



## Role of Angiogenesis Inhibitors in Cancer

Guest Editor:

### Dr. Nor Eddine Sounni

Laboratory of Tumor and  
Development Biology, GIGA-  
Cancer, University of Liège, 4000  
Liège, Belgium

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### Message from the Guest Editor

Tumor angiogenesis is important for cancer progression. Hence, anti-angiogenic therapies have been developed and used to treat millions of cancer patients. Almost all clinically approved anti-angiogenic drugs block VEGF signaling. However, several reports have shed light on resistance, adaptation, insufficient efficacy and toxicity, which limit the success in human cancers. Mechanisms of resistance and adaptation have been extensively explored and indicate several cellular and molecular mechanisms that compensate the inhibition of VEGF pathways. The crosstalk between oncogenic signaling and tumor-associated stroma cells provides a strong rationale for combining angiogenesis inhibitors with targeted anticancer agents. A combination of angiogenesis and immune checkpoint inhibitors is ongoing in clinical trials and preclinical studies have found that this combination is beneficial. Emerging evidence has brought about a paradigm shift in understanding the mechanisms of angiogenesis by demonstrating that the activation of metabolic pathways orchestrates endothelial cell proliferation and vessel sprouting.





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Department of Physiology,  
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Conocimiento s/n, 18100 Armilla,  
Granada, Spain

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*International Journal of Molecular  
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MDPI, Grosspeteranlage 5  
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