

DYING FOR OXYGEN

Roles of Hypoxia Inducible Factor 2 α and 3 α during lung development

1. Hif2 α is a key regulator in alveolar maturation and the production of phospholipids by pulmonary type II cells. (This thesis)
2. Mutation in the *HIF2 α* gene may contribute to congenital surfactant deficiency and neonatal respiratory distress. (This thesis)
3. HIF2 α may be a putative target for future therapies in newborns with pulmonary hypertension. (This thesis)
4. Hif3 α is involved in embryonic development, but its effects on embryonic development are more subtle than that of Hif1 α and Hif2 α . (This thesis)
5. Congenital lung lesions likely result from disordered embryologic interactions. Although few molecular links have been suggested, it is still too early to establish any molecular pathway as the cause of these congenital lesions. (This thesis)
6. Oxygen dependent protein signaling pathways are essential for maintaining normal embryonic development.
7. Transgenic mice, like the models described in this thesis, are valuable tools in increasing our understanding of lung development when integrated with findings from other lines of research. (This thesis, Rawlins, et al., *Am J Respir Cell Mol Biol*, 2012)
8. “To me the cell cycle seemed to be a good and simple model for studying cellular differentiation in developmental biology, because the cell underwent molecular changes as it proceeded through its cell cycle.” *By Paul Nurse*
9. Almost every congenital disease has a genetic basis, however, the ways to cure most of them still remain big puzzles.
10. “I am convinced that He (God) does not play dice.” *By Albert Einstein*
11. You will never know the results, if you have not tried the experiment