

Contents

1 Medicinal Plants: Ethno-Uses to Biotechnology Era	1
Aly Farag El Sheikha	
2 How Plants Can Contribute to the Supply of Anticancer Compounds	39
J.F. Buyel	
3 Cancer and Biotechnology: A Matchup that Should Never Slowdown	73
Ala'a Al-Hrout, Badriya Baig, Ali Hilal-Alnaqbi, and Amr Amin	
4 Plant-Derived Compounds with Anticancer Properties: From Folklore to Practice	99
Tripti Tewari, Ruchi Singh, Vartika Pant, Ajit Kumar, and Preeti Chaturvedi	
5 Anticancer Drugs from Plants	121
Denise Fernandes Coutinho Moraes, Ludmilla Santos Silva de Mesquita, Flavia Maria Mendonça do Amaral, Maria Nilce de Sousa Ribeiro, and Sonia Malik	
6 Cambial Meristematic Cells: A Sustainable Platform for the Production of Plant-Derived Anticancer Drugs	143
Verity I.P. Loake and Marisol Ochoa-Villarreal	
7 Family Fabaceae: A Boon for Cancer Therapy	157
Ashita Sharma, Rajwant Kaur, Jatinder Kaur Katnoria, Rajinder Kaur, and Avinash Kaur Nagpal	
8 Small Cells for Big Ideas: The Cytotoxic Podophyllotoxin and the Long Journey in Discovering Its Biosynthetic Pathway	177
Pavlina Sasheva and Iliana Ionkova	

9	Hairy Root Culture for the Production of Useful Secondary Metabolites.....	201
	Jyothi Abraham and T. Dennis Thomas	
10	Edible Mushrooms and Their In Vitro Culture as a Source of Anticancer Compounds.....	231
	Bożena Muszyńska, Katarzyna Kała, and Katarzyna Sułkowska-Ziaja	
11	Genomics and Artificial Intelligence Working Together in Drug Discovery and Repositioning: The Advent of Adaptive Pharmacogenomics in Glioblastoma and Chronic Arterial Inflammation Therapies	253
	Glaucia C. Pereira	
12	A Multiscale Haemorheological Computer-Based Model of Chronic Inflammation: An In-Depth Investigation of Erythrocytes-Driven Flow Characteristics in Atheroma Development.....	283
	Glaucia C. Pereira	
	Index.....	321