

NEWS AND ANNOUNCEMENTS

I. NOBEL PRIZE IN PHYSIOLOGY/MEDICINE - 2001

The Nobel Prize in Physiology/Medicine for the year 2001 has been jointly awarded to three eminent scientists, Leland H. Hartwell, R. Timothy Hunt and Paul M. Nurse for their discoveries of key regulators of the cell cycle in eukaryotic organisms.

A human being has about 1×10^{14} cells and is formed by replication of a single cell, zygote, formed after the fertilization. Though it has been known for long that during the course of our lives the dying cells are continuously replaced by cell division, the details of underlying molecular mechanisms regulating cell cycle and division have been elucidated only in the last two decades.

In 1960s, Leland Hartwell started using genetic methods to study cell cycle. While working on yeast, *Saccharomyces cerevisiae*, he isolated yeast cells in which the genes controlling the cell cycle had mutated. Using this approach he isolated about 100 so-called CDC (cell division cycle) genes. One of these genes, designated *CDC28* by Hartwell, was found to control the first step in the progression through the G₁-phase of the cell cycle, and was therefore called "start". In addition he studied the effect of irradiation on yeast and introduced the concept of 'checkpoint'. Initially this term was introduced to designate a fact that damage to DNA prevented cell division. Later, however, Hartwell extended the checkpoint concept to include controls that ensure a concerted order between the different phase of cell cycle.

Paul Nurse followed Hartwell's approach in using genetic methods for cell cycle studies. He however, used a different species of yeast, *Schizosaccharomyces pombe*, as a model organism. He first discovered *cdc2* gene in *S. pombe* in 1970, which was similar to Hartwell's 'start' gene. In 1981, he identified human counterpart of this gene, which was named CDK1 (cyclic dependent kinase 1). Since then about half a dozen members of CDK family have been isolated.

Timothy Hunt discovered the first cyclin molecules in 1980's. While working on sea urchin, *Arabcia*, he noticed that concentration of certain proteins varied in a cyclical manner during the cell cycle. He later discovered many such molecules and found that these proteins bind to CDK (cyclic dependent kinase) and thereby regulate its activity. It is now known that the levels of CDK molecules remain constant during the cell cycle but its activity varies due to changes in the levels of cyclin proteins.

These fundamental discoveries have a great impact on all aspects of cell growth with immense use in biomedical research and applications. These principles are already finding their place in tumor diagnostics. In the long term, it will help us to understand the genesis of cancer cells and ultimately opening up of new modes of cancer therapy. Clinical trials of CDK inhibitors are already underway.

Leland Hartwell is currently the President and Director of Fred Hutchinson Cancer Research Center, Seattle, USA. Paul Nurse is presently working as Principial Scientist at the Imperial Cancer Research Fund, London. Timothy Hunt is currently the Director-General of Imperial Cancer Research Fund, London.

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II. XLVIII NATIONAL CONFERENCE OF THE ASSOCIATION OF PHYSIOLOGISTS AND PHARMACOLOGISTS OF INDIA (APPICON - 2002)

XLVIII Annual Conference of the Association of Physiologists and Pharmacologists of India will be held at K. G. Medical College, Lucknow from December 18-20, 2002 with C.M.E. on December 17, 2002. Please contact: Dr. U.S. Pandey,

Organizing Secretary (APPICON - 2002), and Professor and Head, Department of Physiology, K. G. Medical College, Lucknow - 226 003 (U.P.)

The website address is : <http://physiologykgmc.cjb.net>
and email address is physiologykgmc@yahoo.com

III. PP SURYA KUMARI PRIZE Indian Pharmacological Society

PP Surya Kumari prize is awarded by IPS every year for the best paper published in any journal on "Diabetes mellitus, other endocrinal and metabolic disorders" in the last five years. The prize is open to Indian scientists working in Indian laboratories. The award is presented to the winner at the annual conference of IPS.

Those who are desirous of competing for the prize for the year 2002 may submit five reprints/copies of the paper (published in 1997-2001) to the Chief Editor, Indian Journal of Pharmacology at the following address, before 30th June, 2002.

e-mail : ijp@jipmer.edu
Phone : 0413-371969
Fax : 0413-272067

Prof. R. Raveendran
Convener, PP Surya Kumari Prize,
The Chief Editor-IJP,
Department of Pharmacology,
JIPMER, Pondicherry - 605 006
India

IV. NATIONAL CONVENTION ON CURRENT TRENDS IN HERBAL DRUGS & ANNUAL CONFERENCE OF INDIAN SOCIETY OF PHARMACOGNOSY

Date : 23rd & 24th November, 2002
Venue : K.B. Institute of Pharmaceutical
Education & Research
GANDHINAGAR, Gujarat State, India

For further details please contact :

Prof. N.S. Parmar
Organizing Secretary, ACISP & Director
K.B. Institute of Pharmaceutical Education
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**V. IV INTERNATIONAL CONFERENCE ON
YOGA RESEARCH & VALUE EDUCATION**

28-31 December 2002

Kaivalyadham, Lonavla - 410 403, Pune, M.S., India

Tel. : 02114-73001/71518/73039

Fax : 02114-71983/77402

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