

SCIENTIA INTERNATIONAL

NOVAS DEL MENSE IN INTERLINGUA

➤ **Astronomia.**—Le “lunas artificial,” que es popularmente cognoscite como “sputniks,” ha etiam designationes scientific. Lor nomine de familia es “satellito,” e isto es sequite per le anno de lor lanceamento e un littera grec que distingue plure lanceamentos in le mesme anno. Si plure objectos revolve circa le terra in consequentia de un sol lanceamento, illos es differentiate per cifras arabe que seque le litteras grec. Usque nunc nos ha “satellito 1957 alpha 2” (le prime sputnik), “satellito 1957 alpha 1” (le tertie stadio del rochetta del prime sputnik), e “satellito 1957 beta” (le secunde sputnik).

➤ **Chirurgia.**—In experimentos animal al Universitate Johns Hopkins in Baltimore, le superviventia de graffos cutanee transferite ab un individuo a un altere del mesme specie esseva prolongate usque a 23 dies, i.e. a quasi tres vices le norma, per primo transferer lor repetite e a intervallos de quatro dies ab un membro de un serie de animales al proxime. In lor association successive con varie organismos, le graffos perde lor “individualitate” per un mechanismo que es non ancora ben comprehendite.

➤ **Chirurgia.**—Tubos de cellophan plenate de un solution de glucosa e amino-acidos ha essite inserite chirurgicamente in le intestinos de animales experimental. Le solution exsuda trans le cellophan a quasi precise le rapiditate con que le intestinos pote absorber lo. Iste experimentos, reportate ab le Universitate Kansas, va possibilmente resultar in le disveloppamento de un nove technica pro alimentar patientes post-operatori qui non tolera nutrimentos administrate per via oral.

➤ **Chirurgia.**—In un caso de cancro del vesica urinari, Dr. Sinaiko de Chicago ha construite un vesica vicari ex le parte inferior del stomacho del patiente. Le operation esseva un successo. Le parte transferite del stomacho ha acceptate su nove functiones sin difficultate, e le parte non-transferite continua funcionar como un stomacho adequate e normal.

➤ **Obstetrica.**—Pro eliminar plus complete le possibilitate de confunder babies nascite in un moderne maternitate a production in massa, Dr. J. B. Jacobs de Washington propone le uso de un marca de identification que es attachate al cordon umbilical ante le separation de infante e matre.

➤ **Chirurgia.**—Arterias cerebral con formation de ballons (o aneurysmas) que menacia de romper se con le effecto de apoplexia e morte ha essite reinfortiate per le application de un plastic in forma atomisate. Iste technica esseva disveloppate al Universitate Tufts in Boston. Illo ha etiam essite usate pro reinfortiar le aorta post chirurgia cardiac. Altre applicationes es sub consideration.

➤ **Materiales.**—Le Papireria Hurlbut de Massachusetts reporta successo in le uso de fibras de metallo—cupro, aciero, aluminio—in le fabrication de papiros pro usos in que magnetisabilitate o alte grados de thermoresistentia es major desideratos. Le nove papiros ha non ancora essite lanceate al mercato. Illos existe in formas partial- e totalmente metallic.

➤ **Sanitate Public.**—Le Statounitese Servicio de Sanitate Public se ha pronunciate contra le uso general del si-appellate vaccino BCG, que es a iste tempore le sol disponibile vaccino antitubercotic. Le principal argumento contra BCG es que personas vaccinate con illo reage positivemente in le standard tests usate in le

detection de tuberculose, sin reguardo a si o non illes es tubercotic. Le uso extense de vaccination antitubercotic rendera per consequente le detection de casos acute de tuberculose multo plus difficile.

➤ **Physiologia.**—Pro obtener un mesura del combustion interne de alimentos, un gruppo de scientistas de San Francisco ha mantenite animales experimental con dietas continente sucros, acidos grasse, e amino-acidos uniformemente marcate con carbon radioactive. Le argumento esseva que le carbon radioactive que appare subsequentemente in le aere exhalate per le animales pote servir como indice del intensitate del combustion interne. Le sorprendente resultado del experimento esseva que animales normal non ha un combustion plus intense que animales cancerose o alteremente malade. Le intensitate del combustion se reduceva solmente in le caso de animales vermente moribunde.

➤ **Astrophysica.**—Studios spectroscopic per Dr. W. M. Sinton (nunc de Arizona) ha resultate in le constatation que le planeta Marte ha a su superficie substantias con precise le spectro que characterisa le lichens terrestre. Isto prova le existentia martian de moleculas organic, sed le question del forma specific del vita in ille planeta remane irresolvite.

➤ **Genetica.**—Parthenogenese in aves non es excessivamente rar. In gallos de India on ha trovate que vaccination contra diphtheria augmenta su incidentia significativamente. Si le vaccino mesme o un contamination in illo es le agente active ha non ancora essite determinate. Le tendentia parthenogenetic es un tracto hereditabile, proque le frequentia con que aves e specialmente gallinas de India pone “fertile ovos non-fertilisate” pote esser augmentate non solmente per vaccination sed etiam per accopulation selective. Al tempore presente le record del superviventia de un gallo de India “sin patre” es plus que septe menses.

➤ **Cardiologia.**—Un studio de 42 expertos contabile ha monstrate que in iste individuos le tempore de coagulation sanguinee recede a circa un medietate del norma e le carga sanguinee de cholesterol monta significativamente durante le ultime septimanas ante le data quando reportos de taxation debe esser completate. Ab iste lor constatation, Drs. H. Rosenman e M. Friedman de San Francisco conclude que stress es claramente un factor in le causation de attaccos cardiac.

➤ **Chirurgia.**—In experimentos animal, un gruppo de chirurgos del Universitate Columbia ha succedite a reparar un dissecate medulla spinal per le application de un tubo de nylon impregnate con acetato de cellulosa. In catts le reunion del medulla se completava intra 30 dies. Le question de si e a qual grado le reparate medulla spinal es functionalmente normal remane a investigar.

➤ **Antibioticos.**—Le facto que le larvas de certe muscas exerce un effecto resanatori super vulneres aperte ha inducite un gruppo de medicos anglese a lavar larvas del musca *Phormia terraenovae* in aqua distillate, que illes testava subsequentemente pro le presentia de un agente antibiotic. Un tal esseva de facto demonstrate. Illo se monstrava active contra varie bacterias, incluse le causatores de pneumonia e de infectiones streptococcal. Si le larvas mesme o un microorganismo in illos produce le antibiotic es ancora un question non resolvite.

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GENERAL SCIENCE

Reading Interlingua

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BIOCHEMISTRY

Malaria Parasites Make Blood Cells Store Acid

➤ **RED BLOOD** cells infected with malaria parasites contain much more of two nutrient acids than do normal cells, Dr. William Trager, Rockefeller Institute, reported to the National Academy of Sciences meeting in New York. (See pp. 339-341.)

Malaria parasites require both the vitamin folic acid and the related compound, known as folinic acid, to feed on. Once they get inside the cell, they are able to disrupt the cell's normal use of these nutrients and keep the acids for themselves.

Some of the powerful anti-malarial drugs seem to work because they interfere with the parasites' use of the two growth acids.

Studies of duck red blood cells showed that if the cells contained a malaria parasite of the type producing severe infections in young ducks, the cells contained five to ten times as much of the two acids as a normal cell did.

Only a third or less of this increased acid content was found in the parasite itself. The rest of it was found in the infected cell material.

The invasion of a red cell by a malaria parasite seems to alter the folic acid metabolism of the host cell in a way which is of benefit to the parasite, Dr. Trager reported.

Alterations in metabolism of this type in the host cells may be responsible for some of the visible changes which often occur in plant and animal cells invaded by intracellular parasites. These changes include abnormal growth or the tremendous enlargement of the host cell.

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