

Contents

Contributors vii

Preface ix

- 1 ***C. elegans*: Social Interactions in a "Nonsocial" Animal** 1
 Evan L. Ardiel and Catharine H. Rankin
 - I. Male-Mating 5
 - II. Aggregation 8
 - III. Conclusion 18
 - References 19

- 2 **Molecular Social Interactions: *Drosophila melanogaster* Seminal Fluid Proteins as a Case Study** 23
 Laura K. Sirot, Brooke A. LaFlamme, Jessica L. Sitnik, C. Dustin Rubinstein, Frank W. Avila, Clement Y. Chow, and Mariana F. Wolfner
 - I. *Drosophila* Sfps and Molecular Social Interactions: An Interplay in Four Acts 28
 - II. Behind the Scenes: Evolutionary Dynamics 40
 - III. Discussion and Future Directions 46
 - Acknowledgments 47
 - References 47

- 3 **Sleeping Together: Using Social Interactions to Understand the Role of Sleep in Plasticity** 57
 Jeffrey M. Donlea and Paul J. Shaw
 - I. Introduction 58
 - II. Social Enrichment Induces Plastic Mechanisms 59
 - III. Functional Effects of Social Enrichment 61
 - IV. Using Social Enrichment to Investigate Functions of Sleep 63

V. Future Directions	72
References	76

4 Approaching the Genomics of Risk-Taking Behavior 83

Alison M. Bell

I. Introduction	84
II. Challenges and Approaches for Studying the Genetics of Risk-Taking Behavior in Humans and Other Animals	85
III. Approaching the Genomics of Risk-Taking Behaviors in Stickleback Fish	87
IV. Future Directions and Conclusions	99
Acknowledgments	99
References	99

Index 105

Color Plate Section at the end of the Book