

Editorial

S Mahadevan, Chief Editor

Major strides in science are often triggered by key discoveries at crucial junctures in history. While the dawn of the twentieth century was momentous for biological sciences with the re-discovery of Mendel's laws of heredity in 1900, it was equally significant for physics, with the proposal of the quantum theory in the same year by Max Planck to explain the energy spectrum of black body radiation. Both disciplines witnessed unprecedented conceptual breakthroughs during the years to follow. In physics, one of the lead players in the intellectual revolution during the early part of the 20th century was Ernest Rutherford, who is considered as the "greatest experimental physicist since Faraday". Among his many significant contributions to atomic physics which was in its infancy, Rutherford is best remembered for his model of the atom in which the highly compact positively charged nucleus occupies the centre of the atom with the negatively charged electrons loosely distributed around it. Deduced based on the striking results of the scattering of alpha particles by metal atoms, this was a major breakthrough in atomic physics, influencing the growth of both physics and chemistry. It is no surprise therefore that Rutherford was awarded the Nobel Prize in 1908 for his discoveries. The only twist was that it was for "his investigations into the disintegration of the elements and the *chemistry* of radioactive substances". A card-carrying physicist, Rutherford was amused by the choice of the Nobel Committee to award him the chemistry prize. In addition to a biographical sketch of Rutherford detailing his brilliant scientific career, the Classics Section carries his original paper on alpha scattering as well as his correspondence with another intellectual giant, Niels Bohr.



Email:
mahim@mrhg.iisc.ernet.in

It is with a deep sense of sadness that *Resonance* remembers Prof. Priti Shankar, one of the active members of its editorial team, who passed away recently. Priti was a colleague who was extraordinary in many ways. In spite of her demanding professional commitments, she always found time to contribute to the cause of the journal, at times even under extreme ill health. The courage and forbearance she showed in her fight against cancer was truly remarkable. Her graceful presence and serene professionalism will be missed very much.

