

1948 nobel prize physiology

The Enduring Legacy of the 1948 Nobel Prize in Physiology or Medicine: A Critical Analysis

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Summary: This analysis delves into the 1948 Nobel Prize in Physiology or Medicine, awarded to Paul Hermann Müller for his discovery of the highly effective insecticide DDT. While initially celebrated for its role in controlling malaria and typhus, the article critically examines the long-term consequences of DDT use, highlighting its environmental impact and contributing to the ongoing debate surrounding the unintended consequences of technological advancements in medicine and public health. The essay explores the complex ethical considerations arising from the 1948 Nobel Prize in Physiology or Medicine and its lasting impact on contemporary discussions regarding pesticide use, environmental protection, and the responsible development of new technologies.

1. The 1948 Nobel Prize: A Triumph and a Tragedy

The 1948 Nobel Prize in Physiology or Medicine was awarded to Paul Hermann Müller "for his discovery of the high effectiveness of DDT as a contact poison against several arthropods." This seemingly straightforward recognition belies a complex and ultimately controversial legacy. Müller's discovery undeniably revolutionized pest control, particularly in the fight against malaria and typhus, two diseases that ravaged populations worldwide. The immediate impact of DDT was astonishing. Malaria rates plummeted in many regions, saving countless lives and contributing significantly to post-war recovery efforts. The 1948 Nobel Prize in Physiology or Medicine, therefore, initially appeared to be a deserved celebration of a life-saving discovery.

2. DDT's Double-Edged Sword: Benefits and Detrimental Effects

The initial triumph of the 1948 Nobel Prize in Physiology or Medicine's recognition of DDT, however, soon gave way to a growing awareness of its detrimental environmental and health effects. DDT's persistence in the environment led to bioaccumulation in the food chain, harming wildlife populations, particularly birds of prey. The discovery of DDT's impact on human health, including potential links to various cancers and reproductive problems, further fueled concerns. This unforeseen consequence casts a long shadow over the initial euphoria surrounding the 1948 Nobel Prize in Physiology or Medicine. The narrative surrounding the 1948 Nobel Prize in Physiology or Medicine, therefore, transitioned from one of unadulterated celebration to one of complex ethical and scientific reflection.

3. Ethical Considerations and the 1948 Nobel Prize in Physiology or Medicine

The legacy of the 1948 Nobel Prize in Physiology or Medicine raises crucial ethical questions regarding the evaluation of scientific breakthroughs. While the immediate benefits of DDT were undeniable, the long-term consequences were not fully understood at the time of the award. This highlights the inherent challenges in assessing the overall impact of scientific discoveries, particularly those with far-reaching consequences. The 1948 Nobel Prize in Physiology or Medicine serves as a cautionary tale, emphasizing the need for a thorough and long-term assessment of the potential risks and benefits associated with technological advancements before widespread implementation.

4. The 1948 Nobel Prize and Current Trends in Pesticide Regulation

The controversies surrounding DDT and the 1948 Nobel Prize in Physiology or Medicine have significantly shaped current trends in pesticide regulation. International agreements, such as the Stockholm Convention on Persistent Organic Pollutants, aim to restrict the use of hazardous pesticides, including DDT, in many parts of the world. The experience with DDT has underscored the importance of rigorous safety testing, environmental impact assessments, and the implementation of sustainable pest management strategies. The ongoing debate regarding the use of neonicotinoids and other pesticides reflects the enduring legacy of the 1948 Nobel Prize in Physiology or Medicine and the ongoing need for careful consideration of the long-term consequences of technological interventions.

5. The 1948 Nobel Prize in Physiology or Medicine: A

Lesson in Foresight

The story of the 1948 Nobel Prize in Physiology or Medicine serves as a stark reminder of the limitations of scientific knowledge and the importance of long-term perspective in evaluating scientific advancements. While Müller's discovery had a profound positive impact in the short-term, its long-term consequences were far more devastating than initially anticipated. This underscores the need for greater caution and foresight in the development and application of new technologies, particularly those with the potential for widespread environmental and health implications. The 1948 Nobel Prize in Physiology or Medicine should not be viewed as solely a celebration of a scientific achievement, but also as a critical examination of the complexities of scientific progress and its ethical dimensions.

Conclusion

The 1948 Nobel Prize in Physiology or Medicine, awarded to Paul Müller for his discovery of DDT, represents a complex and multifaceted historical event. While undeniably saving millions of lives by controlling malaria and typhus, the widespread use of DDT exposed significant environmental and health consequences. This legacy has profoundly impacted contemporary discussions surrounding pesticide regulation, environmental protection, and the responsible development of new technologies. The award serves as a potent reminder of the ethical complexities inherent in scientific advancements and the necessity of a holistic approach that considers both short-term benefits and long-term consequences. The 1948 Nobel Prize in Physiology or Medicine remains a relevant and vital subject for critical analysis, underscoring the need for responsible innovation and the careful consideration of the potential impacts of our technological interventions.

FAQs

1. Was the Nobel Prize for DDT justified given its later harmful effects?
The justification of the 1948 Nobel Prize is complex. While the immediate life-saving benefits were immense, the long-term harmful effects were unforeseen at the time. This raises questions about the criteria for awarding such prizes and the balance between short-term benefits and long-term risks.
1. What alternative methods were available for malaria control before DDT?
Prior to DDT, malaria control relied heavily on quinine and mosquito net usage, both less effective and widespread than DDT's application.

1. What is the current status of DDT use globally? DDT is banned or restricted in many countries, but its use persists in some regions for malaria control under strict guidelines due to its continued effectiveness against the mosquito vector.
1. What are some examples of other scientific breakthroughs with unforeseen negative consequences? The development of certain antibiotics and the widespread use of CFCs are examples of scientific advancements with initially unseen detrimental effects.
1. How has the 1948 Nobel Prize influenced modern pesticide research? It has led to a greater emphasis on the development of environmentally friendly and less persistent pesticides, along with more rigorous testing and regulatory frameworks.
1. What are the key ethical considerations raised by the DDT story? The primary ethical dilemmas include balancing the immediate benefits with long-term risks, considering intergenerational equity, and respecting the environment.
1. What role did public awareness play in the eventual restrictions on DDT? Public awareness, coupled with scientific evidence of DDT's harmful effects, was instrumental in influencing policy changes and restricting its use.
1. What lessons can be learned from the DDT experience for future scientific advancements? The key lesson is the necessity for comprehensive risk assessment, long-term monitoring, and responsible innovation to minimize unintended negative consequences.
1. Is it possible to completely eliminate the risks associated with any new technology? Complete risk elimination is rarely possible, but mitigating risks through careful planning, rigorous testing, and ongoing monitoring can significantly reduce potential harm.

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1948 nobel prize physiology: Nobel Lectures, Physiology Or Medicine, 1942-1962 , 1999

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1948 nobel prize physiology: Nobel Prizes And Notable Discoveries Erling Norrby, 2016-09-06 The present book discusses the prizes in physiology or medicine 1963-65. The 1963 prize recognized milestone discoveries in the field of neurosciences, the way electrical impulses are generated and spread in nerves. The impressive developments of insights into tantalizing brain functions, like consciousness and memory, is discussed in the perspective of prizes both before and after the 1963 prize. The prize in 1964 marked the advanced biochemical venture that led to a full understanding of the synthesis of cholesterol, a central molecule for providing flexibility of the membranes of the trillions of cell in our body. The importance of this molecule for the appearance of cardiovascular diseases and the possibilities to prevent them is presented in the light of other prizes earlier and later in this field. The 1965 prize recognized three impressive French intellectuals, Lwoff, Monod and Jacob. Their contributions allowed the full maturation of the initial phase of the emerging field of molecular biology. The comprehension of the information flow from DNA via RNA to proteins was the source of a revolution of life sciences and of medicine.

1948 nobel prize physiology: The Nobel Prize Agneta Wallin Levinovitz, Nils Ringertz, 2001-08-14 The Nobel Prize, as founded in Alfred Nobel's will, was the first truly international prize. There is no other award with the same global scope and mission. The Nobel Prizes in Physics, Chemistry, Physiology or Medicine, Literature, Peace, and the Bank of Sweden Prize in Economic

Sciences (from 1969) have not only captured the most significant contributions to the progress of mankind, they also constitute distinct markers of the major trends in their respective areas. The main reason for the prestige of the Prize today is, however, the lasting importance of the names on the list of Laureates and their contributions to human development. In celebration of the centennial of the Nobel Prize in 2001, this book offers a clear perspective on the development of human civilization over the past hundred years. The book serves to present the major trends and developments and also provide information about the life and philosophy of Alfred Nobel, the history of the Nobel Foundation, and the procedure for nominating and selecting Nobel Laureates.

Contents: Introduction (M Sohlman) Life and Philosophy of Alfred Nobel (T Frängsmyr) The Nobel Foundation: A Century of Growth and Change (B Lemmel) Nomination and Selection of the Nobel Laureates (B Lemmel) The Nobel Prize in Physics (E B Karlsson) The Nobel Prize in Chemistry: The Development of Modern Chemistry (B G Malmström & B Andersson) The Nobel Prize in Physiology or Medicine (J Lindsten & N Ringertz) The Nobel Prize in Literature (K Espmark) The Nobel Peace Prize (G Lundestad) The Sveriges Riksbank (Bank of Sweden) Prize in Economic Sciences in Memory of Alfred Nobel 1969-2000 (A Lindbeck) Readership: General. Keywords: Reviews: "This wonderful book gives a comprehensive review of the Nobel prizes awarded since 1901 ... Reading the book is like reading a compressed history of humankind in the twentieth century. It shows how by and large the Nobel prizes have indeed tracked the epoch-making events in this turbulent century." M Veltman Nobel Laureate in Physics (1999), Emeritus Professor of Physics University of Michigan, Ann Arbor

1948 nobel prize physiology: Max Perutz And The Secret Of Life Georgina Ferry, 2010-12-15 Few scientists have thought more deeply about their calling and its impact on humanity than Max Perutz (1914-2002). Born in Vienna, Jewish by descent, lapsed Catholic by religion, Max came to Cambridge in 1936, to join the lab of the legendary Communist thinker J.D. Bernal. In 1940 he was interned and deported to Canada as an enemy alien, only to be brought back and set to work on a bizarre top secret war project. Seven years later he founded the small research group in which Francis Crick and James Watson discovered the structure of DNA. Max Perutz himself explored the protein haemoglobin and his work, which won him a shared Nobel Prize in 1962, launched a new era of medicine, heralding today's astonishing advances in the genetic basis of disease. Max Perutz's story, wonderfully told by Georgina Ferry, brims with life; it has the zest of an adventure novel and is full of extraordinary characters. Max was demanding, passionate and driven but also humorous, compassionate and loving. Georgina Ferry's absorbing biography is a marvellous tribute to a great scientist.

1948 nobel prize physiology: The Discovery of Insulin Michael Bliss, 2017-06-22 The discovery of insulin at the University of Toronto in 1921-22 was one of the most dramatic events in the history of the treatment of disease. Insulin was a wonder-drug with ability to bring patients back from the very brink of death, and it was no surprise that in 1923 the Nobel Prize for Medicine was awarded to its discoverers, the Canadian research team of Banting, Best, Collip, and Macleod. In this engaging and award-winning account, historian Michael Bliss recounts the fascinating story behind the discovery of insulin - a story as much filled with fiery confrontation and intense competition as medical dedication and scientific genius. Originally published in 1982 and updated in 1996, *The Discovery of Insulin* has won the City of Toronto Book Award, the Jason Hannah Medal of the Royal Society of Canada, and the William H. Welch Medal of the American Association for the History of Medicine.

1948 nobel prize physiology: Physiology Or Medicine, 1922-1941 Jan Lindsten, 1999

1948 nobel prize physiology: Oxford Textbook of Obstetric Anaesthesia Vicki Clark, Marc van de Velde, Roshan Fernando, 2016 This textbook provides an up-to-date summary of the scientific basis, assessment for and provision of anaesthesia throughout pregnancy and labour. It is divided into nine sections including physiology, assessment, complications and systemic disease.

1948 nobel prize physiology: Cotton Physiology Jack R. Mauney, James McD. Stewart, 1986

1948 nobel prize physiology: The Telomere Effect Dr. Elizabeth Blackburn, Dr. Elissa Epel, 2017-01-03 The New York Times bestselling book coauthored by the Nobel Prize winner who

discovered telomerase and telomeres' role in the aging process and the health psychologist who has done original research into how specific lifestyle and psychological habits can protect telomeres, slowing disease and improving life. Have you wondered why some sixty-year-olds look and feel like forty-year-olds and why some forty-year-olds look and feel like sixty-year-olds? While many factors contribute to aging and illness, Dr. Elizabeth Blackburn discovered a biological indicator called telomerase, the enzyme that replenishes telomeres, which protect our genetic heritage. Dr. Blackburn and Dr. Elissa Epel's research shows that the length and health of one's telomeres are a biological underpinning of the long-hypothesized mind-body connection. They and other scientists have found that changes we can make to our daily habits can protect our telomeres and increase our health spans (the number of years we remain healthy, active, and disease-free). The *Telemere Effect* reveals how Blackburn and Epel's findings, together with research from colleagues around the world, cumulatively show that sleep quality, exercise, aspects of diet, and even certain chemicals profoundly affect our telomeres, and that chronic stress, negative thoughts, strained relationships, and even the wrong neighborhoods can eat away at them. Drawing from this scientific body of knowledge, they share lists of foods and suggest amounts and types of exercise that are healthy for our telomeres, mind tricks you can use to protect yourself from stress, and information about how to protect your children against developing shorter telomeres, from pregnancy through adolescence. And they describe how we can improve our health spans at the community level, with neighborhoods characterized by trust, green spaces, and safe streets. The *Telemere Effect* will make you reassess how you live your life on a day-to-day basis. It is the first book to explain how we age at a cellular level and how we can make simple changes to keep our chromosomes and cells healthy, allowing us to stay disease-free longer and live more vital and meaningful lives.

1948 nobel prize physiology: Nobel Prizes And Life Sciences Erling Norrby, 2010-09-24

The Nobel Prizes in natural sciences have developed to become a unique measure of scientific excellence. Using archival documents, which have been released (50 years secrecy) for scholarly work, the author expertly traces the strengths and weaknesses of the Nobel system as exemplified by individual prizes. Surveys of the more than 100 years that the Prizes have been awarded are also presented. This book discusses the most important prize in the world of science and gives unique historical insights into how the laureate selection process has developed to secure optimal choice. No other book has been published which draws from previously classified archival materials to the extent that this book does. It indirectly deals with factors that foster scientific discoveries viz. the role of both individuals and institutions and thus provides invaluable insights for researchers, institutions and anyone interested in science.

1948 nobel prize physiology: The Oxford Handbook of the History of Communism S. A. Smith,

2014-01-09 The impact of Communism on the twentieth century was massive, equal to that of the two world wars. Until the fall of the Soviet Union in 1991, historians knew relatively little about the secretive world of communist states and parties. Since then, the opening of state, party, and diplomatic archives of the former Eastern Bloc has released a flood of new documentation. The thirty-five essays in this Handbook, written by an international team of scholars, draw on this new material to offer a global history of communism in the twentieth century. In contrast to many histories that concentrate on the Soviet Union, *The Oxford Handbook of the History of Communism* is genuinely global in its coverage, paying particular attention to the Chinese Revolution. It is 'global', too, in the sense that the essays seek to integrate history 'from above' and 'from below', to trace the complex mediations between state and society, and to explore the social and cultural as well as the political and economic realities that shaped the lives of citizens fated to live under communist rule. The essays reflect on the similarities and differences between communist states in order to situate them in their socio-political and cultural contexts and to capture their changing nature over time. Where appropriate, they also reflect on how the fortunes of international communism were shaped by the wider economic, political, and cultural forces of the capitalist world. The Handbook provides an informative introduction for those new to the field and a comprehensive overview of the current state of scholarship for those seeking to deepen their understanding.

1948 nobel prize physiology: Nobel Prize Laureates , 1979

1948 nobel prize physiology: The Nobel Prize Winning Discoveries in Infectious

Diseases David Rifkind, Geraldine Freeman, 2005-05-20 This book presents the 24 discoveries in infectious diseases that have merited Nobel Prize recognition since the inception of the awards in 1901. Grouped according to biological groups rather than chronology, each discovery includes a biographical sketch of the laureate(s), a description of the research, and a summary of the current status of the field. In addition, consideration is given to the relevance of the research on the general field of biology and medicine.

1948 nobel prize physiology: A Life in Science Sydney Brenner, Lewis Wolpert, 2001

1948 nobel prize physiology: The Nobel Prize Burton Feldman, 2000 Discusses the Nobel Institution in detail, telling about the award and its beginnings, what it means to win a Nobel Prize, the fields in which it is presented, who judges and how the prize is awarded, and more.

1948 nobel prize physiology: Luminous Pursuit: Jellyfish, Gfp, And The Unforeseen Path To The Nobel Prize Osamu Shimomura, Sachi Shimomura, John H Brinegar, 2017-05-23 This book narrates the uniquely intertwined life and scientific career of Nobel laureate Osamu Shimomura, with particular attention to his discovery of aequorin and Green Fluorescent Protein (GFP). It includes his early memories of Manchuria and wartime Japan featuring an eyewitness account of the atomic bombing of Nagasaki, his postwar studies and his travels to collect and research more than fifteen bioluminescent species, in locations ranging from Japan to San Juan Island, Bermuda, New Zealand and Norway. Dr Shimomura describes the unique combination of serendipity and perseverance that led ultimately to his 2008 Nobel Prize in chemistry. The book provides an engaging account of the life of a dedicated scientist, emphasizing the value of determination in the pursuit of pure scientific knowledge, and showing how a general understanding of science helped him open up new areas of research that have led to unforeseen applications in cell biology and medicine.

1948 nobel prize physiology: *The Mechanism of Crossing-over* Hermann Joseph Muller, 1916

1948 nobel prize physiology: Growing Pathogens in Tissue Cultures Thomas Huckle Weller, Anthony L. Komaroff, Ellen Barlow, 2004

1948 nobel prize physiology: The Big Ratchet Ruth DeFries, 2014-09-09 How an ordinary mammal manipulated nature to become technologically sophisticated city-dwellers -- and why our history points to an optimistic future in the face of environmental crisis Our species long lived on the edge of starvation. Now we produce enough food for all 7 billion of us to eat nearly 3,000 calories every day. This is such an astonishing thing in the history of life as to verge on the miraculous. The Big Ratchet is the story of how it happened, of the ratchets -- the technologies and innovations, big and small -- that propelled our species from hunters and gatherers on the savannahs of Africa to shoppers in the aisles of the supermarket. The Big Ratchet itself came in the twentieth century, when a range of technologies -- from fossil fuels to scientific plant breeding to nitrogen fertilizers -- combined to nearly quadruple our population in a century, and to grow our food supply even faster. To some, these technologies are a sign of our greatness; to others, of our hubris. MacArthur fellow and Columbia University professor Ruth DeFries argues that the debate is the wrong one to have. Limits do exist, but every limit that has confronted us, we have surpassed. That cycle of crisis and growth is the story of our history; indeed, it is the essence of The Big Ratchet. Understanding it will reveal not just how we reached this point in our history, but how we might survive it.

1948 nobel prize physiology: The Chemical Element Javier García-Martínez, Elena Serrano-Torregrosa, 2011-09-19 In the International Year of Chemistry, prominent scientists highlight the major advances in the fight against the largest problems faced by humanity from the point of view of chemistry, showing how their science is essential to ensuring our long-term survival. Following the UN Millennium Development Goals, the authors examine the ten most critical areas, including energy, climate, food, water and health. All of them are opinion leaders in their fields, or high-ranking decision makers in national and international institutions. Intended to provide an intellectual basis for the future development of chemistry, this book is aimed at a wide readership

including students, professionals, engineers, scientists, environmentalists and anyone interested in a more sustainable future.

1948 nobel prize physiology: Gandhi and the Nobel Peace Prize RAJINDER. SINGH, 2023-09-25 An apostle of non-violent struggle, Mohandas Karamchand Gandhi was a much revered world figure. Between 1924 & 1948, in nearly 100 nominations he was proposed for the Nobel Peace Prize. Yet, despite international support, Gandhi was never a recipient of the Nobel Peace Prize. Why was it so? To answer this question, this volume analyses the n

1948 nobel prize physiology: Profiles in Cardiology John Willis Hurst, Charles Richard Conti, Bruce Fye, 2003 A collection of the short biographical profiles that have appeared monthly in the journal Clinical Cardiology from 1986 up to the present. The persons who are the subjects of these profiles are individuals who have contributed in a meaningful or unique way to knowledge in the field of cardiology.

1948 nobel prize physiology: Epidemiology of Chronic Disease Randall E. Harris, 2013 Epidemiology of Chronic Disease: Global Perspectives is the most current and authoritative resource on the epidemiology, etiology, pathogenesis, risk factors and preventive factors of forty common chronic diseases. This comprehensive text provides readers with an excellent basis for examining current hypotheses regarding chronic disease epidemiology. Organized into eight sections, the text begins with an introductory chapter examines the new public health environment in which chronic diseases have replaced acute infectious conditions concurrent with improved health care and increasing longevity in many populations of the world. Subsequent sections cover cardiovascular and cerebrovascular diseases, major forms of cancer, diseases of the respiratory tract, metabolic and digestive diseases, musculoskeletal diseases, neurodegenerative diseases, and finally, three infectious diseases that often manifest as chronic conditions. Special sections in each chapter focus on controversial topics that can serve as a launching point for classroom discussion of molecular mechanisms of disease pathogenesis and the relevant epidemiologic issues pertaining to the prevention and control of chronic diseases.

1948 nobel prize physiology: Nobel Prize Women in Science Sharon Bertsch McGrayne, 2001-04-12 Since 1901 there have been over three hundred recipients of the Nobel Prize in the sciences. Only ten of them—about 3 percent—have been women. Why? In this updated version of Nobel Prize Women in Science, Sharon Bertsch McGrayne explores the reasons for this astonishing disparity by examining the lives and achievements of fifteen women scientists who either won a Nobel Prize or played a crucial role in a Nobel Prize - winning project. The book reveals the relentless discrimination these women faced both as students and as researchers. Their success was due to the fact that they were passionately in love with science. The book begins with Marie Curie, the first woman to win the Nobel Prize in physics. Readers are then introduced to Christiane Nusslein-Volhard, Emmy Noether, Lise Meitner, Barbara McClintock, Chien-Shiung Wu, and Rosalind Franklin. These and other remarkable women portrayed here struggled against gender discrimination, raised families, and became political and religious leaders. They were mountain climbers, musicians, seamstresses, and gourmet cooks. Above all, they were strong, joyful women in love with discovery. Nobel Prize Women in Science is a startling and revealing look into the history of science and the critical and inspiring role that women have played in the drama of scientific progress.

1948 nobel prize physiology: Nobel Prizes that Changed Medicine Gilbert Thompson, 2012 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 personal view of the science and scientists involved, by having prominent academics write a chapter each about a Nobel Prize-winning discovery in their own areas of interest and expertise.

1948 nobel prize physiology: *The Who's Who of Nobel Prize Winners, 1901-2000* Louise S. Sherby, 2001-12-30 *The Who's Who of Nobel Prize Winners* is a one-stop source of detailed information on the men and women who earned the Nobel Prize during the 20th century. Organized chronologically by prize, each extensive article contains in-depth information on the laureate's life and career as well as a selected list of his or her publications and biographical resources on the individual. A concise commentary explains why the laureate received the award and summarizes the individual's other important achievements. This completely updated edition also contains a history of the prize. Four indexes distinguish this title from similar biographical references and enable researchers to search by name, education, nationality or citizenship, and religion.

1948 nobel prize physiology: Losing the Nobel Prize: A Story of Cosmology, Ambition, and the Perils of Science's Highest Honor Brian Keating, 2018-04-24 Riveting.—*Science A Forbes, Physics Today, Science News, and Science Friday Best Science Book Of 2018* Cosmologist and inventor of the BICEP (Background Imaging of Cosmic Extragalactic Polarization) experiment, Brian Keating tells the inside story of the mesmerizing quest to unlock cosmology's biggest mysteries and the human drama that ensued. We follow along on a personal journey of revelation and discovery in the publish-or-perish world of modern science, and learn that the Nobel Prize might hamper—rather than advance—scientific progress. Fortunately, Keating offers practical solutions for reform, providing a vision of a scientific future in which cosmologists may finally be able to see all the way back to the very beginning.

1948 nobel prize physiology: The Crazy Ape Albert Szent-Györgyi, 2014-11-04 A Nobel Prize winner, Dr. Szent-Györgyi concerns himself with the underlying forces and conditions that have prevented the realization of the higher possibilities of the American Dream, and, by extension, of all mankind. He addresses himself especially to the youth of the world in his attempt to show how man, the more he progresses technologically, seems the more to regress psychologically and socially, until he resembles his primate ancestors in a state of high schizophrenia. The fundamental question asked by this book is: why is it that most of the scientific research that is done to elevate human life serves in the end to destroy it? That this phenomenon exists is unarguable. How to alter it is the problem the author tackles. He finds the possibility, indeed the instrument of our survival, in our youth. Dr. Szent-Györgyi calls upon the youth the world over to organize and exercise their power to create a new world. He implores them not to waste their energies in petulance and frustration—the world is ripe for the radical changes needed for man's survival, and for youth to fritter away their opportunity would be to compound the tragedy and seal the fate of mankind.

1948 nobel prize physiology: Prometheans in the Lab Sharon Bertsch McGrayne, 2001 Table of contents includes: Soap and Nicholas Leblanc, Color and William Henry Perkin, Sugar and Norbert Rillieux, Clean water and Edward Frankland, Fertilizer, poison gas, and Fritz Haber, Leaded gasoline, safe refrigeration and Thomas Midgley, Jr., Nylon and Wallace Hume Carothers, DDT and Paul Hermann Muller, Lead-free gasoline and Clair C. Patterson.

1948 nobel prize physiology: Understanding the Universe Manjunath.R, 2020-03-17 A Scientific Introduction to Subatomic particles, Alien Intelligence, and Human Space Exploration (For the Cosmically Curious): There are many fundamental questions about the universe that have intrigued scientists, philosophers, and ordinary people for centuries. Here are a few of them: What is the universe made of? This is one of the most basic questions about the universe. Scientists have identified a number of different types of matter and energy, including atoms, subatomic particles, dark matter, and dark energy, but there is still much we don't know. How did the universe begin? The origin of the universe is a subject of intense study and debate. The prevailing theory is the Big Bang, which suggests that the universe began as a singularity and has been expanding ever since. What is the ultimate fate of the universe? Will it keep on expanding indefinitely or will it ultimately come to an end? Some theories suggest that the universe may end in a big rip or a big crunch, while others suggest that it will continue to expand indefinitely. What is the nature of space and time? These are fundamental concepts that are still not fully understood. Some theories suggest that space and time are intertwined and that they can be distorted by the presence of matter and energy. Are

there other universes beyond our own? Some theories suggest that our universe may be just one of many in a multiverse. Although this theory is yet hypothetical, it is a fascinating concept that could have significant ramifications for our comprehension of the cosmos. These are just a few of the many fundamental questions about the universe that scientists and philosophers continue to explore.

Understanding the Universe: Quarks, Leptons and the Big Bang is a comprehensive exploration of the fundamental principles that govern the universe we live in. From the tiniest particles to the grandest structures in the cosmos, this book takes readers on a journey of discovery through the mysteries of modern physics and cosmology. Starting with an introduction to the basic building blocks of matter, the book delves into the strange world of quarks and leptons, exploring their properties and interactions. It then examines the forces that govern the behavior of matter, including the strong and weak nuclear forces, electromagnetism, and gravity. The book also covers the history of the universe, from its origins in the Big Bang to the present day, and discusses the evolution of stars and galaxies. Readers will gain a deep understanding of the structure of the universe, its expansion, and the mysterious dark matter and dark energy that make up the vast majority of its mass. Filled with engaging examples, clear explanations, and fascinating insights, *Understanding the Universe: Quarks, Leptons and the Big Bang* is a must-read for anyone interested in the inner workings of the cosmos. Whether you're a student of physics, a science enthusiast, or simply curious about the universe, this book will provide you with a solid foundation for understanding the world around us.

1948 nobel prize physiology: Hearings, Reports and Prints of the Senate Committee on Labor and Public Welfare United States. Congress. Senate. Committee on Labor and Public Welfare, 1970

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1948 nobel prize physiology: Whitewash Carey Gillam, 2017-10-10 Rachel Carson Environment Book Award, First Place (2017) Reads like a mystery novel as Gillam skillfully uncovers Monsanto's secretive strategies.--Erin Brockovich A damning picture...Gillam expertly covers a contentious front. --Publishers Weekly A must-read. --Booklist Hard-hitting, eye-opening narrative. --Kirkus In *Whitewash*, veteran journalist Carey Gillam uncovers one of the most controversial stories in the history of food and agriculture. Gillam explores the global debate over the safety of a herbicide so pervasive that it is found in our cereals, snacks, and even in our urine. Known as

Monsanto's Roundup by consumers and as glyphosate by scientists, the world's most popular weed killer is sold as safe enough to drink, but Gillam's research shows that message has been carefully crafted to conceal a host of dangers. Whitewash is more than an exposé about the hazards of one chemical. It's a story of power, politics, and the deadly consequences of putting corporate interests ahead of public safety.

1948 nobel prize physiology: The Environment National Research Council, Division on Earth and Life Studies, Board on Chemical Sciences and Technology, Committee on Challenges for the Chemical Sciences in the 21st Century, Organizing Committee for the Workshop on the Environment, 2003-10-05 The report assesses the current state of chemistry and chemical engineering at the interface with environmental science, examines its interactions with related areas of science and technology, and identifies challenges and opportunities for research. The report also identifies important contributions that have been made by the chemical sciences toward solving environmental problems, and emphasizes the opportunities for chemists and chemical engineers to make future contributions toward understanding and improving the environment.

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