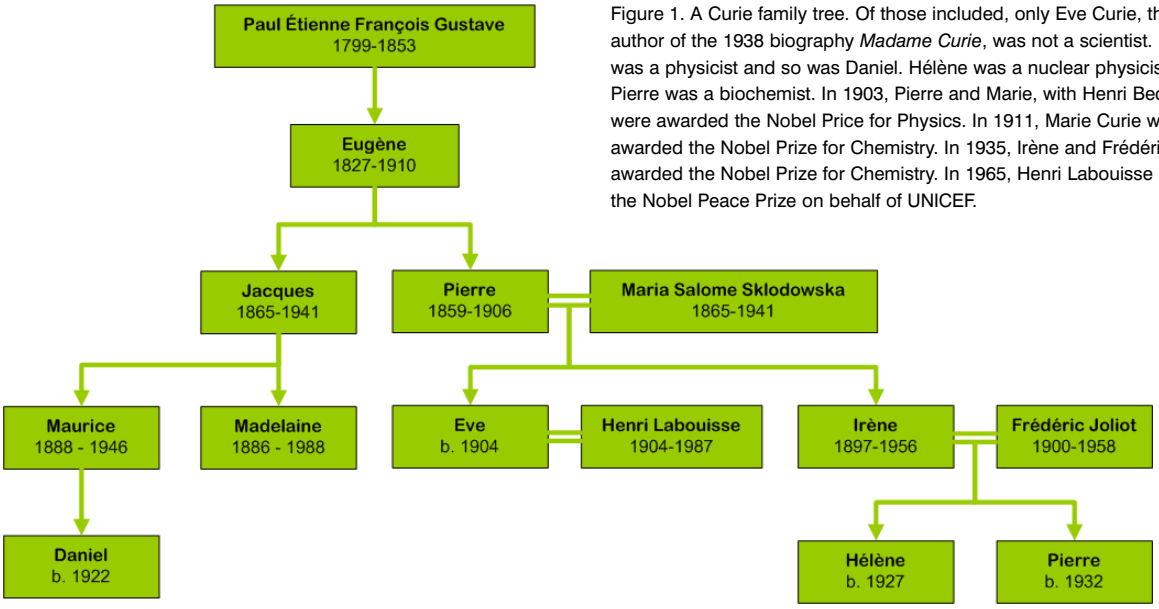

Figure 1. A Curie family tree. Of those included, only Eve Curie, the author of the 1938 biography *Madame Curie*, was not a scientist. Maurice was a physicist and so was Daniel. Hélène was a nuclear physicist and Pierre was a biochemist. In 1903, Pierre and Marie, with Henri Becquerel, were awarded the Nobel Price for Physics. In 1911, Marie Curie was awarded the Nobel Prize for Chemistry. In 1935, Irène and Frédéric were awarded the Nobel Prize for Chemistry. In 1965, Henri Labouisse received the Nobel Peace Prize on behalf of UNICEF.

Figure 2. Paul Curie, from a lithograph by C. Graf in 1843. Courtesy of The Wellcome Trust.

according to his 'formula' (figure 3). However, for many years, even the Director of the Musée Curie in Paris assumed that he was 'un médecin qui n'a jamais existé',[14] and all radium historians until 2003[15] also considered that he was a mythical person used only for the promotion of beauty products in the 1920s.

However, it now transpires that although the mysterious Alfred was not related to Pierre Curie, he nevertheless existed,[16] and in 1911 for his doctorate in medicine from the University of Paris, submitted a thesis entitled 'Treatment of Spina Bifida'.[17] He was traced through annual copies of *Le Guide Rosenwald*, which lists all French doctors, and shows that in 1912 he was an internist at L'Hôpital de Clichy. Afterwards, he seems to have been in general practice, setting up a private clinic. He was born in 1873 and died in Paris in 1940.[16]

Whether it was really Alfred Curie who invented the formula, or an Egyptian pharmacist Alexis Moussali, is not known, but nevertheless a formula for Tho-Radia did actually exist.[16] For the face cream, it consisted, per 100 g of cream, of 0.5 g of thorium chloride and 0.25 mg of radium bromide.

The Tho-Radia patent (marque) was registered by the Tribunal de Commerce de la Seine on 29th November 1932, and the patent for Crème Radio-Thorium on 28th March 1930. The company for Tho-Radia was initially located at 20 Rue des Capucines (the same address in later years for Nina Ricci) and then at 147 Avenue Victor Hugo. It was called SECOR (Société d'exportation, commission, représentation) and was founded in January 1932 by Leo Frenkel and Mme Madeleine Herbomez. The latter had a clientele of society ladies whom she charged 1,500 francs for treatment. The price to the public for a 155 g pot of Tho-Radia cream was 15 francs! Tho-Radia toothpaste also had a valid registration during the period 1937–1962.

SECOR published two small booklets.[18,19] One was by a Dr F. Tixier and included a series of advertisements, not only for cream and face powder, which is the advertisement most often seen (figure 3), but also for Tho-Radia soap, cold cream, cleansing milk for make-up removal and toothpaste. The other booklet[18] was a dictionary of medical terms (including radioactivity) by Rene Jacquet.

Tixier included in his booklet a section entitled 'The Fountain of Youth is not a Myth'. He goes back to the Greek historian Pausanias, who apparently somewhere near Naples discovered a peasant remedy that arrested the ageing process and kept women at a constant age of 20 years, so that a visitor could not tell the difference

Figure 3. Advertisement for Tho-Radia, prepared according to the formula of Dr Alfred Curie. This same basic design was used several times, sometimes in brilliant orange and sometimes multicoloured. Courtesy of Professor Jean-Marc Cosset.

between a mother and a daughter. The source of the treatment was an extraordinary preparation called Calatos, which was much sought after by alchemists. Tixier then claims that with the discovery of radium (and other metals of the same family), the philosopher's stone of the alchemists, with its radioactive emanations, is the same as Pausanius' miraculous secret treatment for the immortal beauty of the 'happy Greeks'.[19]

This must have convinced some ladies, because Tho-Radia cream was on sale into the early 1960s. When a sample was analysed in Paris, it was indeed found that there was a radioactive constituent present.[20]

It is probable that the commercial mastermind behind Tho-Radia and SECOR was Alexis Moussalli (born in Cairo, Egypt, in 1894), director of SECOR, and a doctor of pharmacy whose thesis from the University of Nancy was on the subject of 'le bacille pyocyanique et les bacilles de la dysenterie'.[21] During the period 1927–1955, Moussalli patented 38 non-radioactive preparations, and during the period 1927–1934, he patented 101 radium- or radioactive-based preparations, but only the two already mentioned (Tho-Radia and Crème Radio-Thorium) used a formula devised by Alfred Curie. The others included Laboradium (1929), Microradium (1932), Radiobust (1933), Radiofluide (1928), Radioskin (1931), Radium Cure (1932) and Radiviril (1932). Moussalli ceased his activities in 1956, although it is not known if this was the year in which he died.

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