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Titolo	Medicinal Plant Biotechnology: From Basic Research to Industrial Applications
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Nota di contenuto	The engineering of medicinal plants: prospects and limitations of medicinal plant biotechnology -- Metabolomics -- HPLC-NMR techniques for plant extract analysis -- Plant associated microorganisms (endophytes) as a new source of bioactive natural products -- DNA profiling of plants -- Bioprospection -- search for bioactive lead structures from nature -- Biotechnological approaches for the production of some promising plant-based chemotherapeutics -- Plant biotechnology -- Biotechnological methods for selection of high yield cell lines and production of secondary metabolites in medicinal plants -- Impact of whole genome and espressed sequence tag databases on the study of plant metabolism -- Biotechnology of Solanaceae alkaloids -- a model or an industrial perspective? -- Plant cell cultures: production of biological important secondary metabolites from medicinal plants of Taiwan -- Exploring and accessing plant natural product biosynthesis I engineering microbial hosts -- Production of therapeutic antibodies in plants -- Glycosylation of recombinant proteins in Plants -- Frontiers in transgenic plants -- PLANTS AS DRUG FACTORIES -- Intellectual property protection of plant biotechnology -- Breeding of medicinal plants -- Camptothecin production in cell cultures of Ophiorrhiza species -- Plant biochemistry and biotechnology of flavour compounds and essential oils -- Gingko biloba and production of secondary metabolites -- Paclitaxel production in plant cell cultures -- Production of artemisinin for malaria therapy.

Sommario/riassunto

This unique overview of plants and transgenic techniques of great scientific, medicinal and economic value for both industry and academia covers the whole spectrum from cell culture techniques, via genetic engineering and secondary product metabolism right up to the use of transgenic plants for the production of bioactive compounds. Practical examples are given throughout, including the production of cancer therapeutics, functional food, and flavor compounds in plants.