WHAT IS CANCER History

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The word ‘cancer’ is credited to Hippocrates (460 /uni00A0 /b.sc/c.sc/e.sc –370 /uni00A0/b.sc/c.sc/e.sc), who is widely agreed to be the father of medicine, and comes from the Greek word for a crab, referring to the finger-like projections of a cancer from a central mass, which have simi larities to a crab’s claws and legs. The study of cancer has long been a part of clinical med icine: theories have moved from divine intervention and are now firmly based on the molecular origins of cancer. Rudolf Virchow was the first to demonstrate that cancer is a disease of cells and that the disease progresses as a r esult of abnormal proliferation, encapsulated by his dictum omnes cellula e cellula (every cell from a cell). In 1914, Theodor Boveri pointed out the importance of chromosomal abnormalities in cancer cells and, in the 1940s, Oswald Avery demonstrated that DNA was the genetic material within the chromosomes. In 1953, Watson and Crick described the structure of DNA, which was the key discovery leading to the understanding of the molecular biol ogy of cancer. This understanding has allowed the investiga tion and understanding of the molecular mechanisms whereby Hippocrates , 460 /uni00A0 /b.sc/c.sc/e.sc –375 /uni00A0/b.sc/c.sc/e.sc , was a Greek Physician and, by common consent, ‘the father of medicine’. Rudolf Ludwig Carl Virchow , 1821–1902, Professor of Pathology , Berlin, Germany . Theodor Heinrich Boveri , 1862–1913, Professor of Zoology and Comparative Anatomy , Würzburg, Germany . Oswald Theodore Avery , 1877–1955, bacteriologist, Rockefeller Institute, New Y ork, NY , USA. James Dewey Watson , b.1928, American biologist who worked in Cambridge, UK, and later became Director of the Cold Spring Harbor Laboratory , New Yo rk , N Y, U S A . Francis Harry Compton Crick , 1916–2004, British molecular biologist who worked at the Cavendish Laboratory , Cambridge, UK, and later at the Salk In stitute, San Diego, CA, USA. Watson and Crick shared the 1962 Nobel Prize in Physiology or Medicine with Kings College, London, UK. Douglas Hanahan , b.1951, American biologist and director of the Swiss Institute for Experimental Cancer Research (ISREC), Lausanne, Switzerland. Robert Allan Weinberg , b.1942, The Whitehead Institute of Biomedical Research and Department of Biology , The Massachusetts Institute of Technology , Cambridge, MA, USA. cancer cells are formed and their abnormal behaviours are mediated; in turn, this has allowed modern molecular-based therapies to be developed.

To appreciate: The principles of cancer aetiology and the major causative • factors The multidisciplinary management of cancer • The distinction between palliative care and end-of-life care • The principles of palliative care •

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