# Article information:

The transcriptional factors HIF-1 and HIF-2 and their novel inhibitors in cancer therapy - PubMed  
<https://pubmed.ncbi.nlm.nih.gov/31070059/>

# Article summary:

1. Hypoxia-inducible factors (HIFs) play a pivotal role in the adaptation of tumor cells to hypoxic and nutrient-deprived conditions by upregulating the transcription of several pro-oncogenic genes.

2. HIF-1/2 inhibitors have been proven advantageous in numerous reported preclinical studies and should be included in current chemotherapy regimens.

3. The combination therapy ideally should be personalized based on the type of mutations involved in the specific cancers, and it might be better to include two drugs that inhibit HIF-1/2 activity by synergistic molecular mechanisms.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

该文章是一篇综述，主要介绍了缺氧环境下的转录因子HIF-1和HIF-2在癌症治疗中的作用及其抑制剂。文章提到，缺氧是固体肿瘤的内在特征之一，与放疗和化疗的耐药性、转移和患者预后不良等恶性表型有关。HIFs家族是调节肿瘤细胞适应缺氧和营养匮乏条件下生存的关键转录因子，通过上调多种促癌基因的转录来发挥作用。许多人类晚期癌症都共享HIFs激活作为最终通路。

该文章对HIF-1/2在癌症中的作用进行了详细介绍，并总结了近年来针对HIF-1/2通路的治疗方法。作者认为需要更多的研究来揭示HIFs调控机制的复杂性，并开发更精确的抗癌治疗方法。在当前化疗方案中加入HIF-1/2抑制剂已被证明在许多预临床实验中具有优势。理想情况下，联合治疗应根据特定癌症中涉及的突变类型进行个性化，并最好包括两种通过协同分子机制抑制HIF-1/2活性的药物。

该文章没有明显的偏见或宣传内容，但也存在一些缺点。首先，文章没有提到HIFs在正常生理条件下的作用和调控机制，这可能会导致读者对其作用和意义有所误解。其次，文章没有探讨HIF-1/2抑制剂可能带来的副作用和风险，这是一个重要的考虑点。此外，文章并未平等地呈现双方观点，而是更加强调了HIF-1/2通路在癌症治疗中的重要性。

总之，该文章提供了有价值的信息和洞察力，但也存在一些不足之处。阅读者应该保持批判思维并结合其他来源进行综合评估。

# Topics for further research:

* Physiological role and regulation of HIFs
* Potential side effects and risks of HIF-1/2 inhibitors
* Alternative viewpoints on the role of HIF-1/2 in cancer treatment
* Personalized treatment approaches based on specific cancer mutations
* Synergistic molecular mechanisms of HIF-1/2 inhibition
* Need for further research to understand the complexity of HIF regulation

# Report location:

<https://www.fullpicture.app/item/394c6ccc5a0e57be103abfff933bc69c>