Biomembrane® (Biocure) of natural latex from the *Hevea brasiliensis* tree: from the bench to the pharmacy shelf.

Joaquim Coutinho Netto and Ricardo Mendonça

Faculty of Medicine of Ribeirao Preto-USP, Dep. of Biochemistry and Immunology.

The search for specific agents to improve healing is as old as the practice of medicine. Chronic, nonhealing wounds are an important cause of morbidity in surgical and medical patients. Wound healing cannot occur without angiogenesis, as the vasculature comprises up to 60% of repair tissue, and the denomination granulation tissue for the temporary organ of repair is derived from the prominence of its vessels. An abundant blood supply is obviously necessary to meet the enormous local metabolic demands of debridment and fibroplasia in the repair region. The most frequent common denominator in nonhealing wounds is the inadequate tissue oxygenation, which impairs normal healing and facilitate infection. The availability of substances capable of stimulating the process of wound repair is limited and potentially costly. In 1995 Fatima Mrue and I reported that the biomembrane prepared from the natural latex of the *Hevea brasiliensis* tree induces angiogenesis in many models of experimental animal, as cornea and the chorioallantoic membrane of embrionated chicken eggs and the rate of wound healing in vivo. The beneficial effects from the topical application of the biomembrane as a new angiogenic dressing to treat chronic human ulcers and the significant advantages in terms of medical utility and the characterization of the angiogenic protein purified from the natural latex will be discussed.