HIF, a nuclear factor induced by hypoxia regulates EPO [2]

HIF protein levels are hypoxia-sensitive [3]

VHL targets HIF for O₂-dependent proteolysis [7]

HIFα’s ODDS are Pro-OH by PHDs [13, 14]

NODDD and CODDD: independent HIFα Pro-OH sites [12]

VHL recognises Pro-OH HIFα [8-10]

HIFα CTAD is Asn-OH by FIH [16-18]

Micro environmental factors in the HIF response and PHD negative feedback [25, 28]

Differential gene regulation by CTAD and NTAD [29]

FIH regulation of HIF activity [30]

ARD sequestration of FIH regulates HIF [27]

Asn-OH protects HIF from PHD independent degradation [31]

HIF stability does not necessarily correlate to activity [31]

Switch-like behaviour of HIF response to O₂ using HIFα, PHD, and VHL [23]

Experimental advances

Mathematical models

A

B

Normoxia

Hypoxia