1. Record Nr. UNINA9910557363903321

Autore	Varanda Carla
Titolo	The Application of Viruses to Biotechnology
Pubbl/distr/stampa	Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021
Descrizione fisica	1 online resource (296 p.)
Soggetti	Technology: general issues
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Viruses are microscopic agents that exist worldwide and are present in humans, animals, plants, and other living organisms in which they can cause devastating diseases. However, the advances of biotechnology and next-generation sequencing technologies have accelerated novel virus discovery, identification, sequencing, and manipulation, showing that they present unique characteristics that place them as valuable tools for a wide variety of biotechnological applications. Many applications of viruses have been used for agricultural purposes, namely concerning plant breeding and plant protection. Nevertheless, it is interesting to mention that plants have also many advantages to be used in vaccine production, such as the low cost and low risks they entail, showing once more the versatility of the use of viruses in biotechnology. Although it will obviously never be ignored that viruses are responsible for devastating diseases, it is clear that the more they are studied, the more possibilities they offer to us. They are now on the front line of the most revolutionizing techniques in several fields, providing advances that would not be possible without their existence. In this book there are presented studies that demonstrate the work developed using viruses in biotechnology. These studies were brought by experts that focus on the development and applications of many viruses in several fields, such as agriculture, the pharmaceutical industry, and medicine.

2. Record Nr. UNINA9910298649403321

Autore	Blum Udo
Titolo	Plant-Plant Allelopathic Interactions II : Laboratory Bioassays for Water-Soluble Compounds with an Emphasis on Phenolic Acids / / by Udo Blum
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2014
ISBN	3-319-04732-9
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (337 p.)
Disciplina	54 571.95 572572 581.7
Soggetti	Biotechnology Botanical chemistry Plant ecology Environmental toxicology Plant Biochemistry Plant Ecology Ecotoxicology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and indexes.
Nota di contenuto	1 Background for Designing Laboratory Bioassays -- 2 Introduction to the Fundamentals of Laboratory Bioassays -- 3 Some Issues and Challenges When Designing Laboratory Bioassays -- 4 Hypothetical Standard Screening Bioassays -- 5 Effects, Modifiers and Modes of Action of Allelopathic Compounds Using Phenolic Acids as Model Compounds -- 6 Hypothetical Cause and Effect Bioassays -- 7 Laboratory Model Systems and Field Systems: Some Final Thoughts -- Author Index -- Subject Index.
Sommario/riassunto	In the first volume the author suggested that we could improve our understanding of plant-plant allelopathic interactions in the field by making laboratory bioassays more holistic. Reflections after the

volume was published lead the author to conclude that a more detailed analysis of the factors making up laboratory bioassays was needed in the hope that such an analysis would provide clearer and more useful directions on how to design more holistic or more relevant laboratory bioassay systems. The more holistic being a theoretical goal and the more relevant being a more pragmatic goal. This volume has been written specifically for researchers and their graduate students who are interested in studying plant-plant allelopathic interactions. The author hopes that this retrospective and at times critical analysis of laboratory bioassays will provide a foundation for better and more field-relevant laboratory designs in the future. This volume has 7 chapters describing: 1. background for designing plant-plant allelopathic laboratory bioassays, 2. the fundamentals of laboratory bioassays, 3. the issues and challenges associated with designing more relevant laboratory bioassays, 4. a set of hypothetical standard screening laboratory bioassays, 5. the known effects of putative allelopathic compounds such as phenolic acids, the physicochemical and biotic factors that modify their effects, and their modes of action, 6. a set of standard hypothetical cause and effect laboratory bioassays, and 7. the differences between field systems and laboratory bioassay systems, ways to minimize the impacts of atypical factors in laboratory bioassays, and future directions.