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The postgenomic era is upon us and with it comes a growing need to understand the function of every gene and its contribution to physiological and pathological processes. Such advances will underpin our understanding of the molecular basis of common chronic inflammatory and degenerative diseases and inspire the development of targeted therapy. Any postgenomic approach for exploring gene function must necessarily address gene expression and regulation, localization of gene products in diseased tissue, manipulation of expression by transgenesis or knockdown technology, and combine these studies with appropriate manipulations in relevant in vivo models. To validate potential therapeutic targets in any depth requires a growing repertoire of assays and disease models that underpin key pathogenic pathways. The same repertoire of tools must be employed to rigorously evaluate process specific biomarkers, which may be of diagnostic and prognostic value. Indeed, measuring the impact of our interventions remains a major challenge for the future.

The rheumatic diseases encompass prototypic chronic inflammatory and degenerative diseases. It would be true to say that experimental procedures adapted for investigating the pathogenesis of diseases such as rheumatoid arthritis have contributed greatly to recent advances in biological therapy. *Arthritis Research: Methods and Protocols* seeks to crystallize methods and protocols that have contributed to such advances in molecular medicine. These volumes are timely because the tools are now accessible to most laboratories. Also included are newer technologies, some of which are still evolving and whose impact are yet to be realized. It is important to note that in these volumes there is something for everyone—basic scientists, clinician scientists, and clinicians alike—with contributions from leaders in their field covering imaging and immunobiology, animal models, and new technologies. Combine volumes 1 and 2 and the end product is a concise set of protocols condensing decades of experience and expertise. From the outset of this project it was always the intention that this compendium should provide a unique resource at the bench that would be used in ways that will facilitate the endeavors of clinicians at the bedside in the future.
Acknowledgments

I wish to thank many friends and colleagues for their enthusiasm, support, and invaluable contributions toward this project. I am also very grateful to Mandy Wilcox for her dedicated secretarial assistance in compiling the finished product. The research carried out by the Editor’s laboratory at the Kennedy Institute is supported by grants from the Wellcome Trust and the Arthritis Research Campaign, UK.

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