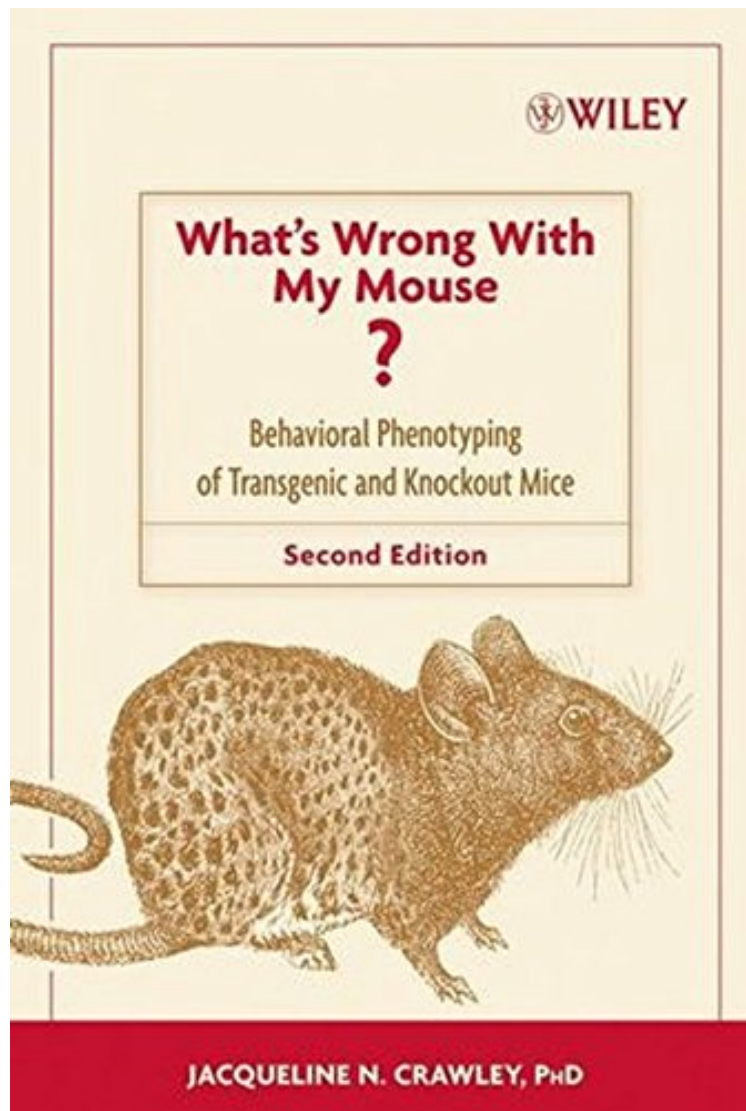


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What's Wrong With My Mouse?: Behavioral Phenotyping of Transgenic and Knockout Mice

Jacqueline N. Crawley

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Dr. Jacqueline N. Crawley, author of the First and Second Editions of *What's Wrong with My Mouse? Behavioral Phenotyping of Transgenic and Knockout Mice*, continues to field calls and e-mails from molecular geneticists who ask: how do I run behavioral assays to find out what's wrong with my mouse? Turn to *What's Wrong with My Mouse?* to discover the wealth of mouse behavioral tasks and to get the guidance you need to select the best methods and necessary controls. Chapters are organized by behavioral domain, including measurements of general health, motor functions, sensory abilities, learning and memory, feeding and drinking, reproductive, social, emotional, and reward behaviors in mutant mice. Throughout the chapters, new behavioral tasks and new research discoveries have been added, bringing the Second Edition up to date with the latest science. In addition, the Second Edition includes two new chapters: "Neurodevelopment and Neurodegeneration" discusses mouse behavioral tasks relevant to neurodevelopmental diseases, such as mental retardation and autism, and to neurodegenerative diseases, such as Alzheimers, Parkinsons, Huntingtons, and amyotrophic lateral sclerosis. "Putting It All Together" recommends strategies for optimizing a battery of behavioral phenotyping tests to address your specific hypotheses about gene functions. The final chapter, "The Next Generation," examines new and emerging technologies. Throughout the book, the use of behavioral testing equipment is illustrated with photographs, diagrams, and representative data. Examples of behavioral tasks successfully applied to transgenic and knockout mouse models are provided, as well as references to the primary literature and step-by-step methods protocols. These features, along with a comprehensive index, listings of database and vendor websites, and an extensive list of references, make this book a valuable and practical resource for students and researchers.

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From the Back Cover
Learn how to conduct behavioral tests to phenotype mutant mice
Dr. Jacqueline N. Crawley, author of the first and second editions of *What's Wrong With My Mouse?: Behavioral Phenotyping of Transgenic and Knockout Mice*, continues to field hundreds of calls and e-mails from molecular geneticists who ask just that: How do I run behavioral assays to find out what's wrong with my mouse? This book answers that question and many more, including what tests are available to discover an aberrant behavioral phenotype? Turn to *What's Wrong With My Mouse?* to discover the wealth of mouse behavioral tasks and to get the guidance you need to select the best methods and necessary controls. Chapters are organized by behavioral domain, including measurements of general health, motor functions, sensory abilities, learning and memory, feeding and drinking, reproductive, social, emotional, and reward behaviors in mutant mice. Throughout the chapters, new behavioral tasks and new research discoveries have been added, bringing the second edition up to date with the latest science. In addition, the second edition includes two new chapters: Neurodevelopment and Neurodegeneration discusses mouse behavioral tasks relevant to neurodevelopmental diseases, such as mental retardation and autism, and to neurodegenerative diseases, such as Alzheimer's, Parkinson's, Huntington's, and amyotrophic lateral sclerosis. Putting It All Together recommends strategies for optimizing a battery of behavioral phenotyping tests to address your specific hypotheses about gene functions. The final chapter, The Next Generation, examines new and emerging technologies. Throughout the book, the use of behavioral testing equipment is illustrated with photographs, diagrams, and representative data. Examples of behavioral tasks successfully applied to transgenic and knockout mouse models are provided, as well as references to the primary literature and step-by-step methods protocols. These features, along with a comprehensive index, listings of database and vendor Web sites, suggestions for expert behavioral

neuroscientist collaborators, and an extensive list of references, make this book a valuable and practical resource for students and researchers.