







Special Issue Reprint

# Role of NO in Disease: Good, Bad or Ugly

www.mdpi.com/books/reprint/9569

Edited by Mats B. Eriksson Anders O. Larsson

ISBN 978-3-7258-1563-0 (Hardback) ISBN 978-3-7258-1564-7 (PDF)



This Special Issue of Biomedicines, "Role of NO in Disease: Good, Bad or Ugly", focuses on the roles of nitric oxide (NO) in disease from various aspects. NO plays an important role in several physiological processes with numerous biological targets, such as cardiovascular homeostasis, angiogenesis, neural signaling, inflammatory processes, and immune regulation. Hence, it is obvious that essentially all cells and biological activities are modulated by NO. This reactive and toxic two-atom gaseous molecule has an unpaired electron and is therefore considered a free radical. It is one of the most important signaling molecules. NO was most likely generated by volcanic emissions in the early atmosphere, from CO2 and N2, approximately 4.5 billion years ago, long before the appearance of the living organisms that now contribute significantly to the cycling of nitrogen species. Endogenous NO is catalyzed from L-arginine by mammalian nitric oxide synthases (NOS). However, NOS-like enzymes have also been found in procaryotes, bacteria, and eukaryotes, suggesting a basic role of NO in the evolutionary process. Thus, it is not surprising that NO signaling is spread throughout the entire phylogenetic scale.





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.

MDPI AG Grosspeteranlage 5 4052 Basel Switzerland Tel: +41 61 683 77 34 www.mdpi.com/books books@mdpi.com

