



Special Issue Reprint

Molecular Therapeutics for Diabetes and Related Complications

www.mdpi.com/books/reprint/11863

Edited by
Kota V. Ramana

ISBN 978-3-7258-5879-8 (Hardback)

ISBN 978-3-7258-5880-4 (PDF)



Despite conventional treatments, such as insulin therapy, along with newer glucose-lowering medications such as metformin, GLP-1 receptor agonists, SGLT-2 inhibitors, and insulin sensitizers, diabetes is still a major global health problem. The identification of novel therapeutic approaches is required that can increase effectiveness and decrease side effects. Specific drug targets are needed to maintain the molecular pathways related to secondary diabetic complications. Recent studies also suggest the use of novel plant products and antioxidants as potential therapeutic agents. However, the mechanisms through which these compounds control diabetes and its associated complications, such as diabetic nephropathy, retinopathy, neuropathy, and cardiovascular diseases, need further exploration. The identification of specific molecular therapeutics will help to surpass the benefits of conventional therapies, thereby reducing the morbidity and mortality linked to diabetic complications. While recent preclinical studies have identified promising molecular targets, further clinical trials are needed to translate these findings into clinical practice. Furthermore, manipulating molecular metabolic pathways through inflammatory and immune responses, and exploring microRNAs, stem cell therapy, and gene therapy, could serve as potential diagnostic and therapeutic tools. In this Reprint, we compile some state-of-the-art insights into the role of novel molecular therapeutics in ameliorating diabetes and related complications.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/11863

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.