

Contents

| | |
|---|-----------|
| 1 Early Studies on Role of Stearoyl-CoA Desaturase During Preadipocyte Differentiation..... | 1 |
| David A. Bernlohr and M. Daniel Lane | |
| 2 Skin Stearoyl-CoA Desaturase Genes | 13 |
| Satish Parimoo and Pappas Apostolos | |
| 3 Stearoyl-CoA Desaturase-1 Is a Biological Regulator of Energy Homeostasis | 27 |
| James M. Ntambi | |
| 4 Role for Stearoyl-CoA Desaturase-1 in the Metabolic Effects of Leptin..... | 37 |
| Paul Cohen | |
| 5 Regulation and Metabolic Functions of White Adipose Tissue Stearoyl-CoA Desaturase | 49 |
| Nishan Sudheera Kalupahana, Thilak Jayalath, Shu Wang, and Naima Moustaid-Moussa | |
| 6 Function and Regulation of Macrophage Stearoyl-CoA Desaturase in Metabolic Disorders..... | 61 |
| Nishan Sudheera Kalupahana, Shu Wang, Shaikh M. Rahman, and Naima Moustaid-Moussa | |
| 7 Stearoyl-CoA Desaturase-1 in the Regulation of Toll-Like Receptor Signaling and Endoplasmic Reticulum Stress Signaling | 73 |
| Tabitha C. Ting and Makoto Miyazaki | |
| 8 Stearoyl-CoA Desaturase in the Control of Heart Metabolism..... | 85 |
| Pawel Dobrzyn and Agnieszka Dobrzyn | |

| | |
|---|------------|
| 9 Stearoyl-CoA Desaturase-1 Activity in Skeletal Muscle: Is It Good or Bad?..... | 103 |
| Joseph Stevens and Matthew W. Hulver | |
| 10 The Cellular Function of Stearoyl-CoA Desaturase-2 in Development and Differentiation | 119 |
| Jennifer L. Cantley, Lucas M. O'Neill, James M. Ntambi, and Michael P. Czech | |
| 11 Stearoyl-CoA Desaturase Isoforms 3 and 4: Avenues for Tissue-Specific $\Delta 9$ Desaturase Activity | 131 |
| Laura M. Bond and James M. Ntambi | |
| 12 Functional Development of Stearoyl-CoA Desaturase Gene Expression in Livestock Species..... | 141 |
| Stephen B. Smith | |
| 13 Expression and Nutritional Regulation of Stearoyl-CoA Desaturase Genes in the Ruminant Mammary Gland: Relationship with Milk Fatty Acid Composition | 161 |
| L. Bernard, C. Leroux, and Y. Chilliard | |
| 14 Physiological Functions and Regulation of <i>C. elegans</i> Stearoyl-CoA Desaturases | 195 |
| Jennifer L. Watts | |
| 15 Remodeling of Membrane Phospholipids by Bacterial Desaturases | 209 |
| Silvia Graciela Altabe, María Cecilia Mansilla, and Diego de Mendoza | |
| Index..... | 233 |

Stearoyl-CoA Desaturase Genes in Lipid Metabolism

Ntambi, J.M. (Ed.)

2013, XI, 239 p., Hardcover

ISBN: 978-1-4614-7968-0