Circadian rhythms have been shown to be ubiquitous and critically important, accounting for sometimes critically different responses to stimuli that differ only in timing. The partly endogenous nature of circadian rhythms has been well documented, and methods for their characterisation have been developed enabling the cellular and molecular mechanisms to be better understood.

Chronobiology and Chronomedicine aims to provide a comprehensive review of these mechanisms underlying circadian rhythms and illustrate the role of the brain's suprachiasmatic nuclei in the 'pace making' process and the effects caused by 'clock genes' present in almost all cells. Beyond the mechanisms involved, contributions by recognised leaders discuss the relationship between body systems, disease, and proper circadian function. The book also illustrates how disruption of the circadian rhythm is associated with ill health and disease status from observations made at the organismic level.

The book is organised to be an ideal reference for the postgraduate and professional in various fields, including chemists, chemical biologists, geneticists, cancer researchers and drug discovery scientists. It reviews developments and applications in interdisciplinary areas and outlines methods to show the depth and breadth of chronobiology and chronomedicine. It is an invaluable companion to researchers and healthcare professionals with an interest in developing novel therapeutic approaches.

Front cover image
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ISBN 978-1-83916-200-8





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