

Advances in Diagnosis and Therapy for Gastrointestinal and Hepatological Diseases

Editors

Chi Hin Cho Jun Yu



FROM INFLAMMATION TO CANCER

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Foreword



Inflammation is often regarded by biologists as an adaptation of the organism to the slings and arrows of outrageous fortune. To clinicians, however, inflammation is a means to an end: healing. Unfortunately, this healing may never occur especially if the initial injury, be it microbial, chemical or physical, persists. This protracted inflammation, which is termed chronic, can cause considerable damage to the host and may even kill it. The role of chronic inflammation in cancer was perhaps first

described by Marjolin in 1828 but it is the German physician and father of modern pathology Rudolf Ludwig Virchow whose name is more commonly associated with this observation. It is now well established that almost all organs in the body that suffer from chronic inflammation are at increased risk of cancer. The gastrointestinal tract in particular bears the lion's share of this inflammation-induced cancer burden. Modern science has allowed the molecular mechanisms involved in inflammation-induced cancer to be elucidated and the next few years will witness a huge translational benefit from this knowledge. From a public health perspective, acceptance of the role of inflammation in cancer, through rigorous well-conducted science, will act as a stimulus for implementing strategies to reduce it. Thus, strategies to combat chronic infections, adopt healthy anti-inflammatory diets, encourage regular physical activity and perhaps the development of safe and cheap chemopreventive agents will all act to reduce the huge burden of cancer on society.

vi Foreword

For most scientists and clinicians it is essential to keep abreast of the latest advances in this story. The book by Cho and Yu is an excellent compendium of the latest knowledge in this subject, as it pertains to the gastrointestinal tract and liver. It is written by experts in the field and spans the basic and clinical disciplines effortlessly and comprehensively. It is focused on mechanistic insight and translational relevance, precisely the combination that is essential in advancing this field. This book represents state-of-the-art knowledge on many aspects of inflammation-induced cancer and should be essential reading for researchers, both basic and clinical, gastroenterologists, oncologists, internists, and indeed any cancer scientists. It is essential to inspire the next generation of researchers to continue the fight against cancer and this book offers many inspiring success stories. I have no doubt that it will have a major impact in the field and this will ultimately benefit cancer patients and society at large.

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Prof. C. H. Cho started his academic career from 1978 in Canada. He moved on to Taiwan in 1981 and returned to Hong Kong in 1984. Currently, Prof. Cho is the Professor of Pharmacology and Associate Director of the School of Biomedical Sciences, Faculty of Medicine, The Chinese University of Hong Kong. He was the Chairman of the Department of Pharmacology from 2007 to 2009 in the same University and Chair Professor of Pharmacology in the University of Hong Kong from 2000 to 2006. He has

been President of the Gastrointestinal Pharmacology Section of the International Union of Basic and Clinical Pharmacology since 2006. Prof. Cho is a member of editorial boards, associate editor and editor of more than 25 national and international journals in the areas of biomedical sciences, pharmacology and gastroenterology.



Prof. Jun YU

Prof. Jun YU

Prof. Jun Yu completed her MD and PhD at Tongji Medical University and then she embarked on her career as a gastrointestinal specialist in the Department of Gastroenterology and Hepatology, the Second affiliated Hospital, Beijing University. She undertook postdoctoral research in the Department of Gastroenterology and Hepatology at the University of Dresden and University of Magdeburg, Germany and subsequently in the Department of Medicine and Therapeutics, CUHK. She worked as a Senior Research

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Foreword		V
About the E	Editors	vii
List of Main Contributors		ix
Section I	Inflammation and Cancer	1
Chapter 1	General Introduction Chung Wah Wu and Jun Yu	3
Chapter 2	General Mechanisms of Inflammation Liwei Lu and Min Yang	15
Chapter 3	Genetic and Epigenetic Alterations in Inflammation-Related Cancers — General Mechanisms of Cancers Yasuyuki Okamoto and Yutaka Kondo	29
Chapter 4	From Inflammation to Cancer: The Molecular Basis Hongchuan Jin	49
Section II	Models of Chronic Inflammation—Induced Cancers and Their Treatments	69
Chapter 5	Advances in the Treatment of <i>Helicobacter</i> pylori Infection and Gastric Cancer Guy D. Eslick	71

Chapter 6	Inflammatory Bowel Disease and Colorectal Cancer and Their Treatment Crispin Corte and Rupert WL Leong	97
Chapter 7	Hepatitis B and Hepatocellular Carcinoma and Their Treatment Chi-Jen Chu, Teh-Ia Huo and Shou-Dong Lee	119
Chapter 8	Hepatitis C and Hepatocellular Carcinoma: Implications for Pathogenesis and Treatment Geoffrey C. Farrell	143
Chapter 9	Advances in the Interventional Therapies for Hepatocellular Carcinoma Carmen Chi Min Cho, Joyce Wai Yi Hui and Simon Chun Ho Yu	205
Section III	Mediators in Chronic Inflammation and Cancers	221
Chapter 10	Exploration of Cytokine Signaling in Clinical Management of Hepatocellular Carcinoma Xuelian Zhao and Xin Wei Wang	223
Chapter 11	Role of Nuclear Factor-kB Pathway in Gastrointestinal Inflammation and Cancer Muthu K. Shanmugam, Nadine Upton, Gautam Sethi and WS Fred Wong	239
Chapter 12	Novel Mediators for Chronic Inflammation and Oncogenic Transformation: Tumor Necrosis Factor (TNF)-α Naofumi Mukaida and Boryana K. Popivanova	259
Chapter 13	Peroxisome Proliferator Activated Receptor-γ (PPARγ): Roles in Chronic Inflammation and Intestinal Oncogenic Transformation	277

Contents xv

Chapter 14	Proteinase-Activated Receptors Hongying Wang	297
Section IV	Molecular Markers of Cancers and Their Clinical Implications	313
Chapter 15	Use of Tumor Markers in the Detection and Management of Patients with Colorectal Cancer <i>Michael J. Duffy</i>	315
Chapter 16	Genetic Biomarkers for the Diagnosis and Prognosis of Hepatocellular Carcinoma John M. Luk, Angela M. Liu, Kwong-Fai Wong and Ronnie T. P. Poon	331
Section V	Summary	349
Chapter 17	Current Therapy and Future Perspectives for Inflammation-Associated Cancer L. Zhang and C. H. Cho	351
Index		357

Section I Inflammation and Cancer