

SCIENTIA INTERNATIONAL

NOVAS DEL MENSE IN INTERLINGUA

Astrophysica.—Un studio del composition chimic del particulas que constitue radios cosmic ha essite conducite per Dr. M. M. Shapiro del statunitense Laboratoro de Recerca Naval. Le studio esseva conducite per medio de apparatus portate a extreme altitudes in ballones. Ab le extraordinari frequentia, in iste particulas, del leve elementos lithium, beryllium, e boron, Dr. Shapiro deduce que le radios cosmic ha un antiquitate de milliones de annos. Isto non significa que le radios cosmic haveva lor origine a un correspondente distantia de milliones de annos-lumine proque le curso del radios es repetitive curvate per varie campos magnetic in nostre galaxia.

Biochimia.—Dr. M. Calvin del Universitate Californio ha recipite le Premio Nobel pro su recercas in re le phenomene del si-appellate photosynthese. Ille ha disveloppate le methodo de utilizar carbon radioactive pro traciare le complexe serie de reactiones chimic per le quales le organismo vegetal produce proteinas, saccharos, a altere nutrientes ex aqua, bioxydo de carbon, e le lumine del sol. Successo in le effortio de duplicar iste processo artificialmente haberea sin dubita tremende consequentias economic.

Biologia.—Le processo del involution es un phenomene cytonucleari, i.e., illo occorre in le nucleo del cellula e non in su plasma. Al minus isto vale, secundo Dr. R. W. Siegel del Universitate Californio, pro le organismo unicellulari cognoscite como paramecio. Dr. Siegel ha trovate que un vetule paramecio redeveni juvene si su nucleo es reimplaciate microchirurgicamente per le nucleo de un juvene paramecio, mesmo si le resto del cellula hospite remane completamente intacte.

Dieta Militar.—Atherosclerosis es le major causa de morte inter le personal del arma del Status Unite. Secundo Colonello W. J. Walker del Hospital General Walter Reed a Washington, un recente investigation in varie campos de trainamento militar ha revelate que le soldato statunitense recipe 40% de su calorias in le forma de grassia e que quasi un medietate del grassia es del genere saturate. On sape que grassia saturate es suspecte como agente etiologic (o contributoramente etiologic) in morbo cardiac. Ben que iste connexion non es definite provate, Colonello Walker regarda lo como satis ben documentate pro justificar le recommendation que on modifica le dieta del statunitense fortias armate in favor de caloriferos non grasse e de grassias non-saturate.

Genetica.—Un gruppo de medicos de Syracuse, New York, ha reportate le caso de un par de feminin geminos identic qui, al etate de 79 annos, suffre de sex morbos identic. Istos include anemia perniciose, partial paralyse facial, e benigne tumor mammari.

Geologia.—Dr. W. L. Stokes del Universitate Utah ha publicate le these que le causa principal del lente sed constante ascendita del temperatura terrestre in le curso del passate 11,000 annos es a trovar in le activitates del homine mesme. Le utilisation de foco e etiam le agricultura ha resultate in le liberation de crescente quantitates de bioxydo de carbon in le atmosphaera. Isto, secundo Dr. Stokes, age alora como un tecto de vitro que admittit le radiation solar sed trappa le calor producite per illo.

Inventiones.—Esseva patentate un machina capace a reager per un distincte e specific sono al forma characteristic de omne littera individual del alphabeto. Le machina es appellate optophonio per su inventor. Per medio de illo, cecos va poter perciper acusticamente le configura-

tionis de litteras imprimate que nos normales percipe visualmente.

Physica Atomic.—Le Premio Nobel pro le Physica es presentate iste anno a duo investigadores del nucleo atomic. Dr. R. L. Mossbauer, currentemente del Instituto Technologic de California, es honorate specificamente pro su scoperta, in 1958, del si-appellate effecto Mossbauer, i.e. del facto que sub certe conditiones il pote occurrer un emission o absorption de radios gamma per le nucleo sin que isto debe suffer ulle reculamento. Le effecto Mossbauer ha multe importante applicationes theoretic e practic. Illo permette, per exemplo, le propagation de radiationes de frequentia extraordinariamente invariabile.—Le secundo honorato Nobel in Physica es Dr. R. Hofstadter del Universitate Stanford in California qui se ha distinguite per su investigationes in le structura del nucleo atomic, in tanto que illo se revela sub le effecto de varie formas de bombardamento in un accelerator lineari. Secundo le recercas de Dr. Hofstadter le neutron e le proton exhibi remarcabile similitates structural. Ambes possede un stricte centro de carga electric positive. Iste centro es cingite per duo nubes, diffuse e interpenetrante, que es componente de mesones. In le caso del proton, le duo nubes es ambes positive mente cargate. In le caso del neutron, le un es cargate positive mente e le altere negative mente.

Recercas de Cancere.—In le curso del veniente anno—dice le statisticas—260,000 residentes del Status Unite va morir ab cancro. Secundo Dr. S. Faber del Universitate Harvard, non plus pue 10,000 de ille 260,000 va haber experimentate le beneficios de un del varie existente canceroterapias chimic. On sape que le triade therapeutic in uso contra cancro consiste, a generalmente parlar, del radiotherapia, del chirurgia, e del chimiotherapia. Le ultimate inter istos, le chimiotherapia, es le minus disveloppate. Dr. Faber insiste que le beneficios del chimiotherapia anti-cancerose poterea esser multo plus impressionante si drogas (per contrasto con le procedimento nunc in use general) esseva usate non solo teminalmente sed etiam precocemente, i.e. a partir del momento quando le diagnose es establite, e alora preferibilemente in combination con chirurgia e/o radiotherapia.—Quanto al futuro de nostre lucha contra le cancro, Dr. Faber opina que nulle disveloppamentos de importantia fundamental pote esser expectate ab le chirurgia o ab le radiotherapia. Si nos parla del spero de grande conquestas in le campo del canceroterapia, nos debe pensar primo al chimiotherapia, secundo al virologia, e tertio al immunologia.

Recercas de Cancere.—Le uso combinat de tres pharmacos prolongava per inter duo e 11 menses le vita de octo infantes con retinoblastoma (cancere ocular) que se habeva metastatisate ad in le medulla ossee. Iste condition occurre principalmente in infantes de minus que quatro annos de etate. Le tractamento hic reportate esseva initiate per Dr. J. A. Wolff del Universitate Columbia. Le drogas usate per ille esseva un composito de mustarda, un antibiotico, e un antagonista de acido folic.

Virologia.—Dr. A. F. Rasmussen del Universitate Californio reporta que le virus de influenza asian (le causa de un epidemia mundial in 1957) es multo simile a quatro racias de virus discoperite per ille in animales domestic in Asia. Propone Dr. Rasmussen le teoria que le fonte original del virus de influenza asian es le un o le altere animal domestic (o etiam salvage) de China.

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GENERAL SCIENCE

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