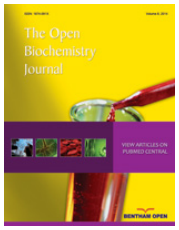

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CORRIGENDUM

Targeting of Hypoxia for Therapeutic Strategy in the Varied Physiological States

Oluyomi Stephen Adeyemi[1,2,*], Lawrence Boluwatife Afolabi[1,2], Damilare Emmanuel Rotimi[1,2], Dubem Sharon Ofume[1,2], Anne Adebukola Adeyanju[3], Oluwakemi Josephine Awakan[1,2] and Tobiloba Christiana Elebiyo[1,2]

[1]*SDG 03 Group – Good Health & Well-being, Landmark University, Omu-Aran 251101, Kwara State, Nigeria*
[2]*Department of Biochemistry, Medicinal Biochemistry and Toxicology Laboratory, Landmark University, Omu-Aran 251101, Nigeria*
[3]*Department of Biological Sciences, Kola Daisi University, IbadanOyo State, Nigeria*

We apologize for the errors that occurred in the online version of the article. Duplicate paragraphs in abstract and conclusion incorrect figure 3 has been published in the article entitled "Targeting of Hypoxia for Therapeutic Strategy in the Varied Physiological States" in "The Open Biochemistry Journal", 2022 Sept 30;16(1) [1].

The original article can be found online at https://openbiochemistryjournal.com/VOLUME/16/ELOCATOR/e1874091X2208010/FULLTEXT/

Original:

abstract

Hypoxia-inducible factors (HIFs) are transcription factors that initiate the expression of cellular processes to cope with hypoxic conditions. HIFs are principal regulators of hypoxic adaptation, regulating gene expression involved in glycolysis, erythropoiesis, angiogenesis, proliferation, and stem cell function under low O_2. HIFs may play a pivotal role in tumor survival and metastasis in cancer formation and growth. Likewise, HIFs play a key role in microbial pathogenesis, particularly in host-pathogen interaction. Because of the role that HIF-1alpha plays in the biology of cancer and infections, it is a potential therapeutic target not only for malignant growth but also for parasitic infection. Several reports have demonstrated the up-regulation of host cellular HIFs due to infection-induced hypoxia. Hypoxia-inducible pathways have attracted great interest in the down-regulation of prolyl hydroxylase for treating inflammatory diseases and infections by viruses, protozoa, or bacteria, among other pathogens. Interestingly, increasing evidence suggests that HIFs play an important regulatory role in inflammation. For example, in macrophages, HIFs regulate glycolytic energy generation and optimize innate immunity, control pro-inflammatory gene expression, mediate the killing of pathogens and influence cell migration. Therefore, a good understanding of the biochemical mechanism of hypoxia signaling pathways will shed more light on how it could help identify and develop new treatment strategies for cancer and parasitic diseases, including viral, bacterial, fungal and protozoa infections.

Corrected:

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Original:

Figure 3 was as follows:

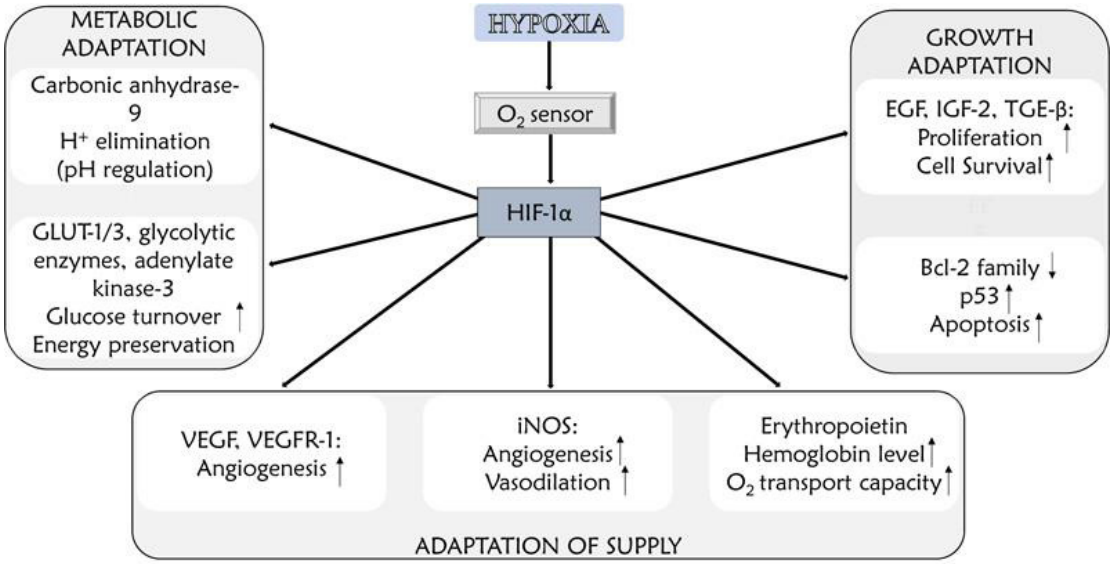

Fig. (3). HIFs in Cancer Progression.

Corrected:

Figure 3 has been revised as:

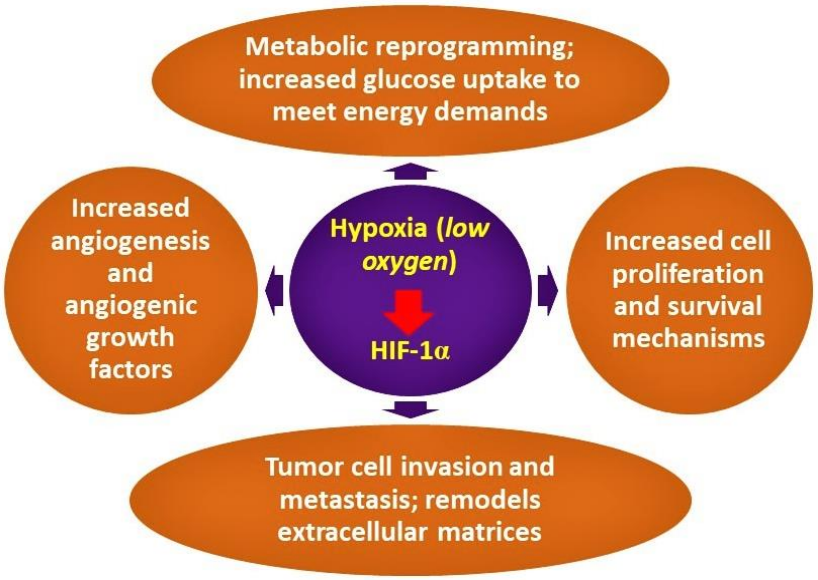

Fig. (3). HIFs in Cancer Progression.

Original:

The conclusion was as follows:

CONCLUSION

The decline of oxygen content in the cellular environment induces HIFs, which have been implicated in the biology of cancer and infections. Hypoxia-inducible pathways have attracted great interest in the down-regulation of prolyl hydroxylase for treating inflammatory diseases and infections by viruses, protozoa or bacteria, among other pathogens. This review of the biochemical mechanisms of hypoxia signaling pathways provides a better understanding of how it could aid in the identification and development of new treatment strategies for parasitic infections such as viral, bacterial, and fungal

infections, as well as protozoa infections.

Corrected:

The conclusion is revised as:

CONCLUSION

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REFERENCE

[1] Oluyomi, A.S; Lawrence, A.B; Damilare, R.E. Targeting of Hypoxia for Therapeutic Strategy in the Varied Physiological States. *Open Biochem J,* **2022**, *16*(1)