Genetics and Sports (Medicine and Sport Science)

Editor: Malcolm Collins


Subjects: genetics and performance, exercise science, sports injuries

DESCRIPTION: The book includes data about genetic factors which are related to sports performance and those which make an athlete prone to injuries. Under the light shed by recent developments about genetic contribution to many complex diseases, this book is an attempt to use the same approach in exercise science and sports medicine area.

PURPOSE: To review past, present and future applications of genetic research in exercise science and sports medicine.

FEATURES: The book composed of twelve sections in 200 pages. The authors are a broad range of experienced scientists and clinicians from various fields including human molecular genetics, clinical genetics and exercise science departments. The topics are as follows: 1- Key concepts in human genetics: understanding the complex phenotype, 2- Nature versus nurture in determining athletic ability, 3- Genetics and sports: an overview of the pre-molecular biology era, 4- Genes, athlete status and training – an overview, 5- Angiotensin Converting enzyme, Renin – Angiotensin system and human performance, 6- α-Actinin-3 and performance, 7- East African runners: their genetics, lifestyle and athletic prowess, 8- Gene-lifestyle interactions and their consequences on human health, 9- Genetic risk factors for treatment of soft tissue injuries in human and animal athletes, 10- Gene doping: possibilities and practicalities, 11- Genetic testing of athletes, 12- The future of genetic research in exercise science and sports medicine, gene doping and sport.

AUDIENCE & ASSESMENT: This book targets the sport community in general; especially those who are interested in the relation between genetics and sports. This interesting book is valuable for everyone who works with the athletes and will be working in the forthcoming age of “genetically engineered” sports person.

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