
Contents

Preface.....ix

About the Editors x

Contributorsxii

Chapter 1 Molecular Biology and Physiology of Parasites 1

*Muhammad Faisal Hayat, Rana Muhammad Athar Ali,
Muhammad Umar Ijaz, Mughees Aizaz Alvi,
and Muhammad Shafeeq*

Chapter 2 Introduction to Omics Technologies 22

*Muhammad Sohail Sajid, Sadia Ghazanfer,
Hafiz Muhammad Rizwan, Muhammad Haziq Bajwa,
Nimra Anwar, and Muhammad Saqib*

Chapter 3 Genomic Approaches in Parasitic Diagnosis 47

Shameeran Salman Ismael Bamarni and Mourad Ben Said

Chapter 4 Transcriptomic Profiling of Parasites..... 62

*Haider Abbas, Hafiz Muhammad Rizwan,
HazratUllah Raheemi, and Usman Elahi*

Chapter 5 Proteomics and Metabolomics in Parasitic Research 88

*Mahvish Maqbool, Muhammad Usman Mazhar,
Saadiya Zia, Hizqeel Ahmed Muzaffar, and Asim Shamim*

Chapter 6 Integrative Omics in Parasitology 109

*Raja Adil Sarfraz, Hafiz Muhammad Rizwan,
Nadia Nazish, Muhammad Sulman Ali Taseer,
and Syed Soban Hassan*

Chapter 7 Omics-Based Biomarkers for Parasitic Infections 124

*Hafiz Muhammad Rizwan, Muhammad Sohail Sajid,
Muhammad Younus, Haroon Ahmad, Hizqeel Ahmed Muzaffar,
Muhammad Nadeem Saleem, and Muhammad Zeeshan*

Chapter 8	Omics and Discoveries of Anti-Parasitic Drugs	144
	<i>Amina Basheer, Syed Babar Jamal, Sumra Wajid Abbasi, Muhammad Waqar Arshad, and Shumaila Naz</i>	
Chapter 9	Bioinformatics and Data Analysis in Veterinary Parasitology	167
	<i>Syed Awais Attique, Qurat Ul Ain, Mourad Ben Said, and Muhammad Sohail Sajid</i>	
Index		189