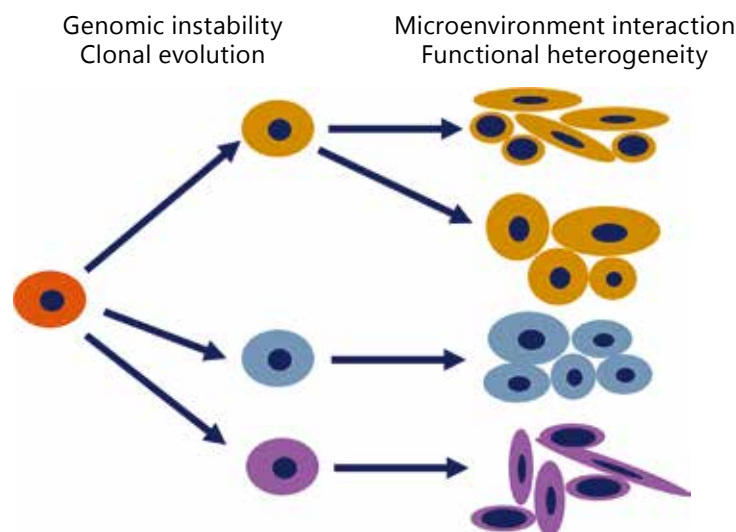


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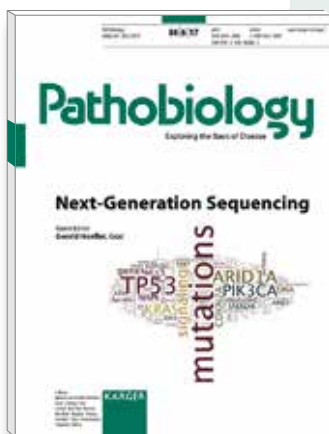
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e-ISBN 978-3-318-06333-2

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# Next-Generation Sequencing

Guest Editor

**Gerald Hoefler**

Next-generation sequencing (NGS) has revolutionized our knowledge about tumours and cancers over the last couple of decades. It has generated huge amounts of data that have given us a better idea of the landscape of tumours and cancers, thus improving patient management and setting the stage for personalized medicine in oncology. Whole-exome and -genome data on thousands of tumours have already been published and stored in public data-banks. It is an exciting time for NGS, as its enormous potential for oncology research is making inroads into cancer diagnostic practice and care.

This special topic issue on NGS examines the use of this technology for genetic profiling and as a diagnostic tool in cancer research and treatment, particularly concerning cancers of the digestive system, gynaecological tumours, and bone and soft-tissue tumours. In the area of diagnostic pathology, it also looks at the principles behind NGS technologies, discusses important things to remember when interpreting data, and provides a glossary of NGS terms.

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**Bibliographic Indices:** This journal is regularly listed in bibliographic services, including Current Contents® and PubMed/MEDLINE.

**Publication Data:** *Pathobiology* is published 6 times a year. Volume 85 with 6 issues appears in 2018.

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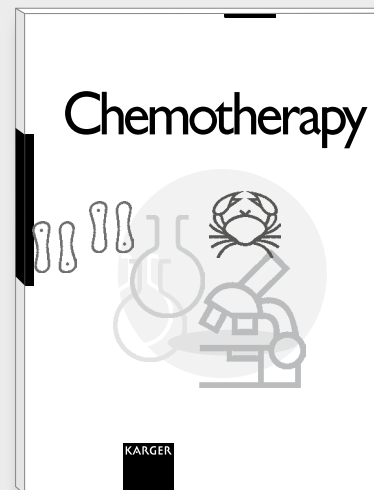
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2018: Volume 63

6 issues per volume

Language: English

ISSN 0009-3157

e-ISSN 1421-9794

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- Clinical Practice of Adjuvant Chemotherapy in Patients with Early-Stage Epithelial Ovarian Cancer: **Frielink L.M.** (Maastricht/Eindhoven) **et al.**
- Potential of Casiopeinas® Copper Complexes and Antituberculosis Drug Combination against *Mycobacterium tuberculosis*: **Barbosa A.R.** (São Paulo) **et al.**
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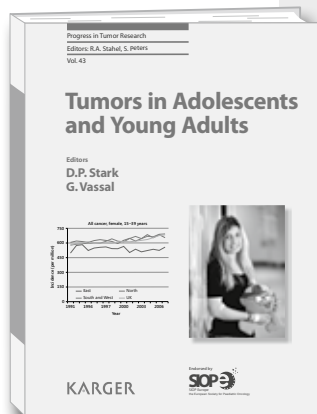
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CHF 198.00 / EUR 185.00 / USD 233.00  
Hard cover or online prices for personal customers  
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ISBN 978-3-318-05911-3  
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**Progress in Tumor Research, Vol. 43**  
Series Editors: Stahel, R.A. (Zurich);  
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The field of adolescents and young adults (AYA) oncology is experiencing a very challenging time. This book is a guide to the key issues for any clinician and health professional managing AYA with cancer in Europe. Emphasis is on collaboration between adult and pediatric specialists. Authors present their perception of the current state of the most prominent primary issues in AYA oncology. Chapters cover cross-cutting issues such as disease epidemiology, systems of care, access to innovative therapy and late effects of treatment and survivorship for AYA-onset cancers. There are discussions of the latest developments and the most important cancer types in AYA, including the shared perspectives of adult and pediatric specialists. Throughout the book recurrent challenges to the AYA community are exposed and solutions proposed.

*Tumors in Adolescents and Young Adults* is highly recommended to any oncologist or hematologist treating patients aged 15 to 39 diagnosed with cancer. It will also be of interest to other members of the multidisciplinary teams involved with this patient group.

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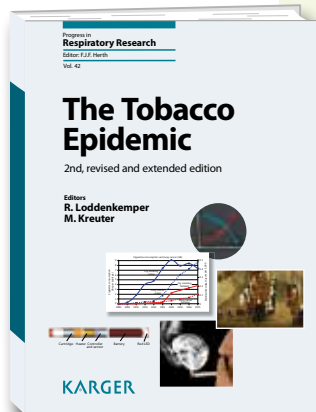
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Written by outstanding international experts, the book covers the history of tobacco production and use, the economics of tobacco use and control, as well as the health consequences of active and passive smoking in both adults and children. Special chapters discuss the impact of media, movies and TV on tobacco consumption in young people, the patterns and predictors of smoking cessation in the general population and in different social subgroups, and initiatives supported by the WHO Framework Convention on Tobacco Control. Readers will find the latest information on how nicotine dependence is treated with nicotine replacement products, what role health care professionals play in helping smokers to quit and what effects smoke-free environments, advertising bans and price increases have on smoking prevalence. The potential harms and benefits of smokeless tobacco, waterpipe tobacco smoking and electronic cigarettes are also evaluated.

This book is a must-read for anyone in the medical profession who treats patients with smoking-related diseases and for those engaged in tobacco control. It will also be appreciated by interested nonmedical readers like journalists and legislators.

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## Tumour Heterogeneity: A Practical Approach

The contributors to this publication are pathologists involved in specific tumour diagnostics and molecular analysis. Various approaches described in the articles show the state-of-the-art knowledge applied to studying heterogeneity in different types of tumours. Compared to a wide range of available literature on intratumour heterogeneity in clinical research and diagnostics, the focus here is on practical methods for improving heterogeneity analysis of clinical material. This is relevant because no standardized types of examinations currently exist. Thus, this publication serves as a basis for development of standards in tumour tissue sampling, and in reproducible molecular analysis and interpretation.

This is an invaluable resource for pathologists, oncologists, and molecular biologists. Other health professionals directly involved in clinical treatment of tumours, as well as in basic research, will also benefit greatly from this work.

**Cover illustration**

Schematic representation of heterogeneity in tumour progression.  
See article by Stanta and Bonin, this issue, p. 10.