## Hypoxia inducible factors expression in lung adenocarcinoma cells

Rita Reitano, Agata Grazia D'Amico

Department of Biomedical and Biotechnological Sciences, Section of Human Anatomy and Histology, University of Catania, Catania, Italy

Lung adenocarcinoma is one of the most deadly malignancies with a low survival rate. A typical characteristic of this tumor is angiogenesis which stimulates its growth. It is generate following hypoxia that induces activation of the hypoxia-inducible factors (HIFs) including HIF- $1\alpha$ , HIF- $1\beta$ , HIF- $2\alpha$ , HIF- $2\beta$  and HIF- $3\alpha$ . Previous studies have demonstrated the expression of these factors in lung adenocarcinomas [1-3]. In the present work we have analyzed their temporal expression profile in lung adenocarcinomas cells A549 by comparing it to that of normal bronchial epithelial cell lines BEAS-2B, during hypoxia with deferoxamine (DFX). This stressor induces a significant, time dependent, reduction of viabilityin both cell lines but more evident in BEAS-2B as shown by MTT analysis. Expression profile of HIFs members was assessed by Western blot analysis. During hypoxia HIF- $1\alpha$  expression increased in both cell lines, with a peak after 6h to 48h and then decreased significantly at 72h following treatment with DFX. HIF-1β levels reached a peak after 72h of treatment in both A549 and BEAS-2B cells, whereas HIF-2βsignificantly increases at 6h in A549 and at 72h in BEAS-2B of hypoxia. HIF-3 $\alpha$  expression levels were inversely linked to those of HIF-1lpha in A549 while this correlation was absent in BEAS-2B. These data were also visualized by immunofluoerescence analysis. The present results have confirmed the involvement of HIFs members in lung cancer.

## References

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## Kevwords

Hypoxia; HIFs member; A549 cells; Beas-2b cells; lung cancer.