Preface to the Series vii
Preface to the Volume xiii
List of Contributors xvii
Abbreviations xxiii

1. **Basic Information on Vegetable Brassica Crops** 1
María Elena Cartea, Margarita Lema, Marta Francisco, and *Pablo Velasco*

2. **Classical Breeding and Genetic Analysis of Vegetable Brassicas** 34
Nirala Ramchiary, Suhyoung Park, and *Yong Pyo Lim*

3. **Diversity Analysis and Molecular Taxonomy of Brassica Vegetable Crops** 81
Guusje Bonnema, Dunia Pino Del Carpio, and *Jianjun Zhao*

4. **Molecular Linkage Maps: Strategies, Resources and Achievements** 125
Danuta Babula-Skowrońska, Agata Cieśla, and *Jan Sadowski*

5. **Molecular Mapping of Complex Traits** 197
Małgorzata Kaczmarek, Matthew N. Nelson, and *Wallace A. Cowling*

6. **Cytogenetic Studies in Vegetable Brassicas** 257
Piotr A. Ziolkowski, Martin A. Lysak, and *Waheeb K. Heneen*

7. ***Brassica rapa* Genome Sequencing Project: Strategies and Current Status** 304
Jeong-Hwan Mun, Tae-Jin Yang, Soo-Jin Kwon, and *Beom-Seok Park*

8. **Exploring the Paradoxes of the Brassica Genome Architecture** 328
Isobel A.P. Parkin, and *Stephen J. Robinson*

9. **The Decoding of Gene Functions—Transcriptomics Tools Toward Molecular Physiology and Breeding** 349
Agnieszka Ludwików, Krzysztof Krasowski, and *Leo Zeef*

10. Proteomics and Metabolomics **372**
Lucyna H. Misztal, and *Izabela Ibragimow*

11. Role of Bioinformatics as a Tool for Vegetable *Brassica* Species **406**
Chris Duran, Zoran Boskovic, Jacqueline Batley, and *David Edwards*

Index 419
Color Plate Section 427