

# Prions

## Current Progress in Advanced Research (Second Edition)



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Prion diseases or transmissible spongiform encephalopathies (TSEs) are fatal neurological diseases that include, for example, Creutzfeldt-Jakob Disease (CJD) in humans and bovine spongiform encephalopathy (BSE) in cattle. Since the publication of the first edition of this book in 2013 significant progress has been made in advanced prion research creating a need for this timely revised and updated edition.

The book opens with an introductory chapter that provides an overview. This is followed by four chapters (chapters 2-5) dealing with fundamental aspects of prion biology, including functions of the cellular isoform of prion protein (PrPC) and molecular mechanisms of prion diseases. The next two chapters (chapters 6-7) focus on clinical aspects of human prion diseases and current approaches for effective inactivation methods. The last part of the book (chapters 8-9) summarizes animal prion diseases, including BSE, scrapie and chronic wasting disease (CWD). In the final chapter, Professor Onodera discusses the likely future direction of research.

This book is essential reading for everyone working with prions from the PhD student to the experienced scientist, in academia, the pharmaceutical or biotechnology industries and for those working in clinical environments.

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