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Brazilian medicinal plants- A little known source of new drugs

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During time immemorial plants have been used to cure the most diverse ailments of the human race. In more recent centuries with the growth of chemical knowledge It has been recognised that the curative action of plant derived medicines is related to chemical substances present, some of them active pharmaceutical agents, others destined to facilitate the passage of the active component through physical barriers or as inhibitors of metabolic agents such as the oxidative cytochromes-P450. (Gilbert and Alves). The value of plant derived medicines has been recognized by numerous research groups (Newman and Cragg, Christy et al., Vieira e Martins). The basis of the pharmacological activity is attributable to the fact that plants like animals have been designed to defend themselves against biologically active secondary metabolites of plants also show activity in human cells or in the metabolism of human pathogens or of their invasive and reproductive processes. Brazil has the largest flora of any country. Six distinct biomas have been identified, among them temperate subtropical, hot semi-arid, humid tropical rainforest, and 'cerrado' (region of nutrient-poor disaggregated soils).. This flora has been employed along the years by medical professionals, such as Pisonius who published in1648 to Chernoviz whose Medical Guides from 1850 on, are summed up in his Pharmacopoeia of1920. Early pharmaceutical manufacturers, among them Casa Granado, produced naturally derived medicines from around 1870 until recent times, all of which are carefully registered and conserved in their museum. Alfredo da Matta organized Public Health in Manaus and recorded in his book (1912) the clinical use of medicines from the Amazon region. Most of this publication is in Portuguese and perhaps for this reason has escaped world attention. (Pisonis & Margrave, Chernoviz, da Matta) Modern pharmacological studies support the historical use for a great number of these plants yet international plant lists and pharmacopoeias largely ignore them. A wide

Biography

Benjamin Gilbert studied chemistry at the University of Bristol under Prof. Wilson Baker and W. David Ollis where he took a PhD in 1954. At this time he had a special interest in natural products. During a post-doctoral period with Prof. Carl Djerassi in Detroit, Michigan, USA. he came to appreciate the biological activity of secondary plant metabolites and further developed this with Prof. Walter Mors in Rio de Janeiro, Brazil, himself an ex-pos-doctorate of Prof.Djerassi. This collaboration began in the Ministry of Agriculture but moved later to the Federal University, where a post-graduate programme in Natural Products Research was set up with emphasis is on the scientific evaluation of bioactive plants. He eventually moved to the Ministry of Health Foundation Oswaldo Cruz, Pharmaceutical Division, Farmanguinhos, where he sees the possibility of developing some of the traditional herbal medicines for use in public health.