A MOLECULAR UNDERSTANDING OF MAMMALIAN DEVELOPMENT AND DISEASE?

ERWIN F. WAGNER

In the past decade we have witnessed a number of breakthroughs in the field of molecular biology, specifically towards a better understanding of mammalian development and disease. We are collecting important information on genes controlling early development using the mouse as the mammalian model system of choice. The basic question of how patterns in the embryo evolve and how cells specialize may soon be solved. The system of embryonic stem (ES) cells allows us to generate "ES mice", which are completely derived from cells grown in tissue culture. In addition, ES cells allow us to specifically delete and/or add genes to the mouse, thereby elucidating the function of a particular protein in development and disease. These genes are collectively known as oncogenes.