

kill a specific sex. The review on mammalian x-chromosome inactivation covers the molecular aspects of this phenomena. The connection between the x-inactivation and dosage compensation is not clear. The P family of elements are one of the many structural types of transposable elements distributed on various chromosomes. They are responsible for sterility, recombination, mutability and other germ line qualities in *Drosophila*.

Application of monoclonal antibodies in enzyme genetics by Harris deals with various methods to discriminate any closely similar enzyme produced by different alleles of the same locus, different loci in the same individual or homologous loci in different

species. The organization and expression of histone genes are discussed mainly with respect to sea urchin, *Drosophila* and *Xenopus*. Other systems which show diversion in the organization and expression are not included. Histone genes are clustered, repeated several fold, but do not show any conserved topology. They may be evolved by the process of recombination including crossover, gene conversion, transposition and horizontal transfer.

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NEWS

CANCER DRUGS*

Nitrosourea compounds used in chemotherapy also suppress bone marrow. Yale researchers have found the reaction responsible and have designed a new nitrosourea molecule that undergoes an internal reaction with itself while retaining its anticancer activity.

'LEMON' DANGER*

Citral, the lemony compound used in detergents, polishes and processed foods, may be a health hazard, according to Eli Seifter of Albert Einstein College of Medicine. Although the existing data do not indicate any hazard, the compound inhibits wound healing and

tumour rejection in animals. Natural foods contain enough vitamin A to counteract citral's effect.

MOTHER'S MILK*

Chemical composition of breast milk varies between mothers of full term and premature infants. Levels of growth modulators Ca, Zn, Cu and vitamin B₆ change as the baby matures. The research may lead to better artificial milk formulations.

FRENCH FRIES*

Chips from fast food shops have distinctive flavours that cannot be matched at home. Researchers at Rutgers University have found 400 different flavour compounds in chips. These could be sprayed on frozen chips for baking at home and may be useful in perfumery.

* Items extracted from: Perspectives—Highlights column of *Chemistry in Britain*, Vol. 20, No. 9, September 1984, p. 772.

LEARNING TO SAY "NO"

. . . "As a society, how much are we willing to spend (sacrifice) to prolong life? The easy answer is any amount, but that answer is neither true nor feasible. Like it or not, Americans are going to have to come to some social consensus concerning the trade-off between costs of medical services and the life-extending benefits that result. Health-care costs are being treated as if they were largely an economic problem, but they

are not. To be solved, they will have to be treated as an ethical problem."

[Lester Carl Thurow (Massachusetts Inst. of Technology) in *New England Journal of Medicine* 311(24): 1569-72, 13 Dec. 84. Reproduced with permission from Press Digest, *Current Contents*® , No. 6, February 11, 1985, p. 14. (Published by the Institute for Scientific Information® , Philadelphia, PA, USA.)]

SCIENCE IN THE SERVICE OF ART

. . . "Many factors are converging that promise a cataclysmic change not only in the status of that small band of specialists known as conservation scientists but to the prominence of the field of art conservation itself. Not the least among these is a vast infusion of private and public funds into research to preserve and prolong the life of works of art. The J. Paul Getty Trust is committing millions of dollars to establishing a conservation institute near Los Angeles devoted in part to research into the materials of the artist and improved restoration and preservation methods. Congress has directed the Smithsonian Institution to

expand the research efforts of its Conservation & Analytical Laboratory. Public funds have been made available to carry out this mandate. The ripple effects from these two endeavors are expected to be great. Excitement among conservators, conservation scientists, and museum conservation laboratories is palpable."

[Lois R. Ember in *Chemical & Engineering News* 3 Dec. 84, p. 14-23. Reproduced with permission from Press Digest, *Current Contents*® , No. 6, February 11, 1985, p. 14. (Published by the Institute for Scientific Information® , Philadelphia, PA, USA.)]

IS FUTUROLOGY SCIENCE, OR VICE VERSA?

. . . Igor Bestuzhev-Lada (Inst. of Sociological Research, Soviet Academy of Sciences) says: "The very word *futurology* is rather vague and ambiguous. The first to use it, in 1943, was Osip Flechtheim, a German scientist who lived and worked in the US; he used this notion to describe a new, peculiar 'philosophy of the future.' Futurology was to be distinguished from the social theories about the past and present, which Karl Manheim had divided into 'ideologies'—theories defending the existing social system—and 'utopias'—theories challenging the existing system. Flechtheim's futurology was not to justify or criticize anything; its purpose was the scientific research of the future. . . . Prognosis is an inherent part of every scientific discipline dealing with reality;

for if the description and explanation of an event or phenomenon lacks a prediction of the direction of its further development, it will be quite meaningless. Whatever we do in science today, we must refer it, or assign it, to the future; our duty is to determine how present events may develop in the future. Futurology, then, does not have its own topic."

[Wiktor Osiatyński in *Contrasts: Soviet and American Thinkers Discuss the Future*. New York: Macmillan Publishing Company, 1984. 219 p. . . . Reproduced with permission from Press Digest, *Current Contents*® , No. 3, January 21, 1985, p. 12. (Published by the Institute for Scientific Information® , Philadelphia PA, USA.)]

FORTHCOMING CONFERENCES

Advance notice is given of the following conferences organized by The Institute of Physics

SOLID STATE PHYSICS

18–20 December 1985, University of Reading

ATOMIC AND MOLECULAR PHYSICS

8–10 April 1986, University of Aberdeen

ESSDERC '86 (16th European Solid State Device Research Conference)

8–11 September 1986, University of Cambridge

CARBON FIBRES: PROPERTIES AND APPLICATIONS

15–17 September 1986, University of Salford

SOLID STATE PHYSICS

17–19 December 1986, Imperial College, London

ELECTROSTATICS '87

7–11 April 1987, University of Oxford

SOLID STATE PHYSICS

16–18 December 1987, University of Bristol

Further detailed announcements about each conference will be made in due course but preliminary information may be obtained from the Meetings Officer, The Institute of Physics, 47 Belgrave Square, London SW1X 8QX.

CAN ZINC CURE THE COMMON COLD?

... In an experiment designed to test the effectiveness of zinc in killing rhinoviruses associated with the common cold, "146 volunteers were given a seven-day supply of either 180-mg zinc gluconate tablets (each containing 23 mg of zinc itself) or fake look-alikes. Their instructions: Suck on the pills for at least 10 minutes so that the zinc would give a lengthy bath to the throat tissues where rhinoviruses multiply. ... The data [were] analyzed by a nutritional scientist, Donald Davis [U. Texas, Austin]. The results were

significant. Cold sufferers who had actually taken zinc gluconate were completely recovered in an average of 3.9 days. By contrast, it typically took 10.8 days for the rest of the group—those who used the dummy tablets—to become symptom-free."

[Judith Randal in *American Health* 3(9): 37-9, Dec. 84. Reproduced with permission from Press Digest, *Current Contents*® , No. 3, January 21, 1985, p. 13. (Published by the Institute for Scientific Information® , Philadelphia, PA, USA.)]

AIR-CONDITIONED FOR DISCOMFORT?

... A recent study of the effects of automobile air-conditioning on subjects with respiratory ailments "demonstrates that exacerbation of symptoms after the use of automobile airconditioning occurs in 18% of patients with bronchial asthma and allergic rhinitis. ... Various explanations for the exacerbation of respiratory allergies by car air-conditioning were considered, but the only one substantiated by the present study involves the inhalation of fungal contaminants. ... Other possible causes ... were considered—i.e., cold air from the vents, dust from the

carpets, pollens or emissions from outside the car, and psychologic factors. All of these were considered unlikely. ..."

[Prem Kumar et al. (Louisiana State U. Medical Ctr., New Orleans) in *New England Journal of Medicine* 311(25): 1619–21, Dec. 84. Reproduced with permission from Press Digest, *Current Contents*® No. 7, February 18, 1985, p. 13. (Published by the Institute for Scientific Information® , Philadelphia, PA, USA.)]