



**biomedicines**

IMPACT  
FACTOR  
**3.9**

Indexed in:  
**PubMed**

CITESCORE  
**6.8**

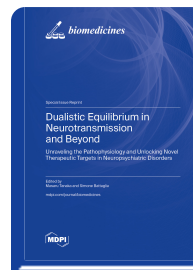
*Special Issue Reprint*

## **Dualistic Equilibrium in Neurotransmission and Beyond**

[www.mdpi.com/books/reprint/11480](http://www.mdpi.com/books/reprint/11480)

Edited by  
Masaru Tanaka  
Simone Battaglia

ISBN 978-3-7258-4851-5 (Hardback)  
ISBN 978-3-7258-4852-2 (PDF)



How does the brain keep its chemical yin–yang balanced, and what happens when that homeostasis slips? This Reprint distills the Special Issue "Dualistic Equilibrium in Neurotransmission and Beyond: Unraveling the Pathophysiology and Unlocking Novel Therapeutic Targets in Neuropsychiatric Disorders" into a thematic tour of modern neurobiology. The opening editorial reframes depression, dementia and allied syndromes as failures of the excitation–inhibition handshake that spans synapse, glia, gut, and immune system. Eight peer-reviewed contributions then act as case studies of these balancing acts: resveratrol soft-modulates monoamine oxidase A; trace amine-associated receptors emerge as fast-acting antidepressant switches; cannabinoid–serotonin crosstalk times stress analgesia; orexin calibrates vigilance; developmental serotonin steers the gut–brain axis; network models expose schizophrenia symptom clusters; miR-200b-3p dampens neuroinflammation in ADHD; and plasma phospho-tau 217-231 forecasts cognitive decline. Each article pairs mechanistic depth with a translational horizon, from structure-guided drug design to multiplex biomarker panels ready for point-of-care testing. The collection also spotlights ethical dosing, sex-specific responses, and digital phenotyping, underscoring a precision-medicine future that treats circuits, not just chemicals. By weaving together pharmacology, multi-omics imaging, and patient-centric analytics, this Reprint offers a convergent neuropsychiatry roadmap that remains timely and actionable even after the submission portal has closed.



Order Your Print Copy  
You can order print copies at  
[www.mdpi.com/books/reprint/11480](http://www.mdpi.com/books/reprint/11480)

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



## Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



## Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



## High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



## High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



## Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.