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Preface

The second volume of ‘Genome Dynamics’ is dedicated to ‘Vertebrate Genomes’. The publication of the first draft of the human genome five years ago has opened a new era of vertebrate comparative genomics. Now genome draft sequences for chimpanzee, mouse, rat, dog, chicken as well as for several fish species are available for the reconstruction of the evolutionary history of vertebrate genomes during the last 450 millions of years. Several other important projects are underway and draft sequences will be available for additional vertebrate species in the next future.

Because Genomics is a fast moving science, it is not easy for the non-specialist to get an overview on the current knowledge on vertebrate genomes. Therefore, this volume of ‘Genome Dynamics’ aims to present a timely update on the past, present and future of major vertebrate genome projects. Within 16 chapters, reputed specialists provide short but informative reviews on the current status of mammalian, bird, amphibian and fish genomics. As it is the rule in evolutionary analyses, an ‘outgroup’ is even provided, under the form of a chapter on urochordate genomes. The reader will also find in this book a useful overview on resources available for each genome, as well as a description of the medical and economical perspectives opened by the different projects.

All papers published in Genome Dynamics are reviewed according to classical standards. I would like to thank all contributors and referees involved in this book, Dr. Michael Schmid and his team, as well as Karger Publishers for their invaluable help during the preparation of this volume.

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