

Report of 2016 BSHR Annual Lecture 'Marie Curie and the origins of early diagnostic radiology and radiotherapy'

Dr Allen Chapman

Report by Dr Arpan K Banerjee Chair British Society for the History of Radiology

The venue of this year's British Society for the History of Radiology annual guest lecture on the 22 Feb 2016 was again the magnificent Governor's Hall at St Thomas's Hospital, London. Over 100 attendees were privileged to hear a masterly exposition by the distinguished science historian and author from Oxford University Dr Allan Chapman on the contributions of Marie Curie and Roentgen to modern diagnostic and therapeutic radiology set in the context of the advances in the nineteenth century science which made all of this possible.

In the eighteenth century radiation and invisible forces were everywhere. A general fascination with invisible forces was present in society with light waves, magnetism and electricity the subjects of enquiry and study by all and sundry including quacks who were respected physicians often interested in these unusual fields of scientific enquiry (only recently in the twentieth century did the quack become a pejorative term for alternative practitioners). Mesmer, the Viennese physician tried treating patients with magnetism which was parodied in his time by Mozart. The contributions of James Clerk Maxwell to electromagnetism and work by the polymath Thomas Young who coined the term energy and other pioneering scientists of the nineteenth century paved the way for Roentgen's great discovery in 1895.

This set off further great advances in physics including Becquerel's discovery of radioactivity from his studies on uranium and in 1899 J J Thompson's discovery of the electron. Marie Curie met Becquerel in Paris and worked on pitchblende. In 1898 she isolated Polonium (named after her native country Poland) and radium. She was the recipient of 2 Nobel Prizes one in Physics and the other in Chemistry. Her husband Pierre was also a distinguished experimenter receiving the Nobel Prize in Physics with Marie Curie in 1903 for their work on radioactivity. He was unfortunately killed in an accident in 1906. Marie Curie became the first female Professor in the University of Paris and in 1911 won her Nobel Prize in Chemistry. In the first world war she procured xray equipment and trucks for her mobile radiography units for field hospitals. In the early days radium found itself being used for a wide range of purposes not necessarily medicinal. It was the French radiologist from the Curie Institute who in 1922 demonstrated that throat cancer could be treated with Xray treatment and went on to describe fractionated radiotherapy which became routine treatment in the 1930's.

Dr Chapman's address was a masterly exposition with some interesting illustrations and had the audience captivated by his erudition. All who attended remarked what an interesting and informative evening the lecture had been.

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