

Diabetes Mellitus caused by mutations in human insulin:
Analysis of impaired receptor binding of insulins *Wakayama*,
Los Angeles and *Chicago* using Pharmacoinformatics

Md Ataul Islam¹, Sagar Bhayye², Adebayo A. Adeniyi³, Mahmoud E.S. Soliman³, Tahir S. Pillay^{1, 4*}

¹*Department of Chemical Pathology, Faculty of Health Sciences, University of Pretoria and National Health Laboratory Service Tshwane Academic Division, Pretoria, South Africa.*

²*Department of Chemical Technology, University of Calcutta, 92, A. P. C. Road, Kolkata – 700 009, India.*

³*Discipline of Pharmaceutical Sciences, School of Health Sciences, University of KwaZulu-Natal, Durban, 4000, South Africa*

⁴*Division of Chemical Pathology, University of Cape Town, Cape Town, South Africa*

Supplementary materials

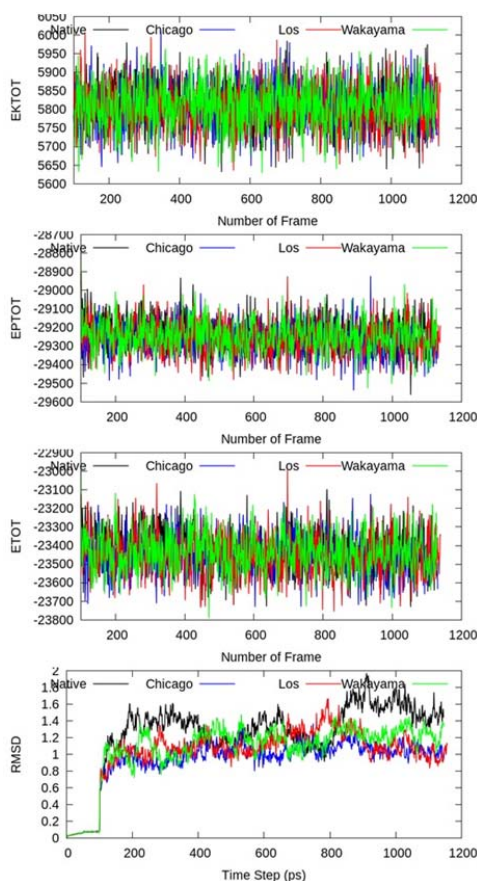


Figure S1: Time vs. RMSD, Number of Frame vs. energies

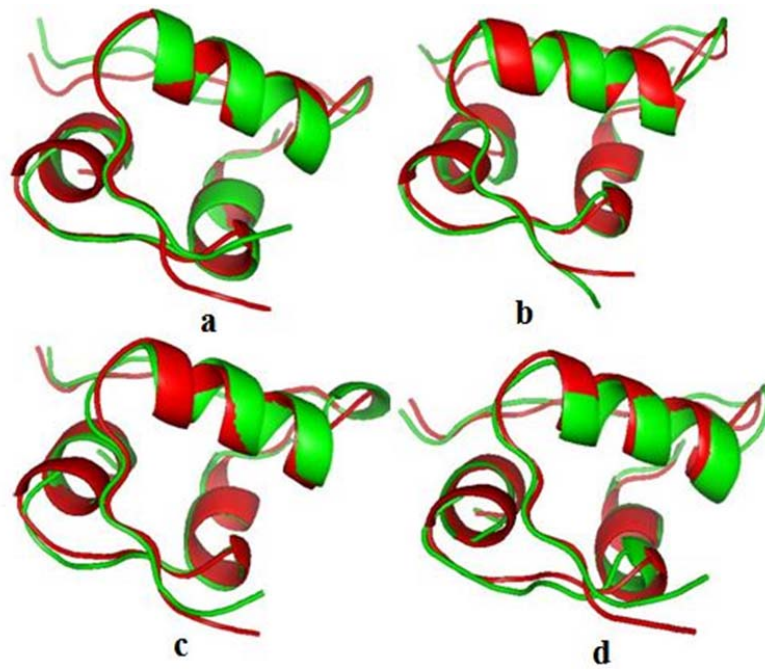


Figure S1: Superimposed structure of simulated (green) and non-simulated (red) structures of a) native insulin; b) insulin *Wakayama*; c) insulin *Los Angeles*; and d) insulin *Chicago*.