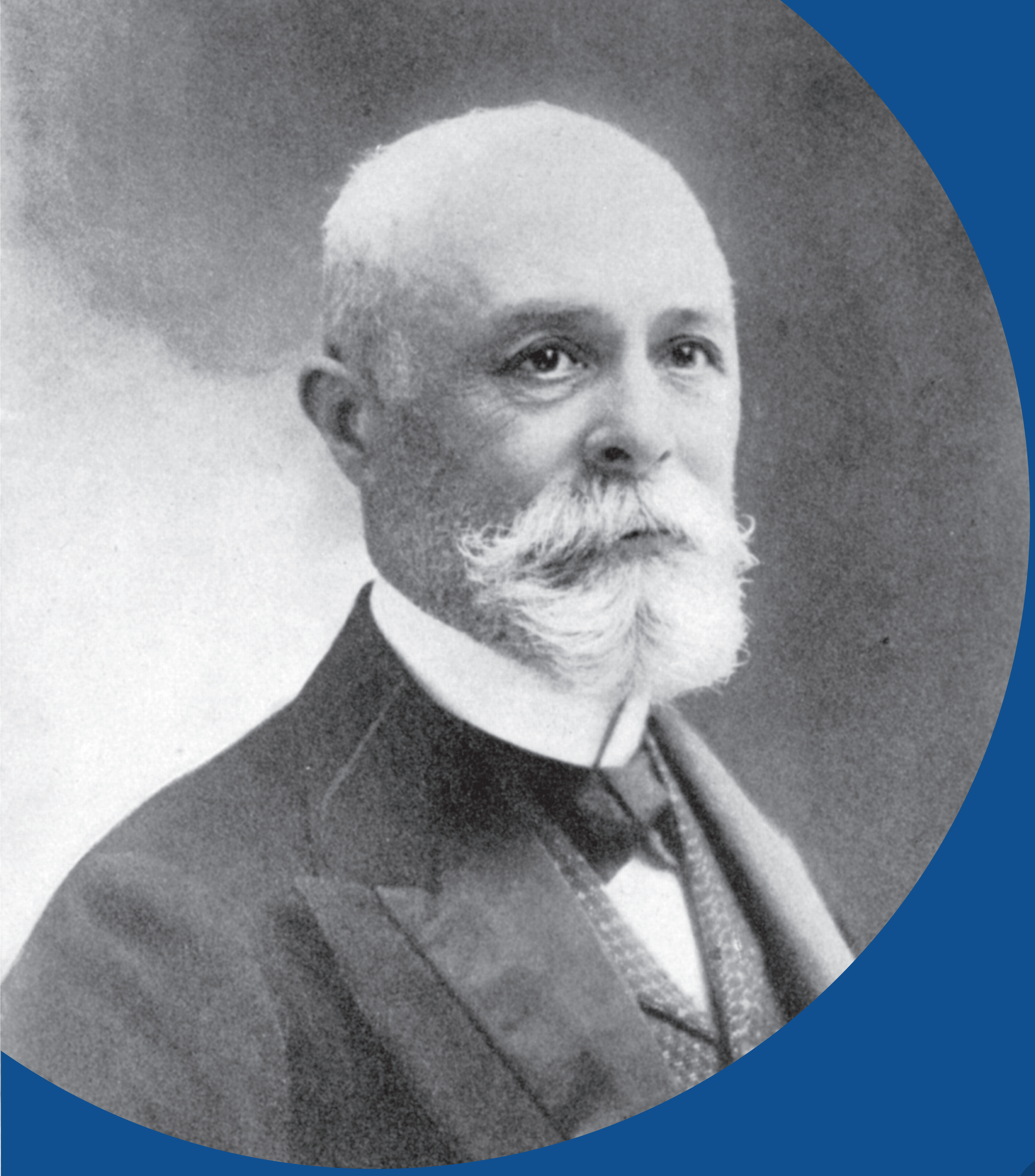

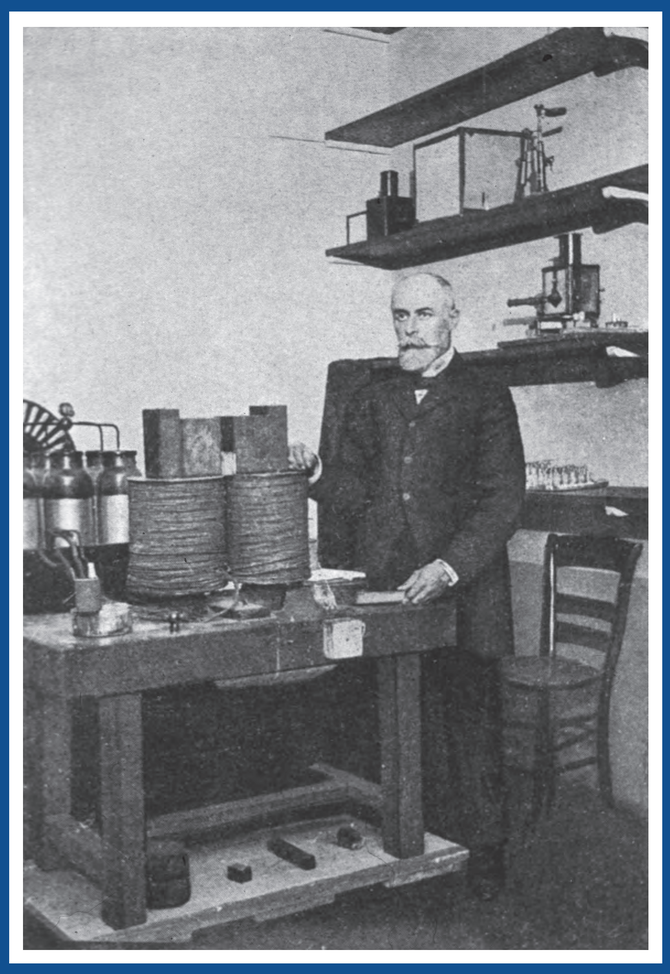

Becquerel in his laboratory

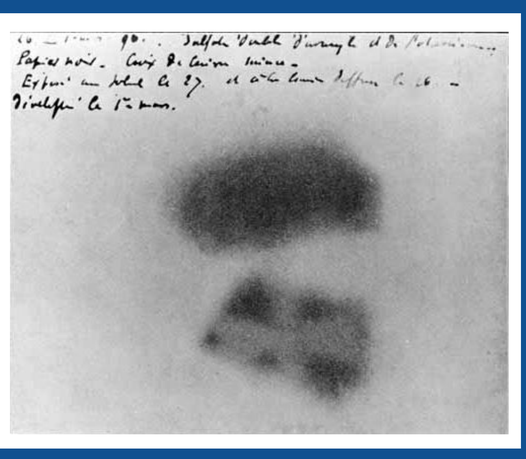

Image of Becquerel's photographic plate which has been fogged by exposure to radiation from a uranium salt. The shadow of a metal Maltese Cross placed between the plate and the uranium salt is clearly visible.

Henri Becquerel was born into a family of scientists: his grandfather made important contributions in the field of electrochemistry while his father had investigated the phenomena of fluorescence and phosphorescence. Becquerel not only inherited their interest in science, but he also inherited the minerals and compounds his father studied. Upon learning that X-rays were discovered from the fluorescence they produce, Becquerel had a ready source of fluorescent materials to pursue his own investigation of these mysterious rays. Using a double sulfate of uranium and potassium, which he exposed to sunlight and placed on photographic plates wrapped in black paper, the plates revealed an image of the uranium crystals when developed. He concluded "that the phosphorescent substance in question emits radiation which penetrates paper opaque to light." Further investigating led him to observe uranium emitted radiation without an external source of energy. Becquerel had discovered radioactivity. For this work, he won the 1903 Nobel Prize for physics.

Henri Becquerel

(1852-1908)

ORAU Museum of Radiation and Radioactivity