

# Milestones in cell division



Leland Hartwell



Sir Paul M. Nurse



R. Timothy Hunt

In 2001 the Nobel Foundation celebrated its one hundredth anniversary and will be hosting a banquet in December for all Nobel laureates. Following the 2001 award of the Nobel prize in Physiology or Medicine to three cell biologists, the ranks at the banquet will be swelled by Leland Hartwell, president and director of the Fred Hutchinson Cancer Research Center, Seattle, Sir Paul Nurse, director-general of the ICRF in London and Timothy Hunt, also from ICRF (see pictures). These three researchers received their prize for outstanding contributions to the study of the eukaryotic cell cycle. Hartwell both identified a particular class of genes that control the cell cycle, including the gene that controls 'start', and introduced the concept of checkpoints. Nurse received his award for the identification, cloning and characterization of cyclin-dependent kinase (CDK) in yeast and for showing that the function of CDK is conserved in higher eukaryotes. Hunt's award was for his discovery of the cyclins some 10 years ago and for demonstrating that cyclins are degraded during the cell cycle.

As all cell biologists are aware, cell division must be tightly controlled to prevent the formation of developmental defects or cancer, and understanding the normal life cycle of cells is crucial for the development of new cancer treatments. The study of cell division is becoming increasingly multidisciplinary, however, and many new researchers in the field may not be as familiar with the key discoveries as others. So *Nature Cell Biology*, in collaboration with *Nature Reviews Molecular Cell Biology*, *Nature Reviews Cancer* and *Nature*, is pleased to welcome you to our first supplement and accompanying webfocus — 'Milestones in Cell Division'.

## Milestones in cell division

The printed supplement contains 23 specially selected 'milestones' written by editors from the four participating journals and other Nature Publishing Group journals. Each milestone represents an important discovery, or set of discoveries, in the field, and together they give an overview of the history of cell division. They were selected with the help of more than 50 leading researchers in the field of cell division and each article discusses a paper or group of papers that forwarded the understanding of cell division in eukaryotes. For example, the Nobel prizewinning work of Nurse, Hartwell and Hunt is described in Milestones 5, 9, 11, 12 and 14.

In the printed supplement you will also find a small selection of published pieces in the field of cell division from all four journals. A much larger selection can be found on the *Milestones in Cell Division* webfocus site ([www.nature.com/celldivision](http://www.nature.com/celldivision)), which, as well as the milestones themselves, contains nearly 50 carefully selected reviews, articles, brief communications, News and Views and related material from all four journals.

The webfocus site is available free of charge to all visitors from December 2001 to June 2002 and contains the milestones, details of all the advisors used in the project and the collection of published material. The website will be updated on a monthly basis.

We hope you enjoy this first *Nature Cell Biology* supplement and will take time to explore the related website. For more information on the Milestones project read the editorial in the supplement and the related pieces on the website. We are also grateful to our sponsors Boehringer Ingelheim for their support of this project. □