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| Autore | Guenet Jean Louis |
| Titolo | Genetics of the Mouse / / by Jean Louis Guénet, Fernando Benavides, Jean-Jacques Panthier, Xavier Montagutelli |
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| ISBN | 3-662-44287-6 |
| Edizione | [1st ed. 2015.] |
| Descrizione fisica | 1 online resource (417 p.) |
| Disciplina | 570<br>591.35<br>611.01816<br>616.027<br>660.65 |
| Soggetti | Animal genetics<br>Animal models in research<br>Transgenic organisms<br>Gene expression<br>Genetic engineering<br>Animal Genetics and Genomics<br>Animal Models<br>Transgenics<br>Gene Expression<br>Genetic Engineering |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references. |
| Nota di contenuto | Origins of the Laboratory Mouse -- Basic Concepts of Reproductive Biology And Genetics -- Cytogenetics -- Gene Mapping -- The Mouse Genome -- Epigenetic Control of Genome Expression -- Mutations and Experimental Mutagenesis -- Transgenesis and Transgenic Animals -- The Different Categories of Genetically Standardized Populations of Laboratory Mice -- Quantitative Traits and Quantitative Genetics. |
| Sommario/riassunto | This book, written by experienced geneticists, covers topics ranging from the natural history of the mouse species, its handling and |

reproduction in the laboratory, and its classical genetics and cytogenetics, to modern issues including the analysis of the transcriptome, the parental imprinting and X-chromosome inactivation. The strategies for creating all sorts of mutations, either by genetic engineering or by using mutagens, are also reviewed and discussed in detail. Finally, a last chapter outlines the methodology used for the analysis of complex or quantitative traits. The authors also discuss the importance of accurate phenotyping, which is now performed in the mouse clinics established worldwide and identify the limits of the mouse model, which under certain circumstances can fail to present the phenotype expected from the cognate condition in the human model. For each chapter an up-to-date list of pertinent references is provided. In short, this book offers an essential resource for all scientists who use or plan to use mice in their research.