# Table of Contents

List of Contributors

Series Preface

About the Companion Website

1. Bridging Between Experiments and Equations: A Tutorial on Modeling Excitability (David McCobb and Mary Lou Zeeman)

2. Ion Channels and Electrical Activity in Pituitary Cells: A Modeling Perspective (Richard Bertram, Joël Tabak and Stanko S. Stojilkovic)

3. Endoplasmic Reticulum- and Plasma Membrane-Driven Calcium Oscillations (Arthur Sherman)


5. Modeling Spiking in the Magnocellular Vasopressin Neuron (Duncan J. MacGregor and Gareth Leng)

6. Modeling Endocrine Cell Network Topology (David J. Hodson, Francois Molino and Patrice Mollard)

7. Modelling the Milk-Ejection Reflex (Gareth Leng and Jianfeng Feng)

8. Dynamics of the HPA Axis: A Systems Modelling Approach (John R. Terry, Jamie J. Walker, Francesca Spiga and Stafford L. Lightman)

9. Modeling the Dynamics of Gonadotropin-Releasing Hormone (GnRH) Secretion in the Course of an Ovarian Cycle (Frédérique Clément and Alexandre Vidal)

Glossary

Index