

SCIENTIA INTERNATIONAL

NOVAS DEL MENSE IN INTERLINGUA

Astronautica. — Le idea de utilizar energia atomic in le propulsion de astronaves es natural e multo attractive, sed illo subleva multe non ancora resolvite problemas. In omne caso, le statounitese planos pro un prime viage de humanos alla luna in 1967 considera seriamente le possibilitate de usar energia atomic in le propulsion del rochetta del tertie stadio. Sion succede in resolver le problema de startar, arrestar, e restartar un reactor nucleari in volo extraterrestre, on pote pensar a servir se de energia nucleari in le propulsion de astronaves de interconnection inter platteformas orbital del terra e del luna. Le resolution del problemas del uso de energia ab isotopos in satellites de observation e communication es plus avantiate. De facto, in plure casos, generatores a energia isotopic ha jam essite usate. [Le autoritate pro iste reporto es Administrator J. E. Webb de NASA (Administration National pro Aero- e Cosmonautica)].

Bacteriologia. — Le dependentia de bacterios de lor "dieta" (o medio nutriente) esseva demonstrate experimentalmente al Instituto Cancerologic de Philadelphia. Esseva specificamente investigate le importantia nutritional de diverse amino-acidos pro *Streptococcus faecalis*. Absentia de threonina resultava in cellulas de reduce dimensiones con duplemente spissificate enveloppes. Absentia de valina arrestava le division cellular. Tal studios es importante in relation con le problema del factores determinante le specialisation structural (in preparation al specialisation functional) que characterisa le cellulas de plus complexe organismos e que es disturbate in le presentia de cancer.

Instrumentos. — Specialistas de recercas de electronica del Compania Lockheed ha construite un aparato de radar al uso como reimpiacemento del can-guida de personas qui ha perditte lor vision. Le echo usate in iste radar es illo de undas supersonic. Quando le aparato es confrontate con un obstaculo, le retornante signal es traducite in un signal de longor de unda audible. Le principio es illo que permette al vespertiliones navigar in le obscuro. Al tempore presente, le aparato existe solmente in un forma excessivamente massive, sed su miniaturisation es in progresso e collide con nulle problema fundamental.

Materias Prime. — In 1940, le Statos Unite usava per mense circa 50.000 tonnas de cauchu natural e un negligibile quantitate de cauchu synthetic. Hodie le production de cauchu synthetic per mense es circa 100.000 tonnas, e le consumption de cauchu natural es negligibile.

Obesitate. — In un studio de un population specimen de 1.660 habitantes de New York, il esseva trovate que obesitate esseva septe vices plus frequente in le plus basse gruppo socio-economic que in le plus alte.

Ornithologia. — Per medio de un specialmente construite apparatura radar, Dr. W. E. Lanyon del Museo de Historia Natural a New York ha constatate que un certe anate american pote attinger in volo velocitates de usque a levemente plus que 100 km per hora. In Mesopotamia un previe studio per altere autores usante altere methodos produceva le constatation que un certe specie de ave native de ille region pote attinger velocitates maximal de circa 325 km per hora.

Recercas de Cancere. — Quasi un medietate del casos de cancer del ren e del vesica es diagnosticate troppo tarde pro permitir le initiation de un promittente tractamento. Un simple test pro le detection de tal cancers — satis simple pro esser usate routinarimente — poterea meliorar iste situation. Doctores W. E. C. Wacker e L. W. Dorfman de Harvard crede haber trovate un tal. Illo consiste in mesurar le concentration del enzima dishydrogenase lactic in le urina. Un augmento de ille concentration es un signo de alarma secundo le duo doctores.

Statistica Medical. — In un studio de 402 casos de excision chirurgic de un oculo in juveniles de minus que 15 annos de etate, il esseva trovate que in 222 (i.e. 55%) del casos, un injuria externe esseva le causa que rendeva le operation necessari. Le majoritate de iste operationes post-traumatic concerneva pacientes de inter 5 e 8 annos de etate. • Science News Letter, 82:202, 29 de Septembre 1962

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MEDICINE

Blood Tests Reveal Smoking Habits

► TWO SIMPLE blood tests reveal your smoking habits.

This fact was discovered as a sidelight by University of California, Los Angeles, scientists investigating two blood tests as possible detectors of inflammatory diseases and early cancer.

A three-year survey by Drs. Charles M. Carpenter, Charles L. Heiskell, James N. Miller and Herrick J. Aldrich of the UCLA Medical School and Long Beach Veterans Administration Hospital revealed a significant correlation between results of the blood tests and the number of packs of cigarettes smoked per day.

The study was supported by the National Cancer Institute and California Institute for Cancer Research.

The two blood tests, seroflocculation and C-reactive protein procedures, are being evaluated in a study of a volunteer group of citizens at Sheridan, Wyo., in cooperation with the Whedon Cancer Detection Foundation. Those participating in the study were asked to fill out questionnaires which included questions about their smoking habits.

Twenty-five percent of the males under 40 who smoked more than one pack of cigarettes per day had positive tests. These figures were higher with men over 40, ranging as high as 83% in the 60 to 70 age bracket. However, this was partly discounted, since aging itself tends to be reflected in the blood tests.

No correlation was evident among pipe and cigar smokers or those who smoked less than one pack of cigarettes per day.

The correlations in females were not as marked as in the male group.

The results of such tests in previous evaluations have shown good correlation in patients with lung cancer. They also give positive results with certain non-malignant inflammatory diseases. Apparently they reflect protein abnormalities in the blood serum.

In the case of the heavy smokers, the positive tests may reflect only throat inflammation, the investigators said. But they pointed out that the positive results may also be an indication of an early disease process brought on by excessive smoking.

The higher correlation among male smokers may reflect the recognized increased vulnerability to disease of the male as compared to the female, which has been attributed to chromosomal differences.

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A substance has been found in the *bloodstream* that causes heart deformities in the embryo.

About 1,500 *meteorites* have been counted since the first authenticated fall in the 15th century.

On many coral reefs, calcareous *algae* cement the coral framework into a solid mass of limestone.