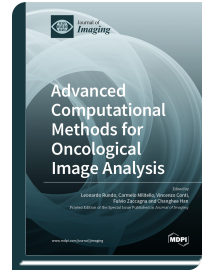*Special Issue Reprint*

Advanced Computational Methods for Oncological Image Analysis

www.mdpi.com/books/reprint/4653

Edited by
Leonardo Rundo
Carmelo Militello
Vincenzo Conti
Fulvio Zaccagna
Changhee Han

Cancer is the second most common cause of death worldwide and encompasses highly variable clinical and biological scenarios. Some of the current clinical challenges are (i) early diagnosis of the disease and (ii) precision medicine, which allows for treatments targeted to specific clinical cases. The ultimate goal is to optimize the clinical workflow by combining accurate diagnosis with the most suitable therapies. Toward this, large-scale machine learning research can define associations among clinical, imaging, and multi-omics studies, making it possible to provide reliable diagnostic and prognostic biomarkers for precision oncology.

Such reliable computer-assisted methods (i.e., artificial intelligence) together with clinicians' unique knowledge can be used to properly handle typical issues in evaluation/quantification procedures (i.e., operator dependence and time-consuming tasks). These technical advances can significantly improve result repeatability in disease diagnosis and guide toward appropriate cancer care. Indeed, the need to apply machine learning and computational intelligence techniques has steadily increased to effectively perform image processing operations—such as segmentation, co-registration, classification, and dimensionality reduction—and multi-omics data integration.

MDPI

Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/4653

MDPI\Books
Publishing Open Access Books & Series

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.

Learn more ▶ mdpi.com/books