

Contents

The Genetic Basis of Obesity and Type 2 Diabetes: Lessons from the New Zealand Obese Mouse, a Polygenic Model of the Metabolic Syndrome	1
Hans-Georg Joost	
Regulation of Nutrient Metabolism and Inflammation	13
Sander Kersten	
Lipid Storage in Large and Small Rat Adipocytes by Vesicle-Associated Glycosylphosphatidylinositol-Anchored Proteins	27
Günter Müller, Susanne Wied, Elisabeth-Ann Dearey, Eva-Maria Wetekam, and Gabriele Biemer-Daub	
Autophagy and Regulation of Lipid Metabolism	35
Rajat Singh	
Gene Co-Expression Modules and Type 2 Diabetes	47
Alan D. Attie	
Role of Zinc Finger Transcription Factor <i>Zfp69</i> in Body Fat Storage and Diabetes Susceptibility of Mice	57
Stephan Scherneck, Heike Vogel, Matthias Nestler, Reinhart Kluge, Annette Schürmann, and Hans-Georg Joost	
Metabolic Sensing in Brain Dopamine Systems	69
Ivan E. de Araujo, Xueying Ren, and Jozélia G. Ferreira	
Oral and Extraoral Bitter Taste Receptors	87
Maik Behrens and Wolfgang Meyerhof	

Reciprocal Modulation of Sweet Taste by Leptin and Endocannabinoids	101
Mayu Niki, Masafumi Jyotaki, Ryusuke Yoshida, and Yuzo Ninomiya	
Roles of Hormones in Taste Signaling	115
Yu-Kyong Shin and Josephine M. Egan	
Endocannabinoid Modulation in the Olfactory Epithelium	139
Esther Breunig, Dirk Czesnik, Fabiana Piscitelli, Vincenzo Di Marzo, Ivan Manzini, and Detlev Schild	
The Olfactory Bulb: A Metabolic Sensor of Brain Insulin and Glucose Concentrations via a Voltage-Gated Potassium Channel	147
Kristal Tucker, Melissa Ann Cavallin, Patrick Jean-Baptiste, K.C. Biju, James Michael Overton, Paola Pedarzani, and Debra Ann Fadool	
Energy Homeostasis Regulation in <i>Drosophila</i>: A Lipocentric Perspective	159
Ronald P. Kühnlein	
Towards Understanding Regulation of Energy Homeostasis by Ceramide Synthases	175
Reinhard Bauer	
Role of the Gut Peptide Glucose-Induced Insulinomimetic Peptide in Energy Balance	183
Andreas F.H. Pfeiffer, Natalia Rudovich, Martin O. Weickert, and Frank Isken	
Adipocyte–Brain: Crosstalk	189
Carla Schulz, Kerstin Paulus, and Hendrik Lehnert	
Index	203

Sensory and Metabolic Control of Energy Balance

Meyerhof, W.; Beisiegel, U.; Joost, H.-G. (Eds.)

2010, VIII, 208 p. 42 illus., 30 illus. in color., Hardcover

ISBN: 978-3-642-14425-7