

Contents

List of Contributors   vii

Section I Hormones in the Physiology and Pharmacology of Pregnancy

1

The Neuroendocrinology of Pregnancy   1

*Silvia Vannuccini, Irene Paternò, John R. G. Challis, and Felice Petraglia*

2

The Placenta as an Endocrine Organ/ Placental Endocrinology   13

*Roger Smith*

3

The Role of Oxytocin in Pregnancy   20

*Kiichiro Furuya and Richard Ivell*

4

The Role of Human Chorionic Gonadotropin in Pregnancy   33

*Keiichi Kumasawa and Yutaka Osuga*

5

The Role of Estrogens in Pregnancy   42

*Nadia Berkane, Yveline Ansaldi, and Nicola Pluchino*

6

The Role of Progesterone in Pregnancy   50

*Sam Mesiano*

7

Hormones and Cardiovascular Systems in Pregnancy   61

*Daniele Farsetti and Herbert Valensise*

Section II Hormones and Gestational Disorders

8

Prolactin, Prolactinoma, and Pregnancy   73

*Dominique Maiter and Philippe Chanson*

9

Growth Hormone Disorders in Pregnancy   87

*Marie Helene Schernthaner-Reiter, Greisa Vila, Peter Wolf, and Anton Luger*

10

Gestational Diabetes   91

*Serena Ottanelli, Federico Mecacci, and Moshe Hod*

11

Obesity and Metabolic Syndrome in Pregnancy   107

*Kent L. R. Thornburg, Amy M. Valent, Nicole E. Marshall, and Jonathan Q. Purnell*

12

Hormones and Pre-term Birth   120

*Emily M. Frier, Sarah J. Stock, Stephen Lye, and Oksana Shynlova*

13

Thyroid Dysfunction in Pregnancy and Postpartum   140

*Luigi Bartalena, Eliana Piantanida, Adriana Lai, and Maria Laura Tanda*

14

The Role of Hormones in Hypertensive Disorders of Pregnancy   151

*Leslie Myatt and James M. Roberts*

15

Adrenal Disease in Pregnancy   164

*Jack Lockett, Warrick Inder, David H. McIntyre, Helen L. Barrett, Sailesh Kumar, and Vicki Lee Clifton*

16

Hormones and Multiple Pregnancy   183

*Viola Seravalli, Noemi Strambi, and Mariarosaria Di Tommaso*

17

Hormones in Pregnancy and the Developmental Origins of Health and Disease   189

*John R. G. Challis, Felice Petraglia, Deborah M. Sloboda, Victor K. M. Han, and Judith G. Hall*

Index   199