

CONTENTS

Preface	v
Contributors.....	ix
1 Methodological Considerations in Exercise Endocrinology	1
<i>Anthony C. Hackney and Abbie E. Smith-Ryan</i>	
2 Exercise and Endogenous Opiates	21
<i>Allan H. Goldfarb</i>	
3 The Effect of Exercise on the Hypothalamic–Pituitary– Adrenal Axis	37
<i>David H. St-Pierre and Denis Richard</i>	
4 Impact of Chronic Training on Pituitary Hormone Secretion in the Human.....	49
<i>Johannes D. Veldhuis and Kohji Yoshida</i>	
5 Exercise and the GH–IGF-I Axis	69
<i>Alon Eliakim and Dan Nemet</i>	
6 Exercise and Thyroid Function	85
<i>Joanna Klubo-Gwiezdzinska, Victor J. Bernet, and Leonard Wartofsky</i>	
7 The Male Reproductive System, Exercise, and Training: Endocrine Adaptations.....	121
<i>Fabio Lanfranco and Marco Alessandro Minetto</i>	
8 Exercise and the Hypothalamus. Ovulatory Adaptations	133
<i>Moiria A. Petit and Jerilynn C. Prior</i>	
9 Adrenergic Regulation of Energy Metabolism	167
<i>Michael Kjær and Kai Lange</i>	
10 Energy Balance and Weight Control (Male and Female): Considerations.....	175
<i>Kristin Ondrak</i>	
11 Exercise Training in the Normal Female: Effects of Low Energy Availability on Reproductive Function.....	185
<i>Anne B. Loucks</i>	
12 Ghrelin Responses to Acute Exercise and Training.....	207
<i>Jaak Jürimäe and Toivo Jürimäe</i>	
13 Hormonal Regulation of Fluid and Electrolyte Homeostasis During Exercise	221
<i>Charles E. Wade</i>	
14 Hormonal Regulations of the Effects of Exercise on Bone: Positive and Negative Effects.....	245
<i>Philip D. Chilibeck</i>	

15	Interrelations Between Acute and Chronic Exercise Stress and the Immune and Endocrine Systems.....	259
	<i>Jonathan Peake</i>	
16	Effects of Female Reproductive Hormones on Sports Performance	281
	<i>Constance M. Lebrun, Sarah M. Joyce, and Naama Constantini</i>	
17	Exercise and Pregnancy: Hormonal Considerations	323
	<i>R. Carlton Bessinger</i>	
18	Vitamin D and Exercise Performance	339
	<i>Joi J. Thomas and D. Enette Larson-Meyer</i>	
19	The Effects of Altitude on the Hormonal Response to Physical Exercise.....	363
	<i>Andrea Benso, N. Prencipe, Stellina Di Giacomo, Fabio Lanfranco, and Silvia Grottoli</i>	
20	An Introduction to Circadian Endocrine Physiology: Implications for Exercise and Sports Performance	385
	<i>Olaoluwa Okusaga and Teodor T. Postolache</i>	
21	Physical Activity and Mood. The Endocrine Connection	405
	<i>Gal Dubnov and Elliot M. Berry</i>	
22	Endocrine Responses to Acute and Chronic Exercise in the Developing Child.....	417
	<i>Daniela A. Rubin, James J. Tufano, and Robert G. McMurray</i>	
23	Exercise in Older Adults: The Effect of Age on Exercise Endocrinology	437
	<i>Jennifer L. Copeland</i>	
24	Oncology Patients and Aerobic Exercise: Immune System, Endocrine System, and Soluble Factor Responses	461
	<i>Elizabeth S. Evans and Claudio L. Battaglini</i>	
25	Diabetes and Exercise	501
	<i>Pierpaolo De Feo, Cristina Fatone, Claudia Mazzeschi, and Dalila Battistini</i>	
26	Extreme Sports and Type 1 Diabetes Mellitus: An Oxymoron or a Growing Reality?.....	513
	<i>Karen Tordjman, Anthony C. Hackney, and Naama Constantini</i>	
27	The Endocrine System in Overtraining	523
	<i>Ann C. Snyder and Anthony C. Hackney</i>	
28	Hormones as Performance-Enhancing Agents.....	535
	<i>Erick J. Richmond and Alan D. Rogol</i>	
	Index	547