Nephropathy In Type 2 Diabetes Oxford Clinical Nephrology Series

A comprehensive update on clinical and basic aspects of diabetic nephropathy Caused by an epidemic increase in obesity and diabetes and metabolic syndromes, diabetic nephropathy has become a leading cause of end-stage renal disease in many developed countries. The publication at hand provides a concise overview of the current state of clinical and basic research in the field. It starts with a summary of the epidemiology and genetics of diabetic nephropathy in different ethnic groups, followed by a review of its clinical manifestation, the link with the metabolic syndrome and obesity, and the pathology of diabetic nephropathy. Building on this basis, the latest findings on pathogenetic, epigenetic and inflammatory mechanisms are presented. The publication also looks at advances in the areas of tubulopathy and the kallikrein-kinin system as well as at the latest animal models and the role of lipoproteins and proteomics. This is followed by a discussion of promising therapeutic approaches such as experimental anti-fibrotic strategies, stem cell therapy and pancreatic transplantation; expert reviews on the emerging entity of new onset diabetes after transplantation and the preventive strategies for diabetic nephropathy conclude the material presented. Written by a panel of leading international experts, this book is highly recommended for nephrologists, diabetologists, internist, transplant physicians, scientists, geneticists, epidemiologists and stem cell biologists working in the field of diabetic nephropathy. This volume will focus on and emphasise the clinical relevance of diabetic nephropathy, a relatively common problem of diabetes. It affects about one in three patients with Type 1 diabetes, and left untreated can lead to a progressive decline in renal function, accompanied by retinopathy and arterial hypertension, which, in turn, leads to cardiovascular disease - a common cause of death in these patients. Diabetic Nephropathy will also provide the reader with a solid grounding in current basic and clinical research. The cause of diabetes mellitus is metabolic in origin. However, its major clinical manifestations, which result in most of the morbidity and mortality, are a result of its vascular pathology. In fact, the American Heart Association has recently stated that, “from the point of view of cardiovascular medicine, it may be appropriate to say, diabetes is a cardiovascular disease” (1). But diabetic vascular disease is not limited to just the macrovasculature. Diabetes mellitus also affects the microcirculation with devastating results, including nephropathy, neuropathy, and retinopathy. Diabetic nephropathy is the leading cause of end-stage renal disease in the United States, while diabetic retinopathy is the leading cause of new-onset blindness in working-age Americans. The importance of this text on Diabetes and Cardiovascular Disease is evident by the magnitude of the population affected by diabetes mellitus. Over 10 million Americans have been diagnosed with diabetes mellitus, while another 5 million remain undiagnosed. The impact from a public health perspective is huge and increasing. As the population of the United States grows older, more sedentary, and obese, the risk of developing diabetes and its complications will increase. Epidemiological studies have identified diabetes mellitus as a major independent risk factor for cardiovascular disease. Over 65% of patients with diabetes mellitus die from a cardiovascular cause. The prognosis of patients with diabetes mellitus who develop overt clinical cardiovascular disease is much worse than those cardiovascular patients free of diabetes mellitus.

Type-2 diabetic nephropathy is one of the major long-term microvascular complications occurring in nearly 40% of diabetic patients in Japan. The purpose of this book is to review recent work on the genetic background, pathogenesis and treatment of this disorder and to provide the most up-to-date findings on these subjects in Japan.The pathogenesis of diabetic nephropathy includes both metabolic and / or hemodynamic factors, as well as renal hypertrophy. Hyperglycemia is necessary, but not sufficient, for its initiation and progression: The toxicity of persistent hyperglycemia results from glucose overutilization and multiple secondary effects. Moreover, diabetic nephropathy is generally considered to alter the chemical composition of the glomerular basement membrane and mesangium. At present, it is supposed that the increases in extracellular matrix accumulation due to TGF-beta activation might be related to the glomerular sclerosis in diabetic nephropathy. Although large numbers of candidate genes have been analyzed, those related to initiation and progression are still obscure in patients with type-2 diabetic nephropathy.Presenting clinical findings and issues related to laboratory analysis, this book will be of interest for nephrologists, diabetologists, pathologists, biochemists, general physicians and residents.

The treatment of hypertension has become the most important intervention in the management of all forms of chronic kidney disease. Chronic Kidney Disease and Hypertension is a current, concise, and practical guide to the identification, treatment and management of hypertension in patients with chronic kidney disease. In depth chapters discuss many relevant clinical questions and the future of treatment through medications and or novel new devices. Written by expert authors, Chronic Kidney Disease and Hypertension provides an up-to-date perspective on management and treatment and how it may re-shape practice approaches tomorrow.

The Manual of Hypertension of the European Society of Hypertension reflects emerging concepts that have the potential to impact diagnostic and therapeutic approaches to hypertension. Updating all material, this new edition also delves into a number of areas that have received heightened interest in recent years or have become a matter of debate due to the controversial interpretation of the available data. FEATURES Reflects emerging concepts impacting diagnostic and therapeutic approaches Explores background, history, epidemiology, and risk factors Describes pharmacological, nonpharmacological, and medical treatments Examines hypertension in special populations and treatment

Kidney transplantation is a complex field that incorporates several different specialties to manage the transplant patient. This book was created because of the importance of kidney transplantation. This volume focuses on the complexities of the transplant patient. In particular, there is a focus on the comorbidities and special considerations for a transplant patient and how they affect kidney transplant outcomes. Contributors to this book are from all over the world and are experts in their individual fields. They were all individually approached to add a chapter to this book and with their efforts this book was formed. Understanding the Complexities of Kidney Transplantation gives the reader an excellent foundation to build upon to truly understand kidney transplantation.

Fundamentals of Renal Pathology is a compact and up-to-date resource on the basics of renal pathology that will be of particular value for

residents and fellows in training in renal pathology, general pathology, and nephrology, but will also serve as a handy reference for the more experienced. This second, revised and updated edition of the book offers an integrated approach based on contributions from established experts in the field. Key diseases are discussed within the context of clinical presentations, with the emphasis on clinicopathological correlation and differential diagnosis. Topics discussed include glomerular diseases with nephrotic or nephritic syndrome presentations; systemic and vascular diseases affecting the kidney, including diseases affecting the renal transplant; tubulointerstitial diseases; and plasma cell dyscrasias and associated diseases. Well-chosen color illustrations and electron micrographs enhance and complement the text.

A complete clinically focused guide to managing the full spectrum of kidney diseases and hypertension A Doody's Core Title! "an up-to-date, accessible guide that covers all major clinical aspects of the adult patient with diseases involving the kidneys and hypertension. Numerous figures and tables are well integrated into structured chapters creating an easy flow of information that helps readers capture key points....In contrast to many other books in this area, this one provides a concise yet comprehensive review of each topic without getting lost in too much detail that interested readers can find in other places. It is a clinically useful tool for anybody interested in the field....Given its concise but comprehensive structure, this book is a great resource for students and residents who want to review basic physiology and pathophysiology but also get up-to-date information on diagnosis and therapy. The wide range of topics also makes it a useful tool for any clinicians at a more senior level who want to quickly review a particular subject. Lastly, due to its easily accessible structure, patients and families seeking medical information also might find it useful. 3 Stars."--Doody's Review Service Presented in the consistent, easy-to-follow CURRENT style, CURRENT Diagnosis & Treatment Nephrology & Hypertension offers incisive, ready-to-use management protocols and valuable therapeutic guidelines -- from authors who are recognized as the field's foremost authorities. Accessible, concise, and up-to-date, CURRENT Diagnosis & Treatment Nephrology & Hypertension features: One-of-a-kind clinical overview of all major diseases and disorders, from end-stage renal disease to primary and secondary hypertension A practical, learn-as-you-go approach to diagnosing and treating renal disorders and hypertension that combines disease management techniques with the latest clinically proven therapies Up-to-date coverage of transplantation medicine and need-to-know interventional procedures An important review of subspecialty considerations: renal disease in the elderly, diabetic nephropathy, critical care nephrology, and dialysis Expert authorship from prominent clinicians in the areas of kidney disease, dialysis, and hypertension

Provides practical advice to help successfully manage diabetes and reduce the risk of serious complications, discussing monitoring blood sugar, developing an eating plan, achieving a healthy weight, and diabetes in children.

This companion to Brenner and Rector's The Kidney offers a state-of-the-art summary of the most recent advances in renal genetics. Molecular and Genetic Basis for Renal Disease provides the nephrologist with a comprehensive look at modern investigative tools in nephrology research today, and reviews the molecular pathophysiology of the nephron as well as the most common genetic and acquired renal diseases. A comprehensive clinical review of Medelian renal disease is also be included. Detailed review of the molecular anatomy and pathophysiology of the nephron that provides relevant basic science to consider when diagnosing and managing patients with these disorders.

Overcome the toughest clinical challenges in nephrology with the new 9th edition the new editorial team of Drs. Maarten W. Taal, Glenn M. Chertow, Philip A. Marsden, Karl Skorecki, Alan S.L. Yu, and Barry M. Brenner, together with a diverse list of international contributors bring you the latest knowledge and best practices on every front in nephrology worldwide. Brand-new sections on Global Considerations in

Nephrology and Pediatric Nephrology, as well as new chapters on recent clinical trials, cardiovascular and renal risk prediction in chronic kidney disease, identification of genetic causes of kidney disease, and many others, keep you at the forefront of this rapidly growing, ever-changing specialty.

This book provides an overview of the most up-to-date research on diabetic nephropathy and the current understanding of its pathogenesis, clinical features and socio-economic developments. Written by leading experts in the field, it provides a comprehensive synthesis of clinical and pathophysiological aspects from a mechanism-based point of view, and reviews evidence-based treatment modalities for the prevention and management of diabetic nephropathy. In addition, closely related areas such as diabesity, diabetic eye disease and macrovascular involvement in diabetes are addressed. Diabetic Nephropathy will be of interest for nephrologists, diabetologists, internists, transplant physicians, public health professionals, basic scientists, geneticists, epidemiologists, pathologists, and molecular and cell biologists working in the field of diabetes and its complications.

Clinical nephrology is confronted with an emerging medical catastrophy of international proportions; endstage renal failure in patients with type 2 diabetes. Based on a number of recent studies it has become apparent, that nephrology in type 2 diabetes is a preventable condition, at least in principle. It is for this reason that it appeared timely to summarize the current state of knowledge concerning nephropathy in type 2 diabetes giving an update on the predisposing factors on which interventions are of proven benefit and on the accepted standards of management of such patients. This concise monograph is addressed not only to nephrologists, but also diabetologists and general practitioners. It is hoped that it will help to improve clinical outcomes in the future.

An overview of the diagnosis, treatment, and long-term management of diabetic-related kidney disease in clinical practice. Includes an evidence-based discussion of currently available and experimental drug therapies currently in development, guided by international consensus guidelines. Ideal for physicians, medical trainees, nurses and other medical professional that regularly screen and treat patients with all types of diabetes.

This publication is a record of some of the outstanding presentations given at the 63rd Annual Meeting of the Japanese Society for Dialysis Therapy (JSDT). The meeting was held in Kobe in 2018, celebrating the 50-year anniversary of the founding of the JSDT as a voluntary academic association. Therapy for end-stage kidney disease (ESKD) now faces vital issues besides the management of renal anemia and chronic kidney disease-mineral and bone disorder and the selection of the optimal treatment modality for each patient. These issues include the increasing incidence of malnutrition and frailty in the elderly, fragile vascular access, and the balance between medical costs and budgets. Expert members of the JSDT present 15 articles that address these issues. This book serves to promote further progress in understanding the pathogenesis of complications associated with ESKD and providing optimal therapy for patients.

The podocyte is a key cell that forms the last barrier of the kidney filtration unit. One of the most exciting developments in the field of nephrology in the last decade has been the elucidation of its biology and its role in the pathophysiology of inherited and acquired glomerular disease, termed podocytopathy. In this publication, world-renowned experts

summarize the most recent findings and advances in the field: they describe the unique biological features and injury mechanisms of the podocyte, novel techniques used in their study, and diagnosis and potential therapeutic approaches to glomerular diseases. Due to its broad scope, this publication is of great value not only for clinical nephrologists and researchers, but also for students, residents, fellows, and postdocs.

The thoroughly updated Eighth Edition of this classic three-volume work provides the most comprehensive, current, and authoritative information on diseases of the kidney and urinary tract. This clinically oriented reference focuses on diagnosis and treatment of specific diseases, disorders, and complications and incorporates the basic science practicing physicians need to evaluate and manage the disease process. Each of the fourteen sections is written by internationally renowned contributors and provides coverage comparable to a complete book. The first two sections review renal basic science and describe current diagnostic tools. The remaining twelve sections cover various types of diseases, including hypertension, urological problems, and urinary tract concerns. Each disease-oriented section begins with an up-to-date review of pathophysiology and then focuses on specific diseases. This edition has new lead authors for more than 25 chapters, and separate chapters on heart disease and the kidney, liver disease and the kidney, and the nephrotic syndrome.

Pocket Companion to Brenner and Rector’s The Kidney distills the essential clinical information from the latest edition of the seminal text on kidney diseases and their management. Michael R. Clarkson, Ciara Magee, and Barry M. Brenner detail the key pathophysiologic, diagnostic, and treatment issues in clinical nephrology, including interventional nephrology, endocrine aspects of kidney disease, and plasmapheresis. Diagnose, treat, and manage both common and uncommon disorders. Find clinical knowledge quickly and easily thanks to convenient tables throughout the text. Choose the best option of the many techniques available through discussions of indications for laboratory tests and imaging studies. Enhance your clinical acumen with coverage of new topics such as risk factors and kidney disease, nephron endowment, interventional nephrology, plasmapheresis, xenotransplantation, stem cells in renal biology and medicine, and more. Stay current thanks to two new sections—Epidemiology and Risk Factors in Kidney Disease and Frontiers in Kidney Disease—that include topics such as stem cell and genomics.

A history of diabetology told by renowned contributors, many have themselves already become a part of diabetes history. A must-have for every diabetologist! Diabetologists, diabetes educators, and many interested readers will appreciate this book. What is more, countless celebrations are planned for the 100th anniversary of the discovery of insulin: this book provides numerous illustrations, accounts of personal experiences, and critical remarks on the history of diabetology – in addition to the history of insulin. It spans an arc from antiquity to the work of Claude Bernard, Paul Langerhans, Josef von

Mering, Apollinaire Bouchardat, Oskar Minkowski, E.P. Joslin, and F.M. Allen. The history of insulin is presented from the perspective of diabetologists from Scotland, Spain, Germany, and Poland. The history of oral antidiabetics is told by Harald Lebovitz, and the chapter about glitazones by Edwin Gale reads like a spy novel! Pierre Lefèbvre describes the work of the diabetologist Jean Pirart and the history of glucagon. Sir George Alberti has provided a chapter about the therapy of ketoacidosis, to which he himself made groundbreaking contributions. Nephropathy is presented by Hans-Henrik Parving, and Eva Kohner, Ronald Klein and Barbara E.K. Klein have contributed a chapter on retinopathy. Other contemporary topics such diabetes in pregnancy, diabetes technology, psychosocial aspects of diabetes, and the history of the EASD and ADA are also included in this book.

Diabetes and hypertension have evolved as two of the modern day epidemics affecting millions of people around the world. These two common co-morbidities lead to substantial increase in cardiovascular disease, the major cause of morbidity and mortality of adults around the world. In Diabetes and Hypertension: Evaluation and Management, a panel of renowned experts address a range of critical topics -- from basic concepts in evaluation and management of diabetes and hypertension, such as dietary interventions, to evaluation and management of secondary hypertension in clinical practice. Other chapters focus on high cardiovascular risk populations such as those with coronary heart disease, chronic kidney disease and minority patients. In addition, evolving concepts and new developments in the field are presented in other chapters, such as prevention of type 2 diabetes and the epidemic of sleep apnea and its implication for diabetes and hypertension evaluation and management. An important title covering two of the most troubling disorders of our time, Diabetes and Hypertension: Evaluation and Management will provide the busy practitioner with cutting edge knowledge in the field as well as practical information that can translate into better care provided to the high-risk population of diabetics and hypertensive patients.

Diabetes is a complex disease and is also one of the most common. It is very difficult to reach an accurate estimate for the global prevalence of diabetes since the standards and methods of data collection vary widely in different parts of the world. In addition, many potential sufferers are not included in the count because according to an estimate about 50% of cases remain undiagnosed for up to 10 years. However, according to an estimate for 2010, globally, there are about 285 million people (amounting to 6.4% of the adult population) suffering from this disease. This number is estimated to increase to 439 million by 2030 if no cure is found. The general increase in life expectancy, leading to an ageing population, and the global rise in obesity are two main reasons for the increase. With the basic platform set, Editor presents his views and advice to the readers, especially to diabetic patients suffering from T2DM, on the basis of his observations and information collected from other diabetics.

This reference work provides comprehensive information about diabetic nephropathy. Chapters in the book introduce the reader to the link between diabetes, obesity and chronic kidney disease (CKD) and delve into many topics relevant to treating kidney disease in diabetic

patients. These topics include CKD epidemiology, diagnosis, treatment considerations for the elderly patient, post-transplant diabetes, pathophysiology, biomarkers and much more. Special topics such as the incidence of cardiovascular disease in diabetic CKD, nutrition for obese CKD patients and the clinical use of biomarkers for evaluating cases are also included. The broad spectrum coverage of informative topics about diabetic kidney disease make this an essential reference for medical students and clinical residents/healthcare professionals in nephrology, endocrinology, geriatrics, internal medicine and general surgery. Researchers interested in the clinical biochemistry of diabetes and associated disorders will also benefit from the information presented.

Contains expanded content on economics and outcomes of treatment, as well as acute kidney injury. Covers hot topics such as the genetic causes of chronic kidney disease, ethical challenges and palliative care, and home hemodialysis. Discusses the latest advances in hypertensive kidney disease, vitamin D deficiency, diabetes management, transplantation, and more. Provides a clear visual understanding of complex information with high-quality line drawings, photographs, and diagnostic and treatment algorithms.

The prevalence of Diabetes Mellitus is increasing rapidly all over the world and more so in the developing countries. The global burden of diabetes is expected to double between 2000 and 2030, with the greatest increases in prevalence occurring in the Middle East, sub-Saharan Africa and India. Moreover, the development of type 2 diabetes during the childbearing years is also likely to increase, primarily in the developing countries. It has already been established that Diabetes is the most common primary cause leading to end stage renal disease (ESRD) and Diabetic Nephropathy is the leading cause of chronic kidney disease (CKD) in India. The cornerstones of management of Diabetic Kidney Diseases include early diagnosis of diabetic nephropathy, prevention of its progression and treatment of the co-morbid conditions. Substantial under-diagnosis of both diabetes and chronic kidney disease leads to lost opportunities for prevention. An inadequate or inappropriate care of patients with diabetic kidney disease contributes to disease progression eventually up to a stage that requires renal replacement therapy, which is not a feasible option for many on a long-term basis, especially in a developing country like ours. This book covers various aspects of diabetic kidney disease in detail and attempts to familiarize the reader with the existing aspects of the conditions as well as touch upon the new advances in the field. The first chapter outlines the extent to which the condition affects the population globally as well as in our country. The second chapter explores the underlying mechanism by which the disease starts and progresses and the pathological markers of the same. The third chapter delineates the clinical and diagnostic markers of the condition. The fourth and fifth chapters speak of the non-diabetic glomerular and non-glomerular diseases in diabetics. The sixth chapter addresses the most important and desirable goal of preventing the progression and ideally the onset of the disease. The seventh chapter puts together the various treatment modalities available and the subsequent chapter explores the management options for cases requiring renal replacement. In addition to the emphasis to Indian literature at the end of each chapter, the ninth chapter is specially included to highlight the salient aspects of this condition from the Indian perspective. This book will be beneficial not only for the nephrologists, but also for the epidemiologists, medical students, diabetologists and every doctor who deals with diabetes mellitus.

Diabetes and Kidney Disease reviews the most up-to-date research on diabetic nephropathy, the current understanding of its pathophysiology, renal structural alterations and clinical features and summarizes recent evidence-based clinical treatment modalities for the prevention and management of diabetic kidney disease. General clinical aspects are covered, as well as an overview to the novel approaches being designed by leading researchers in the field. A convenient compendium for physicians involved in the care of diabetic patients with varying degrees of kidney involvement, Diabetes and Kidney Disease is also a handy resource for medical residents and

students interested in the current status and future approaches to reducing the burden of diabetes and diabetic kidney disease.

Obesity and type 2 diabetes are increasing worldwide problems. In this book we reviewed factors that contribute to glucose homeostasis and the pathogenesis of Type 2 diabetes. In addition the book addresses current strategies for treatment of Type 2 Diabetes.

The incidence and prevalence of type 2 diabetes mellitus have increased dramatically in modernized and developing nations over the past few decades. Thoroughly revised and expanded, this Second Edition responds to the epidemic and supplies a current overview and guide to the management of diabetes in the modern healthcare environment. This Second E

This book presents the latest information on the clinical-pathological features of diabetic kidney disease. The data included is based on a cohort study of biopsy-proven diabetic nephropathy patients and nephrosclerosis patients, who were observed over a long term, and on the long-term registry for diabetic nephropathy (diabetic kidney disease) in Japan. It provides a clinical-pathological axis in clinical settings, including differential pathological/clinical diagnoses of CKD in diabetic patients (e.g. the presence of “classic” diabetic nephropathy and/or nephrosclerosis and/or other primary kidney diseases). The abundant biopsy specimens with long-term medical records provide a detailed pathological and clinical description. The book also includes urine-sample data for developing and validating possible candidates for novel biomarkers for diabetic kidney disease.Many countries, including Japan, have ageing populations, in which nephrosclerosis contributes to the progression of kidney lesions in patients with diabetic kidney disease. As such, a comparison of a diabetic nephropathy cohort with nephrosclerosis is indispensable to offer better treatments.This comprehensive and informative book is an indispensible reference resource for all physicians and researchers in the field of nephrology and diabetes.

An extremely useful text for research Internationally renowned experts describe the models, provide data obtained with those models, and discuss the relative usefulness of models in relation to the diabetic syndrome in humans. The first section examines the most widely used model, the streptozotocin (STZ) rat, condensing a massive quantity of literature to present both the general effects of of STZ diabetes and the effects on individual organ systems. The second section discusses less well-known and more recent diabetic models, such as the BB rat, the NOD mouse and Zucker and Zucker Diabetic Fatty rat models. Genetic models of insulin dependent diabetes mellitus (IDDM) are examined and compared to chemically induced IDDM models.

Diabetes and the Kidney provides endocrinologists andnephrologists of all levels with expert clinical diagnosis andmanagement guidance for this extremely common diabeticcomplication. Practical and accessible, chapters contain textfeatures such as case histories, potential pitfall boxes, keypoints, management algorithms, and useful weblinks to fullyengage the reader and provide expert guidance to help cliniciansbest manage their patients. In addition, allrelevant international society guidelines and recommendationsare fully included. After an initial analysis of the epidemiology andpathogenesis of kidney complications in diabetes, it quickly moveson to the following core sections: • Special Situations, Risk factors and Complications- examining diabetic nephropathy in relation to each other diabeticcomplication, ie cardiovascular disease • Prevention and Therapy - focusing on the most up todate information regarding prevention, diagnosis, treatment, andmanagement of kidney disease in diabetes. Expertly edited, and with contributions from an experiencedinternational team, Diabetes and Kidney Disease will be theperfect tool to consult when managing diabetic patients withassociated kidney problems.

This User’s Guide is intended to support the design, implementation, analysis, interpretation, and quality evaluation of registries created to increase understanding of patient outcomes. For the purposes of this guide, a patient registry is an organized system that uses observational study methods to collect uniform data (clinical and other) to evaluate specified outcomes for a population defined by a particular disease,

condition, or exposure, and that serves one or more predetermined scientific, clinical, or policy purposes. A registry database is a file (or files) derived from the registry. Although registries can serve many purposes, this guide focuses on registries created for one or more of the following purposes: to describe the natural history of disease, to determine clinical effectiveness or cost-effectiveness of health care products and services, to measure or monitor safety and harm, and/or to measure quality of care. Registries are classified according to how their populations are defined. For example, product registries include patients who have been exposed to biopharmaceutical products or medical devices. Health services registries consist of patients who have had a common procedure, clinical encounter, or hospitalization. Disease or condition registries are defined by patients having the same diagnosis, such as cystic fibrosis or heart failure. The User's Guide was created by researchers affiliated with AHRQ's Effective Health Care Program, particularly those who participated in AHRQ's DEcIDE (Developing Evidence to Inform Decisions About Effectiveness) program. Chapters were subject to multiple internal and external independent reviews.

The field of diabetes mellitus research is currently characterized by rapid and remarkable growth that has led to the development of significant diagnostic and therapeutic advances. This is very important given the fact that the frequency of the disease continues to increase at alarming rates worldwide. This new volume is a comprehensive overview of the contemporary state of the art in the field. Experts shed light on a broad range of relevant aspects, from genetic background to topics related to diabetic complications such as diabetic retinopathy or diabetic nephropathy. This is expanded upon through papers reporting on the present state of diabetes in pregnancy and on the relationship between diabetes and cancer. There is also an inventory of currently used therapeutic tools and a review of novel therapeutic approaches like incretin-based therapies or sodium-glucose transporter-2 inhibitors. Additionally, the latest technological developments such as enhanced features for blood glucose meter or continuous and implantable glucose monitoring devices are included. Providing a concise but comprehensive update, this book will be essential to every clinician involved in the treatment of diabetes mellitus.

A comprehensive and authoritative survey of recent findings, ideas, and hypotheses about the causes and treatment of diabetic nephropathy. The authors cover both the basic pathogenic mechanisms of the disease, as well as many of its clinical aspects of identification, management, and new therapeutic approaches. Highlights include an entire section devoted to novel approaches to studying diabetic nephropathy with the most advanced molecular techniques, and complete descriptions of the most up-to-date views on the diagnosis and treatment of the disease. The Diabetic Kidney offers both researchers and practicing clinicians a clear understanding of the of the progress that has been made regarding the pathogenesis of diabetic nephropathy and of the therapeutic interventions needed to prevent its development or treat it.