

# Preface

*Linda S. Pescatello, Ph.D.:* I embarked on this facet of my career in 1998 when Dr. Paul D. Thompson, Director of Cardiology, Hartford Hospital, CT, invited me to join the Exercise and Genetics Collaborative Research Group. Dr. Thompson formed this multicenter, collaborative research group with the intent of conducting large exercise genomics studies that would position exercise as important lifestyle therapy in the field of personalized medicine. Investigations undertaken by this Group have included, *Does Apo E Affect the Lipid Response to Exercise?* funded by the Donaghue Medical Research Foundation; *Functional Single Nucleotide Polymorphisms Associated with Human Muscle Size and Strength* or FAMuSS funded by the National Institutes of Health and National Institute of Neurological Disorders; *The Effect of Statins on Skeletal Muscle Function* or STOMP funded by the National Institutes of Health, and the National Heart, Lung and Blood Institute; and *Establishing an Exercise Dose Response for Postexercise Hypotension* funded by the American Heart Association.

My involvement with the Exercise and Genetics Collaborative Research Group provided me with the good fortune of working with leading scientists in the young field of exercise genomics. These scientists include Dr. Eric Hoffman, Director of the Research Center for Genetic Medicine, Children's National Medical Center, Washington, DC, and other members of his research team, Dr. Joseph D. Devaney, Assistant Professor, and Dr. Heather Gordish-Dressman, Biostatistician. Drs. Devaney and Gordish-Dressman are coauthors of Chap. 2, Statistical and Methodological Considerations in Exercise Genomics. Others esteemed scientists from this Group include Dr. Priscilla Clarkson, Distinguished Professor, Kinesiology Department, and Dean, Commonwealth College, University of Massachusetts, Amherst, MA, who is a coauthor of Chap. 5, Genetic Aspects of Muscular Strength and Size; Dr. Gregory Tsongalis, Director of Molecular Pathology, Dartmouth Medical School, Dartmouth Hitchcock Medical Center, Lebanon, NH; and Dr. Paul Thompson.

*Stephen M. Roth, Ph.D.:* I am fortunate to have training in both exercise science and human genetics and have maintained a personal and professional interest in this area for nearly 15 years. Dr. Jim Hagberg of the University of Maryland first opened my eyes to this field while I was a Ph.D. student, and he secured my transition into genetics research by introducing me to Dr. Robert Ferrell

at the University of Pittsburgh, with whom I completed postdoctoral training in human genetics and began to develop a research specialization in the genomic aspects of exercise and health. At the University of Maryland, I'm honored to direct the Functional Genomics Laboratory, a 1,000 sq ft wet lab dedicated to exercise genomics research. I work closely with several investigators there, most notably Dr. Hagberg with whom I have coauthored several exercise genomics articles, as well as numerous colleagues from around the world. I have been fortunate to be funded by the National Institutes of Health for a variety of exercise genomics studies resulting in over 65 peer-reviewed articles, book chapters, etc., including a sole-author textbook published by Human Kinetics entitled, "Genetics Primer for Exercise Science and Health."

We would like to thank Dr. Tsongalis who presented us with the opportunity to edit, *Exercise Genomics* of the *Molecular and Translational Medicine Series*. It was because of his enthusiasm and belief in the clinical importance of the work in this field that encouraged us to undertake this project. In this book, we have invited leading international scientists in key content areas of exercise genomics to provide up-to-date findings and a vision for their translation into clinical practice. As the reader will see, the outstanding caliber of their contributions has made this project a pleasure to be a part of. We also thank Garrett Ash, M.S., Michael Bruneau, Jr., BS, and Margaux Guidry, Ph.D., graduate students in the Department of Kinesiology at the University of Connecticut for their editorial assistance. Finally, we are indebted to the leadership of Richard Hruska at Springer/Humana in shepherding this book into print, as well as the many dedicated staff who had a hand in making this book an important contribution to the growing field of exercise genomics.

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