Norbert Nwankwo et al., J Clin Trials 2017, 7:3 (Suppl)
http://dx.doi.org/10.4172/2167-0870-C1-013

Digital signal processing-based techniques: Providing pharmacists with computerized procedures for investigations

Norbert Nwankwo[1] and **Ngozika Njoku**[2]
1University of Port Harcourt, Nigeria
2Nova Psychiatric Services, USA

Background: Pharmaceutical dispensing practice has benefited from computerized, motorized (robotics) and Information Technology-based devices including Automated Dispensing Cabinets. Such devices are needed for pharmacological assessments. We had already developed one called Computer-Aided Pharmaco-Investigator.

Aim: The purpose of this presentation is to demonstrate to pharmacists how Pharmaco-Investigator works using potency assessments of two Anti-retroviral agents called Enfuvirfide and Sifuvirfide, and their protein target, N-terminal Heptad Repeat (NHR).

Method: The sequences of above-named agents are processed using a Digital Signal Processing (DSP) approach called Informational Spectrum Method (ISM) and nine pharmacological (physio-chemical and structural) parameters engaged.

Result: Table 1 is the result of this experiment as earlier derived.

Table 1: Showing potencies of Enfurvitide, Sifurvirtide & NHR contributed by the nine pharmacological parameters (courtesy of [1])

Scale	Enfuvirtide%	Sifuvirtide%	NHR%
EIIP	81.5	100	77.8
BURA740101	46.7	63.9	47.9
PONP800104	74.5	76.4	100.0
PRAM900102	64.8	78.5	82.1
ARUP820101	81.0	100.0	91.5
ENGD890101	63.7	85.1	90.7
FASG890101	84.1	88.5	100.0
JURD980101	82.8	97.1	98.6
WOLR790101	80.0	79.5	95.0
Average	**72.3**	**85.4**	**87.1**

Discussion: As shown in table 1, Sifuvirtide demonstrated greater potency than Enfuvirtide. This is in accord with the outcome of previous clinical investigation. This procedure is employable on all drugs as they are known to be either proteins, have protein targets or proteins encircling them.

Conclusion: This computerized (rational) and reliable device, which is employable on all drugs and is based on DSP technique that has served mankind for decades in areas such as radar technology has the tendency to revolutionalize pharmacological assessments.

Biography

Norbert Nwankwo holds B Pharm degree and has completed M Phil and PhD in Bioinformatics from De Montfort University, Leicester, United Kingdom. He is a Campaigner for the computerization of bioassessments teaches Pharmaco-informatics, research methods, etc. at the University of Port Harcourt, Nigeria. He has invented five computer-aided biomedical/bioengineering devices including Computer-Aided Drug Resistance Calculator using Digital Signal Processing technique called Informational Spectrum Method. He has also developed other devices which include Computer-Aided Druggability Detector, Computer-Aided Vaccine Potency Assessor, Computer-Aided Pharmaco-Investigator and Computer-Aided Drug Potency Decoder.

nobatn@gmail.com