

Life Science March Paper 2014 Grade 11

In September 2011, scientists announced new experimental findings that would not only threaten the conduct and publication of influenza research, but would have significant policy and intelligence implications. The findings presented a modified variant of the H5N1 avian influenza virus (hereafter referred to as the H5N1 virus) that was transmissible via aerosol between ferrets. These results suggested a worrisome possibility: the existence of a new airborne and highly lethal H5N1 virus that could cause a deadly global pandemic. In response, a series of international discussions on the nature of dual-use life science arose. These discussions addressed the complex social, technical, political, security, and ethical issues related to dual-use research. This Research Topic will be devoted to contributions that explore this matrix of issues from a variety of case study and international perspectives.

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This report looks at how technology and innovation achieves inclusive and sustainable industrial development (ISID). Its main finding is that ISID is feasible and technology can simultaneously serve all three dimensions of sustainability, including economic, social and environmental. Rapid inclusive and sustainable industrialization can happen more frequently provided that policymakers firmly steer the industrialization process with opportune policies and avoid past mistakes. In some cases, the spread of technology has not materialized in concrete growth opportunities because of the lack of technological capabilities. Innovation needs to be supported by interventions strengthening the process from invention to adoption, as capabilities are developed and high tech manufacturing sectors are created, seeing higher rates of sustainable growth.

There are fewer grounds today than in the past to deplore a North-South divide in research and innovation. This is one of the key findings of the UNESCO Science Report: towards 2030. A large number of countries are now incorporating science, technology and innovation in their national development agenda, in order to make their economies less reliant on raw materials and more rooted in knowledge. Most research and development (R&D) is taking place in high-income countries, but innovation of some kind is now occurring across the full spectrum of income levels according to the first survey of manufacturing companies in 65 countries conducted by the UNESCO Institute for Statistics and summarized in this report. For many lower-income countries, sustainable development has become an integral part of their national development plans for the next 10–20 years. Among higher-income countries, a firm commitment to sustainable development is often coupled with the desire to maintain competitiveness in global markets that are increasingly leaning towards 'green' technologies. The quest for clean energy and greater energy efficiency now figures among the research priorities of numerous countries. Written by more than 50 experts who are each covering the country or region from which they hail, the UNESCO Science Report: towards 2030 provides more country-level information than ever before. The trends and developments in science, technology and innovation policy and governance between 2009 and mid-2015 described here provide essential baseline information on the concerns and priorities of countries that could orient the implementation and drive the assessment of the 2030 Agenda for Sustainable Development in the years to come. With the rise of mobile and wireless technologies, more sustainable networks are necessary to support such communications. These next generation networks can now be utilized to strengthen the growing era of the Internet of Things. Powering the Internet of Things With 5G Networks is a comprehensive reference source for the latest scholarly research on the progression and design of fifth generation networks and their role in supporting the Internet of Things. Including a range of perspectives on topics such as privacy and security, large scale monitoring, and scalable architectures, this book is ideally designed for technology developers, academics, researchers, and practitioners interested in the convergence of the Internet of Things and 5G networks.

"This volume contains field guides to the 2015 GSA Southeastern Section Meeting's field trips. The guides explore geologic history and visit four regional geologic provinces--the Nashville dome, Blue Ridge, Valley and Ridge, and Cumberland Plateau"--

Agriculture is the product of a complex mixture of behavioural, biophysical and market drivers. Understanding how these factors interact to produce crops and livestock for food has been the focus of economic investigation for many years. The advent of optimisation algorithms and the exponential growth in computing technology has allowed significant growth in mathematical modelling of the dynamics of agricultural systems. The complexity of approaches has grown in parallel with the availability of data at increasingly finer resolutions. Farm-level models have been widely used in agricultural economic studies to understand how farmers and land owners respond to market and policy levers. This book provides an in-depth description of different methodologies and techniques currently used in farm-level modelling. While giving an overview of the theoretical grounding behind the models, an applied approach is also used. Case studies range from the application of modelling to policy reforms and the subsequent impacts on rural communities and food supply. This book also provides descriptions of the use of farm-level models in much wider fields such as aggregation and linking with sectoral models. Its purpose is to show the reader the methods that have been employed to inform decision-makers about how to improve the economic, social and environmental goals required to achieve the aims of multidimensional policy.

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"I spend all my time with this kid!" is a typical teacher complaint when challenged by a young child who disrupts the classroom with rebellious, impulsive, worrisome or odd behaviors. It is vital that teachers gain the skills to holistically decipher and respond to these complex classroom situations. By addressing the underlying meanings that motivate children's behaviors, teachers increase the opportunity for change within the classroom setting. Focusing on communication, this book discusses practical ways to apply child developmental theories to help address common classroom situations, problems, and worries. It identifies new frameworks and rationales, such as the troubling child, the testing child, the worrying child, and the hiding child; describes the unique aspects of these children's communication; and offers an easy-to-use language for successful teacher intervention. It also provides an adaptable, week-by-week planning and intervention structure as a way of creating some balance between practicality and theory.

If a competent adult refuses medical treatment, physicians and public officials must respect her decision. Coercive medical paternalism is a clear violation of the doctrine of informed consent, which protects patients' rights to make medical decisions even if a patient's choice endangers her health. The same reasons for rejecting medical paternalism in the doctor's office are also reasons to reject medical paternalism at the pharmacy, yet coercive medical paternalism persists in the form of premarket approval policies and prescription requirements for pharmaceuticals. In *Pharmaceutical Freedom* Jessica Flanigan defends patients' rights of self-medication. Flanigan argues that public officials should certify drugs instead of enforcing prohibitive pharmaceutical policies that disrespect people's rights to make intimate medical decisions and prevent patients from accessing potentially beneficial new therapies. This argument has revisionary implications for important and timely debates about medical paternalism, recreational drug legalization, human enhancement, prescription drug prices, physician assisted suicide, and pharmaceutical marketing. The need for reform is especially urgent as medical treatment becomes increasingly personalized and patients advocate for the right to try. The doctrine of informed consent revolutionized medicine in the twentieth century by empowering patients to make treatment decisions. Rights of self-medication are the next step.

This book provides a comprehensive overview of corporate social responsibility and its development in Africa. It provides in-depth studies on 11 sub-Saharan countries, demonstrating that corporate social responsibility is forming and going through different stages of metamorphosis in the continent. Though corporate and individual attitudes towards sustainability in Africa still leave a lot to be desired, this book showcases how things are rapidly changing for the better in this regard. It demonstrates and provides evidence for the fact that corporate social responsibility contributes significantly to the way sub-Saharan African economies are being transformed, with service sectors expanding, commercial activities diversifying and industrial bases growing through the initiatives of small, medium and large organizations and innovators supported by widespread higher-education program rollouts. The book highlights how progressive and wide-ranging CSR approaches have emerged, and how much they differ from the obsolete approaches of the past, which promulgated negative stereotypes, marginalized communities and positioned them as victims or beneficiaries of development.

LIFETIME PHYSICAL FITNESS AND WELLNESS can help you take control of your personal fitness and wellness by providing current, practical information and tools to make positive choices for your health. The authors encourage you to assess your current behaviors in order to apply the practical steps you learn in the text to start positive behavior changes. The book integrates activities throughout each chapter to relate the content to your own life and provides dynamic visuals and descriptive examples to help you visualize important concepts. Feel empowered to make positive changes and improve your health with LIFETIME PHYSICAL FITNESS AND WELLNESS. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

The ubiquity of technology has not only brought the need for computer knowledge to every aspect of the modern business world; it has also increased our need to safely store the data we are now creating at a rate never experienced before. *Delivery and Adoption of Cloud Computing Services in Contemporary Organizations* brings together the best practices for storing massive amounts of data. Highlighting ways cloud services can work effectively in production and in real time, this book is an essential reference source for professionals and academics of various disciplines, such as computer science, consulting, information technology, information and communication sciences, healthcare, and finance. The job interview is probably the most important step you will take in your job search journey. Because it's always important to be prepared to respond effectively to the questions that employers typically ask at a job interview Petrogav International has prepared this eBooks that will help you to get a job in oil and gas industry. Since these questions are so common, hiring managers will expect you to be able to answer them smoothly and without hesitation. This eBook contains 290 questions and answers for job interview and as a BONUS web addresses to 295 video movies for a better understanding of the technological process. This course covers aspects like HSE, Process, Mechanical, Electrical and Instrumentation & Control that will enable you to apply for any position in the Oil and Gas Industry.

An introduction to the basic issues of space ethics: the technology, the impact on society, and the frontiers of thinking about space exploration from theory to practice.

American leadership in the world is built on the foundation of its economic strength. Yet the United States faces enormous economic competition abroad and threats to its economy at home. In *How America Stacks Up: Economic Competitiveness and U.S. Policy*, Edward Alden, Bernard L. Schwartz senior fellow at the Council on Foreign Relations and director of the Renewing America initiative, and Rebecca Strauss, associate director of Renewing America, focus on those areas of economic policy that are the most important for reinforcing America's competitive strengths. Covering education, transportation, trade and investment, corporate tax, worker retraining, regulation, debt and deficits, and innovation, *How America Stacks Up* shows how, in a highly competitive global economy, these seemingly domestic

issues are all crucial to U.S. success in the global economy. The line between domestic economic policy and foreign economic policy is now almost invisible, and getting these policies right matters for more than just U.S. living standards. The United States' ability to influence world events rests on a robust, competitive economy. But without further investment in education, infrastructure, and innovation, Alden and Strauss show, the United States runs the risk of endangering its greatest competitive advantage. Through insightful analysis and engaging graphics, *How America Stacks Up* outlines the challenges faced by the United States and prescribes solutions that will ensure a healthy, competitive U.S. economy for years to come.

The 2017 Near East and North Africa (NENA) edition of the Regional Overview of Food Security and Nutrition comes under the theme of "building resilience for food security and nutrition in times of conflict and crisis". The report establishes a baseline against which to measure future progress towards achieving SDG 2 on ending hunger, food insecurity and malnutrition in NENA by monitoring the latest indicators for the SDG targets on hunger and food insecurity (SDG Target 2.1) and malnutrition (SDG Target 2.2). Beyond numbers, the report focuses on the fundamental factors that have driven improvements in food security and malnutrition: poverty reduction, economic growth, improvements in maternal and childhood nutrition and public health, increases in the quantity and quality of the food supply and cessation of violence. Moreover, the report brings into sharp focus the issue of conflict, which is the major driver of food insecurity in the NENA region. Food security in the NENA region is fast deteriorating, driven by conflict and leading to a widening gap in well-being between conflict and non-conflict countries. Conflicts have long-lasting impacts on the food security and nutrition of both affected and surrounding countries in the region. Not only is food security deteriorating in the conflict and spill over countries, but the high costs of perpetrating, containing, preventing and dealing with the consequences of violence undermine their ability to mitigate the decline in living standards.

One of the major tools of attaining proper development all around the world is complete financial inclusion, such that all classes of people can secure their lifestyles through access to financial services from formal sectors. Expanding access to resources and increasing self-employment opportunities help reduce poverty and improve social development. The *Handbook of Research on Microfinancial Impacts on Women Empowerment, Poverty, and Inequality* is an essential reference source that discusses the role of financial inclusion in gender equality, as well as economic independence and self-employment. Featuring research on topics such as inequality, collaborative economy, and social responsibility, this publication is ideally designed for policy makers, economic researchers, and academicians seeking coverage on social mobilization, capital formation, capacity building, and pro-poor economy designs.

This volume offers a comprehensive assessment of the problem of conflict and its methods of management in Nigeria's contemporary democracy. It represents a compendium of resourceful studies provided by experts on conflict studies from various disciplines across the Social Sciences and Humanities. Such studies are very useful at this crucial point in Nigeria's history as there are currently various national and international efforts to address the scourge of violent conflicts that have caused huge numbers of deaths and displacement of persons. The book will be of particular interest and use to conflict researchers, students, practitioners and government officials.

The rise of mobile phones has brought about a new era of technological attachment as an increasing number of people rely on their personal mobile devices to conduct their daily activities. Due to the ubiquitous nature of mobile phones, the impact of these devices on human behavior, interaction, and cognition has become a widely studied topic. The *Encyclopedia of Mobile Phone Behavior* is an authoritative source for scholarly research on the use of mobile phones and how these devices are revolutionizing the way individuals learn, work, and interact with one another. Featuring exhaustive coverage on a variety of topics relating to mobile phone use, behavior, and the impact of mobile devices on society and human interaction, this multi-volume encyclopedia is an essential reference source for students, researchers, IT specialists, and professionals seeking current research on the use and impact of mobile technologies on contemporary culture.

The *Future of Humanity* seeks to answer the question: "What kind of global civilization should human beings pursue and what do we have to do collectively?" one a question that has preoccupied scholars, philosophers and politicians for centuries. In doing so, the book tackles concepts as monumental as the keys to happiness, alien nonconventional intelligence, immortality, morality and China's possible role in bringing about a better world joining this global discussion. To navigate these many and complex topics, Jin combines the spiritual insights of ancient Chinese thinkers with a deep respect for the accomplishments and discoveries of modern Western science, exploring and explaining her distinct vision for a what a better, global future civilization could be.

The integrity of knowledge that emerges from research is based on individual and collective adherence to core values of objectivity, honesty, openness, fairness, accountability, and stewardship. Integrity in science means that the organizations in which research is conducted encourage those involved to exemplify these values in every step of the research process. Understanding the dynamics that support "or distort" practices that uphold the integrity of research by all participants ensures that the research enterprise advances knowledge. The 1992 report *Responsible Science: Ensuring the Integrity of the Research Process* evaluated issues related to scientific responsibility and the conduct of research. It provided a valuable service in describing and analyzing a very complicated set of issues, and has served as a crucial basis for thinking about research integrity for more than two decades. However, as experience has accumulated with various forms of research misconduct, detrimental research practices, and other forms of misconduct, as subsequent empirical research has revealed more about the nature of scientific misconduct, and because technological and social changes have altered the environment in which science is conducted, it is clear that the framework established more than two decades ago needs to be updated. *Responsible Science* served as a valuable benchmark to set the context for this most recent analysis and to help guide the committee's thought process. *Fostering Integrity in Research* identifies best practices in research and recommends practical options for discouraging and addressing research misconduct and detrimental research practices.

The job interview is probably the most important step you will take in your job search journey. Because it's always important to be prepared to respond effectively to the questions that employers typically ask at a job interview Petrogav International has prepared this eBooks that will help you to get a job in oil and gas industry. Since these questions are so common, hiring managers will expect you to be able to answer them smoothly and without hesitation. This eBook contains 273 questions and answers for job interview and as a BONUS web addresses to 218 video movies for a better understanding of the technological process. This course covers aspects like HSE, Process, Mechanical, Electrical and Instrumentation & Control that will enable you to apply for any position in the Oil and Gas Industry.

Rick Rylance addresses the debate over the public value of literary studies, from antiquity to the present day. He offers an account of the foundational issue of 'the public good' and explores the disciplinary integrity of literary study.

Improving the use of evidence in teacher preparation is one of the greatest challenges and opportunities for our field. The chapters in this volume explore how data availability, quality, and use within and across preparation programs shed light on the structures, policies, and practices associated with high quality teacher preparation. Chapter authors take on critical questions about the connection between what takes place during teacher preparation and subsequent outcomes for teachers and students – which has remained a black box for too long. Despite a long history of teacher preparation in the U.S. and a considerable investment in preservice and in-service training, much is still to be learned about how pre-service preparation impacts teacher effectiveness. A strong empirical basis that informs how specific aspects of and approaches to teacher preparation relate to outcomes for

graduates and their preK-12 student outcomes will provide a foundation for improved teaching and learning. Our book responds to stakeholders' collective responsibility to students and teachers to act more deliberately. Issues of data availability and quality, the uses of data for improvement, priorities for future research, and opportunities to promote evidence use in teacher preparation are discussed throughout the volume to inspire collective action to push the field towards more use of evidence. Chapters present research that uses a variety of research designs, methodologies, and data sources to explore important questions about the relationship between teacher preparation inputs and outcomes.

This edited volume addresses a critical aspect of development in Africa: the intersection between education and governance. Using case studies and experiences from different parts of the continent, this book assesses how the potential for human resources, in terms of education, can be leveraged in the development process to achieve equity, inclusive development and governance outcomes in Africa. This book builds on the "resource curse" to focus on human resources as an alternative paradigm to sustainable development in Africa. At a time when concerns over access to quality education is an important issue among policy makers and international development agents, this timely project calls attention to one of the most critical aspects of development in Africa.

Business and environmental sustainability are not natural bedfellows. Business is about making money; sustainability is about protecting the planet. Business is measured in months and quarters; sustainability often requires significant short term costs to secure a sometimes uncertain long-term benefit. To some activists, all executives are exploitative, selfish "1 percenters". To some executives, all activists are irresponsible, unyielding extremists. And yet engaging with the issue isn't optional – all businesses must have a strategy to deal with sustainability and, like any strategy, this involves making choices. Strategy and Sustainability encourages its readers to filter out the noise and make those choices in a hard-nosed and clear-eyed way. Rosenberg's nuanced and fact-based point of view recognizes the complexity of the issues at hand and the strategic choices businesses must make. He blends the work of some of the leading academic thinkers in the field with practical examples from a variety of business sectors and geographies and offers a framework with which Senior Management might engage with the topic, not (just) to save the planet but to fulfil their short, medium, and long-term responsibilities to shareholders and other stakeholders.

In recent decades, there has been a major shift in the way researchers process and understand scientific data. Digital access to data has revolutionized ways of doing science in the biological and biomedical fields, leading to a data-intensive approach to research that uses innovative methods to produce, store, distribute, and interpret huge amounts of data. In *Data-Centric Biology*, Sabina Leonelli probes the implications of these advancements and confronts the questions they pose. Are we witnessing the rise of an entirely new scientific epistemology? If so, how does that alter the way we study and understand life—including ourselves? Leonelli is the first scholar to use a study of contemporary data-intensive science to provide a philosophical analysis of the epistemology of data. In analyzing the rise, internal dynamics, and potential impact of data-centric biology, she draws on scholarship across diverse fields of science and the humanities—as well as her own original empirical material—to pinpoint the conditions under which digitally available data can further our understanding of life. Bridging the divide between historians, sociologists, and philosophers of science, *Data-Centric Biology* offers a nuanced account of an issue that is of fundamental importance to our understanding of contemporary scientific practices.

Continuing advances in science and technology offer the promise of providing tools to meet global challenges in health, agriculture, the environment, and economic development; some of the benefits are already being realized. However, such advances have the potential to challenge the oversight systems for responsible conduct of life sciences research with dual use potential – research that may have beneficial applications but that also could be misused to cause harm. Between June 10 and 13, 2018, more than 70 participants from 30 different countries and 5 international organizations took part in an international workshop, *The Governance of Dual Use Research in the Life Sciences: Advancing Global Consensus on Research Oversight*, to promote global dialogue and increased common understandings of the essential elements of governance for such research. Hosted by the Croatian Academy of Sciences and Arts in Zagreb, Croatia, the workshop was a collaboration among the InterAcademy Partnership, the Croatian Academy, the Croatian Society for Biosafety and Biosecurity, and the U.S. National Academies of Sciences, Engineering, and Medicine. This publication summarizes the presentations and discussions from the workshop.

While international negotiations to reduce greenhouse gas (GHG) emissions have been less than satisfactory, there is a presumption that a significant level of multi-lateral commitment will be realized at some point. International air and marine travel have been left to one side in past talks because the pursuit of agreement proceeds on the basis of commitment by sovereign nations and the effects of these specific commercial activities are, by their nature, difficult to corral and assign to specific national jurisdictions. However, air travel is increasing and, unless something is done, emissions from this segment of our world economy will form a progressively larger percentage of the total, especially as emissions fall in other activities. This book focuses on fuel. The aim is to provide background in technical and policy terms, from the broadest reliable sources of information available, for the necessary discourse on society's reaction to the evolving aviation emissions profile. It considers what policy has been, why and how commercial air travel is committed to its current liquid fuel, how that fuel can be made without using fossil-source materials, and the barriers to change. It also advances some elements of policy remedies that make sense in providing an environmentally and economically sound way forward in a context that comprehends a more complete vision of sustainability than 'renewable fuels' traditionally have. The goal of *Will Sustainability Fly?* is to broaden and contextualize the knowledge resource available to academics, policy makers, air industry leaders and stakeholders, and interested members of the public.

Getting the right diagnosis is a key aspect of health care - it provides an explanation of a patient's health problem and informs subsequent health care decisions. The diagnostic process is a complex, collaborative activity that involves clinical reasoning and information gathering to determine a patient's health problem. According to *Improving Diagnosis in Health Care*, diagnostic errors-inaccurate or delayed diagnoses-persist throughout all settings of care and continue to harm an unacceptable number of patients. It is likely that most people will experience at least one diagnostic error in their lifetime, sometimes with devastating consequences. Diagnostic errors may cause harm to patients by preventing or delaying appropriate treatment, providing unnecessary or harmful treatment, or resulting in psychological or financial repercussions. The committee concluded that improving the diagnostic process is not only possible, but also represents a moral, professional, and public health imperative. *Improving Diagnosis in Health Care* a continuation of the landmark Institute of Medicine reports *To Err Is Human* (2000) and *Crossing the Quality Chasm* (2001) finds that diagnosis-and, in particular, the occurrence of diagnostic errors-has been largely unappreciated in efforts to improve the

quality and safety of health care. Without a dedicated focus on improving diagnosis, diagnostic errors will likely worsen as the delivery of health care and the diagnostic process continue to increase in complexity. Just as the diagnostic process is a collaborative activity, improving diagnosis will require collaboration and a widespread commitment to change among health care professionals, health care organizations, patients and their families, researchers, and policy makers. The recommendations of Improving Diagnosis in Health Care contribute to the growing momentum for change in this crucial area of health care quality and safety.

An entrepreneur and educator highlights the surprising influence of humanities scholarship on biomedical research and civil liberties. This spirited defence urges society to support the humanities to obtain continued guidance for public policy decisions, and challenges scholars to consider how best to fulfil their role in serving the common good.

The terrifying new role of technology in a world at war

Want to take the financial journey to a new investing philosophy that might very well affect the rest of your moneymaking life? No one can guarantee the yellow brick road, but Michael Covel promises the red pill will leave you wide freaking awake. Trend Following reveals the truth about a trading strategy that makes money in up, down and surprise markets. By applying straightforward and repeatable rules, anyone can learn to make money in the markets whether bull, bear, or black swan—by following the trend to the end when it bends. In this timely reboot of his bestselling classic, Michael Covel dives headfirst into trend following strategy to examine the risks, benefits, people, and systems. You'll hear from traders who have made millions by following trends, and learn from their successes and mistakes—insights only here. You'll learn the trend philosophy, and how it has performed in booms, bubbles, panics and crashes. Using incontrovertible data and overwhelming supporting evidence, with a direct connection to the foundations of behavioral finance, Covel takes you inside the core principles of trend following and shows everyone, from brand new trader to professional, how alpha gets pulled from the market. Covel's newest edition has been revised and extended, with 7 brand new interviews and research proof from his one of kind network. This is trend following for today's generation. If you're looking to go beyond passive index funds and trusting the Fed, this cutting edge classic holds the keys to a weatherproof portfolio. Meet great trend followers learning their rules and philosophy of the game Examine data to see how trend following excels when the you-know-what hits the fan Understand trend trading, from behavioral economics to rules based decision-making to its lambasting of the efficient markets theory Compare trend trading systems to do it yourself or invest with a trend fund Trend following is not prediction, passive index investing, buy and hope or any form of fundamental analysis. It utilizes concrete rules, or heuristics, to profit from a behavioral perspective. Trend Following is clear-cut, straightforward and evidence-based and will secure your financial future in bull, bear and black swan markets. If you're finally ready to profit in the markets, Trend Following is the definitive treatise for a complex world in constant chaos.

Global Women Leaders showcases narratives of women in business, nonprofit organizations and the public sector who have achieved leadership positions despite cultural obstacles and gender bias. Featuring leaders from India, Japan, Jordan and the United Kingdom, the book examines how these women have overcome challenges and served as role models in their professions.

This book describes the accomplishments of a curious and imaginative scientist, and his endeavours to translate or even to extrapolate scientific insights into the world of art. The science section in this volume concerns studies on S-layers, a very important class of proteins found on the surface of numerous Bacteria and nearly all Archaea. S-layer proteins are one of the most abundant biopolymers on our planet, and assemble into the simplest type of biological membrane. Moreover, they are unique building blocks and patterning elements for the production of complex supramolecular structures and nanoscale devices in nanobiotechnology, molecular nanotechnology, synthetic biology, biomimetics and nanomedicine. In the second part of this book the author goes on to passionately describe how his scientific activities stimulated his art work, which in particular concerns the visualization of results and the potential of synthetic biology and evolutionary events induced by genetic manipulations. Most importantly, the engagement in art allowed him to leave the rather curtailed canon of science and reach a mental state of unlimited freedom of thoughts. Mask-like sculptures are used as examples to visualize the intersection between science and art, and in particular the unpredictability and mystery of scientific visions.

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