

1. Record Nr.	UNINA9911021144103321
Autore	Betz Ulrich A. K
Titolo	Science for a Better Tomorrow : Curious 2024 Insights / / edited by Ulrich A. K. Betz
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	3-031-93623-X
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (379 pages)
Disciplina	572
Soggetti	Biochemistry Medicine - Research Biology - Research Materials science Biotechnology Food science Technological innovations Biological Chemistry Biomedical Research Materials Science Food Science Innovation and Technology Management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Foreword 1: Hosting Curious2024 -- Foreword 2: In Mainz future has tradition -- Part I Bright Future -- Chapter 1 Prologue: The Future Insight Association -- Chapter 2 Bridging biosciences, AI, and IT for next-generation technological advances in BIO4 campus -- Chapter 3 Mentoring early career researchers -- Chapter 4 Discussion on game-changers in science and scientific work enabled via an AI-supported real-time survey -- Part II Healthy Lives -- Chapter 5 Inspiring Innovation in Biomedicine and Health -- Chapter 6 Building pandemic resiliency in the wake of COVID-19 -- Chapter 7 Human longevity: Bringing radical disruptive ideas into light -- Chapter 8 Individualized medicine for cardiovascular disease – The curATime consortium -- Part

III New Materials -- Chapter 9 Challenges in the implementation of technologies for the sustainable transformation of chemical processes into industrial practice -- Chapter 10 Polymers: The hidden heroes of life -- Part IV The AI revolution -- Chapter 11 The future of drug discovery: an AI-driven perspective -- Chapter 12 Why AI progress will necessitate harnessing synthetic biology to leverage the ground truth of intelligence -- Chapter 13 Towards Conscious Service Robots -- Summary -- Draw our future! -- Curious Abstracts.

Sommario/riassunto

This book explores the intersection of biosciences, artificial intelligence (AI), and information technology (IT), highlighting their potential to drive innovation in biomedicine and health, particularly in the context of pandemic resiliency and human longevity. The book expands on the discussion held at the Curious2024 – Future Insight Conference, capturing the innovative spirit and collaborative ethos of the conference. In this book, readers will find a diverse array of topics, including individualized medicine for cardiovascular disease, the sustainable transformation of chemical processes, and the future of drug discovery through an AI-driven lens. The book also investigates the role of synthetic biology in leveraging the ground truth of intelligence and explores the potential of developing conscious service robots. Chapters written by keynote speakers from the Curious2024 – Future Insight Conference emphasize the importance of interdisciplinary and transdisciplinary dialogue for breakthrough innovation. These contributions also provide a comprehensive analysis of the challenges and opportunities that lie ahead, making this book an essential read for those interested in the future of science and technology. By highlighting the crucial role of scientists in solving today's problems and enabling the dreams of a better tomorrow, the book appeals to a broad readership of researchers, scholars, and practitioners in biosciences, AI, and IT. It also serves as a valuable resource for early career researchers seeking mentorship and guidance.
