

**MOLECULAR EVOLUTION: INTERGENOMIC  
COMPARISONS AND DIFFERENTIAL EVOLUTIONARY  
RATES**

Salzano Francisco M.

Departamento de Genética, Instituto de Biociências, Universidade Federal do Rio Grande do Sul, Caixa Postal 15053, 91501-970 Porto Alegre, RS, Brazil. francisco.salzano@ufrgs.br.

How can the variability present among different genomes, diverse regions *within* the same genome, among or within species be characterized and quantified? What factors influence this variability? Research of our group is aiming at answering these questions. Two kinds of organisms and genetic markers will be considered in the present communication. 1. Twenty-one species of the genus *Passiflora*, studied in relation to internal transcriber spacers of nuclear ribosomal DNA, as well as the *trnL-trnF* and *psbA-trnH* chloroplast spacers; and 2. Twelve *Alu* insertion polymorphisms, blood group and protein markers among four South American Indian human populations. Characteristics of the DNA regions studied, diversity, rates of change and intersystem comparisons will be examined. Stress will be given to the dialectical relationship of permanence or change in biological systems.