J Biotechnol Biomater 2012, 2:6
http://dx.doi.org/10.4172/2155-952X.S1.020

OMICS Group Conferences
Accelerating Scientific Discovery

3rd World Congress on
Biotechnology

September 13-15, 2012 Hyderabad International Convention Centre, Hyderabad, India

Complete screening of the Moringa oleifera leaf for different therapeutic applications

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Moringa oleifera, commonly known as Drum stick tree, is a pan-tropical species widely cultivated all over India - also known by different regional names as Sajna, Saijhan, Horse radish tree, Marango, Mlonge, and Mulangay. Many reports have been published previously about the nutritional and medicinal properties of Moringa. Evenits utility as a non-food product has been extensively described (e.g. lumber, charcoal, fencing, water clarification, lubricating oil).The objective of the present study is the screening of different therapeutic properties of the Moringa leaves. As part of this exercise, the whole extract was tested for the effect on high creatinine level in the blood serum of human body. The high creatinine level in the blood is generally harmful for the kidney. A colorimetric detection process was used for the determination of creatinine level in serum, and it was discovered that the leaf extract does have an effect on reducing high creatinine levels. Further the whole extract is being purified for specifying which component protein would be the key player for the other reported therapeutic uses of Moringa leaf, viz., anticancer and anticoagulant activities, apart from the creatinine control.

Keywords: Creatinine, Anticancer, Leaf extract.

Biography

Subhasish has completed his B.Pharm at the age of 22 years from Biju Patnaik University of Technology, Odisha and now he is doing his M.E (Biotechnology) in BITS Pilani K K Birla Goa Campus. He has published 4 papers in International journals.He has participated in several National and State level conferences.

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Identified target in Leishmania infantum

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The availability of genomic data of human parasites in public databases has made it possible to find drug targets in the pathogen. One such approach is genome subtraction where we try to find genes which are essential to the pathogen but not present in the host. Such gene products can be proved as potential targets in the parasites, with absolutely no host toxicity issues. The Leishmaniases are a group of diseases caused by protozoan parasites of the genus Leishmania. The parasite is transmitted by bites from sand-flies infected with the parasite. Leishmaniasis presents in three main clinical forms: cutaneous, mucocutaneous and visceral, which are associated with a broad range of signs, symptoms and degrees of severity. The present study aims at identifying Potential Candidate Drug Targets in Leishmania Infantum through genome subtraction approach using Pairwise comparison.

Protein sequences belonging to the parasite was derived from NCBI genome and compared with human proteins. Non-homologous proteins were compared to essential genes present in Database of essential genes. Proteins which passed the screening parameters were considered essential to the parasite. These essential proteins were compared to Protein Data Bank, to obtain significant hits belonging to Leishmania Infantum. These hits were studied to obtain promising Targets in the parasite. Three potential targets were identified, namely Trypanothione Reductase, OMP decarboxylase and Glyoxalase II.

Biography

Suhail Ahmad Khan is pursuing Btech-Bioinformatics from Amity university, lucknow. The project work entitled “Identification of therapeutic targets in Leishmania infantum” is a bonafide work carried out by Suhail Ahmad Khan, at Institute of Computational Biology (IOCB), Bangalore, in partial fulfillment for the award of degree of ‘Bachelor of Technology in Bioinformatics’ of AMITY University, Lucknow, during May 2012-June 2012. This work was done under Ms. Tanima shree, the research associate of Institute of computational biology (IOCB).

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