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Microsatellites

Methods and Protocols

Edited by

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Preface

Current developments in genetic studies and decreasing cost of genotyping have resulted in the rapid growth of the use of molecular markers. Microsatellites or simple sequence repeats (SSR) have become the markers of choice for a variety of molecular studies because of their versatility, operational flexibility, and lower cost than other marker systems.

This volume contains 21 chapters divided into 4 parts. Part I (seven chapters) presents and describes classical and modern methods for the discovery and development of microsatellite markers. Part II (four chapters) gives a description of amplification and visualization of SSRs. In Part III (four chapters), the use of four different automated capillary sequencers that are widely used for fragment analysis is presented. The last part (Part IV, five chapters) presents a variety of methods for the analysis of data obtained by the use of microsatellites. This book is aimed at new scientists who need detailed protocols for incorporating microsatellite markers into their projects and expert scientists who want to expand their knowledge of SSR discovery, use, and analysis.

I take this opportunity to thank my family (Kostas, Ioanna, and Manos) for their unconditional love and support.

Carbondale, IL, USA

Stella K. Kantartzis

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