Book review

mTOR Pathway and mTOR Inhibitors in Cancer Therapy

VA Polunovsky and PJ Houghton. Published by Humana Press, New York, NY, USA, 2010. 301 pp, price \$208.00, ISBN: 978-1-60327-270-4

The latest in the series of monographs *Cancer Drug Discovery and Development* is *mTOR Pathway and mTOR Inhibitors in Cancer Therapy*. Rapamycin was first employed as an antifungal agent in humans and named for the Polynesians (Papa Nui) who inhabited Easter Island, where it was isolated from the bacteria *Streptomyces hygroscopicus*. The target of rapamycin (TOR) is a serine/threonine kinase first found as a consequence of the search for rapamycin resistance in yeast. Rapamycin and its analogues (rapalogues) are now used for immune suppression in organ transplantation and in the treatment of human malignancies. An appreciation of the role that the TOR pathway plays in protein synthesis and cell regulation is critical in developing new therapeutic agents and strategies for human illnesses. The book accomplishes its objective of providing an in-depth and comprehensive snapshot of our current understanding of the mammalian TOR (mTOR) pathways and their role in normal and cancer cell physiology.

The authors review our current knowledge of the molecular and physiological pathways that regulate mTOR. They provide a summary of mTOR's downstream targets and the implications of these pathways in developing therapeutic strategies. The translational link is expanded with chapters on the role of mTOR inhibition in the treatment of cancer.

For the reader, each chapter can stand alone. Thus, the book can be easily used by new researchers beginning to explore the mTOR field or by established investigators as a reliable reference. There are a few minor inconsistencies and, with rare exception, the chapters are well written and cross-referenced with exhaustive bibliographies. The authors should be commended for their skill in detailing our current knowledge and where that knowledge ends. They provide a chapter discussing state-of-the-art laboratory tools and their pitfalls, which may be used to expand our understanding of this and other pathways.

In conclusion, the editors of this book have brought together an outstanding collection of articles detailing the complexity of mTOR pathways and the utility of regulation of this pathway to advance the health of patients with cancer. The chapters are authored by internationally recognized experts in the field. The book is easy to use and offers a state-of-the-art reference for anyone interested in this area of research.

Competing Interests

There are no competing interests to declare.

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