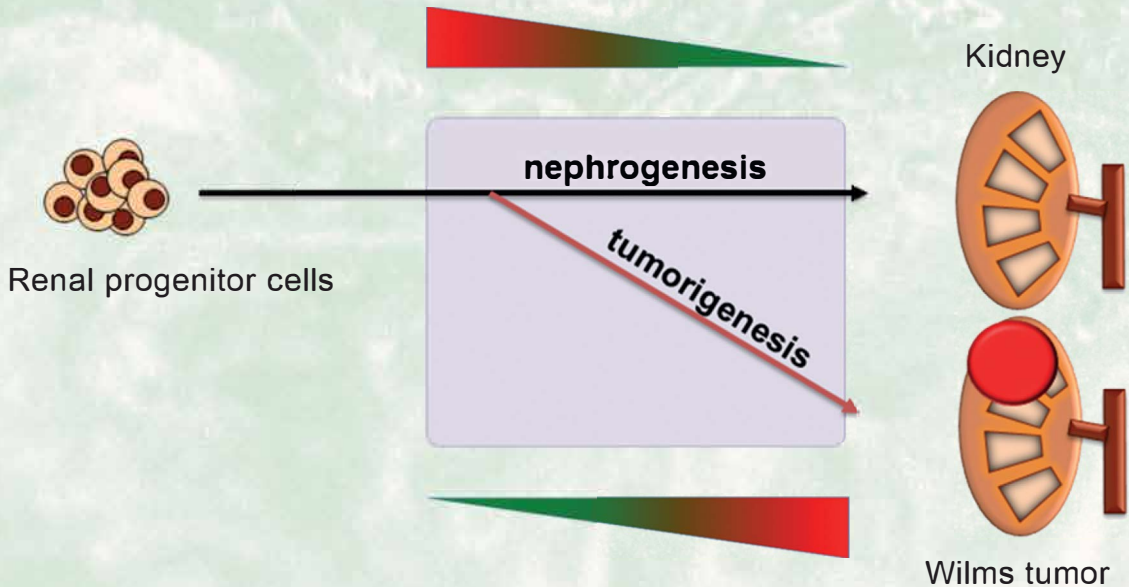


WILMS TUMOR

Marry M. van den Heuvel-Eibrink
Editor



WILMS TUMOR

Cover image: Disruption of the differentiation of renal progenitor cells may result in Wilms tumor formation. See page 157, chapter 10 for details. Copyright: Carraro DM, Ramalho RF and Maschietto M.

WILMS TUMOR

Edited by

Marry M. van den Heuvel-Eibrink

Princess Maxima Center for Pediatric Oncology/Hematology,
Lundlaan 6, 3584 EA Utrecht, The Netherlands

Wilms Tumor

ISBN: 978-0-9944381-1-9

DOI: <http://dx.doi.org/10.15586/codon.wt.2016>

Edited by

Marry M. van den Heuvel-Eibrink, MD, PhD

Princess Maxima Center for Pediatric Oncology/Hematology, Lundlaan 6, 3584

EA Utrecht, The Netherlands

Published by

Codon Publications

Brisbane, QLD 4122, Australia

Copyright© 2016 Codon Publications

Published under Creative Commons Attribution 4.0 International (CC BY 4.0).

Users are allowed to share (copy and redistribute the material in any medium or format) and adapt (remix, transform, and build upon the material for any purpose, even commercially), as long as the authors and the publisher are explicitly identified and properly acknowledged as the original source.

Notice to the user

The views and opinions expressed in this book are believed to be accurate at the time of publication. The publisher, editors or authors cannot be held responsible or liable for any errors, omissions or consequences arising from the use of the information contained in this book. The publisher makes no warranty, implicit or explicit, with respect to the contents of this book, or its use.

First Published in March 2016

Printed in Australia

Contents

	Foreword	ix
	Bengt Sandstedt	
	Preface	xiii
	Marry M. van den Heuvel-Eibrink	
	Contributors	xvii
Section I	<i>Epidemiology, Diagnostics, and Treatment</i>	1
Chapter 1	Wilms' Tumour – Histology and Differential Diagnosis	3
	Sergey D. Popov, Neil J. Sebire, Gordan M. Vujanic	
Chapter 2	The Clinical Relevance of Age at Presentation in Nephroblastoma	23
	Saskia L. Gooskens, Heidi Segers, Kathy Pritchard-Jones, Norbert Graf, Jeffrey S. Dome, Marry M. van den Heuvel-Eibrink	
Chapter 3	Histopathological and Molecular Characteristics of Wilms Tumor	31
	Gulden Diniz	
Chapter 4	Wilms Tumor and Its Management in a Surgical Aspect	43
	Basak Erginel	
Chapter 5	Management of Bilateral Wilms Tumours	61
	Alastair J. W. Millar, Sharon Cox, Alan Davidson	
Chapter 6	Extrarenal Wilms' Tumor: Challenges in Diagnosis, Embryology, Treatment and Prognosis	77
	Reza Shojaeian, Mehran Hiradfar, Parisa Saeedi Sharifabad, Nona Zabolinejad	

Chapter 7	Neoadjuvant Transcatheter Arterial Chemoembolization and Systemic Chemotherapy for the Treatment of Wilms Tumor Min-Ju Li, Da-Xing Tang, Shan Xu, Yong Huang, De-Hua Wu, Jin-Hu Wang, Can Lai, Hong-Feng Tang, Qiang Shu	95
Chapter 8	Dendritic Cell-Based Cancer Immunotherapy Targeting Wilms' Tumor 1 for Pediatric Cancer Shigetaka Shimodaira, Koichi Hirabayashi, Ryu Yanagisawa, Yumiko Higuchi, Kenji Sano, Tomonobu Koizumi	113
Chapter 9	Chronic Kidney Disease in Wilms Tumour Survivors – What Do We Know Today? Joanna Stefanowicz, Mateusz Kosiak, Wojciech Kosiak, Beata S. Lipska-Ziętkiewicz	131
Section II	<i>Biology</i>	147
Chapter 10	Gene Expression in Wilms Tumor: Disturbance of the Wnt Signaling Pathway and MicroRNA Biogenesis Dirce Maria Carraro, Rodrigo F. Ramalho, Mariana Maschietto	149
Chapter 11	Transcriptional Regulation of the Human Thromboxane A₂ Receptor Gene by Wilms' Tumour (WT)1 B. Therese Kinsella	163
Chapter 12	The Inflammatory Microenvironment in Wilms Tumors Paramahansa Maturu	189

Section III	<i>WT1 Gene Aberrations in Other Malignancies</i>	209
Chapter 13	WT1 in Cardiac Development and Disease Sjoerd N. Duim, Marie-José Goumans, Boudewijn P. T. Kruithof	211
Chapter 14	Functional Role of WT1 in Prostate Cancer Gail C. Fraizer, Kurtis Eisermann, Sony Pandey, Adina Brett-Morris, Anton Bazarov, Sarah Nock, Nirmala Ghimirey, Steven J. Kuerbitz	235
Chapter 15	Functional Roles of Wilms' Tumor 1 (WT1) in Malignant Brain Tumors Noriyuki Kijima, Naoya Hashimoto, Yasuyoshi Chiba, Yasunori Fujimoto, Haruo Sugiyama, Toshiki Yoshimine	261
Chapter 16	Wilms' Tumor Gene (WT1) Expression and Minimal Residual Disease in Acute Myeloid Leukemia Giovanni Rossi, Maria Marta Minervini, Angelo Michele Carella, Lorella Melillo, Nicola Cascavilla	273
	Index	287

DOI: <http://dx.doi.org/10.15586/codon.wt.2016>