Record Nr. UNINA9910452084203321 Nobel Prizes that changed medicine [[electronic resource] /] / editor, **Titolo** Gilbert Thompson Pubbl/distr/stampa London, : Imperial College Press, 2012 **ISBN** 1-280-66902-0 9786613645951 1-84816-827-6 Descrizione fisica 1 online resource (373 p.) Altri autori (Persone) ThompsonGilbert Disciplina 610.79 Soggetti **Nobel Prizes** Medicine Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto CONTENTS: Foreword by Sir Keith Peters: Preface by Gilbert Thompson: Acknowledgements; Contributors; Chapter 1 The Discovery of Insulin Robert Tattersall: 1.1 Introduction: 1.2 The Pancreas and Diabetes: 1.3 Banting and Macleod 9; 1.4 The First Clinical Test; 1.5 The Nobel Prize; 1.6 The Long-term Impact of the Discovery; References; Chapter 2 The Discovery of the Cure for Pernicious Anaemia, Vitamin B12 A. Victor Hoffbrand; 2.1 Introduction; 2.2 Brief Biographies; 2.2.1 George Whipple; 2.2.2 George Minot; 2.2.3 William Murphy; 2.3 The Medical Problem; 2.4 Possible Mechanisms 2.4.1 The nutritional deficiency concept 2.4.2 Why liver therapy worked; 2.5 Subsequent Research; 2.5.1 Isolation of vitamin B12; 2.5.2 Extrinsic and intrinsic factors: 2.5.3 Discovery of folic acid: 2.5.4 Two vitamins; 2.5.5 Vitamin B12/folate interactions; 2.5.6 Neurological damage; 2.5.7 Systemic effects of vitamin and folate deficiencies; 2.6 Impact of the Discovery of Vitamin B12 on Medical Practice; References: Chapter 3 The Discovery of Penicillin Eric Sidebottom; 3.1 Introduction; 3.2 Biographical Sketches 10; 3.2.1 Alexander Fleming; 3.2.1.1 Education and career

3.2.1.2 The antibiotic revolution and the Fleming myth 3.2.1.3 The man

and his achievements; 3.2.2 Howard Florey; 3.2.2.1 Move to England; 3.2.2.2 Cambridge and early work on lysozyme; 3.2.2.3 Chair of Pathology in Oxford and the development of penicillin; 3.2.2.4 Recognition and its rewards; 3.2.3 Ernst Chain; 3.2.3.1 Move to Britain; 3.2.3.2 Moves to and from Rome; 3.3 Steps in the Discovery and Development of Penicillin; 3.4 The Impact of the Introduction of Penicillin into Clinical Practice; 3.5 From Triumph to Tragedy?; 3.6 The Creation of the Fleming Myth

3.7 Allocation of Credit Due and Conclusions References; Chapter 4 The Introduction of Cardiac Catheterisation Tony Seed; 4.1 Prologue; 4.2 Introduction; 4.3 Biographical Background of the Laureates; 4.3.1 Werner Forssmann; 4.3.2 Andre Cournand; 4.3.3 Dickinson Richards; 4.4 The Problem: Cardiopulmonary Physiology and Clinical Investigation of the Heart 80 Years Ago; 4.5 Description of the Research: 4.6 Impact of Cardiac Catheterisation on Medical Science: Acknowledgements; References; Chapter 5 The Discovery of the Structure of DNA James Scott and Gilbert Thompson; 5.1 Introduction 5.2 Brief Biographies of the Major Protagonists 5.2.1 Francis Crick; 5.2.2 James Watson; 5.2.3 Maurice Wilkins; 5.2.4 Rosalind Franklin; 5.3 Early Discoveries that Paved the Way to Unraveling the Structure of DNA: 5.4 Complementary Approaches to Analysing the Structure of DNA in the 1950's; 5.4.1 Model building at the Cavendish and X-ray diffraction at King's; 5.4.2 The wrong model; 5.4.3 The correct model; 5.5 Impact of the Discovery of the Structure of DNA on Medical Science: 5.5.1 Mendelian genetics; 5.5.2 The HapMap Project; 5.5.3 Human history

5.5.4 The genomic basis of common diseases and traits

Sommario/riassunto

This book brings together in one volume fifteen Nobel Prize-winning discoveries that have had the greatest impact upon medical science and the practice of medicine during the 20th century and up to the present time. Its overall aim is to enlighten, entertain and stimulate. This is especially so for those who are involved in or contemplating a career in medical research. Anyone interested in the particulars of a specific award or Laureate can obtain detailed information on the topic by accessing the Nobel Foundation's website. In contrast, this book aims to provide a less formal and more person